Filter Summary Report: CG,Test,simple,Z3,Z5,ZL

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9.6 INVALID-WZ-6 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$
9.7 INVALID-WZ-7 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$
9.8 INVALID-WZ-8 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{1}{C_L s}\right)$
9.9 INVALID-WZ-9 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L}{C_L R_L s + 1}\right)$
9.10 INVALID-WZ-10 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$
9.11 INVALID-WZ-11 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$
9.12 INVALID-WZ-12 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s+1}, R_L + \frac{1}{C_L s}\right)$
9.13 INVALID-WZ-13 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L\right)$.
9.14 INVALID-WZ-14 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L}{C_L R_L s + 1}\right)$
9.15 INVALID-WZ-15 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$
9.16 INVALID-WZ-16 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L\right)$
9.17 INVALID-WZ-17 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{1}{C_L s}\right)$
9.18 INVALID-WZ-18 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L}{C_L R_L s + 1}\right)$
9.19 INVALID-WZ-19 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$
9.20 INVALID-WZ-20 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$
9.22 INVALID-WZ-22 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)$
9.23 INVALID-WZ-23 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, \frac{L_5 s}{C_5 L_5 s^2+1}, R_L\right)$
9.24 INVALID-WZ-24 $Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s+1}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2+1}, \ \frac{1}{C_L s}\right)$
9.25 INVALID-WZ-25 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$
9.26 INVALID-WZ-26 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{L_LR_Ls}{C_LL_LR_2s+1}\right)$
9.27 INVALID-WZ-27 $Z(s) = \left(\infty, \infty, \frac{C_3R_3s+1}{C_3R_3s+1}, \infty, \frac{C_5L_5R_5s+1}{C_5L_5R_5s+1}, \frac{C_LL_RL_S^2+L_Ls+R_L}{C_LL_RL_S^2+L_Ls+R_L}\right)$
9.28 INVALID-WZ-28 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L\right)$
9.29 INVALID-WZ-29 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3R_3s+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{R_L}{C_Ls}\right)$
9.30 INVALID-WZ-30 $Z(s) = \left(\infty, \infty, \frac{C_3R_3s+1}{C_3R_3s+1}, \infty, \frac{C_5L_5R_5s+1}{C_5L_5R_5s+1}\right)$
9.31 INVALID-WZ-31 $Z(s) = \left(\infty, \infty, \frac{C_3R_3s+1}{C_3R_3s+1}, \infty, \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5R_5s^2+L_5s+R_5}, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}\right)$
9.32 INVALID-WZ-32 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3R_3s+1}, \infty, \frac{R_2}{C_5L_5R_5s^2+L_5s+R_5}, \frac{R_2L_5L_5}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$
9.33 INVALID-WZ-33 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, R_L + \frac{1}{C_L s}\right)$
9.34 INVALID-WZ-34 $Z(s) = \left(\infty, \infty, \Lambda_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \Lambda_L\right)$

9.35 INVALID-WZ-35 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$
9.36 INVALID-WZ-36 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L\right)$
9.37 INVALID-WZ-37 $Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{1}{C_L s}\right)$
9.38 INVALID-WZ-38 $Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{R_L}{C_L R_L s + 1}\right)$
9.39 INVALID-WZ-39 $Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ R_L\right)$
9.40 INVALID-WZ-40 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, R_L\right)$
9.41 INVALID-WZ-41 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{R_L}{C_LR_Ls+1}\right)$
9.42 INVALID-WZ-42 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$
9.43 INVALID-WZ-43 $Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ R_L \right)$
9.44 INVALID-WZ-44 $Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{1}{C_L s}\right)$
9.45 INVALID-WZ-45 $Z(s) = \left(\infty, \infty, \frac{L_{3}s}{C_{3}L_{3}s^{2}+1}, \infty, \frac{L_{5}R_{5}s}{C_{5}L_{5}R_{5}s^{2}+L_{5}s+R_{5}}, \frac{R_{L}}{C_{L}R_{L}s+1}\right)$
9.46 INVALID-WZ-46 $Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$
9.47 INVALID-WZ-47 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$
9.48 INVALID-WZ-48 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L\right)$
9.49 INVALID-WZ-49 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{1}{C_L s}\right)$
9.50 INVALID-WZ-50 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L}{C_L R_L s + 1}\right)$
9.51 INVALID-WZ-51 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$
9.52 INVALID-WZ-52 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$
9.53 INVALID-WZ-53 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L\right)$
9.54 INVALID-WZ-54 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{1}{C_L s}\right)$
9.55 INVALID-WZ-55 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L}{C_L R_L s + 1}\right)$
9.56 INVALID-WZ-56 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1} \right)$
9.56 INVALID-WZ-56 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1} \right)$ 9.57 INVALID-WZ-57 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right)$ 10 INVALID-ORDER
9.56 INVALID-WZ-56 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1} \right)$ 9.57 INVALID-WZ-57 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right)$ 10 INVALID-ORDER
9.56 INVALID-WZ-56 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$ 9.57 INVALID-WZ-57 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$ 10 INVALID-ORDER 10.1 INVALID-ORDER-1 $Z(s) = \left(\infty, \infty, R_3, \infty, R_5, R_L\right)$ 10.2 INVALID-ORDER-2 $Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{1}{C_L s}\right)$
9.56 INVALID-WZ-56 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1} \right)$ 9.57 INVALID-WZ-57 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right)$ 10 INVALID-ORDER
9.56 INVALID-WZ-56 $Z(s) = \left(\infty, \infty, \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \infty, \frac{L_5R_3s}{C_5L_5R_5s^2 + L_5s + R_5}, \frac{L_Ls^2}{C_LL_Ls^2 + 1} \right)$ 9.57 INVALID-WZ-57 $Z(s) = \left(\infty, \infty, \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_5}, \infty, \frac{L_LR_1s}{C_5L_5R_5s^2 + L_5s + R_5}, \frac{L_LR_1s}{C_5L_5R_5s^2 + L_5s + R_5} \right)$ 10 INVALID-ORDER 10.1 INVALID-ORDER-1 $Z(s) = (\infty, \infty, R_3, \infty, R_5, R_L)$ 10.2 INVALID-ORDER-2 $Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{1}{C_Ls} \right)$ 10.3 INVALID-ORDER-3 $Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{R_L}{C_LR_Ls + 1} \right)$ 10.4 INVALID-ORDER-4 $Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{R_L}{C_LR_5s} \right)$ 10.5 INVALID-ORDER-5 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5s}, R_L \right)$
$ 9.56 \text{ INVALID-WZ-}56 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_{AS3}}{C_3L_3R_3s^2 + L_3s + R_3}, \ \infty, \ \frac{L_{LR3}}{C_5L_5R_5s^2 + L_5s + R_5}, \ \frac{L_{LR3}}{C_LL_LS^2 + 1} \right) $ $ 9.57 \text{ INVALID-WZ-}57 \ Z(s) = \left(\infty, \infty, \ \frac{L_2R_3s}{C_3L_3R_3s^3 + L_3s + R_3}, \infty, \frac{L_2R_3s}{C_5L_5R_5s^2 + L_5s + R_5}, \frac{L_LR_s}{C_LL_LR_Ls^2 + L_Ls + R_L} \right) $ $ 10 \text{ INVALID-ORDER} $ $ 10.1 \text{ INVALID-ORDER-} \ Z(s) = \left(\infty, \infty, R_3, \infty, R_5, R_L \right) $ $ 10.2 \text{ INVALID-ORDER-} \ Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{1}{C_Ls} \right) $ $ 10.3 \text{ INVALID-ORDER-} \ Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{R_L}{C_LR_Ls + 1} \right) $ $ 10.4 \text{ INVALID-ORDER-} \ Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{R_L}{C_LR_Ls + 1} \right) $ $ 10.5 \text{ INVALID-ORDER-} \ Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5s}, R_L \right) $ $ 10.6 \text{ INVALID-ORDER-} \ Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5s}, R_L \right) $ $ 10.6 \text{ INVALID-ORDER-} \ Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5s}, \frac{1}{C_Ls} \right) $
$9.56 \text{ INVALID-WZ-}56 \ Z(s) = \left(\infty, \infty, \frac{L_2R_{28}}{C_3L_3R_3S^2+L_3s+R_3}, \infty, \frac{L_2R_{28}}{C_5L_5R_3s^2+L_5s+R_5}, \frac{L_LR_{28}}{C_LL_Ls^2+1}\right)$ $9.57 \text{ INVALID-WZ-}57 \ Z(s) = \left(\infty, \infty, \frac{L_3R_{28}}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \frac{L_5R_{88}}{C_5L_5R_3s^2+L_5s+R_5}, \frac{L_LR_{18}}{C_LL_LR_{18}s^2+L_5s+R_5}\right)$ 10 INVALID-ORDER $10.1 \text{ INVALID-ORDER-1 } Z(s) = (\infty, \infty, R_3, \infty, R_5, R_L)$ $10.2 \text{ INVALID-ORDER-2 } Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{1}{C_Ls}\right)$ $10.3 \text{ INVALID-ORDER-3 } Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{R_L}{C_LR_Ls+1}\right)$ $10.4 \text{ INVALID-ORDER-4 } Z(s) = \left(\infty, \infty, R_3, \infty, R_5, R_L + \frac{1}{C_Ls}\right)$ $10.5 \text{ INVALID-ORDER-5 } Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5s}, R_L\right)$ $10.6 \text{ INVALID-ORDER-6 } Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5s}, \frac{1}{C_Ls}\right)$ $10.7 \text{ INVALID-ORDER-7 } Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5s}, \frac{1}{C_Ls}\right)$
$\begin{array}{c} 9.56 \; \text{INVALID-WZ-}56 \; Z(s) = \left(\infty, \; \infty, \; \frac{L_L R_L s}{C_2 L_2 R_3 s^3 + l_2 s + R_5}, \; \infty, \; \frac{L_L R_L s}{C_2 L_2 R_5 R_5 s^3 + l_2 s + R_5}, \; \frac{L_L R_L s}{C_2 L_L R_5 R_5 s^3 + l_2 s + R_5} \right) \\ 9.57 \; \text{INVALID-WZ-}57 \; Z(s) = \left(\infty, \; \infty, \; \frac{L_L R_L s}{C_3 L_3 R_3 s^3 + l_2 s + R_3}, \; \infty, \; \frac{L_L R_L s}{C_3 L_3 R_3 s^3 + l_2 s + R_5}, \; \frac{L_L R_L s}{C_L L_L R_L s^3 + l_L s + R_L} \right) \\ & 10 \; \text{INVALID-ORDER} \\ & 10.1 \; \text{INVALID-ORDER-}1 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; R_5, \; R_L \right) \\ & 10.2 \; \text{INVALID-ORDER-}2 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; R_5, \; \frac{1}{C_L s} \right) \\ & 10.3 \; \text{INVALID-ORDER-}3 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; R_5, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.4 \; \text{INVALID-ORDER-}4 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; R_5, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.5 \; \text{INVALID-ORDER-}5 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; R_L \right) \\ & 10.6 \; \text{INVALID-ORDER-}6 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; R_L \right) \\ & 10.7 \; \text{INVALID-ORDER-}7 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}8 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}8 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}8 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}8 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}8 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}8 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}8 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{1}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}9 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{1}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}9 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{1}{$
$\begin{array}{c} 9.56 \hspace{0.1cm} \text{INVALID-WZ-56} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} \infty, \hspace{0.1cm} \frac{L_R R_S t}{C_S L_S R_S t^2 L_S t + R_S}, \hspace{0.1cm} \infty, \hspace{0.1cm} \frac{L_L R_S t}{C_S L_S R_S t^2 L_S t + R_S t}, \hspace{0.1cm} \frac{L_L R_S t}{C_S L_S R_S t^2 L_S t + R_S t}, \hspace{0.1cm} \frac{L_L R_S t}{C_S L_S R_S t^2 L_S t + R_S t}, \hspace{0.1cm} \frac{L_L R_S t}{C_S L_S R_S t^2 L_S t + R_S t}, \hspace{0.1cm} \frac{L_L R_S t}{C_S L_S R_S t^2 L_L t + R_S t} \right) \\ 9.57 \hspace{0.1cm} \text{INVALID-WZ-57} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} \infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S t L_L R_S t, \hspace{0.1cm} \frac{L_L R_S t}{C_S L_S R_S t^2 L_L t + R_S t}, \hspace{0.1cm} \frac{L_L R_S t}{C_S L_L R_L t t^2 L_L t + R_S t} \right) \\ 10.1 \hspace{0.1cm} \text{INVALID-ORDER-1} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} \infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{L_L R_S t}{C_S t} \right) \\ 10.2 \hspace{0.1cm} \text{INVALID-ORDER-2} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} \infty, \hspace{0.1cm} R_S, \hspace{0.1cm} \infty, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{L_L R_S t}{C_S t} \right) \\ 10.3 \hspace{0.1cm} \text{INVALID-ORDER-3} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} \infty, \hspace{0.1cm} R_S, \hspace{0.1cm} \infty, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L t} \right) \\ 10.4 \hspace{0.1cm} \text{INVALID-ORDER-4} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} \infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_L + \frac{1}{C_L s} \right) \\ 10.5 \hspace{0.1cm} \text{INVALID-ORDER-5} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_L \right) \\ 10.6 \hspace{0.1cm} \text{INVALID-ORDER-6} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L s} \right) \\ 10.7 \hspace{0.1cm} \text{INVALID-ORDER-7} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L s} \right) \\ 10.8 \hspace{0.1cm} \text{INVALID-ORDER-8} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L s} \right) \\ 10.9 \hspace{0.1cm} \text{INVALID-ORDER-9} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L s} \right) \\ 10.9 \hspace{0.1cm} \text{INVALID-ORDER-9} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L s} \right) \\ 10.9 \hspace{0.1cm} \text{INVALID-ORDER-9} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L s} \right) \\ 10.9 \hspace{0.1cm} \text{INVALID-ORDER-9} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L s} \right) \\ 10.9 $
$\begin{array}{c} 9.56 \; \text{INVALID-WZ-}56 \; Z(s) = \left(\infty, \; \infty, \; \frac{L_L R_L s}{C_2 L_2 R_3 s^3 + l_2 s + R_5}, \; \infty, \; \frac{L_L R_L s}{C_2 L_2 R_5 R_5 s^3 + l_2 s + R_5}, \; \frac{L_L R_L s}{C_2 L_L R_5 R_5 s^3 + l_2 s + R_5} \right) \\ 9.57 \; \text{INVALID-WZ-}57 \; Z(s) = \left(\infty, \; \infty, \; \frac{L_L R_L s}{C_3 L_3 R_3 s^3 + l_2 s + R_3}, \; \infty, \; \frac{L_L R_L s}{C_3 L_3 R_3 s^3 + l_2 s + R_5}, \; \frac{L_L R_L s}{C_L L_L R_L s^3 + l_L s + R_L} \right) \\ & 10 \; \text{INVALID-ORDER} \\ & 10.1 \; \text{INVALID-ORDER-}1 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; R_5, \; R_L \right) \\ & 10.2 \; \text{INVALID-ORDER-}2 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; R_5, \; \frac{1}{C_L s} \right) \\ & 10.3 \; \text{INVALID-ORDER-}3 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; R_5, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.4 \; \text{INVALID-ORDER-}4 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; R_5, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.5 \; \text{INVALID-ORDER-}5 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; R_L \right) \\ & 10.6 \; \text{INVALID-ORDER-}6 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; R_L \right) \\ & 10.7 \; \text{INVALID-ORDER-}7 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}8 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}8 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}8 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}8 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}8 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}8 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}8 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{1}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}9 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{1}{C_L R_L s + 1} \right) \\ & 10.8 \; \text{INVALID-ORDER-}9 \; Z(s) = \left(\infty, \; \infty, \; R_3, \; \infty, \; \frac{1}{C_5 s}, \; \frac{1}{$
$\begin{array}{c} 9.56 \hspace{0.1cm} \text{INVALID-WZ-56} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} \infty, \hspace{0.1cm} \frac{L_R R_S t}{C_S L_S R_S t^2 L_S t + R_S}, \hspace{0.1cm} \infty, \hspace{0.1cm} \frac{L_L R_S t}{C_S L_S R_S t^2 L_S t + R_S t}, \hspace{0.1cm} \frac{L_L R_S t}{C_S L_S R_S t^2 L_S t + R_S t}, \hspace{0.1cm} \frac{L_L R_S t}{C_S L_S R_S t^2 L_S t + R_S t}, \hspace{0.1cm} \frac{L_L R_S t}{C_S L_S R_S t^2 L_S t + R_S t}, \hspace{0.1cm} \frac{L_L R_S t}{C_S L_S R_S t^2 L_L t + R_S t} \right) \\ 9.57 \hspace{0.1cm} \text{INVALID-WZ-57} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} \infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S t L_L R_S t, \hspace{0.1cm} \frac{L_L R_S t}{C_S L_S R_S t^2 L_L t + R_S t}, \hspace{0.1cm} \frac{L_L R_S t}{C_S L_L R_L t t^2 L_L t + R_S t} \right) \\ 10.1 \hspace{0.1cm} \text{INVALID-ORDER-1} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} \infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{L_L R_S t}{C_S t} \right) \\ 10.2 \hspace{0.1cm} \text{INVALID-ORDER-2} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} \infty, \hspace{0.1cm} R_S, \hspace{0.1cm} \infty, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{L_L R_S t}{C_S t} \right) \\ 10.3 \hspace{0.1cm} \text{INVALID-ORDER-3} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} \infty, \hspace{0.1cm} R_S, \hspace{0.1cm} \infty, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L t} \right) \\ 10.4 \hspace{0.1cm} \text{INVALID-ORDER-4} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} \infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_L + \frac{1}{C_L s} \right) \\ 10.5 \hspace{0.1cm} \text{INVALID-ORDER-5} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_L \right) \\ 10.6 \hspace{0.1cm} \text{INVALID-ORDER-6} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L s} \right) \\ 10.7 \hspace{0.1cm} \text{INVALID-ORDER-7} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L s} \right) \\ 10.8 \hspace{0.1cm} \text{INVALID-ORDER-8} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L s} \right) \\ 10.9 \hspace{0.1cm} \text{INVALID-ORDER-9} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L s} \right) \\ 10.9 \hspace{0.1cm} \text{INVALID-ORDER-9} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L s} \right) \\ 10.9 \hspace{0.1cm} \text{INVALID-ORDER-9} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L s} \right) \\ 10.9 \hspace{0.1cm} \text{INVALID-ORDER-9} \hspace{0.1cm} Z(s) = \left(\infty, \hspace{0.1cm} R_S, \hspace{0.1cm} R_S, \hspace{0.1cm} \frac{R_L t}{C_L s} \right) \\ 10.9 $
$\begin{array}{c} 9.56 \; \text{INVALID-WZ-} 56 \; Z(s) = \left(\infty, \; \infty, \; \frac{L_1 R_{2R}}{L_2 L_2 L_3 L_3 L_3 L_3 L_3 L_3} \; \infty, \; \frac{L_2 R_2}{C_2 L_2 L_2 L_3 L_3} \; \frac{L_2 L_3}{L_2} \; \frac{L_2 L_3}{L_2 L_2 L_3 L_3} \; \frac{L_2 L_3}{L_2 L_2 L_3 L_3 L_3} \; \frac{L_2 L_3}{C_2 L_2 L_2 L_3 L_3 L_3} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_3 L_3 L_3} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_3 L_3} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3}{C_2 L_2 L_2 L_2 L_2 L_2$
$\begin{array}{c} 9.56 \; \text{INVALID-WZ-} 56 \; Z(s) = \left(\infty, \; \infty, \; \frac{L_1 R_{2R}}{L_2 L_2 L_3 L_3 L_3 L_3 L_3 L_3} \; \infty, \; \frac{L_2 R_2}{C_2 L_2 L_2 L_3 L_3} \; \frac{L_2 L_3}{L_2} \; \frac{L_2 L_3}{L_2 L_2 L_3 L_3} \; \frac{L_2 L_3}{L_2 L_2 L_3 L_3 L_3} \; \frac{L_2 L_3}{C_2 L_2 L_2 L_3 L_3 L_3} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_3 L_3 L_3} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_3 L_3} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3}{C_2 L_2 L_2 L_2 L_2 L_2$
$\begin{array}{lll} 9.56 \; \text{INVALID-WZ-56} \; Z(s) = \left(\infty, \infty, \frac{L_2 L_2 k_3}{C_2 L_3 R_3 x^2 L_1 k_2 k_3} R_3, \infty, \frac{L_2 L_2 k_3}{C_2 L_3 R_3 x^2 L_1 k_2 k_3} R_3, \infty, \frac{L_2 L_2 k_3}{C_3 L_3 R_3 x^2 L_3 L_3 k_3} R_3, \infty, \frac{L_2 L_2 k_3}{C_3 L_3 R_3 x^2 L_3 k_3} R_3, \frac{L_2 L_2 k_3}{C_3 L_3 R_3 x^2 L_3 k_3} R_3, \frac{L_2 L_2 k_3}{C_3 L_3 R_3 x^2 L_3 k_3} \right) \\ \begin{array}{lll} \textbf{10} \; \text{INVALID-ORDER-1} \; Z(s) = \left(\infty, \infty, R_3, \infty, R_3, R_4 \right) \\ 10.2 \; \text{INVALID-ORDER-2} \; Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{L_2 k_3}{C_3 k_3} \right) \\ 10.3 \; \text{INVALID-ORDER-3} \; Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{L_2 k_3}{C_3 k_3} \right) \\ 10.4 \; \text{INVALID-ORDER-4} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_3 k_3 k_3} \right) \\ 10.5 \; \text{INVALID-ORDER-5} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3 k_3} \right) \\ 10.6 \; \text{INVALID-ORDER-6} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3 k_3} \right) \\ 10.7 \; \text{INVALID-ORDER-7} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3 k_3} \right) \\ 10.8 \; \text{INVALID-ORDER-8} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3} \right) \\ 10.9 \; \text{INVALID-ORDER-9} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3} \right) \\ 10.9 \; \text{INVALID-ORDER-9} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3} \right) \\ 10.10 \; \text{INVALID-ORDER-10} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3} \right) \\ 10.10 \; \text{INVALID-ORDER-10} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3} \right) \\ 10.11 \; \text{INVALID-ORDER-10} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3} \right) \\ 10.12 \; \text{INVALID-ORDER-10} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3} \right) \\ 10.12 \; \text{INVALID-ORDER-10} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3} \right) \\ 10.12 \; \text{INVALID-ORDER-10} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3} \right) \\ 10.12 \; \text{INVALID-ORDER-10} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3} \right) \\ 10.12 \; \text{INVALID-ORDER-10} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3} \right) \\ 10.12 \; \text{INVALID-ORDER-10} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3} \right) \\ 10.12 \; \text{INVALID-ORDER-10} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3}{C_5 k_3} \right) \\ 10.12 \; \text{INVALID-ORDER-10} \; Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 k_3} \right) \\ 10.12 \; \text{INVALID-ORDER-10} \; Z(s) = \left(\infty, \infty, R_3, $
$\begin{array}{c} 9.56 \; \text{INVALID-WZ-} 56 \; Z(s) = \left(\infty, \; \infty, \; \frac{L_1 R_{2R}}{L_2 L_2 L_3 L_3 L_3 L_3 L_3 L_3} \; \infty, \; \frac{L_2 R_2}{C_2 L_2 L_2 L_3 L_3} \; \frac{L_2 L_3}{L_2} \; \frac{L_2 L_3}{L_2 L_2 L_3 L_3} \; \frac{L_2 L_3}{L_2 L_2 L_3 L_3 L_3} \; \frac{L_2 L_3}{C_2 L_2 L_2 L_3 L_3 L_3} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_3 L_3 L_3} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_3 L_3} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3 L_3}{C_2 L_2 L_2 L_2 L_2 L_2 L_2} \; \frac{L_2 L_3}{C_2 L_2 L_2 L_2 L_2 L_2$

$10.17 \text{INVALID-ORDER-17 } Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) \dots $	44
10.18INVALID-ORDER-18 $Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right)$	44
10.19INVALID-ORDER-19 $Z(s) = \left(\infty, \infty, R_3, \infty, R_5 + \frac{1}{C_5 s}, R_L\right)$	45
$10.20 \text{INVALID-ORDER-20 } Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ L_L s + \frac{1}{C_L s}\right) \dots $	45
$10.21 \text{INVALID-ORDER-} 21 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ R_5 + \frac{1}{C_L L_L s^2 + 1}\right) \ \dots $	45
$10.22 \text{INVALID-ORDER-} 22 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ L_L s + R_L + \frac{1}{C_L s}\right) $	45
$10.23 \text{INVALID-ORDER-23 } Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \dots $	45
$10.24 \text{INVALID-ORDER-} 24 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right) $	45
$10.25 \text{INVALID-ORDER-} 25 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right) \dots $	45
$10.26 \text{INVALID-ORDER-} 26 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{1}{C_L s}\right) $	45
$10.27 \text{INVALID-ORDER-} 27 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{R_L}{C_L R_L s + 1}\right) \ . \dots \dots$	45
$10.28 \text{INVALID-ORDER-} 28 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ R_L + \frac{1}{C_L s}\right) $	46
$10.29 \text{INVALID-ORDER-} 29 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ L_L s + \frac{1}{C_L s}\right) \qquad \dots $	46
$10.30 \text{INVALID-ORDER-30 } Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} \right) \qquad \dots $	46
$10.31 \text{INVALID-ORDER-31 } Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right) $	46
$10.32 \text{INVALID-ORDER-32 } Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \dots $	46
$10.33 \text{INVALID-ORDER-} 33 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right) $	46
$10.34 \text{INVALID-ORDER-34 } Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) \ \dots $	46
10.35INVALID-ORDER-35 $Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ R_L + \frac{1}{C_L s}\right)$	46
10.36INVALID-ORDER-36 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + \frac{1}{C_L s}\right)$	46
10.37INVALID-ORDER-37 $Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ L_L s + R_L + \frac{1}{C_L s}\right)$	47
$10.38 \text{INVALID-ORDER-38 } Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right) $	47
$10.39 \text{INVALID-ORDER-39 } Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) $	
$10.40 \text{INVALID-ORDER-40 } Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s} \right)$	47
$10.41 \text{INVALID-ORDER-41 } Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \frac{\overset{\frown}{R_L}}{C_L R_L s + 1} \right) \qquad \dots $	47
10.42INVALID-ORDER-42 $Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$	
$10.43 \text{INVALID-ORDER-43 } Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ L_L s + \frac{1}{C_L s}\right) $	
10.44INVALID-ORDER-44 $Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)'$	
10.45INVALID-ORDER-45 $Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$	47
10.46INVALID-ORDER-46 $Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$	48
10.47INVALID-ORDER-47 $Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right) \left(\ldots \right)$	
10.48INVALID-ORDER-48 $Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$	48
10.49INVALID-ORDER-49 $Z(s) = (\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L + \frac{1}{C_L s})$	48
10.50INVALID-ORDER-50 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + \frac{1}{C_L s}\right)$	48
10.51INVALID-ORDER-51 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + R_L + \frac{1}{C_L s}\right)$	48
$10.52 \text{INVALID-ORDER-} 52 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $	48
$10.53 \text{INVALID-ORDER-53 } Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)^{'}}{C_L L_L s^2 + C_L R_L s + 1} \right) \ \dots $	
$10.54 \text{INVALID-ORDER-} 54 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{1}{C_L s}\right) \ \dots $	
$10.55 \text{INVALID-ORDER-} 55 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{R_L}{C_L R_L s + 1}\right) \dots $	49
,	

10.56INVALID-ORDER-56 $Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ R_L + \frac{1}{C_L s}\right)$
10.57INVALID-ORDER-57 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + \frac{1}{C_L s}\right)$
10.58INVALID-ORDER-58 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)$
10.59INVALID-ORDER-59 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + R_L + \frac{1}{C_L s}\right)$
$10.60 \text{INVALID-ORDER-} 60 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \ \dots $
10.61INVALID-ORDER-61 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
$10.62 \text{INVALID-ORDER-} 62 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) $
10.63INVALID-ORDER-63 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \frac{1}{C_Ls} \right)$
$10.64 \text{INVALID-ORDER-} 64 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{R_L}{C_L R_L s + 1} \right) $
10.65INVALID-ORDER-65 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, R_L + \frac{1}{C_Ls}\right)$
10.66INVALID-ORDER-66 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, L_Ls + \frac{1}{C_Ls}\right)$
$10.67 \text{INVALID-ORDER-} 67 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} \right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $
10.68INVALID-ORDER-68 $Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ L_Ls + R_L + \frac{1}{C_Ls}\right)$
$10.69 \text{INVALID-ORDER-} 69 \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \ . $
$10.70 \text{INVALID-ORDER-70 } Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right) $
$10.71 \text{INVALID-ORDER-71 } Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) $
$10.72 \text{INVALID-ORDER-72 } Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ R_5, \ R_L\right) $
$10.73 \text{INVALID-ORDER-} 73 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ R_5, \ \frac{1}{C_L s}\right) \dots $
$10.74 \text{INVALID-ORDER-} 74 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ R_5, \ \frac{R_L}{C_L R_L s + 1}\right) $
$10.75 \text{INVALID-ORDER-} 75 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ R_5, \ L_L s + \frac{1}{C_L s}\right) $
$10.76 \text{INVALID-ORDER-} 76 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ R_5, \ L_L s + R_L + \frac{1}{C_L s}\right) $
10.77INVALID-ORDER-77 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)'$
10.78INVALID-ORDER-78 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$
10.79INVALID-ORDER-79 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, R_L\right)$
$10.80 \text{INVALID-ORDER-80 } Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{1}{C_L s}\right) \qquad . \qquad $
10.81INVALID-ORDER-81 $Z(s) = \left(\infty, \infty, \frac{1}{C_s}, \infty, \frac{1}{C_r}, \frac{R_L}{C_rR_L s+1}\right)$
$10.82 \text{INVALID-ORDER-82 } Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ R_L + \frac{1}{C_L s}\right) $
$10.83 \text{INVALID-ORDER-83 } Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_2 s}, \ \infty, \ \frac{1}{C_2 s}, \ L_L s + \frac{1}{C_L s}\right) $
$10.84 \text{INVALID-ORDER-84 } Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1}\right) $
$10.85 \text{INVALID-ORDER-85 } Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_{3s}}, \ \infty, \ \frac{1}{C_{5s}}, \ L_L s + R_L + \frac{1}{C_L s}\right) $
$10.86 \text{INVALID-ORDER-86} \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)^{'} $
10.87INVALID-ORDER-87 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1 \right)'}{C_L L_L s^2 + C_L R_L s + 1} \right)$
10.88INVALID-ORDER-88 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L\right)$
10.89INVALID-ORDER-89 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s+1}, \frac{1}{C_L s}\right)$
$10.90 \text{INVALID-ORDER-90 } Z(s) = \left(\infty, \infty, \frac{1}{C_s}, \infty, \frac{R_5}{C_s R_s + 1}, \frac{R_L}{C_s R_s + 1} \right) $
10.91INVALID-ORDER-91 $Z(s) = \left(\infty, \infty, \frac{1}{C_2s}, \infty, \frac{R_5}{C_2R_2s+1}, L_Ls + \frac{1}{C_Ls}\right)$
10.92INVALID-ORDER-92 $Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ L_L s + R_L + \frac{1}{C_L s}\right)$

10.02INVALID OPDER 03. $7(s) = \left(\frac{1}{25}, \frac$	52
$10.93\text{INVALID-ORDER-93} \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) $	99
10.94INVALID-ORDER-94 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s+1}, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s+1}\right)$	53
$10.95 \text{INVALID-ORDER-95 } Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{1}{C_L s}\right) $	53
10.96INVALID-ORDER-96 $Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ R_L + \frac{1}{C_L s}\right)$. 53
$10.97 \text{INVALID-ORDER-97 } Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ L_L s + \frac{1}{C_L s}\right) \dots \dots$. 53
$10.98 \text{INVALID-ORDER-98 } Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1}\right) $. 53
10.99INVALID-ORDER-99 $Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ L_L s + R_L + \frac{1}{C_L s}\right)$. 53
10.10@NVALID-ORDER-100 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$. 53
$10.10 \text{INVALID-ORDER-} 101 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) $. 53
10.10 2NVALID-ORDER-102 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$. 54
10.10 BNVALID-ORDER-103 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, R_L\right)$. 54
10.104NVALID-ORDER-104 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$. 54
10.10 INVALID-ORDER-105 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$. 54
10.10 6 NVALID-ORDER-106 $Z(s) = (\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s})$. 54
10.10¶NVALID-ORDER-107 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$. 54
10.10 & NVALID-ORDER-108 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)'$. 54
10.10 9 NVALID-ORDER-109 $Z(s) = (\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s})$. 54
10.11 0 NVALID-ORDER-110 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right)$. 54
10.11INVALID-ORDER-111 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$. 54
10.11\(\mathbb{P}\)\(\text{VALID-ORDER-112} \(Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \left(L_5 s + \frac{1}{C_5 s}, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1} \right) \] \qquad \qqquad \qqqq \qqqqq \qqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqqq	. 55
10.11\(\text{RNVALID-ORDER-113} \(Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_{5s}}{C_5 L_5 s^2 + 1}, \frac{1}{C_{Ls}} \right) \tag{'}	. 55
10.11\(\text{INVALID-ORDER-114}\(Z(s) = \int(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L + \frac{1}{C_L s}\) \\ \tag{1.5}	. 55
10.11 INVALID-ORDER-115 $Z(s) = (\infty, \infty, \frac{1}{C_3s}, \infty, \frac{L_5s}{C_5L_5s^2+1}, L_Ls + \frac{1}{C_Ls})$. 55
$10.116\text{NVALID-ORDER-116}\ Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3s},\ \infty,\ \frac{L_5s}{C_5L_5s^2+1},\ \frac{L_Ls}{C_LL_Ls^2+1}\right)' \dots \dots$. 55
10.11¶NVALID-ORDER-117 $Z(s) = (\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + R_L + \frac{1}{C_L s})$. 55
10.11 NVALID-ORDER-118 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$. 55
10.11 2 NVALID-ORDER-119 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)'}{C_L L_L s^2 + C_L R_L s + 1}\right)$	
$10.12\text{ONVALID-ORDER-}120 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ R_L\right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $. 55
10.12INVALID-ORDER-121 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$. 56
$10.12 \text{PNVALID-ORDER-} 122 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1} \right) \dots $	
10.12 NVALID-ORDER-123 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$. 56
10.12\(\text{INVALID-ORDER-124}\) $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_1 s}\right)$	
10.12 INVALID-ORDER-125 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)'$. 56
10.126NVALID-ORDER-126 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$. 56
10.12TNVALID-ORDER-127 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$. 56
10.12 NVALID-ORDER-128 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$. 56
10.12 9 NVALID-ORDER-129 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$	
$10.13\text{@NVALID-ORDER-}130 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_2s}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \ R_L + \frac{1}{C_1s} \right) $. 57
10.13INVALID-ORDER-131 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + \frac{1}{C_L s}\right)$. 57
$\left(\begin{array}{cccccccccccccccccccccccccccccccccccc$	

$10.132 \text{NVALID-ORDER-} 132 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ L_L s + R_L + \frac{1}{C_L s} \right) \ \dots $	57
10.13\(\text{2NVALID-ORDER-133} \(Z(s) = \left(\infty, \infty, \frac{1}{C_5 L_5} \frac{1}{C_5 L_5} \frac{1}{C_5 L_5} \frac{1}{C_5} 1	57
$10.134\text{NVALID-ORDER-}134\ Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_{3}s},\ \infty,\ \frac{L_{5}R_{5}s}{C_{5}L_{5}R_{5}s^{2} + L_{5}s + R_{5}},\ \frac{R_{L}\left(C_{L}L_{L}s^{2} + 1\right)}{C_{L}L_{L}s^{2} + C_{L}R_{L}s + 1}\right)\ .$	57
10.13 INVALID-ORDER-135 $Z(s) = (\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L)$	57
10.136NVALID-ORDER-136 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{1}{C_L s}\right)$	57
10.13 T NVALID-ORDER-137 $Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{R_L}{C_L R_L s + 1}\right)$	57
10.13\(\text{NVALID-ORDER-138} \(Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ R_L + \frac{1}{C_L s} \right) \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qqqq \qqq \qqqq \qqq \qqqq \qqq \qqqq \q	57
10.139NVALID-ORDER-139 $Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ L_L s + \frac{1}{C_L s}\right)$	58
$10.140 \text{NVALID-ORDER-} 140 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{L_L s}{C_L L_L s^2 + 1} \right) \qquad \dots $	58
10.14INVALID-ORDER-141 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + R_L + \frac{1}{C_L s}\right)$	58
$10.142 \text{NVALID-ORDER-} 142 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \dots $	58
$10.14 \text{ENVALID-ORDER-} 143 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right) $	58
$10.14 \text{INVALID-ORDER-} 144 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) \dots $	58
10.14 INVALID-ORDER-145 $Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L \right)$	58
$10.14 \text{ 6NVALID-ORDER-} 146 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{1}{C_L s} \right) \ \dots $	58
$10.14 \text{TNVALID-ORDER-} 147 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{R_L}{C_L R_L s + 1} \right) \ \dots $	58
$10.14 \&NVALID-ORDER-148 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L + \frac{1}{C_L s}\right) \dots $	59
$10.149 \text{NVALID-ORDER-} 149 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ L_L s + \frac{1}{C_L s} \right) \ \dots $	59
$10.15 \text{ @NVALID-ORDER-150 } Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} \right) \dots $	59
10.15INVALID-ORDER-151 $Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ L_L s + R_L + \frac{1}{C_L s}\right)$	59
$10.15 \text{2NVALID-ORDER-} 152 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \dots $	59
$10.15 \text{ 2NVALID-ORDER-} 153 \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right) \ \dots $	
$10.15 \text{ 1 NVALID-ORDER-154 } Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) \dots $	
10.15 INVALID-ORDER-155 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, R_5, R_L\right)$	
10.15 INVALID-ORDER-156 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, R_5, \frac{1}{C_L s}\right)$	
$10.15 \text{INVALID-ORDER-} 157 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ R_5, \ \frac{R_L}{C_L R_L s + 1} \right) \right) $	60
10.15\(\text{NVALID-ORDER-158} \(Z(s) = \int \infty \infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, \ L_L s + \frac{1}{C_L s} \infty \] \qq	60
10.15 9 NVALID-ORDER-159 $Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s+1}, \ \infty, \ R_5, \ L_L s + R_L + \frac{1}{C_L s}\right)$	60
$10.16 \text{ @NVALID-ORDER-160 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ R_5, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right) \left(\ldots $	
$10.16 \text{INVALID-ORDER-161 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ R_5, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) \dots $	
$10.162\text{NVALID-ORDER-}162\ Z(s) = \left(\infty,\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \frac{1}{C_5s},\ R_L\right)\ \dots \qquad $	60
10.16 INVALID-ORDER-163 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3R_3s+1}, \infty, \frac{1}{C_5s}, \frac{1}{C_Ls}\right)$	
10.164NVALID-ORDER-164 $Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{R_L}{C_L R_L s + 1}\right)$	60
10.16 INVALID-ORDER-165 $Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{1}{C_5 s}, \ L_L s + \frac{1}{C_L s} \right)$	60
10.16 INVALID-ORDER-166 $Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{1}{C_5 s}, \ L_L s + R_L + \frac{1}{C_L s} \right)$	60
10.16 T NVALID-ORDER-167 $Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s+1}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)'$	61

$10.16 \$NVALID-ORDER-168 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s+1}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{R_L(C_L L_L s^2+1)}{C_L L_L s^2 + C_L R_L s+1}\right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $	1
10.16 Q NVALID-ORDER-169 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, \frac{R_5}{C_5 R_5 s+1}, R_L\right)$	1
10.17 (INVALID-ORDER-170 $Z(s) = (\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, \frac{R_5}{C_5 R_5 s+1}, \frac{1}{C_L s})$	1
10.17INVALID-ORDER-171 $Z(s) = (\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, \frac{R_5}{C_5 R_5 s+1}, \frac{R_L}{C_L R_L s+1})$	1
10.172NVALID-ORDER-172 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, \frac{R_5}{C_5 R_5 s+1}, L_L s + \frac{1}{C_L s}\right)$	1
10.17 3 NVALID-ORDER-173 $Z(s) = (\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, \frac{R_5}{C_5 R_5 s+1}, L_L s + R_L + \frac{1}{C_L s})$	1
10.174NVALID-ORDER-174 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, \frac{R_5}{C_5 R_5 s+1}, \frac{L_L s}{C_L L_L s^2+1} + R_L\right)'$	1
10.17 INVALID-ORDER-175 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, \frac{R_5}{C_5 R_5 s+1}, \frac{R_L \left(C_L L_L s^2+1\right)}{C_L L_L s^2 + C_L R_L s+1}\right)$	1
10.176NVALID-ORDER-176 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$	2
10.17\finvalid NValid ORDER-177 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s} \right)$	2
10.17\(\text{8NVALID-ORDER-178} \(Z(s) = \int(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} \infty \) \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qqquad \qqqqq \qqqqq \qqqqq \qqqqqqq \qqqqqq \qqqqqq	2
10.17 9 NVALID-ORDER-179 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$	2
10.18 ONVALID-ORDER-180 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$	2
10.18INVALID-ORDER-181 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	2
10.182NVALID-ORDER-182 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$	2
10.18 INVALID-ORDER-183 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, L_5 s + \frac{1}{C_5 s}, R_L\right)$	
10.184NVALID-ORDER-184 $Z(s) = (\infty, \infty, \frac{R_3}{C_3R_3s+1}, \infty, L_5s + \frac{1}{C_5s}, \frac{1}{C_Ls})$	2
$10.18 \text{INVALID-ORDER-} 185 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s+1}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{\stackrel{?}{R_L}}{C_L R_L s+1} \right) \ \dots $	3
10.186NVALID-ORDER-186 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$	3
10.18 T NVALID-ORDER-187 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$	3
10.18 NVALID-ORDER-188 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$	3
10.18 Q NVALID-ORDER-189 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$	3
10.19@NVALID-ORDER-190 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$	3
10.19INVALID-ORDER-191 $Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	
10.19 2 NVALID-ORDER-192 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$	3
10.19 BNVALID-ORDER-193 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L + \frac{1}{C_L s}\right)$	3
10.19\text{AVALID-ORDER-194 } $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + \frac{1}{C_L s} \right)$	4
10.19 INVALID-ORDER-195 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$	4
10.196NVALID-ORDER-196 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	4
$10.19\text{INVALID-ORDER-}197\ Z(s) = \left(\infty,\ \infty,\ \frac{R_3}{C_2R_2s+1},\ \infty,\ \frac{L_5s}{C_5L_5s^2+1},\ \frac{R_L(C_LL_s^2+1)}{C_5L_5s^2+1},\ \frac{R_L(C_LL_s^2+1)}{C_5L_5s^2+1}\right)\ \dots \qquad $	4
$10.19 \text{\&NVALID-ORDER-} 198 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ R_L\right) \ \dots $	4
10.19 9 NVALID-ORDER-199 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_2 R_2 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s} \right)$	
10.20 0 NVALID-ORDER-200 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$	4
10.20INVALID-ORDER-201 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$	4
10.20 2NVALID-ORDER-202 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$	
10.20 ENVALID-ORDER-203 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)'$	5
10.204NVALID-ORDER-204 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$	5
$10.20 \text{INVALID-ORDER-} 205 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_2R_2s+1}, \ \infty, \ L_5s + R_5 + \frac{1}{C_5s}, \ \frac{L_LR_Ls}{C_LL_RR_Ls^2 + L_Ls + R_L}\right) \dots $	5
$10.20 \text{ (6NVALID-ORDER-206 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) $	5

$10.20 \text{INVALID-ORDER-} 207 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) \ \dots $
10.20 INVALID-ORDER-208 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L + \frac{1}{C_L s}\right)$
10.20 Q NVALID-ORDER-209 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + \frac{1}{C_L s}\right)$
10.21 NVALID-ORDER-210 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + R_L + \frac{1}{C_L s}\right)$
10.21INVALID-ORDER-211 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$ 65
$10.21 \text{2NVALID-ORDER-} 212 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) \dots $
10.21 INVALID-ORDER-213 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L\right)$
10.21\(\text{INVALID-ORDER-214}\(Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{1}{C_L s}\right) \tag{66}
10.21 INVALID-ORDER-215 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L}{C_L R_L s + 1}\right)$
10.216NVALID-ORDER-216 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L + \frac{1}{C_L s}\right)$
10.21 T NVALID-ORDER-217 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + \frac{1}{C_L s}\right)$
10.21 NVALID-ORDER-218 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)$
10.21 9 NVALID-ORDER-219 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + R_L + \frac{1}{C_L s}\right)$.
$10.22 \text{@NVALID-ORDER-} 220 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \ \dots $
$10.22 \text{INVALID-ORDER-} 221 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right) . $
$10.222 \text{NVALID-ORDER-} 222 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) $
$10.22 \text{ INVALID-ORDER-} 223 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L\right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $
$10.224\text{NVALID-ORDER-}224 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{1}{C_L s}\right) $
$10.22 \text{INVALID-ORDER-} 225 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{R_L}{C_L R_L s + 1} \right) \qquad . \qquad $
$10.226 \text{NVALID-ORDER-} 226 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L + \frac{1}{C_L s} \right) \ \dots $
$10.22\text{TNVALID-ORDER-}227 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ L_L s + \frac{1}{C_L s} \right) \dots $
$10.22 \$NVALID-ORDER-228 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s+1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2+1\right)}{C_5 L_5 s^2 + C_5 R_5 s+1}, \ \frac{L_L s}{C_L L_L s^2+1}\right)' \ \dots $
$10.22 \text{ @NVALID-ORDER-229 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ L_L s + R_L + \frac{1}{C_L s} \right) $
$10.23 \text{ INVALID-ORDER-} 230 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \ \dots $
$10.23 \text{INVALID-ORDER-} 231 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right) \right) $
$10.23 \text{PNVALID-ORDER-} 232 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s+1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2+1 \right)}{C_5 L_5 s^2 + C_5 R_5 s+1}, \ \frac{R_L \left(C_L L_L s^2+1 \right)^{'}}{C_L L_L s^2 + C_L R_L s+1} \right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $
10.23 BNVALID-ORDER-233 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, R_L\right)$
10.23 INVALID-ORDER-234 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, L_L s + \frac{1}{C_L s}\right)$
10.23 INVALID-ORDER-235 $Z(s) = (\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1})$
$10.236 \text{NVALID-ORDER-} 236 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5, \ L_L s + R_L + \frac{1}{C_L s} \right) $ 68
$10.23\text{TNVALID-ORDER-}237\ Z(s) = \left(\infty,\ \infty,\ R_3 + \frac{1}{C_3s},\ \infty,\ R_5,\ \frac{L_LR_Ls}{C_LL_LR_Ls^2 + L_Ls + R_L}\right) \dots \qquad 68$
10.23 NVALID-ORDER-238 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
10.23 NVALID-ORDER-239 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$ 68
10.24 INVALID-ORDER-240 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_L s}, \frac{1}{C_L s}\right)$
$10.24\text{INVALID-ORDER-}241\ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{G_s}, \ \infty, \ \frac{1}{G_s}, \ R_L + \frac{1}{G_s}\right) $
$10.24 \text{ 2NVALID-ORDER-} 242 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ L_L s + \frac{1}{C_L s}\right) $

$10.24 \text{BNVALID-ORDER-} 243 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} \right) \qquad . \qquad $
10.24\(\text{INVALID-ORDER-244}\(Z(s) = \int(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\) \\ \tag{69}\)
10.24\(\text{INVALID-ORDER-245}\(Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_L L_L R_L s^2 + L_L s + R_L} \right) \tag{69}
10.24 6 NVALID-ORDER-246 $Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_L L_L s^2 + 1} + R_L\right)$ 69
$10.24\text{INVALID-ORDER-}247 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right) $
10.24 NVALID-ORDER-248 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)$
10.24 NVALID-ORDER-249 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + \frac{1}{C_L s}\right)$
$10.25 \text{@NVALID-ORDER-} 250 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1}\right) \ \dots $
10.25INVALID-ORDER-251 $Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ L_L s + R_L + \frac{1}{C_L s}\right)$
10.252NVALID-ORDER-252 $Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$
10.25 NVALID-ORDER-253 $Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
$10.25 \text{INVALID-ORDER-} 254 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right) $
10.25 INVALID-ORDER-255 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$
10.256NVALID-ORDER-256 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$
10.25 T NVALID-ORDER-257 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$
10.25 NVALID-ORDER-258 $Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ L_L s + \frac{1}{C_L s}\right)$
10.25 9 NVALID-ORDER-259 $Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$
10.26@NVALID-ORDER-260 $Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ L_L s + R_L + \frac{1}{C_L s}\right)$
10.26INVALID-ORDER-261 $Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$
10.262NVALID-ORDER-262 $Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
$10.26 \text{ @NVALID-ORDER-} 263 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) \ \dots $
$10.264\text{NVALID-ORDER-}264\ Z(s) = \left(\infty,\ \infty,\ R_3 + \frac{1}{C_3s},\ \infty,\ L_5s + \frac{1}{C_5s},\ R_L\right)\ \dots $
$10.26 \text{5NVALID-ORDER-} 265 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{1}{C_L s}\right) \dots $
10.26 C NVALID-ORDER-266 $Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{R_L}{C_L R_L s + 1}\right)$
10.26\text{INVALID-ORDER-267 } $Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_L s}, \ R_L + \frac{1}{C_L s}\right)$
10.26\(\text{NVALID-ORDER-268} \(Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s} \right) \tag{72}
10.26 9 NVALID-ORDER-269 $Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 l}, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$
10.27 INVALID-ORDER-270 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$.
$10.27 \text{INVALID-ORDER-} 271 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right) $
$10.272\text{NVALID-ORDER-}272 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) $
$10.27 \text{ ENVALID-ORDER-} 273 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right) $
$10.27 \text{INVALID-ORDER-} 274 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ R_L\right) \dots $
10.27 INVALID-ORDER-275 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{1}{C_L s}\right)$
10.276NVALID-ORDER-276 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{\dot{R}_L}{C_L R_L s + 1}\right)$
10.27\finvalid NVALID-ORDER-277 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L + \frac{1}{C_L s}\right)$
10.27 NVALID-ORDER-278 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + \frac{1}{C_L s}\right)$
10.27 NVALID-ORDER-279 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)'$
$10.28 \text{@NVALID-ORDER-} 280 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ L_L s + R_L + \frac{1}{C_L s} \right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $
10.28INVALID-ORDER-281 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

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10.28 INVALID-ORDER-283 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L (C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.28\PVALID-ORDER-284 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_{2s}}, \infty, L_5 s + R_5 + \frac{1}{C_{2s}}, R_L\right) . . . . . . . . . .
10.28 INVALID-ORDER-285 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_{12}}, \infty, L_5 s + R_5 + \frac{1}{C_{12}}, \frac{1}{C_{12}}\right) \dots \dots \dots
10.286NVALID-ORDER-286 Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \frac{R_L}{C_L R_L s + 1}\right)
10.28TNVALID-ORDER-287 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right) \dots
10.28\textbf{NVALID-ORDER-288} Z(s) = \left( \infty, \ \infty, \ R_3 + \frac{1}{C_2 s}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ L_L s + \frac{1}{C_5 s} \right) \dots
10.289NVALID-ORDER-289 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
10.29@NVALID-ORDER-290 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_{28}}, \infty, L_5 s + R_5 + \frac{1}{C_{58}}, L_L s + R_L + \frac{1}{C_{L8}}\right) \dots \dots \dots
10.29INVALID-ORDER-291 Z(s) = (\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L})
10.292NVALID-ORDER-292 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.29 INVALID-ORDER-293 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.294NVALID-ORDER-294 Z(s) = (\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L) \dots \dots
10.29 INVALID-ORDER-295 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{1}{C_L s}\right) . . .
10.29 INVALID-ORDER-296 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_{38}}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L}{C_L R_L s + 1}\right).
10.29 INVALID-ORDER-297 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_{3}s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L + \frac{1}{C_{Ls}}\right)
10.29 INVALID-ORDER-298 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + \frac{1}{C_L s}\right)
10.299NVALID-ORDER-299 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_{2}s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_1 L_1 s^2 + 1}\right).
10.300NVALID-ORDER-300 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + R_L + \frac{1}{C_L s}\right)
10.30INVALID-ORDER-301 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
10.302NVALID-ORDER-302 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.30ENVALID-ORDER-303 Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.304NVALID-ORDER-304 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_{3s}}, \infty, \frac{L_{5s}}{C_5L_5s^2+1} + R_5, R_L\right) . . . . . . . . .
10.30 INVALID-ORDER-305 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{1}{C_L s}\right) \dots
10.30 INVALID-ORDER-306 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_2 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L}{C_4 R_4 s + 1}\right)
10.30TNVALID-ORDER-307 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_2 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L + \frac{1}{C_4 s}\right).
10.30 NVALID-ORDER-308 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_2 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + \frac{1}{C_L s}\right)
10.309NVALID-ORDER-309 Z(s) = (\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1}) . . . . . . .
10.31@NVALID-ORDER-310 Z(s) = (\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + R_L + \frac{1}{C_L s})
10.312NVALID-ORDER-312 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.31BNVALID-ORDER-313 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L (C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.314NVALID-ORDER-314 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, R_L\right)
10.315NVALID-ORDER-315 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{1}{C_L s}\right)
10.316NVALID-ORDER-316 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)
10.31 INVALID-ORDER-317 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)
10.31\( \text{NVALID-ORDER-318} \( Z(s) = \left( \infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left( C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, L_L s + \frac{1}{C_L s} \right) \)
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$10.31 \text{ @NVALID-ORDER-319 } Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} \right) \qquad \dots$	77
$10.32 \text{ONVALID-ORDER-} 320 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ L_L s + R_L + \frac{1}{C_L s} \right) \dots $	77
$10.32 \text{INVALID-ORDER-} 321 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \dots $	77
$10.322\text{NVALID-ORDER-}322\ Z(s) = \left(\infty,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \frac{R_5\left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1},\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	77
$10.32 \text{BNVALID-ORDER-} 323 \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) \dots $	78
$10.324\text{NVALID-ORDER-}324\ Z(s) = \left(\infty,\ \infty,\ L_3s + \frac{1}{C_3s},\ \infty,\ R_5,\ \frac{1}{C_Ls}\right)\ \dots \dots$	78
$10.325 \text{NVALID-ORDER-} 325 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ R_5, \ \frac{R_L}{C_L R_L s + 1}\right) \dots $	78
10.326NVALID-ORDER-326 $Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ R_5, \ R_L + \frac{1}{C_L s}\right)$	78
$10.32 \text{INVALID-ORDER-} 327 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ R_5, \ L_L s + \frac{1}{C_L s}\right) \ \dots $	78
10.32 NVALID-ORDER-328 $Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ R_5, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$	78
10.32 9 NVALID-ORDER-329 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5, L_L s + R_L + \frac{1}{C_L s}\right)$	78
$10.33 \text{@NVALID-ORDER-} 330 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ R_5, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right) \qquad \dots $	78
$10.33 \text{INVALID-ORDER-} 331 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ R_5, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	78
10.332NVALID-ORDER-332 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$	79
10.33\(\text{BNVALID-ORDER-333}\) $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, R_L\right)$	79
10.334NVALID-ORDER-334 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$	79
10.33 INVALID-ORDER-335 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$	79
10.336NVALID-ORDER-336 $Z(s) = (\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, R_L + \frac{1}{C_L s})$	79
10.33TNVALID-ORDER-337 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$	79
10.33\(\text{8}\)\(\text{VALID-ORDER-338}\(Z(s) = \int(\infty, \infty, \int_{1s}, \int_{7s}, \int_{1s}, \int_{7s}, \int_{2s}, \int_{7s}, \int_{1s}, \int_{7s}, \int_{1s}, \int_{1s} \int_	79
10.33 9 NVALID-ORDER-339 $Z(s) = \left(\infty, \infty, L_3s + \frac{1}{C_2s}, \infty, \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)$	79
$10.340 \text{NVALID-ORDER-340 } Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \dots $	79
$10.34 \text{INVALID-ORDER-341 } Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right) $	79
$10.34 \text{ 2NVALID-ORDER-} 342 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) \dots $	
$10.34 \text{BNVALID-ORDER-343} \ Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ R_L\right) \dots $	80
10.34 INVALID-ORDER-344 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{1}{C_L s} \right)$	80
10.34\$NVALID-ORDER-345 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)$	80
$10.34\text{ (NVALID-ORDER-346 } Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_{r,s}}, \infty, \frac{R_5}{C_{r,R_7,s+1}}, R_L + \frac{1}{C_{r,s}} \right) \dots $	80
$10.34\text{ INVALID-ORDER-}347 \ Z(s) = \left(\infty, \ \infty, \ L_3s + \frac{1}{C_{3s}}, \ \infty, \ \frac{R_5}{C_5R_5s+1}, \ L_Ls + \frac{1}{C_{Ls}}\right) \ \dots $	80
10.34\(\text{NVALID-ORDER-348} \(Z(s) = \int(\infty, \infty, \int_{13} s, \infty, \int_{\frac{R_5}{C_5 R_5 s+1}}, \ \frac{L_L s}{C_L L_L s^2 + 1} \int)' \\ \tag{1.5}	80
10.349NVALID-ORDER-349 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$	80
10.35 D NVALID-ORDER-350 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right)$	
10.35INVALID-ORDER-351 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	
$10.35 \text{2NVALID-ORDER-} 352 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)'}{C_L L_L s^2 + C_L R_L s + 1} \right) \ \dots $	81
10.35\(\text{BNVALID-ORDER-353} \(Z(s) = \left(\infty, \in	81
10.354NVALID-ORDER-354 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$	81
10.35 INVALID-ORDER-355 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$	
10.356NVALID-ORDER-356 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$	

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10.35TNVALID-ORDER-357 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_2 s}, \infty, R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_4 s}\right) . . . . . . . .
10.35 NVALID-ORDER-358 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_2 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right) \dots
10.359NVALID-ORDER-359 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_{78}}, \infty, R_5 + \frac{1}{C_{78}}, L_L s + R_L + \frac{1}{C_{78}}\right)
10.360NVALID-ORDER-360 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
10.36INVALID-ORDER-361 Z(s) = (\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L)
10.362NVALID-ORDER-362 Z(s) = \left( \infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L \left( C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right)
10.36\ \text{2NVALID-ORDER-363} Z(s) = \left( \infty, \infty, L_3 s + \frac{1}{C_2 s}, \infty, L_5 s + \frac{1}{C_5 s}, R_L \right) \dots
10.36#NVALID-ORDER-364 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{1}{C_L s}\right) \dots
10.36 INVALID-ORDER-365 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right) \dots
10.36 INVALID-ORDER-366 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_{0s}}, \infty, L_5 s + \frac{1}{C_{cs}}, R_L + \frac{1}{C_{cs}}\right).
10.36 INVALID-ORDER-367 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_{28}}, \infty, L_5 s + \frac{1}{C_{28}}, L_L s + \frac{1}{C_{L8}}\right)
10.36\( \text{NVALID-ORDER-368} \( Z(s) = \left( \infty, \infty, \lambda_s, \lambda_{3s} + \frac{1}{C_{3s}}, \infty, \lambda_{5s} + \frac{1}{C_{5s}}, \lambda_{C_L L_L s^2 + 1} \right) \] \tag{1.1}
10.369NVALID-ORDER-369 Z(s) = (\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s})
10.370NVALID-ORDER-370 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right) . . . . . .
10.37INVALID-ORDER-371 Z(s) = \left(\infty, \ \infty, \ L_3s + \frac{1}{C_{2s}}, \ \infty, \ L_5s + \frac{1}{C_{5s}}, \ \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)
10.372NVALID-ORDER-372 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)'}{C_L L_L s^2 + C_L R_L s + 1}\right)'
10.378NVALID-ORDER-373 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_2 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L\right) \dots \dots
10.374NVALID-ORDER-374 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{1}{C_L s}\right) . . .
10.37 INVALID-ORDER-375 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L}{C_L R_L s + 1}\right)
10.376NVALID-ORDER-376 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L + \frac{1}{C_L s}\right)
10.37 INVALID-ORDER-377 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_{2} s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + \frac{1}{C_{L} s}\right)
10.37\( \text{NVALID-ORDER-378} \( Z(s) = \left( \infty, \infty, \lambda_{s}, \lambda_{s} + \frac{1}{C_{2}s}, \infty, \infty, \frac{L_{5}s}{C_{5}L_{5}s^{2}+1}, \frac{L_{L}s}{C_{L}L_{L}s^{2}+1} \right) \end{array}
10.379NVALID-ORDER-379 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_{3.5}}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + R_L + \frac{1}{C_{L.5}}\right)
10.38 INVALID-ORDER-380 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_2 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L R_L s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}\right)
10.38INVALID-ORDER-381 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_{3s}}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) \dots
10.382NVALID-ORDER-382 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.38 INVALID-ORDER-383 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_2 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L\right) \dots
10.384NVALID-ORDER-384 Z(s) = (\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s})
10.38 INVALID-ORDER-385 Z(s) = (\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1})
10.386NVALID-ORDER-386 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_{0.8}}, \infty, L_5 s + R_5 + \frac{1}{C_{0.8}}, R_L + \frac{1}{C_{0.8}}\right)
10.38 INVALID-ORDER-387 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_{rs}}, \infty, L_5 s + R_5 + \frac{1}{C_{rs}}, L_L s + \frac{1}{C_{rs}}\right)
10.38\( \text{NVALID-ORDER-388} \( Z(s) = \left( \infty, \infty, \left( L_3 s + \frac{1}{C_2 s}, \infty, \left( L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} \right) \)
10.389NVALID-ORDER-389 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_{28}}, \infty, L_5 s + R_5 + \frac{1}{C_{58}}, L_L s + R_L + \frac{1}{C_{18}}\right)
10.39@NVALID-ORDER-390 Z(s) = (\infty, \infty, L_3 s + \frac{1}{C_2 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L})
10.39INVALID-ORDER-391 Z(s) = \left(\infty, \ \infty, \ L_3s + \frac{1}{C_3s}, \ \infty, \ L_5s + R_5 + \frac{1}{C_5s}, \ \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)
10.392NVALID-ORDER-392 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.39ENVALID-ORDER-393 Z(s) = (\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L).
10.394NVALID-ORDER-394 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{1}{C_L s}\right) \dots
10.39 INVALID-ORDER-395 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L}{C_L R_L s + 1}\right)
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10.396NVALID-ORDER-396 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L + \frac{1}{C_L s}\right)
 10.39 INVALID-ORDER-397 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_{2} s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + \frac{1}{C_L s}\right)
 10.39 NVALID-ORDER-398 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1}\right) . . . . . . . .
10.399NVALID-ORDER-399 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + R_L + \frac{1}{C_L s}\right) \dots
10.40 INVALID-ORDER-400 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
10.40INVALID-ORDER-401 Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.402NVALID-ORDER-402 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.402NVALID-ORDER-403 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_2 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L\right).
10.404NVALID-ORDER-404 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_2 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{1}{C_4 s}\right) \dots
10.40 INVALID-ORDER-405 Z(s) = (\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L}{C_L R_L s + 1}).
10.40 INVALID-ORDER-406 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L + \frac{1}{C_4 s}\right)
10.40 TNVALID-ORDER-407 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_2 s}, \infty, \frac{L_5 s}{C_5 L_4 s^2 + 1} + R_5, L_L s + \frac{1}{C_L s}\right)
10.40\text{NVALID-ORDER-408} Z(s) = \left( \infty, \ \infty, \ L_3 s + \frac{1}{C_{3s}}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{L_L s}{C_L L_L s^2 + 1} \right)
10.409NVALID-ORDER-409 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + R_L + \frac{1}{C_L s}\right)
10.410NVALID-ORDER-410 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
10.41INVALID-ORDER-411 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.412NVALID-ORDER-412 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L (C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.41BNVALID-ORDER-413 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, R_L\right)
10.414NVALID-ORDER-414 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{1}{C_L s}\right)
10.415NVALID-ORDER-415 Z(s) = \left(\infty, \ \infty, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{R_L}{C_LR_Ls+1}\right)
10.416NVALID-ORDER-416 Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L + \frac{1}{C_L s}\right)
10.419NVALID-ORDER-419 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)
10.420NVALID-ORDER-420 Z(s) = (\infty, \infty, L_3s + \frac{1}{C_3s}, \infty, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L})
10.42INVALID-ORDER-421 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)
10.422\text{NVALID-ORDER-}422\ Z(s) = \left(\infty,\ \infty,\ L_3s + \frac{1}{C_3s},\ \infty,\ \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1},\ \frac{R_L\left(C_LL_Ls^2 + 1\right)}{C_LL_Ls^2 + C_LR_Ls + 1}\right)^{-1}
10.428NVALID-ORDER-423 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5, R_L + \frac{1}{C_L s}\right) \dots
10.424NVALID-ORDER-424 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_2 L_2 s^2 + 1}, \infty, R_5, L_L s + \frac{1}{C_L s}\right) . . . . .
10.42 INVALID-ORDER-425 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_2 L_2 s^2 + 1}, \infty, R_5, L_L s + R_L + \frac{1}{C_L s}\right)
10.426NVALID-ORDER-426 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.42 INVALID-ORDER-427 Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_3 s^2 + 1}, \infty, R_5, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.42\( \text{NVALID-ORDER-428} \) Z(s) = \left( \infty, \ \infty, \ \frac{L_3 s}{C_2 L_2 s^2 + 1}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{1}{C_5 s} \right) \ \dots \dots
10.429NVALID-ORDER-429 Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_{3s}^2 + 1}, \infty, \frac{1}{C_{5s}}, R_L + \frac{1}{C_{Ls}}\right) . . . . . . . . . . .
10.430NVALID-ORDER-430 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)
10.43INVALID-ORDER-431 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1}\right)
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10.43\(\text{2}\)NVALID-ORDER-432 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)$
$10.43 \text{NVALID-ORDER-433 } Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) $
$10.43 \text{ INVALID-ORDER-} 434 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) \dots $
10.43 INVALID-ORDER-435 $Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)$
10.436NVALID-ORDER-436 $Z(s) = (\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{R_5}{C_5R_5s+1}, L_Ls + \frac{1}{C_Ls})$
10.43TNVALID-ORDER-437 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{R_5}{C_5R_5s+1}, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.43 NVALID-ORDER-438 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)'$
$10.43 \text{ @NVALID-ORDER-439 } Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2 + 1}, \ \infty, \ \frac{R_5}{C_5R_5s + 1}, \ \frac{R_L\left(C_LL_Ls^2 + 1\right)}{C_LL_Ls^2 + C_LR_Ls + 1} \right) \ \dots \ $
10.440NVALID-ORDER-440 $Z(s) = (\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, R_5 + \frac{1}{C_5s}, R_L)$
10.44INVALID-ORDER-441 $Z(s) = (\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, R_5 + \frac{1}{C_5s}, \frac{1}{C_Ls})$
10.44\(\mathbb{P}\)\(\mathbb{V}\)\(\mathbb{A}\)\(\mathbb{L}\)\(\mathbb{Z}(s) = \(\mathbb{C}\)\(\infty, \infty, \frac{L_{3s}}{C_3L_{3s}^2+1}, \infty, R_5 + \frac{1}{C_5s}, \frac{R_L}{C_LR_Ls+1} \) \\ \tag{90}\)
10.44\(\text{BNVALID-ORDER-443} \(Z(s) = \int \infty \infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, R_5 + \frac{1}{C_5s}, R_L + \frac{1}{C_Ls} \infty \] \qquad \qqquad \qqqqq \qqqqq \qqqqq \qqqqqq \qqqqqq \qqqqqq
10.44INVALID-ORDER-444 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, R_5 + \frac{1}{C_5s}, L_Ls + \frac{1}{C_Ls}\right)$
10.44\$NVALID-ORDER-445 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, R_5 + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$
10.446NVALID-ORDER-446 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, R_5 + \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)$
$10.44\text{TNVALID-ORDER-}447\ Z(s) = \left(\infty,\ \infty,\ \frac{L_3s}{C_3L_3s^2+1},\ \infty,\ R_5 + \frac{1}{C_5s},\ \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right) \qquad . \qquad $
$10.44 \$NVALID-ORDER-448 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ R_5 + \frac{1}{C_5s}, \ \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right) $
$10.44 \text{ @NVALID-ORDER-} 449 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ R_5 + \frac{1}{C_5s}, \ \frac{R_L\left(C_LL_Ls^2+1\right)}{C_LL_Ls^2+C_LR_Ls+1} \right) \ \dots $
10.45 O NVALID-ORDER-450 $Z(s) = (\infty, \infty, \frac{L_{3s}}{C_3L_{3s}^2+1}, \infty, L_5s + \frac{1}{C_5s}, R_L)$
$10.45\text{INVALID-ORDER-}451\ Z(s) = \left(\infty,\ \infty,\ \frac{L_3s}{C_2L_2s^2+1},\ \infty,\ L_5s + \frac{1}{C_4s},\ \frac{1}{C_4s}\right) \dots \qquad 91$
$10.45 \text{PNVALID-ORDER-} 452 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_{3s}}{C_3 L_{3s}^2 + 1}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{R_L}{C_L R_L s + 1} \right) $
10.45 R NVALID-ORDER-453 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_{3s}^2 + 1}, \infty, L_5 s + \frac{1}{C_{r,s}}, R_L + \frac{1}{C_{r,s}} \right)$
10.454NVALID-ORDER-454 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_{3s}^2+1}, \infty, L_{5s} + \frac{1}{C_{5s}}, L_{Ls} + \frac{1}{C_{Ls}}\right)$ 91
$10.45 \text{INVALID-ORDER-} 455 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_2 L_0 s^2 + 1}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{L_L s}{C_1 L_1 s^2 + 1}\right) $
10.45 NVALID-ORDER-456 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_2L_3s^2+1}, \infty, L_5s + \frac{1}{C_Ls}, L_Ls + R_L + \frac{1}{C_Ls}\right)$ 91
$10.45\text{TNVALID-ORDER-}457 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ L_5s + \frac{1}{C_5s}, \ \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right) $
10.45 & NVALID-ORDER-458 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_{3s}^2 + 1}, \infty, L_{5s} + \frac{1}{C_{5s}}, \frac{L_{5s}}{C_1 L_{1s}^2 + 1} + R_L \right)$
$10.45 \text{ @NVALID-ORDER-} 459 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ L_5s + \frac{1}{C_5s}, \ \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right) $
$10.46 \text{@NVALID-ORDER-} 460 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_1 I_{-2} I_{-1}}, \ \infty, \ \frac{L_5s}{C_1 I_{-2} I_{-1}}, \ \frac{1}{C_1 c}\right) \ \dots $
10.46 INVALID-ORDER-460 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{1}{C_Ls}\right)$
$10.462\text{NVALID-ORDER-}462\ Z(s) = \left(\infty,\ \infty,\ \frac{L_3s}{C_3L_3s^2+1},\ \infty,\ \frac{L_5s}{C_5L_5s^2+1},\ L_Ls + \frac{1}{C_Ls}\right) $
10.46 RNVALID-ORDER- 463 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$ 92
$10.464\text{NVALID-ORDER-}464 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1}, \ L_Ls + R_L + \frac{1}{C_Ls}\right) \ \dots $
$10.46 \text{INVALID-ORDER-} 465 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) $
$10.46 \text{ENVALID-ORDER-} 466 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1}, \ \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+1}\right) $
$ (3L_3s + 1 - C_5L_5s + 1 - $
$10.46 \$NVALID-ORDER-468 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ L_5s + R_5 + \frac{1}{C_5s}, \ \frac{1}{C_Ls}\right) $
$10.46 \text{ @NVALID-ORDER-469 } Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \frac{R_L}{C_L R_L s + 1}\right) $
$10.47 \text{@NVALID-ORDER-470 } Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ L_5s + R_5 + \frac{1}{C_5s}, \ R_L + \frac{1}{C_Ls}\right) $

10.47INVALID-ORDER-471 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, L_Ls + \frac{1}{C_Ls}\right)$
10.472NVALID-ORDER-472 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$.
10.47\$NVALID-ORDER-473 $Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ L_5s + R_5 + \frac{1}{C_5s}, \ L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.47\(\text{INVALID-ORDER-474}\) $Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ L_5s + R_5 + \frac{1}{C_5s}, \ \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$
10.47 INVALID-ORDER-475 $Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ L_5s + R_5 + \frac{1}{C_5s}, \ \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$
$10.476 \text{NVALID-ORDER-476 } Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2 + 1}, \ \infty, \ L_5s + R_5 + \frac{1}{C_5s}, \ \frac{R_L(C_LL_Ls^2 + 1)}{C_LL_Ls^2 + C_LR_Ls + 1} \right) $
$10.47\text{INVALID-ORDER-}477\ Z(s) = \left(\infty,\ \infty,\ \frac{L_3s}{C_3L_3s^2+1},\ \infty,\ \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5},\ R_L + \frac{1}{C_Ls}\right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $
10.47 NVALID-ORDER-478 $Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + \frac{1}{C_L s}\right)$ 94
10.47 9 NVALID-ORDER-479 $Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ L_L s + R_L + \frac{1}{C_L s}\right)$
10.48 INVALID-ORDER-480 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$
$10.48INVALID-ORDER-481 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \ \frac{R_L(C_LL_s^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $
10.482NVALID-ORDER-482 $Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1} + R_5, \ R_L\right)$
10.48 INVALID-ORDER-483 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{1}{C_Ls}\right)$
10.484NVALID-ORDER-484 $Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1} + R_5, \ \frac{R_L}{C_LR_Ls+1}\right)$
10.48 INVALID-ORDER-485 $Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1} + R_5, \ R_L + \frac{1}{C_Ls}\right)$
10.48 INVALID-ORDER-486 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, L_Ls + \frac{1}{C_Ls}\right)$
10.48 TNVALID-ORDER-487 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{L_Ls}{C_LL_Ls^2+1}\right)$
10.48\(\text{NVALID-ORDER-488} \(Z(s) = \left(\infty, \infty, \frac{L_5s}{C_3L_3s^2 + 1}, \infty, \frac{L_5s}{C_5L_5s^2 + 1} + R_5, \ L_Ls + R_L + \frac{1}{C_Ls} \right) \].
10.48 P NVALID-ORDER-489 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{L_LR_Ls}{C_LL_RL_s^2+L_Ls+R_L}\right)$
10.49 INVALID-ORDER-490 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{L_Ls}{C_LL_Ls^2+1} + R_L \right)$
$10.49 \text{INVALID-ORDER-} 491 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2 + 1}, \ \infty, \ \frac{L_5s}{C_5L_5s^2 + 1} + R_5, \ \frac{R_L(C_LL_Ls^2 + 1)}{C_LL_Ls^2 + C_LR_Ls + 1} \right) $
$10.492\text{NVALID-ORDER-}492\ Z(s) = \left(\infty,\ \infty,\ \frac{L_3s}{C_3L_3s^2+1},\ \infty,\ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1},\ R_L\right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $
$10.49 \text{ @NVALID-ORDER-493 } Z(s) = \left(\infty, \ \infty, \ \frac{L_{3}s}{C_{3}L_{3}s^{2}+1}, \ \infty, \ \frac{R_{5}\left(C_{5}L_{5}s^{2}+1\right)}{C_{5}L_{5}s^{2}+C_{5}R_{5}s+1}, \ \frac{1}{C_{L}s}\right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $
$10.49 \text{ INVALID-ORDER-} 494 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2 + 1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \ \frac{R_L}{C_LR_Ls + 1} \right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $
$10.49 \text{ INVALID-ORDER-} 495 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L + \frac{1}{C_L s}\right) \qquad . \qquad $
10.496NVALID-ORDER-496 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, L_Ls + \frac{1}{C_Ls} \right)$
$10.49 \text{ INVALID-ORDER-} 497 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} \right) $
10.49 NVALID-ORDER-498 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, L_Ls + R_L + \frac{1}{C_Ls}\right)$
$10.49 \text{@NVALID-ORDER-}499 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \qquad . \qquad $
$10.50 \text{@NVALID-ORDER-}500 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_Ls}{C_LL_Ls^2+1} + R_L \right) \ \ . \ \ \ \ . \ \ \ . \ \ . \ \ . \ \ \ \ . \ \ . \ \ . \ \ \ . \ \ . \ \ . \ \ . \ \ . \ \ . \ \ . \ \ . \ \ \ . \ \ \ \ . \ \ \ \ . \ \ \ . $
$10.50 \text{INVALID-ORDER-} 501 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)^{'}}{C_L L_L s^2 + C_L R_L s + 1} \right) $
10.50 2NVALID-ORDER-502 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{1}{C_L s}\right)$
$10.50\text{BNVALID-ORDER-}503\ Z(s) = \left(\infty,\ \infty,\ L_3s + R_3 + \frac{1}{C_3s},\ \infty,\ R_5,\ \frac{C_LR_Ls+1}{C_LR_Ls+1}\right) \dots \qquad \dots$
10.504NVALID-ORDER-504 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, R_L + \frac{1}{C_L s}\right)$
$10.50 \text{INVALID-ORDER-} 505 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5, \ L_L s + \frac{1}{C_L s}\right) \ \dots \qquad 97$
10.506NVALID-ORDER-506 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)'$

10.50 TN VALID-ORDER-507 $Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5, \ L_L s + R_L + \frac{1}{C_L s}\right)$
10.50 NVALID-ORDER-508 $Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$
10.50 2 NVALID-ORDER-509 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)\right)$
10.51 INVALID-ORDER-510 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$
10.51INVALID-ORDER-511 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, R_L\right)$
10.51 2 NVALID-ORDER-512 $Z(s) = (\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{1}{C_Ls})$
10.51 B NVALID-ORDER-513 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1} \right)$
10.514NVALID-ORDER-514 $Z(s) = (\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, R_L + \frac{1}{C_L s})$
10.51 INVALID-ORDER-515 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$
10.516NVALID-ORDER-516 $Z(s) = \left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{1}{C_5s}, \ \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$
10.51 INVALID-ORDER-517 $Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ L_L s + R_L + \frac{1}{C_L s}\right)$
10.51 NVALID-ORDER-518 $Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$
10.51 Q NVALID-ORDER-519 $Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
$10.52 \text{ONVALID-ORDER-} 520 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) $
10.52INVALID-ORDER-521 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L\right)$
10.52 NVALID-ORDER-522 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{1}{C_L s}\right)$
10.52 INVALID-ORDER-523 $Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{R_L}{C_L R_L s + 1}\right)$
10.524NVALID-ORDER-524 $Z(s) = \left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{R_5}{C_5R_5s+1}, \ R_L + \frac{1}{C_Ls}\right)$
10.52 INVALID-ORDER-525 $Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ L_L s + \frac{1}{C_L s}\right)$
$10.52 \text{ (INVALID-ORDER-526 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1}\right) \qquad 99$
10.52 T NVALID-ORDER-527 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$
10.52 NVALID-ORDER-528 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$
10.52 9 NVALID-ORDER-529 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$ 99
$10.53 \text{@NVALID-ORDER-530 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) \ \dots $
10.53INVALID-ORDER-531 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, R_L\right)$
10.532NVALID-ORDER-532 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$
10.53 NVALID-ORDER-533 $Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{R_L}{C_L R_L s + 1}\right)$
10.534NVALID-ORDER-534 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$
10.53 INVALID-ORDER-535 $Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ L_L s + \frac{1}{C_L s}\right)$
$10.53 \text{ 6} \text{NVALID-ORDER-536 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} \right)' \dots \dots$
$10.53\text{INVALID-ORDER-}537 \ Z(s) = \left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ R_5 + \frac{1}{C_5s}, \ L_Ls + R_L + \frac{1}{C_Ls}\right) $
10.53 NVALID-ORDER-538 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$
10.53 9 NVALID-ORDER-539 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
$10.54 \text{@NVALID-ORDER-}540 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right) \dots $
10.54INVALID-ORDER-541 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, R_L\right)$
$10.54 \text{ 2NVALID-ORDER-} 542 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{1}{C_L s} \right) $
$10.54 \text{ @NVALID-ORDER-543 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{R_L}{C_L R_L s + 1} \right) $
10.54\(\text{INVALID-ORDER-544}\(Z(s) = \sum_{\infty}\), \(\infty\), \(\in\text{in}\), \(\infty\), \(\infty\), \(\inft
10.54\(\text{INVALID-ORDER-545}\(Z(s) = \int(\infty, \infty, \infty, \lambda_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \lambda_5 s + \frac{1}{C_5 s}, \lambda_L s + \frac{1}{C_L s} \int) \]

$10.54 \text{ 6NVALID-ORDER-546 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1}\right) \\ \dots $
10.54 INVALID-ORDER-547 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$
10.54\(\text{NVALID-ORDER-548} \(Z(s) = \left(\infty, \infty, \infty, \left(L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \left(L_5 s + \frac{1}{C_5 L_1 R_1 s^2 + L_1 s + R_1} \right) \] \tag{10.54} \(\text{NVALID-ORDER-548} \(Z(s) = \left(\infty, \infty, \infty, \left(L_3 s + \frac{1}{C_5 s}, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \] \tag{10.54} \(\text{NVALID-ORDER-548} \(Z(s) = \left(\infty, \infty, \infty, \left(L_5 s + \frac{1}{C_5 s}, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \]
10.54 NVALID-ORDER-549 $Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
$10.55 \text{ (INVALID-ORDER-550 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right) \ \dots $
10.55INVALID-ORDER-551 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L\right)$.
10.552NVALID-ORDER-552 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{1}{C_L s}\right)$
$10.55 \text{ BNVALID-ORDER-} 553 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ \frac{\dot{R}_L}{C_L R_L s + 1}\right) \dots $
10.554NVALID-ORDER-554 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L + \frac{1}{C_L s}\right)$
10.55 INVALID-ORDER-555 $Z(s) = \left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1}, \ L_Ls + \frac{1}{C_Ls}\right)$
$10.55 \text{ (INVALID-ORDER-556 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1}\right) \ \dots \ $
10.55 T NVALID-ORDER-557 $Z(s) = \left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1}, \ L_Ls + R_L + \frac{1}{C_Ls}\right)$
$10.55 \$NVALID-ORDER-558 \ Z(s) = \left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1}, \ \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $
10.55 QNVALID-ORDER-559 $Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
$10.56 \text{ @NVALID-ORDER-560 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) \dots $
10.56INVALID-ORDER-561 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L\right)$
10.562NVALID-ORDER-562 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$
10.56\(\text{BNVALID-ORDER-563} \(Z(s) = \left(\infty, \infty, \infty, \left(L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \left(L_5 s + R_5 + \frac{1}{C_5 s}, \infty, \frac{R_L}{C_L R_L s + 1} \right) \]. \tag{10.56}
10.564NVALID-ORDER-564 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$
10.56 INVALID-ORDER-565 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$
$10.56 \text{ NVALID-ORDER-} 566 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1}\right) $
10.56 T NVALID-ORDER-567 $Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, L_5s + R_5 + \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.56 NVALID-ORDER-568 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$
10.56 Q NVALID-ORDER-569 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
10.570NVALID-ORDER-570 $Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{R_L(C_LL_Ls^2 + 1)'}{C_LL_Ls^2 + C_LR_Ls + 1}\right)$
$10.57 \text{INVALID-ORDER-571 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ R_L \right) $
10.572NVALID-ORDER-572 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{1}{C_L s}\right)$
10.57\(\text{RNVALID-ORDER-573} \(Z(s) = \int(\inftigo \infty, \infty, \lambda \text{L}_3 s + R_3 + \frac{1}{C_2 s}, \infty, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L}{C_L R_L s + 1} \) \\ \tag{10.51}
10.57\PVALID-ORDER-574 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L + \frac{1}{C_L s}\right)$
10.57 INVALID-ORDER-575 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + \frac{1}{C_L s}\right)$
$10.576 \text{NVALID-ORDER-576 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \frac{L_L s}{C_L L_L s^2 + 1}\right) \dots $
$10.57 \text{INVALID-ORDER-577 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ L_L s + R_L + \frac{1}{C_L s} \right) $ $10.57 \text{INVALID-ORDER-578 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) $ $10.57 \text{INVALID-ORDER-578 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) $
$10.57 \$NVALID-ORDER-578 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $
10.57 9 NVALID-ORDER-579 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
$10.58 \text{@NVALID-ORDER-}580 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right) \ \dots \qquad 10.58 \text{@NVALID-ORDER-}$
10.58INVALID-ORDER-581 $Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_0s}, \infty, \frac{L_5s}{C_7L_7s^2+1} + R_5, R_L\right)$
10.582NVALID-ORDER-582 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{G}, \infty, \frac{L_5 s}{G L_2^2 s^2} + R_5, \frac{1}{G}\right)$
$10.58 \text{BNVALID-ORDER-} 583 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{\dot{R}_L}{C_L R_L s + 1} \right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
$10.58 \text{ ENVALID-ORDER-583 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{R_L}{C_L R_L s + 1} \right) $ $10.58 \text{ ENVALID-ORDER-584 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ R_L + \frac{1}{C_L s} \right) $ $10.58 \text{ ENVALID-ORDER-584 } Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ R_L + \frac{1}{C_L s} \right) $

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10.58 INVALID-ORDER-585 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + \frac{1}{C_L s}\right) . . . . . . .
10.586NVALID-ORDER-586 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_{os}}, \infty, \frac{L_5 s}{C_c L_b s^2 + 1} + R_5, \frac{L_L s}{C_c L_b s^2 + 1}\right)...
10.58TNVALID-ORDER-587 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_{28}}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + R_L + \frac{1}{C_{L8}}\right)
10.58\( \text{NVALID-ORDER-588} \( Z(s) = \left( \infty, \infty, \lambda_{3} + R_3 + \frac{1}{C_{2}s}, \infty, \infty, \frac{L_5s}{C_5L_5s^2 + 1} + R_5, \frac{L_LR_Ls}{C_LL_LR_Ls^2 + L_Ls + R_L} \right) \)
10.589NVALID-ORDER-589 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.59@NVALID-ORDER-590 Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{L_5s}{C_5L_5s^2 + 1} + R_5, \frac{R_L(C_LL_s^2 + 1)}{C_LL_Ls^2 + C_LR_Ls + 1}\right)
10.59INVALID-ORDER-591 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, R_L\right)
10.592NVALID-ORDER-592 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{1}{C_L s}\right)
10.59BNVALID-ORDER-593 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)
10.59\(\text{INVALID-ORDER-594}\) Z(s) = \left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \ R_L + \frac{1}{C_Ls}\right)
10.59 INVALID-ORDER-595 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, L_L s + \frac{1}{C_L s}\right)
10.596NVALID-ORDER-596 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
10.59 \text{INVALID-ORDER-597} \ Z(s) = \left( \infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left( C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ L_L s + R_L + \frac{1}{C_L s} \right)
10.59\( \text{NVALID-ORDER-598} \( Z(s) = \left( \infty, \infty, \left( L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \frac{R_5 \left( C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \)
10.59 INVALID-ORDER-599 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)
10.60 \text{ INVALID-ORDER-} 600 \ Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right) \right)
10.60INVALID-ORDER-601 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_2 L_2 R_2 s^2 + L_2 s + R_2}, \infty, R_5, R_L + \frac{1}{C_L s}\right) . . . . . . . . .
10.602NVALID-ORDER-602 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5, L_L s + \frac{1}{C_L s}\right) \dots
10.60 INVALID-ORDER-603 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5, L_L s + R_L + \frac{1}{C_L s}\right)
10.604NVALID-ORDER-604 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_{3s} + R_3}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.60 INVALID-ORDER-605 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5, \frac{R_L (C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.60 INVALID-ORDER-606 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right) \dots
10.60TNVALID-ORDER-607 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_2 L_3 R_3 s^2 + L_2 s + R_3}, \infty, \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right).
10.60 NVALID-ORDER-608 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_2 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)
10.609NVALID-ORDER-609 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.61 INVALID-ORDER-610 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.61INVALID-ORDER-611 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)
10.612NVALID-ORDER-612 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + \frac{1}{C_L s}\right)
10.61\( \text{NVALID-ORDER-613} \( Z(s) = \left( \infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3} \right), \infty, \frac{R_5}{C_5 R_5 s + 1}, \( L_L s + R_L + \frac{1}{C_L s} \right) \)
10.614NVALID-ORDER-614 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.615NVALID-ORDER-615 Z(s) = \left(\infty, \ \infty, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.616NVALID-ORDER-616 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, R_L\right).
10.61 INVALID-ORDER-617 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right) . . .
10.61\( \text{NVALID-ORDER-618} \( Z(s) = \left( \infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 t}, \frac{R_L}{C_L R_L s + 1} \right) \)
10.619NVALID-ORDER-619 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_5 s}\right)
10.620NVALID-ORDER-620 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)
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10.62INVALID-ORDER-621 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right) . . . . . . . . . . .
10.622NVALID-ORDER-622 Z(s) = \left(\infty, \ \infty, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ L_L s + R_L + \frac{1}{C_L s}\right)
10.62\( \text{NVALID-ORDER-623} \( Z(s) = \left( \infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \frac{R_5}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \)
10.624NVALID-ORDER-624 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.62 INVALID-ORDER-625 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)^2}{C_L L_L s^2 + C_L R_L s + 1}\right)^2
10.626NVALID-ORDER-626 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_2 L_2 R_3 s^2 + L_2 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, R_L\right) \dots \dots
10.62 INVALID-ORDER-627 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{1}{C_5 s}\right) \dots
10.62 NVALID-ORDER-628 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_2 L_2 R_3 s^2 + L_2 s + R_2}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L}{C_4 R_4 s + 1}\right)
10.629NVALID-ORDER-629 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_2 L_2 R_2 s^2 + L_2 s + R_2}, \infty, L_5 s + \frac{1}{C_5 s}, R_L + \frac{1}{C_4 s}\right)
10.630NVALID-ORDER-630 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_2 L_3 R_3 s^2 + L_2 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)
10.63INVALID-ORDER-631 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_{3s} + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
10.632NVALID-ORDER-632 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_2 L_2 R_2 s^2 + L_2 s + R_2}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)
10.63\(\text{2NVALID-ORDER-633}\) Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
10.63\(\text{INVALID-ORDER-634}\) Z(s) = \left(\infty, \ \infty, \ \frac{L_3 R_3 s}{C_2 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)
10.635NVALID-ORDER-635 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L (C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.636NVALID-ORDER-636 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L + \frac{1}{C_L s}\right)
10.63 INVALID-ORDER-637 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + \frac{1}{C_L s}\right)
10.63\( \text{NVALID-ORDER-638} \( Z(s) = \left( \infty, \infty, \frac{L_3 R_3 s}{C_2 L_2 R_2 s^2 + L_2 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + R_L + \frac{1}{C_L s} \)
10.639NVALID-ORDER-639 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.640NVALID-ORDER-640 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.64INVALID-ORDER-641 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L\right) \dots
10.642NVALID-ORDER-642 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_2 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{1}{C_4 s}\right) \dots
10.64 INVALID-ORDER-643 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_2 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)
10.64\(\text{INVALID-ORDER-644}\(Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_2 L_2 R_2 s^2 + L_2 s + R_2}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_5 s}\right)
10.64 INVALID-ORDER-645 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_{5s}}, L_L s + \frac{1}{C_{Ls}}\right)
10.646NVALID-ORDER-646 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_2 L_2 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
10.64TNVALID-ORDER-647 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_2 L_3 R_3 s^2 + L_2 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)
10.64\( \text{NVALID-ORDER-648} \( Z(s) = \left( \infty, \infty, \frac{L_3 R_3 s}{C_2 L_2 R_2 s^2 + L_2 s + R_2} \right), \infty, \left( L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_4 L_4 R_4 s^2 + L_4 s + R_4} \right) \)
10.649NVALID-ORDER-649 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.65 INVALID-ORDER-650 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.65INVALID-ORDER-651 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L + \frac{1}{C_L s}\right)
10.652NVALID-ORDER-652 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + \frac{1}{C_L s}\right)
10.65 NVALID-ORDER-653 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + R_L + \frac{1}{C_{L_5}}\right)
10.654NVALID-ORDER-654 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_2 L_3 R_3 s^2 + L_2 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.65 INVALID-ORDER-655 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.656NVALID-ORDER-656 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_2 L_2 R_3 s^2 + L_2 s + R_2}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L\right) . . .
10.65TNVALID-ORDER-657 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{1}{C_L s}\right) . . . .
10.65 NVALID-ORDER-658 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_2 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L}{C_L R_L s + 1}\right)
10.659NVALID-ORDER-659 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L + \frac{1}{C_L s}\right)
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10.660NVALID-ORDER-660 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + \frac{1}{C_L s}\right)
10.66INVALID-ORDER-661 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right) \dots \dots \dots
10.662NVALID-ORDER-662 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_{3s} + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + R_L + \frac{1}{C_L s}\right)
10.664NVALID-ORDER-664 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.66 INVALID-ORDER-665 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L (C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.666NVALID-ORDER-666 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, R_L\right)
10.66 \text{INVALID-ORDER-}667 \ Z(s) = \left( \infty, \ \infty, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \frac{R_5 \left( C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{1}{C_L s} \right)
10.669NVALID-ORDER-669 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)
10.67 \text{ @NVALID-ORDER-670 } Z(s) = \left( \infty, \ \infty, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \frac{R_5 \left( C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ L_L s + \frac{1}{C_L s} \right) \quad \dots 
10.67INVALID-ORDER-671 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)^{s}
                                                                                                                                                       10.672 \text{NVALID-ORDER-} 672 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ L_L s + R_L + \frac{1}{C_L s}\right)
10.67 \text{\&NVALID-ORDER-} 673 \ Z(s) = \left( \infty, \ \infty, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \frac{R_5 \left( C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right)
10.67 \text{ INVALID-ORDER-} 674 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.67 INVALID-ORDER-675 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.676NVALID-ORDER-676 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_2 L_2 s^2 + 1} + R_3, \infty, R_5, \frac{1}{C_4 s}\right) \dots \dots \dots
10.67 INVALID-ORDER-677 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_2 L_2 s^2 + 1} + R_3, \infty, R_5, \frac{R_L}{C_L R_L s + 1}\right) \dots \dots
10.67\( \text{NVALID-ORDER-678} \) Z(s) = \left( \infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ R_5, \ R_L + \frac{1}{C_L s} \right)
10.679NVALID-ORDER-679 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_2L_2s^2+1} + R_3, \infty, R_5, L_Ls + \frac{1}{C_Ls}\right) . . . . . .
10.68 INVALID-ORDER-680 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_2 L_2 s^2 + 1} + R_3, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right) \dots \dots
10.68INVALID-ORDER-681 Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_2L_2s^2+1} + R_3, \infty, R_5, L_Ls + R_L + \frac{1}{C_Ls}\right) \dots
10.682NVALID-ORDER-682 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, R_5, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right) \dots \dots
10.682NVALID-ORDER-683 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, R_5, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right) \dots \dots
10.68\( \text{INVALID-ORDER-684} \( Z(s) = \int(\infty), \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \, R_5, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1} \right) \]
10.68 INVALID-ORDER-685 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_2 L_2 s^2 + 1} + R_3, \infty, \frac{1}{C_5 s}, R_L\right) . . . . . . . . . . . . .
10.68 INVALID-ORDER-686 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_2 L_3 s^2 + 1} + R_3, \infty, \frac{1}{C_4 s}, \frac{1}{C_4 s}\right) \dots
10.68TNVALID-ORDER-687 Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_{3s}^2 + 1} + R_3, \infty, \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right) \dots
10.689NVALID-ORDER-689 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_2 L_2 s^2 + 1} + R_3, \infty, \frac{1}{C_5 s}, L_L s + \frac{1}{C_4 s}\right)
10.69@NVALID-ORDER-690 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1}\right) . . . . . .
10.69INVALID-ORDER-691 Z(s) = (\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}) . . . .
10.692NVALID-ORDER-692 Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \frac{1}{C_5s}, \ \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)
10.69ENVALID-ORDER-693 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)
10.694NVALID-ORDER-694 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{1}{C_5s}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)
10.69 INVALID-ORDER-695 Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_{3}L_{2s}^{2}+1} + R_{3}, \infty, \frac{R_{5}}{C_{5}R_{5}s+1}, R_{L}\right).
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10.69 INVALID-ORDER-697 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_2L_2s^2+1} + R_3, \infty, \frac{R_5}{C_5R_5s+1}, \frac{R_L}{C_4R_5s+1}\right) . . . . . . . .
10.699NVALID-ORDER-699 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5}{C_5R_5s+1}, L_Ls + \frac{1}{C_Ls}\right) . . . . . . . . . . . . . . . . .
10.70@NVALID-ORDER-700 Z(s) = (\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5}{C_5R_5s+1}, \frac{L_Ls}{C_LL_Ls^2+1}) . . . . . .
10.70INVALID-ORDER-701 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5}{C_5R_5s+1}, L_Ls + R_L + \frac{1}{C_Ls}\right) . . . . . . . . . . .
10.70\( \text{2NVALID-ORDER-703} \( Z(s) = \int(\infty), \) \( \int, \frac{L_3s}{C_2L_3s^2+1} + R_3, \) \( \int, \frac{R_5}{C_5R_5s+1}, \) \( \frac{L_Ls}{C_LL_Ls^2+1} + R_L \) \\ \tag{1.5} \]
10.704NVALID-ORDER-704 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5}{C_5R_5s+1}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)
10.706NVALID-ORDER-706 Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_2L_{2s}^2+1} + R_3, \infty, R_5 + \frac{1}{C_{5s}}, \frac{1}{C_{Ls}}\right) \dots \dots \dots \dots
10.70 INVALID-ORDER-707 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_0 L_0 s^2 + 1} + R_3, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_5 R_5 s + 1}\right)
10.70 NVALID-ORDER-708 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_2 L_2 s^2 + 1} + R_3, \infty, R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_5 s}\right) . . . . .
10.709NVALID-ORDER-709 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right) \dots \dots
10.71INVALID-ORDER-711 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_0 L_0 s^2 + 1} + R_3, \infty, R_5 + \frac{1}{C_1 s}, L_L s + R_L + \frac{1}{C_1 s}\right) . . . . . . . .
10.712 \text{NVALID-ORDER-} 712 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ R_5 + \frac{1}{C_5s}, \ \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right) \ \dots 
10.718NVALID-ORDER-713 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_2 L_2 s^2 + 1} + R_3, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
10.71\(\text{INVALID-ORDER-714}\(Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, R_5 + \frac{1}{C_5s}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\)
10.716NVALID-ORDER-716 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + \frac{1}{C_5s}, \frac{1}{C_Ls}\right) . . . . . . .
10.71 INVALID-ORDER-717 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_2 L_3 s^2 + 1} + R_3, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right) . . . . . . . .
10.718NVALID-ORDER-718 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_2L_3s^2+1} + R_3, \infty, L_5s + \frac{1}{C_5s}, R_L + \frac{1}{C_5s}\right) \dots \dots \dots
10.719NVALID-ORDER-719 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_2 L_2 s^2 + 1} + R_3, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right) . . . . .
10.728NVALID-ORDER-723 Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_2L_2s^2+1} + R_3, \infty, L_5s + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_1s^2+1} + R_L\right) \dots \dots \dots
10.724NVALID-ORDER-724 Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_{3s}^2+1} + R_3, \infty, L_{5s} + \frac{1}{C_5s}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)
10.726NVALID-ORDER-726 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_2 L_3 s^2 + 1} + R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{1}{C_5 s}\right) \dots
10.72TNVALID-ORDER-727 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{R_L}{C_LR_Ls+1}\right) \dots
10.729NVALID-ORDER-729 Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_2 L_2 s^2 + 1} + R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + \frac{1}{C_L s}\right)
10.730NVALID-ORDER-730 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{L_Ls}{C_LL_Ls^2+1}\right) . . . . . . . . . . . . . . .
10.73\(\mathbb{Z}\)NVALID-ORDER-733\(Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right) \quad \tag{121}
10.734NVALID-ORDER-734 Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, \frac{L_{5s}}{C_5L_5s^2+1}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)
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10.73 INVALID-ORDER-735 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + R_5 + \frac{1}{C_5s}, R_L\right)$	122
	122
10.73 T NVALID-ORDER-737 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_2L_2s^2+1} + R_3, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{R_L}{C_LR_Ls+1}\right)$	122
	122
$10.73 \text{ (NVALID-ORDER-739 } Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3 L_2 s^2 + 1} + R_3, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ L_L s + \frac{1}{C_L s} \right) $	122
	122
	122
$10.742\text{NVALID-ORDER-}742 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ L_5s + R_5 + \frac{1}{C_5s}, \ \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right) \ \dots \ $	122
	122
$10.74 \text{INVALID-ORDER-} 744 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)'}{C_L L_L s^2 + C_L R_L s + 1} \right) \right. \\ \left. \qquad $	122
10.74 INVALID-ORDER-745 $Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L \right)$	123
	123
$10.74 \text{ INVALID-ORDER-} 747 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \frac{R_L}{C_L R_L s + 1}\right) \dots $	123
$10.74 \$ \text{NVALID-ORDER-} 748 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ R_L + \frac{1}{C_L s}\right) \ \dots \ $	123
	123
$10.75 \text{ @NVALID-ORDER-} 750 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)' \ \dots \ $	123
	123
$10.75 \text{2NVALID-ORDER-} 752 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \ \dots \ $	123
$10.75 \text{2NVALID-ORDER-} 753 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right) \ \ \ldots \ \ \ \ldots \ \ \ \ \ldots \ \ \ \ \ldots \$	123
$10.754\text{NVALID-ORDER-}754\ Z(s) = \left(\infty,\ \infty,\ \frac{L_3s}{C_3L_3s^2+1} + R_3,\ \infty,\ \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5},\ \frac{R_L\left(C_LL_Ls^2+1\right)}{C_LL_Ls^2+C_LR_Ls+1}\right) \dots \qquad 10.754\text{NVALID-ORDER-}$	123
10.75 INVALID-ORDER-755 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, R_L\right)$	124
$10.75 \text{ 6NVALID-ORDER-} 756 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{1}{C_L s} \right) \ \dots \ $	124
$10.75 \text{INVALID-ORDER-} 757 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1} + R_5, \ \frac{R_L}{C_LR_Ls+1} \right) \ \dots \ $	124
$10.75 \&NVALID-ORDER-758 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1} + R_5, \ R_L + \frac{1}{C_Ls}\right) \dots \qquad 10.75 \&NVALID-ORDER-758 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1} + R_5, \ R_L + \frac{1}{C_Ls}\right)$	124
$10.75 \text{@NVALID-ORDER-}759 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_{3}s}{C_{3}L_{3}s^{2}+1} + R_{3}, \ \infty, \ \frac{L_{5}s}{C_{5}L_{5}s^{2}+1} + R_{5}, \ L_{L}s + \frac{1}{C_{L}s}\right) $ $10.76 \text{@NVALID-ORDER-}760 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_{3}s}{C_{3}L_{3}s^{2}+1} + R_{3}, \ \infty, \ \frac{L_{5}s}{C_{5}L_{5}s^{2}+1} + R_{5}, \ \frac{L_{L}s}{C_{L}L_{L}s^{2}+1}\right) $ $10.76 \text{@NVALID-ORDER-}760 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_{3}s}{C_{3}L_{3}s^{2}+1} + R_{3}, \ \infty, \ \frac{L_{5}s}{C_{5}L_{5}s^{2}+1} + R_{5}, \ \frac{L_{L}s}{C_{L}L_{L}s^{2}+1}\right) $	124
$10.76 \text{ @NVALID-ORDER-760 } Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1} + R_5, \ \frac{L_Ls}{C_LL_Ls^2+1}\right) \dots $	124
10.76INVALID-ORDER-761 $Z(s) = \left(\infty, \infty, \frac{L_{3}s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_{5}s}{C_5L_5s^2+1} + R_5, L_Ls + R_L + \frac{1}{C_Ls}\right)$	124
$10.76 \text{INVALID-ORDER-} 761 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_{3}s}{C_{3}L_{3}s^{2}+1} + R_{3}, \ \infty, \ \frac{L_{5}s}{C_{5}L_{5}s^{2}+1} + R_{5}, \ L_{L}s + R_{L} + \frac{1}{C_{L}s}\right) $ $10.76 \text{INVALID-ORDER-} 762 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_{3}s}{C_{3}L_{3}s^{2}+1} + R_{3}, \ \infty, \ \frac{L_{5}s}{C_{5}L_{5}s^{2}+1} + R_{5}, \ \frac{L_{L}R_{L}s}{C_{L}L_{R}L_{S}^{2}+L_{L}s + R_{L}}\right) $ $10.76 \text{INVALID-ORDER-} 762 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_{3}s}{C_{3}L_{3}s^{2}+1} + R_{3}, \ \infty, \ \frac{L_{5}s}{C_{5}L_{5}s^{2}+1} + R_{5}, \ \frac{L_{L}R_{L}s}{C_{L}L_{L}R_{L}s^{2}+L_{L}s + R_{L}}\right) $	124
10.76PNVALID OPDER 763.7(a) = $\begin{pmatrix} 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 $	194
$10.76 \text{INVALID-ORDER-} 764 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{L_5s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + 1} \right) \\ 10.76 \text{INVALID-ORDER-} 764 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{R_5(C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L \right) \\ 10.76 \text{INVALID-ORDER-} 765 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{R_5(C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L \right) \\ 10.76 \text{INVALID-ORDER-} 765 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{R_5(C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L \right) \\ 10.76 \text{INVALID-ORDER-} 765 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{R_5(C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L \right) \\ 10.76 \text{INVALID-ORDER-} 765 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{R_5(C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L \right) \\ 10.76 \text{INVALID-ORDER-} 765 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{R_5(C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L \right) \\ 10.76 \text{INVALID-ORDER-} 765 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L \right) \\ 10.76 \text{INVALID-} 765 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L \right) \\ 10.76 \text{INVALID-} \\$	124
$10.76 \text{INVALID-ORDER-} 765 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2 + 1} + R_3, \ \infty, \ \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \ R_L \right) \ \dots $	125
$10.76 \text{ @NVALID-ORDER-766 } Z(s) = \left(\infty, \ \infty, \ \frac{L_{3}s}{C_3L_3s^2 + 1} + R_3, \ \infty, \ \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \ \frac{1}{C_Ls} \right) \ \dots $	125
$10.76 \text{INVALID-ORDER-} 767 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{R_L}{C_L R_L s + 1} \right) \ \dots $	125
$10.76 \&NVALID-ORDER-768 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ R_L + \frac{1}{C_Ls}\right) \ \dots $	
$10.76 \text{ @NVALID-ORDER-769 } Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ L_Ls + \frac{1}{C_Ls} \right) \ \dots \ $	125
$10.770 \text{NVALID-ORDER-} 770 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_Ls}{C_LL_Ls^2+1} \right) $	125
$10.77 \text{INVALID-ORDER-771 } Z(s) = \left(\infty, \ \infty, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ L_L s + R_L + \frac{1}{C_L s} \right) $	125

$10.772 \text{NVALID-ORDER-} 772 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L} \right) \dots $	125
$10.77 \text{INVALID-ORDER-} 773 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right) \ \dots $	125
$10.77 \text{INVALID-ORDER-} 774 \ Z(s) = \left(\infty, \ \infty, \ \frac{L_{3s}}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right) \dots $	126
()	126
C_{1}	126
$10.77 \text{INVALID-ORDER-} 777 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ R_5, \ R_L + \frac{1}{C_Ls} \right) \ \dots $	126
10.77\bigsin VALID-ORDER-778 $Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ R_5, \ L_Ls + \frac{1}{C_Ls}\right)$	126
$C_{I} = C_{I} + C_{I$	126
C_{1}	126
C) (C) C3L38 +C3R38+1 C) CLLLRL8 +LL8+RL)	126
$10.782 \text{NVALID-ORDER-} 782 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ R_5, \ \frac{L_Ls}{C_LL_Ls^2+1} + R_L \right) $	126
$10.78 \text{ENVALID-ORDER-783} \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ R_5, \ \frac{R_L\left(C_LL_Ls^2+1\right)}{C_LL_Ls^2+C_LR_Ls+1} \right) \ \dots $	127
10.78 INVALID-ORDER-784 $Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{1}{C_5s}, \ R_L\right)$	127
$10.78 \text{INVALID-ORDER-785} \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{1}{C_5s}, \ \frac{1}{C_Ls} \right) \ \dots $	127
$10.786 \text{NVALID-ORDER-786} \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3 \left(C_3 L_3 s^2 + 1 \right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{R_L}{C_L R_L s + 1} \right) \right. \ \dots $	127
$10.78 \text{INVALID-ORDER-787 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3 \left(C_3 L_3 s^2 + 1 \right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \frac{1}{C_5 s}, \ R_L + \frac{1}{C_L s} \right) $	127
$10.78 \text{\&NVALID-ORDER-788 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{1}{C_5s}, \ L_Ls + \frac{1}{C_Ls} \right) \ \dots $	127
$\begin{pmatrix} 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 $	127
$10.79 \text{ @NVALID-ORDER-790 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{1}{C_5s}, \ L_Ls + R_L + \frac{1}{C_Ls} \right) \right].$	127
$10.79 \text{INVALID-ORDER-791 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{1}{C_5s}, \ \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L} \right) $	127
$10.792\text{NVALID-ORDER-792} \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{1}{C_5s}, \ \frac{L_Ls}{C_LL_Ls^2+1} + R_L \right) \right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $	128
$10.79 \text{ ENVALID-ORDER-793 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{1}{C_5s}, \ \frac{R_L\left(C_LL_Ls^2+1\right)}{C_LL_Ls^2+C_LR_Ls+1} \right) \dots $	128
$(\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \) \ \ (\ \ \) \ \ (\ \ \) \ \ (\ \ \) \ \ (\ \ \) \ \ (\ \ \) \ \ (\ \ \) \ \ (\ \ \) \ \ (\ \ \ \$	128
$10.79 \text{INVALID-ORDER-795} \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5}{C_5R_5s+1}, \ \frac{1}{C_Ls} \right) \ \dots $	128
() $()$	128
$10.79 \text{INVALID-ORDER-797 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5}{C_5R_5s+1}, \ R_L + \frac{1}{C_Ls} \right) \ \dots $	128
$10.79 \&NVALID-ORDER-798 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5}{C_5R_5s+1}, \ L_Ls + \frac{1}{C_Ls}\right) \dots $	128
$10.79 \text{ @NVALID-ORDER-799 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5}{C_5R_5s+1}, \ \frac{L_Ls}{C_LL_Ls^2+1} \right) \right) \dots \dots$	
$10.80 \text{ @NVALID-ORDER-800 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5}{C_5R_5s+1}, \ L_Ls + R_L + \frac{1}{C_Ls} \right) \right).$	
$10.80 \text{INVALID-ORDER-801 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3 \left(C_3 L_3 s^2 + 1 \right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \right) $	
$10.802 \text{NVALID-ORDER-802} \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5}{C_5R_5s+1}, \ \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $	129

10.00 EVALUD CORDUS 30
$$Z_{10} = (x_{10} - x_{10}^{(4)} x_{10}^{(4)}$$

$10.86 \text{INVALID-ORDER-865} \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{1}{C_Ls}\right) \ \dots $
$10.866 \text{NVALID-ORDER-866} \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{R_L}{C_LR_Ls+1} \right) \ \dots $
$10.86 \text{TNVALID-ORDER-}867 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ R_L + \frac{1}{C_Ls} \right) \ \dots \ $
$10.86 \&NVALID-ORDER-868 \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ L_Ls + \frac{1}{C_Ls} \right) \ \dots $
$10.86 \text{ @NVALID-ORDER-869 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_Ls}{C_5L_Ls^2+1} \right)' \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $
$10.87 \text{ INVALID-ORDER-870 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ L_Ls + R_L + \frac{1}{C_Ls}\right) \ \dots $
$10.87 \text{INVALID-ORDER-871 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_LR_Ls}{C_LL_RL_s^2+L_Ls+R_L} \right) \ \dots \ $
$10.872 \text{NVALID-ORDER-872} \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_Ls}{C_LL_Ls^2+1} + R_L \right) \right) \left(-\frac{1}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_Ls}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_Ls}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_Ls}{C_5L_5s^2+C_5R_5s+1} + R_L \right) \left(-\frac{1}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_Ls}{C_5L_5s^2+C_5R_5s+1} + R_L \right) \right) \left(-\frac{1}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_Ls}{C_5L_5s^2+C_5R_5s+1} + R_L \right) \left(-\frac{1}{C_5L_5s^2+C_5R_5s+1} + R_L \right) \left(-\frac{1}{C_5L_5c^2+C_5R_5s+1} + R_L \right) \left(-\frac{1}{C_5L_5c^2+C_5R_5s+1} + R_L \right) \left(-\frac{1}{C_5L_5c^2+C_5R_5$
$10.87 \text{ ENVALID-ORDER-873 } Z(s) = \left(\infty, \ \infty, \ \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right) \dots $
PolynomialError 137

1 Examined H(z) for CG Test simple Z3 Z5 ZL: $\frac{Z_3Z_L(Z_5g_m-1)}{Z_3Z_5+Z_3Z_L+Z_5Z_L}$

$$H(z) = \frac{Z_3 Z_L (Z_5 g_m - 1)}{Z_3 Z_5 + Z_3 Z_L + Z_5 Z_L}$$

- 2 HP
- 3 BP
- **3.1** BP-1 $Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$H(s) = \frac{s (L_L R_3 R_5 g_m - L_L R_3)}{C_L L_L R_3 R_5 s^2 + R_3 R_5 + s (L_L R_3 + L_L R_5)}$

Parameters:

Q:
$$\frac{C_L R_3 R_5 \sqrt{\frac{1}{C_L L_L}}}{R_3 + R_5}$$
 wo: $\sqrt{\frac{1}{C_L L_L}}$ bandwidth: $\frac{R_3 + R_5}{C_L R_3 R_5}$ K-LP: 0 K-HP: 0 K-BP: $\frac{R_3 (R_5 g_m - 1)}{R_3 + R_5}$ Qz: 0 Wz: None

3.2 BP-2 $Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$H(s) = \frac{s\left(L_{L}R_{3}R_{5}R_{L}g_{m} - L_{L}R_{3}R_{L}\right)}{C_{L}L_{L}R_{3}R_{5}R_{L}s^{2} + R_{3}R_{5}R_{L} + s\left(L_{L}R_{3}R_{5} + L_{L}R_{3}R_{L} + L_{L}R_{5}R_{L}\right)}$

Parameters:

Q:
$$\frac{C_L R_3 R_5 R_L \sqrt{\frac{1}{C_L L_L}}}{R_3 R_5 + R_3 R_L + R_5 R_L}$$
 wo: $\sqrt{\frac{1}{C_L L_L}}$ bandwidth: $\frac{R_3 R_5 + R_3 R_L + R_5 R_L}{C_L R_3 R_5 R_L}$ K-LP: 0 K-HP: 0 K-BP: $\frac{R_3 R_L (R_5 g_m - 1)}{R_3 R_5 + R_3 R_L + R_5 R_L}$ Qz: 0 Wz: None

3.3 BP-3
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$H(s) = \frac{s (L_L R_5 g_m - L_L)}{L_L s + R_5 + s^2 (C_3 L_L R_5 + C_L L_L R_5)}$

Q:
$$R_5\sqrt{\frac{1}{L_L(C_3+C_L)}}$$
 (C_3+C_L)
wo: $\sqrt{\frac{1}{L_L(C_3+C_L)}}$
bandwidth: $\frac{1}{R_5(C_3+C_L)}$
K-LP: 0
K-HP: 0
K-BP: R_5g_m-1
Qz: 0

Wz: None

3.4 BP-4
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

 $H(s) = \frac{s \left(L_{L} R_{5} R_{L} g_{m} - L_{L} R_{L} \right)}{R_{5} R_{L} + s^{2} \left(C_{3} L_{L} R_{5} R_{L} + C_{L} L_{L} R_{5} R_{L} \right) + s \left(L_{L} R_{5} + L_{L} R_{L} \right)}$

Parameters:

Q:
$$\frac{R_5R_L\sqrt{\frac{1}{L_L(C_3+C_L)}}(C_3+C_L)}{R_5+R_L}$$
 wo:
$$\sqrt{\frac{1}{L_L(C_3+C_L)}}$$
 bandwidth:
$$\frac{R_5+R_L}{R_5R_L(C_3+C_L)}$$
 K-LP: 0 K-HP: 0 K-BP:
$$\frac{R_L(R_5g_m-1)}{R_5+R_L}$$
 Qz: 0 Wz: None

3.5 BP-5 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

 $H(s) = \frac{s \left(L_L R_3 R_5 g_m - L_L R_3 \right)}{R_3 R_5 + s^2 \left(C_3 L_L R_3 R_5 + C_L L_L R_3 R_5 \right) + s \left(L_L R_3 + L_L R_5 \right)}$

Parameters:

Q:
$$\frac{R_3R_5\sqrt{\frac{1}{L_L(C_3+C_L)}}(C_3+C_L)}{R_3+R_5}$$
 wo:
$$\sqrt{\frac{1}{L_L(C_3+C_L)}}$$
 bandwidth:
$$\frac{R_3+R_5}{R_3R_5(C_3+C_L)}$$
 K-LP: 0 K-HP: 0 K-BP:
$$\frac{R_3(R_5g_m-1)}{R_3+R_5}$$
 Qz: 0 Wz: None

3.6 BP-6 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

 $H(s) = \frac{s\left(L_{L}R_{3}R_{5}R_{L}g_{m} - L_{L}R_{3}R_{L}\right)}{R_{3}R_{5}R_{L} + s^{2}\left(C_{3}L_{L}R_{3}R_{5}R_{L} + C_{L}L_{L}R_{3}R_{5}R_{L}\right) + s\left(L_{L}R_{3}R_{5} + L_{L}R_{3}R_{L} + L_{L}R_{5}R_{L}\right)}$

$$\begin{array}{l} \text{Q:} \ \frac{R_3R_5R_L\sqrt{\frac{1}{L_L(C_3+C_L)}}(C_3+C_L)}{R_3R_5+R_3R_L+R_5R_L} \\ \text{wo:} \ \sqrt{\frac{1}{L_L(C_3+C_L)}} \\ \text{bandwidth:} \ \frac{R_3R_5+R_3R_L+R_5R_L}{R_3R_5R_L(C_3+C_L)} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{R_3R_L(R_5g_m-1)}{R_3R_5+R_3R_L+R_5R_L} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

3.7 BP-7 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, R_5, R_L\right)$

Parameters:

Q:
$$\frac{C_3R_5R_L\sqrt{\frac{1}{C_3L_3}}}{R_5+R_L}$$
 wo: $\sqrt{\frac{1}{C_3L_3}}$ bandwidth: $\frac{R_5+R_L}{C_3R_5R_L}$ K-LP: 0 K-HP: 0 K-BP: $\frac{R_L(R_5g_m-1)}{R_5+R_L}$ Qz: 0 Wz: None

3.8 BP-8
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_{3}L_{3}s^{2}+1}, \infty, R_{5}, \frac{1}{C_{Ls}}\right)$$

Parameters:

Q:
$$R_5\sqrt{\frac{1}{L_3(C_3+C_L)}}$$
 (C_3+C_L)
wo: $\sqrt{\frac{1}{L_3(C_3+C_L)}}$
bandwidth: $\frac{1}{R_5(C_3+C_L)}$
K-LP: 0
K-HP: 0
K-BP: R_5g_m-1
Qz: 0
Wz: None

3.9 BP-9
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5, \frac{R_L}{C_L R_L s + 1}\right)$$

Parameters:

Q:
$$\frac{R_5R_L\sqrt{\frac{1}{L_3(C_3+C_L)}}(C_3+C_L)}{R_5+R_L}$$
 wo:
$$\sqrt{\frac{1}{L_3(C_3+C_L)}}$$
 bandwidth:
$$\frac{R_5+R_L}{R_5R_L(C_3+C_L)}$$
 K-LP: 0 K-HP: 0 K-BP:
$$\frac{R_L(R_5g_m-1)}{R_5+R_L}$$
 Qz: 0 Wz: None

3.10 BP-10
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

Q:
$$R_5 \sqrt{\frac{L_3 + L_L}{L_3 L_L (C_3 + C_L)}} (C_3 + C_L)$$

wo: $\sqrt{\frac{L_3 + L_L}{L_3 L_L (C_3 + C_L)}}$

$$H(s) = \frac{s (L_3 R_5 R_L g_m - L_3 R_L)}{C_3 L_3 R_5 R_L s^2 + R_5 R_L + s (L_3 R_5 + L_3 R_L)}$$

$$H(s) = \frac{s (L_3 R_5 g_m - L_3)}{L_3 s + R_5 + s^2 (C_3 L_3 R_5 + C_L L_3 R_5)}$$

$$H(s) = \frac{s \left(L_{3}R_{5}R_{L}g_{m} - L_{3}R_{L} \right)}{R_{5}R_{L} + s^{2} \left(C_{3}L_{3}R_{5}R_{L} + C_{L}L_{3}R_{5}R_{L} \right) + s \left(L_{3}R_{5} + L_{3}R_{L} \right)}$$

$$H(s) = \frac{s \left(L_3 L_L R_5 g_m - L_3 L_L \right)}{L_3 L_L s + L_3 R_5 + L_L R_5 + s^2 \left(C_3 L_3 L_L R_5 + C_L L_3 L_L R_5 \right)}$$

bandwidth:
$$\frac{1}{R_5(C_3+C_L)}$$
 K-LP: 0
K-HP: 0
K-BP: R_5g_m-1 Qz: 0
Wz: None

3.11 BP-11
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{s \left(L_{3} L_{L} R_{5} R_{L} g_{m} - L_{3} L_{L} R_{L} \right)}{L_{3} R_{5} R_{L} + L_{L} R_{5} R_{L} + s^{2} \left(C_{3} L_{3} L_{L} R_{5} R_{L} + C_{L} L_{3} L_{L} R_{5} R_{L} \right) + s \left(L_{3} L_{L} R_{5} + L_{3} L_{L} R_{L} \right)}$$

$$\begin{array}{l} \text{Q:} \ \frac{R_5R_L\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_L)}}(C_3+C_L)}{R_5+R_L} \\ \text{wo:} \ \sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_L)}} \\ \text{bandwidth:} \ \frac{R_5+R_L}{R_5R_L(C_3+C_L)} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{R_L(R_5g_m-1)}{R_5+R_L} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

3.12 BP-12
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5, R_L\right)$$

$$H(s) = \frac{s \left(L_3 R_3 R_5 R_L g_m - L_3 R_3 R_L \right)}{C_3 L_3 R_3 R_5 R_L s^2 + R_3 R_5 R_L + s \left(L_3 R_3 R_5 + L_3 R_3 R_L + L_3 R_5 R_L \right)}$$

Parameters:

Q:
$$\frac{C_3R_3R_5R_L\sqrt{\frac{1}{C_3L_3}}}{R_3R_5+R_3R_L+R_5R_L}$$
 wo: $\sqrt{\frac{1}{C_3L_3}}$ bandwidth: $\frac{R_3R_5+R_3R_L+R_5R_L}{C_3R_3R_5R_L}$ K-LP: 0 K-HP: 0 K-BP: $\frac{R_3R_L(R_5g_m-1)}{R_3R_5+R_3R_L+R_5R_L}$ Qz: 0 Wz: None

3.13 BP-13
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5, \frac{1}{C_L s}\right)$$

$H(s) = \frac{s \left(L_3 R_3 R_5 g_m - L_3 R_3 \right)}{R_3 R_5 + s^2 \left(C_3 L_3 R_3 R_5 + C_L L_3 R_3 R_5 \right) + s \left(L_3 R_3 + L_3 R_5 \right)}$

Q:
$$\frac{R_3R_5\sqrt{\frac{1}{L_3(C_3+C_L)}}(C_3+C_L)}{R_3+R_5}$$
 wo:
$$\sqrt{\frac{1}{L_3(C_3+C_L)}}$$
 bandwidth:
$$\frac{R_3+R_5}{R_3R_5(C_3+C_L)}$$
 K-LP: 0 K-HP: 0 K-BP:
$$\frac{R_3(R_5g_m-1)}{R_3+R_5}$$
 Qz: 0 Wz: None

3.14 BP-14
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{s\left(L_{3}R_{3}R_{5}R_{L}g_{m} - L_{3}R_{3}R_{L}\right)}{R_{3}R_{5}R_{L} + s^{2}\left(C_{3}L_{3}R_{3}R_{5}R_{L} + C_{L}L_{3}R_{3}R_{5}R_{L}\right) + s\left(L_{3}R_{3}R_{5} + L_{3}R_{3}R_{L} + L_{3}R_{5}R_{L}\right)}$$

$$\begin{array}{l} \text{Q:} \ \frac{R_3R_5R_L\sqrt{\frac{1}{L_3(C_3+C_L)}}(C_3+C_L)}{R_3R_5+R_3R_L+R_5R_L} \\ \text{wo:} \ \sqrt{\frac{1}{L_3(C_3+C_L)}} \\ \text{bandwidth:} \ \frac{R_3R_5+R_3R_L+R_5R_L}{R_3R_5R_L(C_3+C_L)} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{R_3R_L(R_5g_m-1)}{R_3R_5+R_3R_L+R_5R_L} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

3.15 BP-15
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{s \left(L_3 L_L R_3 R_5 g_m - L_3 L_L R_3 \right)}{L_3 R_3 R_5 + L_L R_3 R_5 + s^2 \left(C_3 L_3 L_L R_3 R_5 + C_L L_3 L_L R_3 R_5 \right) + s \left(L_3 L_L R_3 + L_3 L_L R_5 \right)}$$

Parameters:

$$\begin{array}{c} \text{Q:} \ \frac{R_3R_5\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_L)}}(C_3+C_L)}{R_3+R_5}\\ \text{wo:} \ \sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_L)}}\\ \text{bandwidth:} \ \frac{R_3+R_5}{R_3R_5(C_3+C_L)}\\ \text{K-LP:} \ 0\\ \text{K-HP:} \ 0\\ \text{K-BP:} \ \frac{R_3(R_5g_m-1)}{R_3+R_5}\\ \text{Qz:} \ 0\\ \text{Wz:} \ \text{None} \end{array}$$

3.16 BP-16
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{s\left(L_{3}L_{L}R_{3}R_{5}R_{L}g_{m} - L_{3}L_{L}R_{3}R_{L}\right)}{L_{3}R_{3}R_{5}R_{L} + L_{L}R_{3}R_{5}R_{L} + s^{2}\left(C_{3}L_{3}L_{L}R_{3}R_{5}R_{L} + C_{L}L_{3}L_{L}R_{3}R_{5}R_{L}\right) + s\left(L_{3}L_{L}R_{3}R_{5} + L_{3}L_{L}R_{3}R_{L} + L_{3}L_{L}R_{5}R_{L}\right)}$$

$$\begin{array}{l} \text{Q:} \ \frac{R_3R_5R_L\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_L)}}(C_3+C_L)}{R_3R_5+R_3R_L+R_5R_L}\\ \text{wo:} \ \sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_L)}}\\ \text{bandwidth:} \ \frac{R_3R_5+R_3R_L+R_5R_L}{R_3R_5R_L(C_3+C_L)}\\ \text{K-LP:} \ 0\\ \text{K-HP:} \ 0\\ \text{K-BP:} \ \frac{R_3R_L(R_5g_m-1)}{R_3R_5+R_3R_L+R_5R_L}\\ \text{Qz:} \ 0\\ \text{Wz:} \ \text{None} \end{array}$$

- 4 LP
- 5 BS

5.1 BS-1
$$Z(s) = \left(\infty, \infty, R_3, \infty, R_5, L_L s + \frac{1}{C_L s}\right)$$

$$\begin{array}{l} \text{Q:} \ \frac{L_L\sqrt{\frac{1}{C_LL_L}}(R_3 + R_5)}{R_3R_5} \\ \text{wo:} \ \sqrt{\frac{1}{C_LL_L}} \\ \text{bandwidth:} \ \frac{R_3R_5}{L_L(R_3 + R_5)} \\ \text{K-LP:} \ \frac{R_3(R_5g_m - 1)}{R_3 + R_5} \\ \text{K-HP:} \ \frac{R_3(R_5g_m - 1)}{R_3 + R_5} \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \sqrt{\frac{1}{C_LL_L}} \end{array}$$

5.2 BS-2
$$Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{L_L\sqrt{\frac{1}{C_LL_L}}(R_3R_5 + R_3R_L + R_5R_L)}{R_3R_5R_L} \\ \text{wo:} \ \sqrt{\frac{1}{C_LL_L}} \\ \text{bandwidth:} \ \frac{R_3R_5R_L}{L_L(R_3R_5 + R_3R_L + R_5R_L)} \\ \text{K-LP:} \ \frac{R_3R_L(R_5g_m - 1)}{R_3R_5 + R_3R_L + R_5R_L} \\ \text{K-HP:} \ \frac{R_3R_L(R_5g_m - 1)}{R_3R_5 + R_3R_L + R_5R_L} \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \sqrt{\frac{1}{C_LL_L}} \end{array}$$

5.3 BS-3
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5, R_L\right)$$

$$\begin{aligned} &\text{Q:} \ \frac{L_3\sqrt{\frac{1}{C_3L_3}}(R_5 + R_L)}{R_5R_L} \\ &\text{wo:} \ \sqrt{\frac{1}{C_3L_3}} \\ &\text{bandwidth:} \ \frac{R_5R_L}{L_3(R_5 + R_L)} \\ &\text{K-LP:} \ \frac{R_L(R_5g_m - 1)}{R_5 + R_L} \\ &\text{K-HP:} \ \frac{R_L(R_5g_m - 1)}{R_5 + R_L} \\ &\text{K-BP:} \ 0 \\ &\text{Qz:} \ \text{None} \\ &\text{Wz:} \ \sqrt{\frac{1}{C_3L_3}} \end{aligned}$$

5.4 BS-4
$$Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5, R_L\right)$$

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s^2 (C_L L_L R_3 R_5 g_m - C_L L_L R_3)}{C_L R_3 R_5 s + R_3 + R_5 + s^2 (C_L L_L R_3 + C_L L_L R_5)}$$

$$H(s) = \frac{R_3 R_5 R_L g_m - R_3 R_L + s^2 \left(C_L L_L R_3 R_5 R_L g_m - C_L L_L R_3 R_L \right)}{C_L R_3 R_5 R_L s + R_3 R_5 + R_3 R_L + R_5 R_L + s^2 \left(C_L L_L R_3 R_5 + C_L L_L R_3 R_L + C_L L_L R_5 R_L \right)}$$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^2 \left(C_3 L_3 R_5 R_L g_m - C_3 L_3 R_L \right)}{C_3 R_5 R_L s + R_5 + R_L + s^2 \left(C_3 L_3 R_5 + C_3 L_3 R_L \right)}$$

$$H(s) = \frac{R_3 R_5 R_L g_m - R_3 R_L + s^2 \left(C_3 L_3 R_3 R_5 R_L g_m - C_3 L_3 R_3 R_L \right)}{C_3 R_3 R_5 R_L s + R_3 R_5 + R_3 R_L + R_5 R_L + s^2 \left(C_3 L_3 R_3 R_5 + C_3 L_3 R_3 R_L + C_3 L_3 R_5 R_L \right)}$$

$$\begin{array}{l} \text{Q:} \ \frac{L_3\sqrt{\frac{1}{C_3L_3}}(R_3R_5 + R_3R_L + R_5R_L)}{R_3R_5R_L} \\ \text{wo:} \ \sqrt{\frac{1}{C_3L_3}} \\ \text{bandwidth:} \ \frac{R_3R_5R_L}{L_3(R_3R_5 + R_3R_L + R_5R_L)} \\ \text{K-LP:} \ \frac{R_3R_L(R_5g_m - 1)}{R_3R_5 + R_3R_L + R_5R_L} \\ \text{K-HP:} \ \frac{R_3R_L(R_5g_m - 1)}{R_3R_5 + R_3R_L + R_5R_L} \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \sqrt{\frac{1}{C_3L_3}} \end{array}$$

6 **GE**

6.1 GE-1
$$Z(s) = \left(\infty, \infty, R_3, \infty, R_5, L_L s + R_L + \frac{1}{C_L s}\right)$$

Parameters:

$$\begin{aligned} &\text{Q: } \frac{L_L \sqrt{\frac{1}{C_L L_L}} (R_3 + R_5)}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ &\text{wo: } \sqrt{\frac{1}{C_L L_L}} \\ &\text{bandwidth: } \frac{R_3 R_5 + R_3 R_L + R_5 R_L}{L_L (R_3 + R_5)} \\ &\text{K-LP: } \frac{R_3 (R_5 g_m - 1)}{R_3 + R_5} \\ &\text{K-HP: } \frac{R_3 (R_5 g_m - 1)}{R_3 + R_5} \\ &\text{K-BP: } \frac{R_3 R_L (R_5 g_m - 1)}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ &\text{Qz: } \frac{L_L \sqrt{\frac{1}{C_L L_L}}}{R_L} \\ &\text{Wz: } \sqrt{\frac{1}{C_L L_L}} \end{aligned}$$

6.2 GE-2
$$Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$\begin{aligned} & \text{Q:} \ \frac{C_L \sqrt{\frac{1}{C_L L_L}}}{R_3 + R_5} (R_3 R_5 + R_3 R_L + R_5 R_L) \\ & \text{wo:} \ \sqrt{\frac{1}{C_L L_L}} \\ & \text{bandwidth:} \ \frac{R_3 + R_5}{C_L (R_3 R_5 + R_3 R_L + R_5 R_L)} \\ & \text{K-LP:} \ \frac{R_3 R_L (R_5 g_m - 1)}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ & \text{K-HP:} \ \frac{R_3 R_L (R_5 g_m - 1)}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ & \text{K-BP:} \ \frac{R_3 (R_5 g_m - 1)}{R_3 + R_5} \\ & \text{Qz:} \ C_L R_L \sqrt{\frac{1}{C_L L_L}} \end{aligned}$$

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s^2 \left(C_L L_L R_3 R_5 g_m - C_L L_L R_3 \right) + s \left(C_L R_3 R_5 R_L g_m - C_L R_3 R_L \right)}{R_3 + R_5 + s^2 \left(C_L L_L R_3 + C_L L_L R_5 \right) + s \left(C_L R_3 R_5 + C_L R_3 R_L + C_L R_5 R_L \right)}$$

$$H(s) = \frac{R_3 R_5 R_L g_m - R_3 R_L + s^2 \left(C_L L_L R_3 R_5 R_L g_m - C_L L_L R_3 R_L \right) + s \left(L_L R_3 R_5 g_m - L_L R_3 \right)}{R_3 R_5 + R_3 R_L + R_5 R_L + s^2 \left(C_L L_L R_3 R_5 + C_L L_L R_3 R_L + C_L L_L R_5 R_L \right) + s \left(L_L R_3 + L_L R_5 \right)}$$

6.3 GE-3
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + \frac{1}{C_5 s}, R_L\right)$$

$$Q: \frac{L_5\sqrt{\frac{1}{C_5L_5}}(R_3 + R_L)}{R_3R_L}$$
 wo: $\sqrt{\frac{1}{C_5L_5}}$ bandwidth: $\frac{R_3R_L}{L_5(R_3 + R_L)}$ K-LP: $\frac{R_3R_Lg_m}{R_3 + R_L}$ K-HP: $\frac{R_3R_Lg_m}{R_3 + R_L}$ K-BP: -1 Qz: $-L_5g_m\sqrt{\frac{1}{C_5L_5}}$ Wz: $\sqrt{\frac{1}{C_5L_5}}$

6.4 GE-4
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L\right)$$

Parameters:

$$\begin{aligned} &\text{Q: } \frac{C_5 R_3 R_L \sqrt{\frac{1}{C_5 L_5}}}{R_3 + R_L} \\ &\text{wo: } \sqrt{\frac{1}{C_5 L_5}} \\ &\text{bandwidth: } \frac{R_3 + R_L}{C_5 R_3 R_L} \\ &\text{K-LP: } -1 \\ &\text{K-HP: } -1 \\ &\text{K-BP: } \frac{R_3 R_L g_m}{R_3 + R_L} \\ &\text{Qz: } -\frac{C_5 \sqrt{\frac{1}{C_5 L_5}}}{g_m} \\ &\text{Wz: } \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

6.5 GE-5
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L\right)$$

$$\begin{aligned} &\text{Q: } \frac{L_5\sqrt{\frac{1}{C_5L_5}}(R_3+R_L)}{R_3R_5+R_3R_L+R_5R_L} \\ &\text{wo: } \sqrt{\frac{1}{C_5L_5}} \\ &\text{bandwidth: } \frac{R_3R_5+R_3R_L+R_5R_L}{L_5(R_3+R_L)} \\ &\text{K-LP: } \frac{R_3R_Lg_m}{R_3+R_L} \\ &\text{K-HP: } \frac{R_3R_Lg_m}{R_3+R_L} \\ &\text{K-HP: } \frac{R_3R_Lg_m}{R_3+R_L} \\ &\text{K-BP: } \frac{R_3R_L(R_5g_m-1)}{R_3R_5+R_3R_L+R_5R_L} \\ &\text{Qz: } \frac{L_5g_m\sqrt{\frac{1}{C_5L_5}}}{R_5g_m-1} \\ &\text{Wz: } \sqrt{\frac{1}{C_5L_5}} \end{aligned}$$

$$H(s) = \frac{C_5 L_5 R_3 R_L g_m s^2 - C_5 R_3 R_L s + R_3 R_L g_m}{C_5 R_3 R_L s + R_3 + R_L + s^2 (C_5 L_5 R_3 + C_5 L_5 R_L)}$$

$$H(s) = \frac{-C_5 L_5 R_3 R_L s^2 + L_5 R_3 R_L g_m s - R_3 R_L}{C_5 L_5 R_3 R_L s^2 + R_3 R_L + s \left(L_5 R_3 + L_5 R_L\right)}$$

$$H(s) = \frac{C_5 L_5 R_3 R_L g_m s^2 + R_3 R_L g_m + s \left(C_5 R_3 R_5 R_L g_m - C_5 R_3 R_L\right)}{R_3 + R_L + s^2 \left(C_5 L_5 R_3 + C_5 L_5 R_L\right) + s \left(C_5 R_3 R_5 + C_5 R_3 R_L + C_5 R_5 R_L\right)}$$

6.6 GE-6
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L\right)$$

 $H(s) = \frac{-C_5L_5R_3R_5R_Ls^2 - R_3R_5R_L + s\left(L_5R_3R_5R_Lg_m - L_5R_3R_L\right)}{C_5L_5R_3R_5R_Ls^2 + R_3R_5R_L + s\left(L_5R_3R_5 + L_5R_3R_L + L_5R_5R_L\right)}$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_5 R_3 R_5 R_L \sqrt{\frac{1}{C_5 L_5}}}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{C_5 L_5}} \\ & \text{bandwidth:} \ \frac{R_3 R_5 + R_3 R_L + R_5 R_L}{C_5 R_3 R_5 R_L} \\ & \text{K-LP:} \ -1 \\ & \text{K-HP:} \ -1 \\ & \text{K-BP:} \ \frac{R_3 R_L (R_5 g_m - 1)}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ & \text{Qz:} \ -\frac{C_5 R_5 \sqrt{\frac{1}{C_5 L_5}}}{R_5 g_m - 1} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

6.7 GE-7
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L\right)$$

Parameters:

$$\begin{aligned} & \text{Q:} & \frac{C_5 \sqrt{\frac{1}{C_5 L_5}} (R_3 R_5 + R_3 R_L + R_5 R_L)}{R_3 + R_L} \\ & \text{wo:} & \sqrt{\frac{1}{C_5 L_5}} \\ & \text{bandwidth:} & \frac{R_3 + R_L}{C_5 (R_3 R_5 + R_3 R_L + R_5 R_L)} \\ & \text{K-LP:} & \frac{R_3 R_L (R_5 g_m - 1)}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ & \text{K-HP:} & \frac{R_3 R_L (R_5 g_m - 1)}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ & \text{K-BP:} & \frac{R_3 R_L g_m}{R_3 + R_L} \\ & \text{Qz:} & \frac{C_5 \sqrt{\frac{1}{C_5 L_5}} (R_5 g_m - 1)}{g_m} \\ & \text{Wz:} & \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

6.8 GE-8
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, R_L\right)$$

$$\begin{aligned} & \text{Q:} \ \frac{L_5\sqrt{\frac{1}{C_5L_5}}(R_3R_5 + R_3R_L + R_5R_L)}{R_3R_5R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{C_5L_5}} \\ & \text{bandwidth:} \ \frac{R_3R_5R_L}{L_5(R_3R_5 + R_3R_L + R_5R_L)} \\ & \text{K-LP:} \ \frac{R_3R_L(R_5g_m - 1)}{R_3R_5 + R_3R_L + R_5R_L} \\ & \text{K-HP:} \ \frac{R_3R_L(R_5g_m - 1)}{R_3R_5 + R_3R_L + R_5R_L} \\ & \text{K-BP:} \ -1 \\ & \text{Qz:} \ \frac{L_5\sqrt{\frac{1}{C_5L_5}}(-R_5g_m + 1)}{R_5} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5L_5}} \end{aligned}$$

$$H(s) = \frac{L_5 R_3 R_L g_m s + R_3 R_5 R_L g_m - R_3 R_L + s^2 \left(C_5 L_5 R_3 R_5 R_L g_m - C_5 L_5 R_3 R_L\right)}{R_3 R_5 + R_3 R_L + R_5 R_L + s^2 \left(C_5 L_5 R_3 R_5 + C_5 L_5 R_3 R_L + C_5 L_5 R_5 R_L\right) + s \left(L_5 R_3 + L_5 R_L\right)}$$

$$H(s) = \frac{-C_5 R_3 R_5 R_L s + R_3 R_5 R_L g_m - R_3 R_L + s^2 \left(C_5 L_5 R_3 R_5 R_L g_m - C_5 L_5 R_3 R_L\right)}{C_5 R_3 R_5 R_L s + R_3 R_5 + R_3 R_L + R_5 R_L + s^2 \left(C_5 L_5 R_3 R_5 + C_5 L_5 R_3 R_L + C_5 L_5 R_5 R_L\right)}$$

6.9 GE-9
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, R_L\right)$$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^2 \left(C_3 L_3 R_5 R_L g_m - C_3 L_3 R_L \right) + s \left(C_3 R_3 R_5 R_L g_m - C_3 R_3 R_L \right)}{R_5 + R_L + s^2 \left(C_3 L_3 R_5 + C_3 L_3 R_L \right) + s \left(C_3 R_3 R_5 + C_3 R_3 R_L + C_3 R_5 R_L \right)}$$

Q:
$$\frac{L_{3}\sqrt{\frac{1}{C_{3}L_{3}}}(R_{5}+R_{L})}{R_{3}R_{5}+R_{3}R_{L}+R_{5}R_{L}}$$
wo:
$$\sqrt{\frac{1}{C_{3}L_{3}}}$$
bandwidth:
$$\frac{R_{3}R_{5}+R_{3}R_{L}+R_{5}R_{L}}{L_{3}(R_{5}+R_{L})}$$
K-LP:
$$\frac{R_{L}(R_{5}g_{m}-1)}{R_{5}+R_{L}}$$
K-HP:
$$\frac{R_{L}(R_{5}g_{m}-1)}{R_{5}+R_{L}}$$
K-BP:
$$\frac{R_{3}R_{L}(R_{5}g_{m}-1)}{R_{3}R_{5}+R_{3}R_{L}+R_{5}R_{L}}$$
Qz:
$$\frac{L_{3}\sqrt{\frac{1}{C_{3}L_{3}}}}{R_{3}}$$
Wz:
$$\sqrt{\frac{1}{C_{3}L_{3}}}$$

6.10 GE-10
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, R_5, R_L\right)$$

$$T(s) = \frac{R_3 R_5 R_L g_m - R_3 R_L + s^2 \left(C_3 L_3 R_3 R_5 R_L g_m - C_3 L_3 R_3 R_L \right) + s \left(L_3 R_5 R_L g_m - L_3 R_L \right)}{R_3 R_5 + R_3 R_L + R_5 R_L + s^2 \left(C_3 L_3 R_3 R_5 + C_3 L_3 R_3 R_L + C_3 L_3 R_5 R_L \right) + s \left(L_3 R_5 + L_3 R_L \right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_3\sqrt{\frac{1}{C_3L_3}}(R_3R_5 + R_3R_L + R_5R_L)}{R_5 + R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{C_3L_3}} \\ & \text{bandwidth:} \ \frac{R_5 + R_L}{C_3(R_3R_5 + R_3R_L + R_5R_L)} \\ & \text{K-LP:} \ \frac{R_3R_L(R_5g_m - 1)}{R_3R_5 + R_3R_L + R_5R_L} \\ & \text{K-HP:} \ \frac{R_3R_L(R_5g_m - 1)}{R_3R_5 + R_3R_L + R_5R_L} \\ & \text{K-BP:} \ \frac{R_L(R_5g_m - 1)}{R_5 + R_L} \\ & \text{Qz:} \ C_3R_3\sqrt{\frac{1}{C_3L_3}} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_3L_3}} \end{aligned}$$

7 AP

8 INVALID-NUMER

8.1 INVALID-NUMER-1
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_5 L_L R_3 s^2 + L_L R_3 g_m s}{L_L s + R_3 + s^2 \left(C_5 L_L R_3 + C_L L_L R_3\right)}$$

Q:
$$R_3 \sqrt{\frac{1}{L_L(C_5 + C_L)}} (C_5 + C_L)$$

wo: $\sqrt{\frac{1}{L_L(C_5 + C_L)}}$
bandwidth: $\frac{1}{R_3(C_5 + C_L)}$
K-LP: 0
K-HP: $-\frac{C_5}{C_5 + C_L}$
K-BP: $R_3 g_m$
Qz: $-\frac{C_5 \sqrt{\frac{1}{L_L(C_5 + C_L)}}}{g_m}$

8.2 INVALID-NUMER-2
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{-C_5L_LR_3R_Ls^2 + L_LR_3R_Lg_ms}{R_3R_L + s^2\left(C_5L_LR_3R_L + C_LL_LR_3R_L\right) + s\left(L_LR_3 + L_LR_L\right)}$$

$$\begin{array}{l} \text{Q:} \ \frac{R_3R_L\sqrt{\frac{1}{L_L(C_5+C_L)}}(C_5+C_L)}{R_3+R_L} \\ \text{wo:} \ \sqrt{\frac{1}{L_L(C_5+C_L)}} \\ \text{bandwidth:} \ \frac{R_3+R_L}{R_3R_L(C_5+C_L)} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ -\frac{C_5}{C_5+C_L} \\ \text{K-BP:} \ \frac{R_3R_Lg_m}{R_3+R_L} \\ \text{Qz:} \ -\frac{C_5\sqrt{\frac{1}{L_L(C_5+C_L)}}}{g_m} \\ \text{Wz:} \ \text{None} \end{array}$$

8.3 INVALID-NUMER-3 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{-C_5 L_L R_3 R_5 s^2 + s \left(L_L R_3 R_5 g_m - L_L R_3 \right)}{R_3 R_5 + s^2 \left(C_5 L_L R_3 R_5 + C_L L_L R_3 R_5 \right) + s \left(L_L R_3 + L_L R_5 \right)}$$

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{R_3R_5\sqrt{\frac{1}{L_L(C_5+C_L)}}(C_5+C_L)}{R_3+R_5} \\ \text{wo:} \ \sqrt{\frac{1}{L_L(C_5+C_L)}} \\ \text{bandwidth:} \ \frac{R_3+R_5}{R_3R_5(C_5+C_L)} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ -\frac{C_5}{C_5+C_L} \\ \text{K-BP:} \ \frac{R_3(R_5g_m-1)}{R_3+R_5} \\ \text{Qz:} \ -\frac{C_5R_5\sqrt{\frac{1}{L_L(C_5+C_L)}}}{R_5g_m-1} \\ \text{Wz:} \ \text{None} \end{array}$$

8.4 INVALID-NUMER-4 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{-C_5L_LR_3R_5R_Ls^2 + s\left(L_LR_3R_5R_Lg_m - L_LR_3R_L\right)}{R_3R_5R_L + s^2\left(C_5L_LR_3R_5R_L + C_LL_LR_3R_5R_L\right) + s\left(L_LR_3R_5 + L_LR_3R_L + L_LR_5R_L\right)}$$

$$\begin{aligned} & \text{Q:} \ \frac{R_3 R_5 R_L \sqrt{\frac{1}{L_L (C_5 + C_L)}} (C_5 + C_L)}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{L_L (C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{R_3 R_5 + R_3 R_L + R_5 R_L}{R_3 R_5 R_L (C_5 + C_L)} \\ & \text{K-LP:} \ 0 \\ & \text{K-HP:} \ -\frac{C_5}{C_5 + C_L} \\ & \text{K-BP:} \ \frac{R_3 R_L (R_5 g_m - 1)}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ & \text{Qz:} \ -\frac{C_5 R_5 \sqrt{\frac{1}{L_L (C_5 + C_L)}}}{R_5 g_m - 1} \\ & \text{Wz:} \ \text{None} \end{aligned}$$

8.5 INVALID-NUMER-5 $Z(s) = \left(\infty, \infty, R_3, \infty, R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 g_m + s \left(C_5 R_3 R_5 g_m - C_5 R_3\right)}{C_5 C_L R_3 R_5 s^2 + s \left(C_5 R_3 + C_5 R_5 + C_L R_3\right) + 1}$$

Parameters:

$$\begin{aligned} &\text{Q: } \frac{C_5C_LR_3R_5\sqrt{\frac{1}{C_5C_LR_3R_5}}}{C_5R_3+C_5R_5+C_LR_3} \\ &\text{wo: } \sqrt{\frac{1}{C_5C_LR_3R_5}} \\ &\text{bandwidth: } \frac{C_5R_3+C_5R_5+C_LR_3}{C_5C_LR_3R_5} \\ &\text{K-LP: } R_3g_m \\ &\text{K-HP: } 0 \\ &\text{K-BP: } \frac{C_5R_3(R_5g_m-1)}{C_5R_3+C_5R_5+C_LR_3} \\ &\text{Qz: } 0 \\ &\text{Wz: None} \end{aligned}$$

8.6 INVALID-NUMER-6 $Z(s) = \left(\infty, \infty, R_3, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_3 R_L g_m + s \left(C_5 R_3 R_5 R_L g_m - C_5 R_3 R_L \right)}{C_5 C_L R_3 R_5 R_L s^2 + R_3 + R_L + s \left(C_5 R_3 R_5 + C_5 R_3 R_L + C_5 R_5 R_L + C_L R_3 R_L \right)}$$

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_5C_LR_3R_5R_L\sqrt{\frac{R_3+R_L}{C_5C_LR_3R_5R_L}}}{C_5R_3R_5+C_5R_3R_L+C_5R_5R_L+C_LR_3R_L} \\ \text{wo:} \ \sqrt{\frac{R_3+R_L}{C_5C_LR_3R_5R_L}} \\ \text{bandwidth:} \ \frac{C_5R_3R_5+C_5R_3R_L+C_5R_5R_L+C_LR_3R_L}{C_5C_LR_3R_5R_L} \\ \text{K-LP:} \ \frac{R_3R_Lg_m}{R_3+R_L} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_5R_3R_L(R_5g_m-1)}{C_5R_3R_5+C_5R_3R_L+C_5R_5R_L+C_LR_3R_L} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

8.7 INVALID-NUMER-7 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_5 g_m + s \left(C_L R_5 R_L g_m - C_L R_L \right) - 1}{C_3 C_L R_5 R_L s^2 + s \left(C_3 R_5 + C_L R_5 + C_L R_L \right) + 1}$$

Parameters:

$$\begin{aligned} &\text{Q: } \frac{C_3C_LR_5R_L\sqrt{\frac{1}{C_3C_LR_5R_L}}}{C_3R_5+C_LR_5+C_LR_L} \\ &\text{wo: } \sqrt{\frac{1}{C_3C_LR_5R_L}} \\ &\text{bandwidth: } \frac{1}{C_3C_LR_5R_L} \\ &\text{bandwidth: } \frac{C_3R_5+C_LR_5+C_LR_L}{C_3C_LR_5R_L} \\ &\text{K-LP: } R_5g_m - 1 \\ &\text{K-HP: } 0 \\ &\text{K-BP: } \frac{C_LR_L(R_5g_m-1)}{C_3R_5+C_LR_5+C_LR_L} \\ &\text{Qz: } 0 \\ &\text{Wz: None} \end{aligned}$$

8.8 INVALID-NUMER-8 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{-C_5 L_L R_L s^2 + L_L R_L g_m s}{L_L s + R_L + s^2 \left(C_3 L_L R_L + C_5 L_L R_L + C_L L_L R_L \right)}$$

Q:
$$R_L \sqrt{\frac{1}{L_L(C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)$$

wo:
$$\sqrt{\frac{1}{L_L(C_3+C_5+C_L)}}$$
 bandwidth: $\frac{1}{R_L(C_3+C_5+C_L)}$ K-LP: 0 K-HP: $-\frac{C_5}{C_3+C_5+C_L}$ K-BP: R_Lg_m Qz: $-\frac{C_5\sqrt{\frac{1}{L_L(C_3+C_5+C_L)}}}{g_m}$ Wz: None

8.9 INVALID-NUMER-9 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{-C_5 L_L R_5 s^2 + s \left(L_L R_5 g_m - L_L \right)}{L_L s + R_5 + s^2 \left(C_3 L_L R_5 + C_5 L_L R_5 + C_L L_L R_5 \right)}$$

Parameters:

Q:
$$R_5\sqrt{\frac{1}{L_L(C_3+C_5+C_L)}}$$
 $(C_3+C_5+C_L)$
wo: $\sqrt{\frac{1}{L_L(C_3+C_5+C_L)}}$
bandwidth: $\frac{1}{R_5(C_3+C_5+C_L)}$
K-LP: 0
K-HP: $-\frac{C_5}{C_3+C_5+C_L}$
K-BP: R_5g_m-1
Qz: $-\frac{C_5R_5\sqrt{\frac{1}{L_L(C_3+C_5+C_L)}}}{R_5g_m-1}$
Wz: None

8.10 INVALID-NUMER-10 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{-C_5 L_L R_5 R_L s^2 + s \left(L_L R_5 R_L g_m - L_L R_L \right)}{R_5 R_L + s^2 \left(C_3 L_L R_5 R_L + C_5 L_L R_5 R_L + C_L L_L R_5 R_L \right) + s \left(L_L R_5 + L_L R_L \right)}$$

Parameters:

$$Q \colon \frac{R_5 R_L \sqrt{\frac{1}{L_L (C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_5 + R_L}$$
 wo: $\sqrt{\frac{1}{L_L (C_3 + C_5 + C_L)}}$ bandwidth: $\frac{R_5 + R_L}{R_5 R_L (C_3 + C_5 + C_L)}$ K-LP: 0 K-HP: $-\frac{C_5}{C_3 + C_5 + C_L}$ K-BP: $\frac{R_L (R_5 g_m - 1)}{R_5 + R_L}$ Qz: $-\frac{C_5 R_5 \sqrt{\frac{1}{L_L (C_3 + C_5 + C_L)}}}{R_5 g_m - 1}$ Wz: None

8.11 INVALID-NUMER-11 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, R_L\right)$

$$H(s) = \frac{R_L g_m + s \left(C_5 R_5 R_L g_m - C_5 R_L\right)}{C_3 C_5 R_5 R_L s^2 + s \left(C_3 R_L + C_5 R_5 + C_5 R_L\right) + 1}$$

$$\begin{aligned} &\text{Q: } \frac{C_3C_5R_5R_L\sqrt{\frac{1}{C_3C_5R_5R_L}}}{C_3R_L+C_5R_5+C_5R_L} \\ &\text{wo: } \sqrt{\frac{1}{C_3C_5R_5R_L}} \\ &\text{bandwidth: } \frac{C_3R_L+C_5R_5+C_5R_L}{C_3C_5R_5R_L} \\ &\text{K-LP: } R_Lg_m \\ &\text{K-HP: 0} \\ &\text{K-BP: } \frac{C_5R_L(R_5g_m-1)}{C_3R_L+C_5R_5+C_5R_L} \\ &\text{Qz: 0} \end{aligned}$$

8.12 INVALID-NUMER-12
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m + s \left(C_5 R_5 R_L g_m - C_5 R_L\right)}{s^2 \left(C_3 C_5 R_5 R_L + C_5 C_L R_5 R_L\right) + s \left(C_3 R_L + C_5 R_5 + C_5 R_L + C_L R_L\right) + 1}$$

Q: $\frac{C_5R_5R_L\sqrt{\frac{1}{C_5R_5R_L(C_3+C_L)}}(C_3+C_L)}{C_3R_L+C_5R_5+C_5R_L+C_LR_L}$ wo: $\sqrt{\frac{1}{C_5R_5R_L(C_3+C_L)}}$ bandwidth: $\frac{C_3R_L+C_5R_5+C_5R_L+C_LR_L}{C_5R_5R_L(C_3+C_L)}$ K-LP: R_Lg_m K-HP: 0 K-BP: $\frac{C_5R_L(R_5g_m-1)}{C_3R_L+C_5R_5+C_5R_L+C_LR_L}$ Qz: 0

8.13 INVALID-NUMER-13 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s \left(C_L R_3 R_5 R_L g_m - C_L R_3 R_L \right)}{C_3 C_L R_3 R_5 R_L s^2 + R_3 + R_5 + s \left(C_3 R_3 R_5 + C_L R_3 R_5 + C_L R_3 R_L + C_L R_5 R_L \right)}$$

Parameters:

Wz: None

Q:
$$\frac{C_3C_LR_3R_5R_L\sqrt{\frac{R_3+R_5}{C_3C_LR_3R_5R_L}}}{C_3R_3R_5+C_LR_3R_5+C_LR_3R_L+C_LR_5R_L}$$
 wo:
$$\sqrt{\frac{R_3+R_5}{C_3C_LR_3R_5R_L}}$$
 bandwidth:
$$\frac{C_3R_3R_5+C_LR_3R_5+C_LR_3R_L+C_LR_5R_L}{C_3C_LR_3R_5R_L}$$
 K-LP:
$$\frac{R_3(R_5g_m-1)}{R_3+R_5}$$
 K-HP:
$$0$$
 K-BP:
$$\frac{C_LR_3R_L(R_5g_m-1)}{C_3R_3R_5+C_LR_3R_L+C_LR_5R_L}$$
 Qz:
$$0$$
 Wz: None

8.14 INVALID-NUMER-14 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{-C_5 L_L R_3 s^2 + L_L R_3 g_m s}{L_L s + R_3 + s^2 \left(C_3 L_L R_3 + C_5 L_L R_3 + C_L L_L R_3 \right)}$$

$$\begin{array}{l} \text{Q: } R_3\sqrt{\frac{1}{L_L(C_3+C_5+C_L)}}\left(C_3+C_5+C_L\right) \\ \text{wo: } \sqrt{\frac{1}{L_L(C_3+C_5+C_L)}} \\ \text{bandwidth: } \frac{1}{R_3(C_3+C_5+C_L)} \\ \text{K-LP: 0} \\ \text{K-HP: } -\frac{C_5}{C_3+C_5+C_L} \\ \text{K-BP: } R_3g_m \\ \text{Qz: } -\frac{C_5\sqrt{\frac{1}{L_L(C_3+C_5+C_L)}}}{g_m} \\ \text{Wz: None} \end{array}$$

8.15 INVALID-NUMER-15
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{-C_5 L_L R_3 R_L s^2 + L_L R_3 R_L g_m s}{R_3 R_L + s^2 \left(C_3 L_L R_3 R_L + C_5 L_L R_3 R_L + C_L L_L R_3 R_L \right) + s \left(L_L R_3 + L_L R_L \right)}$$

$$\begin{aligned} & \text{Q:} \ \frac{R_3 R_L \sqrt{\frac{1}{L_L (C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_3 + R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{L_L (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{R_3 + R_L}{R_3 R_L (C_3 + C_5 + C_L)} \\ & \text{K-LP:} \ 0 \\ & \text{K-HP:} \ -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP:} \ \frac{R_3 R_L g_m}{R_3 + R_L} \\ & \text{Qz:} \ -\frac{C_5 \sqrt{\frac{1}{L_L (C_3 + C_5 + C_L)}}}{g_m} \\ & \text{Wz:} \ \text{None} \end{aligned}$$

8.16 INVALID-NUMER-16 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{-C_5L_LR_3R_5s^2 + s\left(L_LR_3R_5g_m - L_LR_3\right)}{R_3R_5 + s^2\left(C_3L_LR_3R_5 + C_5L_LR_3R_5 + C_LL_LR_3R_5\right) + s\left(L_LR_3 + L_LR_5\right)}$$

Parameters:

$$\begin{aligned} &\text{Q: } \frac{R_3R_5\sqrt{\frac{1}{L_L(C_3+C_5+C_L)}}(C_3+C_5+C_L)}{R_3+R_5}\\ &\text{wo: } \sqrt{\frac{1}{L_L(C_3+C_5+C_L)}}\\ &\text{bandwidth: } \frac{R_3+R_5}{R_3R_5(C_3+C_5+C_L)}\\ &\text{K-LP: } 0\\ &\text{K-HP: } -\frac{C_5}{C_3+C_5+C_L}\\ &\text{K-BP: } \frac{R_3(R_5g_m-1)}{R_3+R_5}\\ &\text{Qz: } -\frac{C_5R_5\sqrt{\frac{1}{L_L(C_3+C_5+C_L)}}}{R_5g_m-1}\\ &\text{Wz: None} \end{aligned}$$

8.17 INVALID-NUMER-17 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{-C_5L_LR_3R_5R_Ls^2 + s\left(L_LR_3R_5R_Lg_m - L_LR_3R_L\right)}{R_3R_5R_L + s^2\left(C_3L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_LL_LR_3R_5R_L\right) + s\left(L_LR_3R_5 + L_LR_3R_L + L_LR_5R_L\right)}$$

$$\begin{array}{l} \text{Q:} \ \frac{R_3R_5R_L\sqrt{\frac{1}{L_L(C_3+C_5+C_L)}}(C_3+C_5+C_L)}{R_3R_5+R_3R_L+R_5R_L} \\ \text{wo:} \ \sqrt{\frac{1}{L_L(C_3+C_5+C_L)}} \\ \text{bandwidth:} \ \frac{R_3R_5+R_3R_L+R_5R_L}{R_3R_5R_L(C_3+C_5+C_L)} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ -\frac{C_5}{C_3+C_5+C_L} \\ \text{K-BP:} \ \frac{R_3R_L(R_5g_m-1)}{R_3R_5+R_3R_L+R_5R_L} \\ \text{Qz:} \ -\frac{C_5R_5\sqrt{\frac{1}{L_L(C_3+C_5+C_L)}}}{R_5g_m-1} \\ \text{Wz:} \ \text{None} \end{array}$$

8.18 INVALID-NUMER-18 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, R_L\right)$

$$H(s) = \frac{R_3 R_L g_m + s \left(C_5 R_3 R_5 R_L g_m - C_5 R_3 R_L \right)}{C_3 C_5 R_3 R_5 R_L s^2 + R_3 + R_L + s \left(C_3 R_3 R_L + C_5 R_3 R_5 + C_5 R_3 R_L + C_5 R_5 R_L \right)}$$

Parameters:

Q: $\frac{C_3C_5R_3R_5R_L\sqrt{\frac{R_3+R_L}{C_3C_5R_3R_5R_L}}}{C_3R_3R_L+C_5R_3R_5+C_5R_3R_L+C_5R_5R_L}$ wo: $\sqrt{\frac{R_3+R_L}{C_3C_5R_3R_5R_L}}$ bandwidth: $\frac{C_3R_3R_L+C_5R_3R_5+C_5R_3R_L+C_5R_3R_L+C_5R_5R_L}{C_3C_5R_3R_5R_L}$ K-LP: $\frac{R_3R_Lg_m}{R_3+R_L}$ K-HP: 0 K-BP: $\frac{C_5R_3R_L(R_5g_m-1)}{C_3R_3R_L+C_5R_3R_5+C_5R_3R_L+C_5R_5R_L}$ Qz: 0 Wz: None

8.19 INVALID-NUMER-19 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 g_m + s \left(C_5 R_3 R_5 g_m - C_5 R_3\right)}{s^2 \left(C_3 C_5 R_3 R_5 + C_5 C_L R_3 R_5\right) + s \left(C_3 R_3 + C_5 R_3 + C_5 R_5 + C_L R_3\right) + 1}$$

Parameters:

Q: $\frac{C_5R_3R_5\sqrt{\frac{1}{C_5R_3R_5(C_3+C_L)}}(C_3+C_L)}{C_3R_3+C_5R_3+C_5R_5+C_LR_3}$ wo: $\sqrt{\frac{1}{C_5R_3R_5(C_3+C_L)}}$ bandwidth: $\frac{C_3R_3+C_5R_3+C_5R_5+C_LR_3}{C_5R_3R_5(C_3+C_L)}$ K-LP: R_3g_m K-HP: 0
K-BP: $\frac{C_5R_3(R_5g_m-1)}{C_3R_3+C_5R_3+C_5R_5+C_LR_3}$ Qz: 0
Wz: None

8.20 INVALID-NUMER-20 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_3 R_L g_m + s \left(C_5 R_3 R_5 R_L g_m - C_5 R_3 R_L\right)}{R_3 + R_L + s^2 \left(C_3 C_5 R_3 R_5 R_L + C_5 C_L R_3 R_5 R_L\right) + s \left(C_3 R_3 R_L + C_5 R_3 R_5 + C_5 R_3 R_L + C_5 R_5 R_L + C_L R_3 R_L\right)}$$

Parameters:

 $\begin{array}{l} \mathbf{Q} \colon \frac{C_5 R_3 R_5 R_L \sqrt{\frac{R_3 + R_L}{C_5 R_3 R_5 R_L (C_3 + C_L)}}}{C_3 R_3 R_L + C_5 R_3 R_5 + C_5 R_3 R_L + C_5 R_5 R_L + C_L R_3 R_L}}\\ \mathbf{Wo} \colon \sqrt{\frac{R_3 + R_L}{C_5 R_3 R_5 R_L (C_3 + C_L)}}\\ \mathbf{bandwidth} \colon \frac{C_3 R_3 R_L + C_5 R_3 R_5 + C_5 R_3 R_L + C_5 R_5 R_L + C_L R_3 R_L}{C_5 R_3 R_5 R_L (C_3 + C_L)}\\ \mathbf{K} \text{-LP} \colon \frac{R_3 R_L g_m}{R_3 + R_L}\\ \mathbf{K} \text{-HP} \colon \mathbf{0}\\ \mathbf{K} \text{-BP} \colon \frac{C_5 R_3 R_L (R_5 g_m - 1)}{C_3 R_3 R_L + C_5 R_3 R_L + C_5 R_5 R_L + C_L R_3 R_L}\\ \mathbf{Qz} \colon \mathbf{0}\\ \mathbf{Wz} \colon \mathbf{None} \end{array}$

8.21 INVALID-NUMER-21 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_5 g_m + s \left(C_3 R_3 R_5 g_m - C_3 R_3 \right) - 1}{C_3 C_L R_3 R_5 s^2 + s \left(C_3 R_3 + C_3 R_5 + C_L R_5 \right) + 1}$$

Parameters:

Q: $\frac{C_3C_LR_3R_5\sqrt{\frac{1}{C_3C_LR_3R_5}}}{C_3R_3+C_3R_5+C_LR_5}$

wo:
$$\sqrt{\frac{1}{C_3C_LR_3R_5}}$$

bandwidth: $\frac{C_3R_3+C_3R_5+C_LR_5}{C_3C_LR_3R_5}$
K-LP: $R_5q_m - 1$

K-LP: $R_5 g_m - 1$

K-HP: 0 K-BP: $\frac{C_3R_3(R_5g_m-1)}{C_3R_3+C_3R_5+C_LR_5}$ Qz: 0

Wz: None

8.22 INVALID-NUMER-22 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_5 R_L g_m - R_L + s \left(C_3 R_3 R_5 R_L g_m - C_3 R_3 R_L \right)}{C_3 C_L R_3 R_5 R_L s^2 + R_5 + R_L + s \left(C_3 R_3 R_5 + C_3 R_3 R_L + C_3 R_5 R_L + C_L R_5 R_L \right)}$$

Parameters:

Q:
$$\frac{C_3C_LR_3R_5R_L\sqrt{\frac{R_5+R_L}{C_3C_LR_3R_5R_L}}}{C_3R_3R_5+C_3R_3R_L+C_3R_5R_L+C_LR_5R_L}$$

wo: $\sqrt{\frac{R_5 + R_L}{C_3 C_L R_3 R_5 R_L}}$ bandwidth: $\frac{C_3 R_3 R_5 + C_3 R_3 R_L + C_3 R_5 R_L + C_L R_5 R_L}{C_3 C_L R_3 R_5 R_L}$

K-LP: $\frac{R_L(R_5g_m-1)}{R_5+R_L}$ K-HP: 0

K-III: 0

K-BP: $\frac{C_3R_3R_L(R_5g_m-1)}{C_3R_3R_5+C_3R_3R_L+C_3R_5R_L+C_LR_5R_L}$

Qz: 0 Wz: None

8.23 INVALID-NUMER-23 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{1}{C_5s}, R_L\right)$

$$H(s) = \frac{-C_5 L_3 R_L s^2 + L_3 R_L g_m s}{L_3 s + R_L + s^2 (C_3 L_3 R_L + C_5 L_3 R_L)}$$

Parameters:

Q:
$$R_L \sqrt{\frac{1}{L_3(C_3+C_5)}} (C_3+C_5)$$

wo: $\sqrt{\frac{1}{L_3(C_3+C_5)}}$

bandwidth: $\frac{1}{R_L(C_3+C_5)}$

K-LP: 0 K-HP: $-\frac{C_5}{C_3+C_5}$ K-BP: R_Lg_m

Qz: $-\frac{C_5\sqrt{\frac{1}{L_3(C_3+C_5)}}}{g_m}$ Wz: None

8.24 INVALID-NUMER-24 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{1}{C_5s}, \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{-C_5 L_3 R_L s^2 + L_3 R_L g_m s}{L_3 s + R_L + s^2 \left(C_3 L_3 R_L + C_5 L_3 R_L + C_L L_3 R_L \right)}$$

Parameters:

Q:
$$R_L \sqrt{\frac{1}{L_3(C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)$$

Wo: $\sqrt{\frac{1}{L_3(C_3+C_5+C_L)}}$

bandwidth: $\frac{1}{R_L(C_3+C_5+C_L)}$

K-LP: 0

K-HP: $-\frac{C_5}{C_3 + C_5 + C_L}$ K-BP: $R_L g_m$ Qz: $-\frac{C_5 \sqrt{\frac{1}{L_3(C_3 + C_5 + C_L)}}}{g_m}$ Wz: None

8.25 INVALID-NUMER-25 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{1}{C_5s}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$

$$H(s) = \frac{-C_5L_3L_LR_Ls^2 + L_3L_LR_Lg_ms}{L_3L_Ls + L_3R_L + L_LR_L + s^2\left(C_3L_3L_LR_L + C_5L_3L_LR_L + C_LL_3L_LR_L\right)}$$

Parameters:

$$\begin{array}{l} \text{Q: } R_L \sqrt{\frac{L_3 + L_L}{L_3 L_L (C_3 + C_5 + C_L)}} \left(C_3 + C_5 + C_L \right) \\ \text{wo: } \sqrt{\frac{L_3 + L_L}{L_3 L_L (C_3 + C_5 + C_L)}} \\ \text{bandwidth: } \frac{1}{R_L (C_3 + C_5 + C_L)} \\ \text{K-LP: 0} \\ \text{K-HP: } -\frac{C_5}{C_3 + C_5 + C_L} \\ \text{K-BP: } R_L g_m \\ \text{Qz: } -\frac{C_5 \sqrt{\frac{L_3 + L_L}{L_3 L_L (C_3 + C_5 + C_L)}}}{g_m} \\ \text{Wz: None} \end{array}$$

8.26 INVALID-NUMER-26 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{R_5}{C_5R_5s+1}, R_L\right)$

$$H(s) = \frac{-C_5 L_3 R_5 R_L s^2 + s \left(L_3 R_5 R_L g_m - L_3 R_L\right)}{R_5 R_L + s^2 \left(C_3 L_3 R_5 R_L + C_5 L_3 R_5 R_L\right) + s \left(L_3 R_5 + L_3 R_L\right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{R_5 R_L \sqrt{\frac{1}{L_3 (C_3 + C_5)}} (C_3 + C_5)}{R_5 + R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{L_3 (C_3 + C_5)}} \\ & \text{bandwidth:} \ \frac{R_5 + R_L}{R_5 R_L (C_3 + C_5)} \\ & \text{K-LP:} \ 0 \\ & \text{K-HP:} \ -\frac{C_5}{C_3 + C_5} \\ & \text{K-BP:} \ \frac{R_L (R_5 g_m - 1)}{R_5 + R_L} \\ & \text{Qz:} \ -\frac{C_5 R_5 \sqrt{\frac{1}{L_3 (C_3 + C_5)}}}{R_5 g_m - 1} \\ & \text{Wz:} \ \text{None} \end{aligned}$$

8.27 INVALID-NUMER-27 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{R_5}{C_5R_5s+1}, \frac{1}{C_Ls}\right)$

$$H(s) = \frac{-C_5 L_3 R_5 s^2 + s \left(L_3 R_5 g_m - L_3\right)}{L_3 s + R_5 + s^2 \left(C_3 L_3 R_5 + C_5 L_3 R_5 + C_L L_3 R_5\right)}$$

Parameters:

Q:
$$R_5\sqrt{\frac{1}{L_3(C_3+C_5+C_L)}}$$
 $(C_3+C_5+C_L)$
wo: $\sqrt{\frac{1}{L_3(C_3+C_5+C_L)}}$
bandwidth: $\frac{1}{R_5(C_3+C_5+C_L)}$
K-LP: 0
K-HP: $-\frac{C_5}{C_3+C_5+C_L}$
K-BP: R_5g_m-1
Qz: $-\frac{C_5R_5\sqrt{\frac{1}{L_3(C_3+C_5+C_L)}}}{R_5g_m-1}$
Wz: None

8.28 INVALID-NUMER-28 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{R_5}{C_5R_5s+1}, \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{-C_5 L_3 R_5 R_L s^2 + s \left(L_3 R_5 R_L g_m - L_3 R_L\right)}{R_5 R_L + s^2 \left(C_3 L_3 R_5 R_L + C_5 L_3 R_5 R_L + C_L L_3 R_5 R_L\right) + s \left(L_3 R_5 + L_3 R_L\right)}$$

Q:
$$\frac{R_5R_L\sqrt{\frac{1}{L_3(C_3+C_5+C_L)}}(C_3+C_5+C_L)}{R_5+R_L}$$
 wo:
$$\sqrt{\frac{1}{L_3(C_3+C_5+C_L)}}$$
 bandwidth:
$$\frac{R_5+R_L}{R_5R_L(C_3+C_5+C_L)}$$
 K-LP: 0 K-HP:
$$-\frac{C_5}{C_3+C_5+C_L}$$
 K-BP:
$$\frac{R_L(R_5g_m-1)}{R_5+R_L}$$
 Qz:
$$-\frac{C_5R_5\sqrt{\frac{1}{L_3(C_3+C_5+C_L)}}}{R_5g_m-1}$$
 Wz: None

8.29 INVALID-NUMER-29 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_{3}L_{3s}^{2}+1}, \infty, \frac{R_{5}}{C_{5}R_{5}s+1}, \frac{L_{Ls}}{C_{L}L_{Ls}^{2}+1}\right)$

$$H(s) = \frac{-C_5L_3L_LR_5s^2 + s\left(L_3L_LR_5g_m - L_3L_L\right)}{L_3L_Ls + L_3R_5 + L_LR_5 + s^2\left(C_3L_3L_LR_5 + C_5L_3L_LR_5 + C_LL_3L_LR_5\right)}$$

Parameters:

Q:
$$R_5\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_5+C_L)}}$$
 $(C_3+C_5+C_L)$
wo: $\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_5+C_L)}}$
bandwidth: $\frac{1}{R_5(C_3+C_5+C_L)}$
K-LP: 0
K-HP: $-\frac{C_5}{C_3+C_5+C_L}$
K-BP: R_5g_m-1
Qz: $-\frac{C_5R_5\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_5+C_L)}}}{R_5g_m-1}$

8.30 INVALID-NUMER-30 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{R_5}{C_5R_5s+1}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$

$$H(s) = \frac{-C_5L_3L_LR_5R_Ls^2 + s\left(L_3L_LR_5R_Lg_m - L_3L_LR_L\right)}{L_3R_5R_L + L_LR_5R_L + s^2\left(C_3L_3L_LR_5R_L + C_5L_3L_LR_5R_L + C_LL_3L_LR_5R_L\right) + s\left(L_3L_LR_5 + L_3L_LR_L\right)}$$

Parameters:

$$Q: \frac{R_5R_L\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_5+C_L)}}(C_3+C_5+C_L)}{\frac{R_5+R_L}{R_5+R_L}}$$
 wo:
$$\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_5+C_L)}}$$
 bandwidth:
$$\frac{R_5+R_L}{R_5R_L(C_3+C_5+C_L)}$$
 K-LP:
$$0$$
 K-HP:
$$-\frac{C_5}{C_3+C_5+C_L}$$
 K-BP:
$$\frac{R_L(R_5g_m-1)}{R_5+R_L}$$
 Qz:
$$-\frac{C_5R_5\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_5+C_L)}}}{R_5g_m-1}$$
 Wz: None

8.31 INVALID-NUMER-31 $Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, R_L\right)$

$$H(s) = \frac{-C_5L_3R_3R_Ls^2 + L_3R_3R_Lg_ms}{R_3R_L + s^2\left(C_3L_3R_3R_L + C_5L_3R_3R_L\right) + s\left(L_3R_3 + L_3R_L\right)}$$

Q:
$$\frac{R_3 R_L \sqrt{\frac{1}{L_3(C_3 + C_5)}} (C_3 + C_5)}{R_3 + R_L}$$
wo:
$$\sqrt{\frac{1}{L_3(C_3 + C_5)}}$$
bandwidth:
$$\frac{R_3 + R_L}{R_3 R_L(C_3 + C_5)}$$
K-LP: 0

K-HP:
$$-\frac{C_5}{C_3 + C_5}$$

K-BP: $\frac{R_3 R_L g_m}{R_3 + R_L}$
Qz: $-\frac{C_5 \sqrt{\frac{1}{L_3(C_3 + C_5)}}}{g_m}$
Wz: None

8.32 INVALID-NUMER-32
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5 L_3 R_3 s^2 + L_3 R_3 g_m s}{L_3 s + R_3 + s^2 \left(C_3 L_3 R_3 + C_5 L_3 R_3 + C_L L_3 R_3\right)}$$

Q:
$$R_3\sqrt{\frac{1}{L_3(C_3+C_5+C_L)}}$$
 $(C_3+C_5+C_L)$
wo: $\sqrt{\frac{1}{L_3(C_3+C_5+C_L)}}$
bandwidth: $\frac{1}{R_3(C_3+C_5+C_L)}$
K-LP: 0
K-HP: $-\frac{C_5}{C_3+C_5+C_L}$
K-BP: R_3g_m
Qz: $-\frac{C_5\sqrt{\frac{1}{L_3(C_3+C_5+C_L)}}}{g_m}$
Wz: None

8.33 INVALID-NUMER-33
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5L_3R_3R_Ls^2 + L_3R_3R_Lg_ms}{R_3R_L + s^2\left(C_3L_3R_3R_L + C_5L_3R_3R_L + C_LL_3R_3R_L\right) + s\left(L_3R_3 + L_3R_L\right)}$$

Parameters:

$$\begin{aligned} &\text{Q:} \ \frac{R_3R_L\sqrt{\frac{1}{L_3(C_3+C_5+C_L)}}(C_3+C_5+C_L)}{R_3+R_L} \\ &\text{wo:} \ \sqrt{\frac{1}{L_3(C_3+C_5+C_L)}} \\ &\text{bandwidth:} \ \frac{R_3+R_L}{R_3R_L(C_3+C_5+C_L)} \\ &\text{K-LP:} \ 0 \\ &\text{K-HP:} \ -\frac{C_5}{C_3+C_5+C_L} \\ &\text{K-BP:} \ \frac{R_3R_Lg_m}{R_3+R_L} \\ &\text{Qz:} \ -\frac{C_5\sqrt{\frac{1}{L_3(C_3+C_5+C_L)}}}{g_m} \\ &\text{Wz:} \ \text{None} \end{aligned}$$

8.34 INVALID-NUMER-34
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_5L_3L_LR_3s^2 + L_3L_LR_3g_ms}{L_3L_Ls + L_3R_3 + L_LR_3 + s^2\left(C_3L_3L_LR_3 + C_5L_3L_LR_3 + C_LL_3L_LR_3\right)}$$

$$\begin{array}{l} \text{Q: } R_3 \sqrt{\frac{L_3 + L_L}{L_3 L_L (C_3 + C_5 + C_L)}} \left(C_3 + C_5 + C_L \right) \\ \text{wo: } \sqrt{\frac{L_3 + L_L}{L_3 L_L (C_3 + C_5 + C_L)}} \\ \text{bandwidth: } \frac{1}{R_3 (C_3 + C_5 + C_L)} \\ \text{K-LP: 0} \\ \text{K-HP: } -\frac{C_5}{C_3 + C_5 + C_L} \\ \text{K-BP: } R_3 g_m \\ \text{Qz: } -\frac{C_5 \sqrt{\frac{L_3 + L_L}{L_3 L_L (C_3 + C_5 + C_L)}}}{g_m} \\ \text{Wz: None} \end{array}$$

8.35 INVALID-NUMER-35
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{-C_5L_3L_LR_3R_Ls^2 + L_3L_LR_3R_Lg_ms}{L_3R_3R_L + L_LR_3R_L + s^2\left(C_3L_3L_LR_3R_L + C_5L_3L_LR_3R_L + C_LL_3L_LR_3R_L\right) + s\left(L_3L_LR_3 + L_3L_LR_L\right)}$$

$$\begin{aligned} & \text{Q:} \ \frac{R_3 R_L \sqrt{\frac{L_3 + L_L}{L_3 L_L (C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_3 + R_L} \\ & \text{wo:} \ \sqrt{\frac{L_3 + L_L}{L_3 L_L (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{R_3 + R_L}{R_3 R_L (C_3 + C_5 + C_L)} \\ & \text{K-LP:} \ 0 \\ & \text{K-HP:} \ -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP:} \ \frac{R_3 R_L g_m}{R_3 + R_L} \\ & \text{Qz:} \ -\frac{C_5 \sqrt{\frac{L_3 + L_L}{L_3 L_L (C_3 + C_5 + C_L)}}}{g_m} \\ & \text{Wz:} \ \text{None} \end{aligned}$$

8.36 INVALID-NUMER-36
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L\right)$$

$$H(s) = \frac{-C_5L_3R_3R_5R_Ls^2 + s\left(L_3R_3R_5R_Lg_m - L_3R_3R_L\right)}{R_3R_5R_L + s^2\left(C_3L_3R_3R_5R_L + C_5L_3R_3R_5R_L\right) + s\left(L_3R_3R_5 + L_3R_3R_L + L_3R_5R_L\right)}$$

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{R_3R_5R_L\sqrt{\frac{1}{L_3(C_3+C_5)}}(C_3+C_5)}{R_3R_5+R_3R_L+R_5R_L} \\ \text{wo:} \ \sqrt{\frac{1}{L_3(C_3+C_5)}} \\ \text{bandwidth:} \ \frac{R_3R_5+R_3R_L+R_5R_L}{R_3R_5R_L(C_3+C_5)} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ -\frac{C_5}{C_3+C_5} \\ \text{K-BP:} \ \frac{R_3R_L(R_5g_m-1)}{R_3R_5+R_3R_L+R_5R_L} \\ \text{Qz:} \ -\frac{C_5R_5\sqrt{\frac{1}{L_3(C_3+C_5)}}}{R_5g_m-1} \\ \text{Wz:} \ \text{None} \end{array}$$

8.37 INVALID-NUMER-37
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5L_3R_3R_5s^2 + s\left(L_3R_3R_5g_m - L_3R_3\right)}{R_3R_5 + s^2\left(C_3L_3R_3R_5 + C_5L_3R_3R_5 + C_LL_3R_3R_5\right) + s\left(L_3R_3 + L_3R_5\right)}$$

$$\begin{array}{l} \text{Q:} \ \frac{R_3R_5\sqrt{\frac{1}{L_3(C_3+C_5+C_L)}}(C_3+C_5+C_L)}{R_3+R_5}\\ \text{wo:} \ \sqrt{\frac{1}{L_3(C_3+C_5+C_L)}}\\ \text{bandwidth:} \ \frac{R_3+R_5}{R_3R_5(C_3+C_5+C_L)}\\ \text{K-LP:} \ 0\\ \text{K-HP:} \ -\frac{C_5}{C_3+C_5+C_L}\\ \text{K-BP:} \ \frac{R_3(R_5g_m-1)}{R_3+R_5}\\ \text{Qz:} \ -\frac{C_5R_5\sqrt{\frac{1}{L_3(C_3+C_5+C_L)}}}{R_5g_m-1}\\ \text{Wz:} \ \text{None} \end{array}$$

8.38 INVALID-NUMER-38
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5L_3R_3R_5R_Ls^2 + s\left(L_3R_3R_5R_Lg_m - L_3R_3R_L\right)}{R_3R_5R_L + s^2\left(C_3L_3R_3R_5R_L + C_5L_3R_3R_5R_L + C_LL_3R_3R_5R_L\right) + s\left(L_3R_3R_5 + L_3R_3R_L + L_3R_5R_L\right)}$$

$$\begin{aligned} & \text{Q:} \ \frac{R_3 R_5 R_L \sqrt{\frac{1}{L_3 (C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{L_3 (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{R_3 R_5 + R_3 R_L + R_5 R_L}{R_3 R_5 R_L (C_3 + C_5 + C_L)} \\ & \text{K-LP:} \ 0 \\ & \text{K-HP:} \ -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP:} \ \frac{R_3 R_L (R_5 g_m - 1)}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ & \text{Qz:} \ -\frac{C_5 R_5 \sqrt{\frac{1}{L_3 (C_3 + C_5 + C_L)}}}{R_5 g_m - 1} \\ & \text{Wz:} \ \text{None} \end{aligned}$$

8.39 INVALID-NUMER-39
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_5L_3L_LR_3R_5s^2 + s\left(L_3L_LR_3R_5g_m - L_3L_LR_3\right)}{L_3R_3R_5 + L_LR_3R_5 + s^2\left(C_3L_3L_LR_3R_5 + C_5L_3L_LR_3R_5 + C_LL_3L_LR_3R_5\right) + s\left(L_3L_LR_3 + L_3L_LR_5\right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{R_3R_5\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_5+C_L)}}(C_3+C_5+C_L)}{R_3+R_5} \\ & \text{wo:} \ \sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_5+C_L)}} \\ & \text{bandwidth:} \ \frac{R_3+R_5}{R_3R_5(C_3+C_5+C_L)} \\ & \text{K-LP:} \ 0 \\ & \text{K-HP:} \ -\frac{C_5}{C_3+C_5+C_L} \\ & \text{K-BP:} \ \frac{R_3(R_5g_m-1)}{R_3+R_5} \\ & \text{Qz:} \ -\frac{C_5R_5\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_5+C_L)}}}{R_5g_m-1} \\ & \text{Wz:} \ \text{None} \end{aligned}$$

8.40 INVALID-NUMER-40
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{-C_5L_3L_LR_3R_5R_Ls^2 + s\left(L_3L_LR_3R_5R_Lg_m - L_3L_LR_3R_L\right)}{L_3R_3R_5R_L + L_LR_3R_5R_L + s^2\left(C_3L_3L_LR_3R_5R_L + C_5L_3L_LR_3R_5R_L + C_LL_3L_LR_3R_5R_L\right) + s\left(L_3L_LR_3R_5 + L_3L_LR_3R_L + L_3L_LR_5R_L\right)}$$

Parameters:

$$\begin{array}{l} \text{Q:} \ \, \frac{R_3R_5R_L\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_5+C_L)}}(C_3+C_5+C_L)}{R_3R_5+R_3R_L+R_5R_L} \\ \text{wo:} \ \, \sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_5+C_L)}} \\ \text{bandwidth:} \ \, \frac{R_3R_5+R_3R_L+R_5R_L}{R_3R_5+R_3R_L+C_5+C_L)} \\ \text{K-LP:} \ \, 0 \\ \text{K-HP:} \ \, -\frac{C_5}{C_3+C_5+C_L} \\ \text{K-BP:} \ \, \frac{R_3R_L(R_5g_m-1)}{R_3R_5+R_3R_L+R_5R_L} \\ \text{Qz:} \ \, -\frac{C_5R_5\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_5+C_L)}}}{R_5g_m-1} \\ \text{Wz:} \ \, \text{None} \end{array}$$

9 INVALID-WZ

9.1 INVALID-WZ-1 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_5C_LR_3R_Ls^2 + R_3g_m + s\left(-C_5R_3 + C_LR_3R_Lg_m\right)}{C_5C_LR_3R_Ls^2 + s\left(C_5R_3 + C_LR_3 + C_LR_1\right) + 1}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_5C_LR_3R_L\sqrt{\frac{1}{C_5C_LR_3R_L}}}{C_5R_3+C_LR_3+C_LR_L} \\ & \text{wo:} \ \sqrt{\frac{1}{C_5C_LR_3R_L}} \\ & \text{bandwidth:} \ \frac{C_5R_3+C_LR_3+C_LR_L}{C_5C_LR_3R_L} \\ & \text{K-LP:} \ R_3g_m \\ & \text{K-HP:} \ -1 \\ & \text{K-BP:} \ \frac{R_3(-C_5+C_LR_Lg_m)}{C_5R_3+C_LR_3+C_LR_L} \\ & \text{Qz:} \ \frac{C_5C_LR_L\sqrt{\frac{1}{C_5C_LR_3R_L}}}{C_5-C_LR_Lg_m} \\ & \text{Wz:} \ \sqrt{-\frac{g_m}{C_5C_LR_L}} \end{aligned}$$

9.2 INVALID-WZ-2 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_5C_LR_3R_5R_Ls^2 + R_3R_5g_m - R_3 + s\left(-C_5R_3R_5 + C_LR_3R_5R_Lg_m - C_LR_3R_L\right)}{C_5C_LR_3R_5R_Ls^2 + R_3 + R_5 + s\left(C_5R_3R_5 + C_LR_3R_5 + C_LR_3R_L + C_LR_5R_L\right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_5C_LR_3R_5R_L\sqrt{\frac{R_3+R_5}{C_5C_LR_3R_5R_L}}}{C_5R_3R_5+C_LR_3R_5+C_LR_3R_L+C_LR_5R_L} \\ & \text{wo:} \ \sqrt{\frac{R_3+R_5}{C_5C_LR_3R_5R_L}} \\ & \text{bandwidth:} \ \frac{C_5R_3R_5+C_LR_3R_5+C_LR_3R_L+C_LR_5R_L}{C_5C_LR_3R_5R_L} \\ & \text{K-LP:} \ \frac{R_3(R_5g_m-1)}{R_3+R_5} \\ & \text{K-HP:} \ -1 \\ & \text{K-BP:} \ \frac{R_3(-C_5R_5+C_LR_5R_Lg_m-C_LR_L)}{C_5R_3R_5+C_LR_3R_5+C_LR_3R_L+C_LR_5R_L} \\ & \text{Qz:} \ \frac{C_5C_LR_5R_L\sqrt{\frac{R_3+R_5}{C_5C_LR_3R_5R_L}}}{C_5R_5-C_LR_5R_Lg_m+C_LR_L} \\ & \text{Wz:} \ \sqrt{\frac{-R_5g_m+1}{C_5C_LR_5R_L}} \end{aligned}$$

9.3 INVALID-WZ-3 $Z(s) = \left(\infty, \infty, R_3, \infty, R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 g_m + s^2 \left(C_5 C_L R_3 R_5 R_L g_m - C_5 C_L R_3 R_L \right) + s \left(C_5 R_3 R_5 g_m - C_5 R_3 + C_L R_3 R_L g_m \right)}{s^2 \left(C_5 C_L R_3 R_5 + C_5 C_L R_3 R_L + C_5 C_L R_5 R_L \right) + s \left(C_5 R_3 + C_5 R_5 + C_L R_3 + C_L R_1 \right) + 1}$$

$$\begin{aligned} & \text{Q:} \ \frac{C_5C_L\sqrt{\frac{1}{C_5C_L(R_3R_5+R_3R_L+R_5R_L)}}(R_3R_5+R_3R_L+R_5R_L)}{C_5R_3+C_5R_5+C_LR_3+C_LR_L} \\ & \text{wo:} \ \sqrt{\frac{1}{C_5C_L(R_3R_5+R_3R_L+R_5R_L)}} \\ & \text{bandwidth:} \ \frac{C_5R_3+C_5R_5+C_LR_3+C_LR_L}{C_5C_L(R_3R_5+R_3R_L+R_5R_L)} \\ & \text{K-LP:} \ R_3g_m \\ & \text{K-HP:} \ \frac{R_3R_L(R_5g_m-1)}{R_3R_5+R_3R_L+R_5R_L} \\ & \text{K-BP:} \ \frac{R_3(C_5R_5g_m-C_5+C_LR_Lg_m)}{C_5R_3+C_5R_5+C_LR_3+C_LR_L} \\ & \text{Qz:} \ \frac{C_5C_LR_L\sqrt{\frac{1}{C_5C_L(R_3R_5+R_3R_L+R_5R_L)}}(R_5g_m-1)}{C_5R_5g_m-C_5+C_LR_Lg_m} \\ & \text{Wz:} \ \sqrt{\frac{g_m}{C_5C_LR_L(R_5g_m-1)}} \end{aligned}$$

9.4 INVALID-WZ-4 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{1}{C_L s}\right)$

$H(s) = \frac{-C_5 L_5 R_3 s^2 + L_5 R_3 g_m s - R_3}{L_5 s + R_3 + s^2 \left(C_5 L_5 R_3 + C_L L_5 R_3\right)}$

Parameters:

Q:
$$R_3\sqrt{\frac{1}{L_5(C_5+C_L)}}$$
 (C_5+C_L)
wo: $\sqrt{\frac{1}{L_5(C_5+C_L)}}$
bandwidth: $\frac{1}{R_3(C_5+C_L)}$
K-LP: -1
K-HP: $-\frac{C_5}{C_5+C_L}$
K-BP: R_3g_m
Qz: $-\frac{C_5\sqrt{\frac{1}{L_5(C_5+C_L)}}}{g_m}$
Wz: $\sqrt{\frac{1}{C_5L_5}}$

9.5 INVALID-WZ-5 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{-C_5L_5R_3R_Ls^2 + L_5R_3R_Lg_ms - R_3R_L}{R_3R_L + s^2\left(C_5L_5R_3R_L + C_LL_5R_3R_L\right) + s\left(L_5R_3 + L_5R_L\right)}$$

Parameters:

$$\begin{aligned} &\text{Q: } \frac{R_3 R_L \sqrt{\frac{1}{L_5 (C_5 + C_L)}} (C_5 + C_L)}{R_3 + R_L} \\ &\text{wo: } \sqrt{\frac{1}{L_5 (C_5 + C_L)}} \\ &\text{bandwidth: } \frac{R_3 + R_L}{R_3 R_L (C_5 + C_L)} \\ &\text{K-LP: } -1 \\ &\text{K-HP: } -\frac{C_5}{C_5 + C_L} \\ &\text{K-BP: } \frac{R_3 R_L g_m}{R_3 + R_L} \\ &\text{Qz: } -\frac{C_5 \sqrt{\frac{1}{L_5 (C_5 + C_L)}}}{g_m} \\ &\text{Wz: } \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.6 INVALID-WZ-6 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{-C_5L_5L_LR_3s^2 + L_5L_LR_3g_ms - L_LR_3}{L_5L_Ls + L_5R_3 + L_LR_3 + s^2\left(C_5L_5L_LR_3 + C_LL_5L_LR_3\right)}$$

Q:
$$R_3 \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_5 + C_L)}}$$
 ($C_5 + C_L$)
wo: $\sqrt{\frac{L_5 + L_L}{L_5 L_L (C_5 + C_L)}}$
bandwidth: $\frac{1}{R_3 (C_5 + C_L)}$
K-LP: $-\frac{L_L}{L_5 + L_L}$
K-HP: $-\frac{C_5}{C_5 + C_L}$
K-BP: $R_3 g_m$
Qz: $-\frac{C_5 \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_5 + C_L)}}}{g_m}$
Wz: $\sqrt{\frac{1}{C_5 L_5}}$

9.7 INVALID-WZ-7
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_{5s}}{C_5L_5s^2+1}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$$

$$H(s) = \frac{-C_5L_5L_LR_3R_Ls^2 + L_5L_LR_3R_Lg_ms - L_LR_3R_L}{L_5R_3R_L + L_LR_3R_L + s^2\left(C_5L_5L_LR_3R_L + C_LL_5L_LR_3R_L\right) + s\left(L_5L_LR_3 + L_5L_LR_L\right)}$$

$$Q: \frac{R_3 R_L \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_5 + C_L)}} (C_5 + C_L)}{R_3 + R_L}$$
wo:
$$\sqrt{\frac{L_5 + L_L}{L_5 L_L (C_5 + C_L)}}$$
bandwidth:
$$\frac{R_3 + R_L}{R_3 R_L (C_5 + C_L)}$$
K-LP:
$$-\frac{L_L}{L_5 + L_L}$$
K-HP:
$$-\frac{C_5}{C_5 + C_L}$$
K-BP:
$$\frac{R_3 R_L g_m}{R_3 + R_L}$$
Qz:
$$-\frac{C_5 \sqrt{\frac{L_5 + L_L}{L_5 + L_L}}}{g_m}$$
Wz:
$$\sqrt{\frac{1}{C_5 L_5}}$$

9.8 INVALID-WZ-8
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5 L_5 R_3 R_5 s^2 - R_3 R_5 + s \left(L_5 R_3 R_5 g_m - L_5 R_3\right)}{R_3 R_5 + s^2 \left(C_5 L_5 R_3 R_5 + C_L L_5 R_3 R_5\right) + s \left(L_5 R_3 + L_5 R_5\right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{R_3 R_5 \sqrt{\frac{1}{L_5 (C_5 + C_L)}} (C_5 + C_L)}{R_3 + R_5} \\ & \text{wo:} \ \sqrt{\frac{1}{L_5 (C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{R_3 + R_5}{R_3 R_5 (C_5 + C_L)} \\ & \text{K-LP:} \ -1 \\ & \text{K-HP:} \ -\frac{C_5}{C_5 + C_L} \\ & \text{K-BP:} \ \frac{R_3 (R_5 g_m - 1)}{R_3 + R_5} \\ & \text{Qz:} \ -\frac{C_5 R_5 \sqrt{\frac{1}{L_5 (C_5 + C_L)}}}{R_5 g_m - 1} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.9 INVALID-WZ-9
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5L_5R_3R_5R_Ls^2 - R_3R_5R_L + s\left(L_5R_3R_5R_Lg_m - L_5R_3R_L\right)}{R_3R_5R_L + s^2\left(C_5L_5R_3R_5R_L + C_LL_5R_3R_5R_L\right) + s\left(L_5R_3R_5 + L_5R_3R_L + L_5R_5R_L\right)}$$

$$\begin{aligned} &\text{Q: } \frac{R_3R_5R_L\sqrt{\frac{1}{L_5(C_5+C_L)}}(C_5+C_L)}{R_3R_5+R_3R_L+R_5R_L} \\ &\text{wo: } \sqrt{\frac{1}{L_5(C_5+C_L)}} \\ &\text{bandwidth: } \frac{R_3R_5+R_3R_L+R_5R_L}{R_3R_5R_L(C_5+C_L)} \\ &\text{K-LP: } -1 \\ &\text{K-HP: } -\frac{C_5}{C_5+C_L} \\ &\text{K-BP: } \frac{R_3R_L(R_5g_m-1)}{R_3R_5+R_3R_L+R_5R_L} \\ &\text{Qz: } -\frac{C_5R_5\sqrt{\frac{1}{L_5(C_5+C_L)}}}{R_5g_m-1} \\ &\text{Wz: } \sqrt{\frac{1}{C_5L_5}} \end{aligned}$$

9.10 INVALID-WZ-10 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{-C_5L_5L_LR_3R_5s^2 - L_LR_3R_5 + s\left(L_5L_LR_3R_5g_m - L_5L_LR_3\right)}{L_5R_3R_5 + L_LR_3R_5 + s^2\left(C_5L_5L_LR_3R_5 + C_LL_5L_LR_3R_5\right) + s\left(L_5L_LR_3 + L_5L_LR_5\right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{R_3 R_5 \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_5 + C_L)}} (C_5 + C_L)}{R_3 + R_5} \\ & \text{wo:} \ \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{R_3 + R_5}{R_3 R_5 (C_5 + C_L)} \\ & \text{K-LP:} \ -\frac{L_L}{L_5 + L_L} \\ & \text{K-HP:} \ -\frac{C_5}{C_5} \\ & \text{K-BP:} \ \frac{R_3 (R_5 g_m - 1)}{R_3 + R_5} \\ & \text{Qz:} \ -\frac{C_5 R_5 \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_5 + C_L)}}}{R_5 g_m - 1} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.11 INVALID-WZ-11 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{-C_5L_5L_LR_3R_5R_Ls^2 - L_LR_3R_5R_L + s\left(L_5L_LR_3R_5R_Lg_m - L_5L_LR_3R_L\right)}{L_5R_3R_5R_L + L_LR_3R_5R_L + s^2\left(C_5L_5L_LR_3R_5R_L + C_LL_5L_LR_3R_5R_L\right) + s\left(L_5L_LR_3R_5 + L_5L_LR_3R_L + L_5L_LR_5R_L\right)}$$

Parameters:

$$Q: \frac{R_3R_5R_L\sqrt{\frac{L_5+L_L}{L_5L_L(C_5+C_L)}}(C_5+C_L)}{R_3R_5+R_3R_L+R_5R_L}$$
 wo:
$$\sqrt{\frac{L_5+L_L}{L_5L_L(C_5+C_L)}}$$
 bandwidth:
$$\frac{R_3R_5+R_3R_L+R_5R_L}{R_3R_5R_L(C_5+C_L)}$$
 K-LP:
$$-\frac{L_L}{L_5+L_L}$$
 K-HP:
$$-\frac{C_5}{C_5+C_L}$$
 K-BP:
$$\frac{R_3R_L(R_5g_m-1)}{R_3R_5+R_3R_L+R_5R_L}$$
 Qz:
$$-\frac{C_5R_5\sqrt{\frac{L_5+L_L}{L_5L_L(C_5+C_L)}}}{R_5g_m-1}$$
 Wz:
$$\sqrt{\frac{1}{C_5L_5}}$$

9.12 INVALID-WZ-12 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_5C_LR_5R_Ls^2 + R_5g_m + s\left(-C_5R_5 + C_LR_5R_Lg_m - C_LR_L\right) - 1}{s^2\left(C_3C_LR_5R_L + C_5C_LR_5R_L\right) + s\left(C_3R_5 + C_5R_5 + C_LR_5 + C_LR_L\right) + 1}$$

$$Q: \frac{C_L R_5 R_L \sqrt{\frac{1}{C_L R_5 R_L (C_3 + C_5)}} (C_3 + C_5)}{C_3 R_5 + C_5 R_5 + C_L R_5 + C_L R_L}$$

$$wo: \sqrt{\frac{1}{C_L R_5 R_L (C_3 + C_5)}}$$
bandwidth:
$$\frac{C_3 R_5 + C_5 R_5 + C_L R_5 + C_L R_5 + C_L R_L}{C_L R_5 R_L (C_3 + C_5)}$$

$$K-LP: R_5 g_m - 1$$

$$K-HP: -\frac{C_5}{C_3 + C_5}$$

$$K-BP: \frac{-C_5 R_5 + C_L R_5 R_L g_m - C_L R_L}{C_3 R_5 + C_5 R_5 + C_L R_5 + C_L R_5}$$

$$Qz: \frac{C_5 C_L R_5 R_L \sqrt{\frac{1}{C_L R_5 R_L (C_3 + C_5)}}}{C_5 R_5 - C_L R_5 R_L g_m + C_L R_L}$$

$$Wz: \sqrt{\frac{-R_5 g_m + 1}{C_5 C_L R_5 R_L}}$$

9.13 INVALID-WZ-13 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L\right)$

$$H(s) = \frac{-C_5 L_5 R_L s^2 + L_5 R_L g_m s - R_L}{L_5 s + R_L + s^2 (C_3 L_5 R_L + C_5 L_5 R_L)}$$

Parameters:

Q:
$$R_L \sqrt{\frac{1}{L_5(C_3 + C_5)}} (C_3 + C_5)$$

wo: $\sqrt{\frac{1}{L_5(C_3 + C_5)}}$
bandwidth: $\frac{1}{R_L(C_3 + C_5)}$
K-LP: -1
K-HP: $-\frac{C_5}{C_3 + C_5}$
K-BP: $R_L g_m$
Qz: $-\frac{C_5 \sqrt{\frac{1}{L_5(C_3 + C_5)}}}{g_m}$
Wz: $\sqrt{\frac{1}{C_5 L_5}}$

9.14 INVALID-WZ-14 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{-C_5 L_5 R_L s^2 + L_5 R_L g_m s - R_L}{L_5 s + R_L + s^2 \left(C_3 L_5 R_L + C_5 L_5 R_L + C_L L_5 R_L\right)}$$

Parameters:

Q:
$$R_L \sqrt{\frac{1}{L_5(C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)$$

wo: $\sqrt{\frac{1}{L_5(C_3 + C_5 + C_L)}}$
bandwidth: $\frac{1}{R_L(C_3 + C_5 + C_L)}$
K-LP: -1
K-HP: $-\frac{C_5}{C_3 + C_5 + C_L}$
K-BP: $R_L g_m$
Qz: $-\frac{C_5 \sqrt{\frac{1}{L_5(C_3 + C_5 + C_L)}}}{g_m}$
Wz: $\sqrt{\frac{1}{C_5 L_5}}$

9.15 INVALID-WZ-15 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{-C_5L_5L_LR_Ls^2 + L_5L_LR_Lg_ms - L_LR_L}{L_5L_Ls + L_5R_L + L_LR_L + s^2\left(C_3L_5L_LR_L + C_5L_5L_LR_L + C_LL_5L_LR_L\right)}$$

Q:
$$R_L \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}}$$
 ($C_3 + C_5 + C_L$)
wo: $\sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}}$
bandwidth: $\frac{1}{R_L (C_3 + C_5 + C_L)}$
K-LP: $-\frac{L_L}{L_5 + L_L}$
K-HP: $-\frac{C_5}{C_3 + C_5 + C_L}$
K-BP: $R_L g_m$
Qz: $-\frac{C_5 \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}}}{g_m}$
Wz: $\sqrt{\frac{1}{C_5 L_5}}$

9.16 INVALID-WZ-16
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L\right)$$

$$H(s) = \frac{-C_5 L_5 R_5 R_L s^2 - R_5 R_L + s \left(L_5 R_5 R_L g_m - L_5 R_L\right)}{R_5 R_L + s^2 \left(C_3 L_5 R_5 R_L + C_5 L_5 R_5 R_L\right) + s \left(L_5 R_5 + L_5 R_L\right)}$$

$$Q: \frac{R_5 R_L \sqrt{\frac{1}{L_5 (C_3 + C_5)}} (C_3 + C_5)}{R_5 + R_L}$$
wo:
$$\sqrt{\frac{1}{L_5 (C_3 + C_5)}}$$
bandwidth:
$$\frac{R_5 + R_L}{R_5 R_L (C_3 + C_5)}$$
K-LP:
$$-1$$
K-HP:
$$-\frac{C_5}{C_3 + C_5}$$
K-BP:
$$\frac{R_L (R_5 g_m - 1)}{R_5 + R_L}$$

$$Qz: -\frac{C_5 R_5 \sqrt{\frac{1}{L_5 (C_3 + C_5)}}}{R_5 g_m - 1}$$
Wz:
$$\sqrt{\frac{1}{C_5 L_5}}$$

9.17 INVALID-WZ-17 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_5 L_5 R_5 s^2 - R_5 + s \left(L_5 R_5 g_m - L_5\right)}{L_5 s + R_5 + s^2 \left(C_3 L_5 R_5 + C_5 L_5 R_5 + C_L L_5 R_5\right)}$$

Parameters:

Q:
$$R_5 \sqrt{\frac{1}{L_5(C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)$$

wo: $\sqrt{\frac{1}{L_5(C_3 + C_5 + C_L)}}$
bandwidth: $\frac{1}{R_5(C_3 + C_5 + C_L)}$
K-LP: -1
K-HP: $-\frac{C_5}{C_3 + C_5 + C_L}$
K-BP: $R_5 g_m - 1$
Qz: $-\frac{C_5 R_5 \sqrt{\frac{1}{L_5(C_3 + C_5 + C_L)}}}{R_5 g_m - 1}$
Wz: $\sqrt{\frac{1}{C_5 L_5}}$

9.18 INVALID-WZ-18 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{-C_5L_5R_5R_Ls^2 - R_5R_L + s\left(L_5R_5R_Lg_m - L_5R_L\right)}{R_5R_L + s^2\left(C_3L_5R_5R_L + C_5L_5R_5R_L + C_LL_5R_5R_L\right) + s\left(L_5R_5 + L_5R_L\right)}$$

$$\begin{aligned} & \text{Q:} \ \frac{R_5 R_L \sqrt{\frac{1}{L_5 (C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_5 + R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{L_5 (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{R_5 + R_L}{R_5 R_L (C_3 + C_5 + C_L)} \\ & \text{K-LP:} \ -1 \\ & \text{K-HP:} \ -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP:} \ \frac{R_L (R_5 g_m - 1)}{R_5 + R_L} \\ & \text{Qz:} \ -\frac{C_5 R_5 \sqrt{\frac{1}{L_5 (C_3 + C_5 + C_L)}}}{R_5 g_m - 1} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.19 INVALID-WZ-19
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_5L_5L_LR_5s^2 - L_LR_5 + s\left(L_5L_LR_5g_m - L_5L_L\right)}{L_5L_Ls + L_5R_5 + L_LR_5 + s^2\left(C_3L_5L_LR_5 + C_5L_5L_LR_5 + C_LL_5L_LR_5\right)}$$

$$\begin{aligned} & \text{Q: } R_5 \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}} \left(C_3 + C_5 + C_L \right) \\ & \text{wo: } \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}} \\ & \text{bandwidth: } \frac{1}{R_5 (C_3 + C_5 + C_L)} \\ & \text{K-LP: } -\frac{L_L}{L_5 + L_L} \\ & \text{K-HP: } -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP: } R_5 g_m - 1 \\ & \text{Qz: } -\frac{C_5 R_5 \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}}}{R_5 g_m - 1} \\ & \text{Wz: } \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.20 INVALID-WZ-20
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{-C_5L_5L_LR_5R_Ls^2 - L_LR_5R_L + s\left(L_5L_LR_5R_Lg_m - L_5L_LR_L\right)}{L_5R_5R_L + L_LR_5R_L + s^2\left(C_3L_5L_LR_5R_L + C_5L_5L_LR_5R_L + C_LL_5L_LR_5R_L\right) + s\left(L_5L_LR_5 + L_5L_LR_L\right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{R_5 R_L \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_5 + R_L} \\ & \text{wo:} \ \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{R_5 + R_L}{R_5 R_L (C_3 + C_5 + C_L)} \\ & \text{K-LP:} \ -\frac{L_L}{L_5 + L_L} \\ & \text{K-HP:} \ -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP:} \ \frac{R_L (R_5 g_m - 1)}{R_5 + R_L} \\ & \text{Qz:} \ -\frac{C_5 R_5 \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}}}{R_5 g_m - 1} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.21 INVALID-WZ-21
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LR_3R_Ls^2 + R_3g_m + s\left(-C_5R_3 + C_LR_3R_Lg_m\right)}{s^2\left(C_3C_LR_3R_L + C_5C_LR_3R_L\right) + s\left(C_3R_3 + C_5R_3 + C_LR_3 + C_LR_L\right) + 1}$$

$$\begin{aligned} & \text{Q:} \ \frac{C_L R_3 R_L \sqrt{\frac{1}{C_L R_3 R_L (C_3 + C_5)}} (C_3 + C_5)}{C_3 R_3 + C_5 R_3 + C_L R_3 + C_L R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{C_L R_3 R_L (C_3 + C_5)}} \\ & \text{bandwidth:} \ \frac{C_3 R_3 + C_5 R_3 + C_L R_3 + C_L R_L}{C_L R_3 R_L (C_3 + C_5)} \\ & \text{K-LP:} \ R_3 g_m \\ & \text{K-HP:} \ -\frac{C_5}{C_3 + C_5} \\ & \text{K-BP:} \ \frac{R_3 (-C_5 + C_L R_L g_m)}{C_3 R_3 + C_5 R_3 + C_L R_3 + C_L R_L} \\ & \text{Qz:} \ \frac{C_5 C_L R_L \sqrt{\frac{1}{C_L R_3 R_L (C_3 + C_5)}}}{C_5 - C_L R_L g_m} \\ & \text{Wz:} \ \sqrt{-\frac{g_m}{C_5 C_L R_L}} \end{aligned}$$

9.22 INVALID-WZ-22
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LR_3R_5R_Ls^2 + R_3R_5g_m - R_3 + s\left(-C_5R_3R_5 + C_LR_3R_5R_Lg_m - C_LR_3R_L\right)}{R_3 + R_5 + s^2\left(C_3C_LR_3R_5R_L + C_5C_LR_3R_5R_L\right) + s\left(C_3R_3R_5 + C_5R_3R_5 + C_LR_3R_5 + C_LR_3R_L + C_LR_5R_L\right)}$$

$$\begin{aligned} &\text{Q: } \frac{C_L R_3 R_5 R_L \sqrt{\frac{R_3 + R_5}{C_L R_3 R_5 R_L (C_3 + C_5)}} (C_3 + C_5)}{C_3 R_3 R_5 + C_5 R_3 R_5 + C_L R_3 R_5 + C_L R_3 R_L + C_L R_5 R_L} \\ &\text{wo: } \sqrt{\frac{R_3 + R_5}{C_L R_3 R_5 R_L (C_3 + C_5)}} \\ &\text{bandwidth: } \frac{C_3 R_3 R_5 + C_5 R_3 R_5 + C_L R_3 R_5 + C_L R_3 R_L + C_L R_5 R_L}{C_L R_3 R_5 R_L (C_3 + C_5)} \\ &\text{K-LP: } \frac{R_3 (R_5 g_m - 1)}{R_3 + R_5} \\ &\text{K-HP: } -\frac{C_5}{C_3 + C_5} \\ &\text{K-BP: } \frac{R_3 (-C_5 R_5 + C_L R_5 R_L g_m - C_L R_L)}{C_3 R_3 R_5 + C_5 R_3 R_5 + C_L R_3 R_5 + C_L R_3 R_L + C_L R_5 R_L} \\ &\text{Qz: } \frac{C_5 C_L R_5 R_L \sqrt{\frac{R_3 + R_5}{C_L R_3 R_5 R_L (C_3 + C_5)}}}{C_5 R_5 - C_L R_5 R_L g_m + C_L R_L} \\ &\text{Wz: } \sqrt{\frac{-R_5 g_m + 1}{C_5 C_L R_5 R_L}} \end{aligned}$$

9.23 INVALID-WZ-23 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L\right)$

$$H(s) = \frac{-C_5 L_5 R_3 R_L s^2 + L_5 R_3 R_L g_m s - R_3 R_L}{R_3 R_L + s^2 (C_3 L_5 R_3 R_L + C_5 L_5 R_3 R_L) + s (L_5 R_3 + L_5 R_L)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{R_3 R_L \sqrt{\frac{1}{L_5 (C_3 + C_5)}} (C_3 + C_5)}{R_3 + R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{L_5 (C_3 + C_5)}} \\ & \text{bandwidth:} \ \frac{R_3 + R_L}{R_3 R_L (C_3 + C_5)} \\ & \text{K-LP:} \ -1 \\ & \text{K-HP:} \ -\frac{C_5}{C_3 + C_5} \\ & \text{K-BP:} \ \frac{R_3 R_L g_m}{R_3 + R_L} \\ & \text{Qz:} \ -\frac{C_5 \sqrt{\frac{1}{L_5 (C_3 + C_5)}}}{g_m} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.24 INVALID-WZ-24
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5 L_5 R_3 s^2 + L_5 R_3 g_m s - R_3}{L_5 s + R_3 + s^2 \left(C_3 L_5 R_3 + C_5 L_5 R_3 + C_L L_5 R_3\right)}$$

Q:
$$R_3\sqrt{\frac{1}{L_5(C_3+C_5+C_L)}}$$
 ($C_3+C_5+C_L$)
wo: $\sqrt{\frac{1}{L_5(C_3+C_5+C_L)}}$
bandwidth: $\frac{1}{R_3(C_3+C_5+C_L)}$
K-LP: -1
K-HP: $-\frac{C_5}{C_3+C_5+C_L}$
K-BP: R_3g_m
Qz: $-\frac{C_5\sqrt{\frac{1}{L_5(C_3+C_5+C_L)}}}{g_m}$
Wz: $\sqrt{\frac{1}{C_5L_5}}$

9.25 INVALID-WZ-25
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5L_5R_3R_Ls^2 + L_5R_3R_Lg_ms - R_3R_L}{R_3R_L + s^2\left(C_3L_5R_3R_L + C_5L_5R_3R_L + C_LL_5R_3R_L\right) + s\left(L_5R_3 + L_5R_L\right)}$$

$$\begin{aligned} & \text{Q:} \ \frac{R_3 R_L \sqrt{\frac{1}{L_5 (C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_3 + R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{L_5 (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{R_3 + R_L}{R_3 R_L (C_3 + C_5 + C_L)} \\ & \text{K-LP:} \ -1 \\ & \text{K-HP:} \ -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP:} \ \frac{R_3 R_L g_m}{R_3 + R_L} \\ & \text{Qz:} \ -\frac{C_5 \sqrt{\frac{1}{L_5 (C_3 + C_5 + C_L)}}}{g_m} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.26 INVALID-WZ-26
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_5 L_5 L_L R_3 s^2 + L_5 L_L R_3 g_m s - L_L R_3}{L_5 L_L s + L_5 R_3 + L_L R_3 + s^2 (C_3 L_5 L_L R_3 + C_5 L_5 L_L R_3 + C_L L_5 L_L R_3)}$$

Parameters:

$$\begin{aligned} &\text{Q: } R_3 \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}} \left(C_3 + C_5 + C_L \right) \\ &\text{wo: } \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}} \\ &\text{bandwidth: } \frac{1}{R_3 (C_3 + C_5 + C_L)} \\ &\text{K-LP: } - \frac{L_L}{L_5 + L_L} \\ &\text{K-HP: } - \frac{C_5}{C_3 + C_5 + C_L} \\ &\text{K-BP: } R_3 g_m \\ &\text{Qz: } - \frac{C_5 \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}}}{g_m} \\ &\text{Wz: } \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.27 INVALID-WZ-27
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{-C_5L_5L_LR_3R_Ls^2 + L_5L_LR_3R_Lg_ms - L_LR_3R_L}{L_5R_3R_L + L_LR_3R_L + s^2\left(C_3L_5L_LR_3R_L + C_5L_5L_LR_3R_L + C_LL_5L_LR_3R_L\right) + s\left(L_5L_LR_3 + L_5L_LR_L\right)}$$

$$\begin{aligned} & \text{Q:} & \frac{R_3 R_L \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_3 + R_L} \\ & \text{wo:} & \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} & \frac{R_3 + R_L}{R_3 R_L (C_3 + C_5 + C_L)} \\ & \text{K-LP:} & -\frac{L_L}{L_5 + L_L} \\ & \text{K-HP:} & -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP:} & \frac{R_3 R_L g_m}{R_3 + R_L} \\ & \text{Qz:} & -\frac{C_5 \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}}}{g_m} \\ & \text{Wz:} & \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.28 INVALID-WZ-28
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L\right)$$

$$H(s) = \frac{-C_5L_5R_3R_5R_Ls^2 - R_3R_5R_L + s\left(L_5R_3R_5R_Lg_m - L_5R_3R_L\right)}{R_3R_5R_L + s^2\left(C_3L_5R_3R_5R_L + C_5L_5R_3R_5R_L\right) + s\left(L_5R_3R_5 + L_5R_3R_L + L_5R_5R_L\right)}$$

$$\begin{aligned} &\text{Q: } \frac{R_3R_5R_L\sqrt{\frac{1}{L_5(C_3+C_5)}}(C_3+C_5)}{R_3R_5+R_3R_L+R_5R_L} \\ &\text{wo: } \sqrt{\frac{1}{L_5(C_3+C_5)}} \\ &\text{bandwidth: } \frac{R_3R_5+R_3R_L+R_5R_L}{R_3R_5R_L(C_3+C_5)} \\ &\text{K-LP: } -1 \\ &\text{K-HP: } -\frac{C_5}{C_3+C_5} \\ &\text{K-BP: } \frac{R_3R_L(R_5g_m-1)}{R_3R_5+R_3R_L+R_5R_L} \\ &\text{Qz: } -\frac{C_5R_5\sqrt{\frac{1}{L_5(C_3+C_5)}}}{R_5g_m-1} \\ &\text{Wz: } \sqrt{\frac{1}{C_5L_5}} \end{aligned}$$

9.29 INVALID-WZ-29
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5 L_5 R_3 R_5 s^2 - R_3 R_5 + s \left(L_5 R_3 R_5 g_m - L_5 R_3\right)}{R_3 R_5 + s^2 \left(C_3 L_5 R_3 R_5 + C_5 L_5 R_3 R_5 + C_L L_5 R_3 R_5\right) + s \left(L_5 R_3 + L_5 R_5\right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{R_3R_5\sqrt{\frac{1}{L_5(C_3+C_5+C_L)}}(C_3+C_5+C_L)}{R_3+R_5} \\ & \text{wo:} \ \sqrt{\frac{1}{L_5(C_3+C_5+C_L)}} \\ & \text{bandwidth:} \ \frac{R_3+R_5}{R_3R_5(C_3+C_5+C_L)} \\ & \text{K-LP:} \ -1 \\ & \text{K-HP:} \ -\frac{C_5}{C_3+C_5+C_L} \\ & \text{K-BP:} \ \frac{R_3(R_5g_m-1)}{R_3+R_5} \\ & \text{Qz:} \ -\frac{C_5R_5\sqrt{\frac{1}{L_5(C_3+C_5+C_L)}}}{R_5g_m-1} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5L_5}} \end{aligned}$$

9.30 INVALID-WZ-30
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3R_3s+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{-C_5L_5R_3R_5R_Ls^2 - R_3R_5R_L + s\left(L_5R_3R_5R_Lg_m - L_5R_3R_L\right)}{R_3R_5R_L + s^2\left(C_3L_5R_3R_5R_L + C_5L_5R_3R_5R_L + C_LL_5R_3R_5R_L\right) + s\left(L_5R_3R_5 + L_5R_3R_L + L_5R_5R_L\right)}$$

$$Q : \frac{R_3 R_5 R_L \sqrt{\frac{1}{L_5(C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_3 R_5 + R_3 R_L + R_5 R_L}$$
wo:
$$\sqrt{\frac{1}{L_5(C_3 + C_5 + C_L)}}$$
bandwidth:
$$\frac{R_3 R_5 + R_3 R_L + R_5 R_L}{R_3 R_5 R_L (C_3 + C_5 + C_L)}$$
K-LP:
$$-1$$
K-HP:
$$-\frac{C_5}{C_3 + C_5 + C_L}$$
K-BP:
$$\frac{R_3 R_L (R_5 g_m - 1)}{R_3 R_5 + R_3 R_L + R_5 R_L}$$
Qz:
$$-\frac{C_5 R_5 \sqrt{\frac{1}{L_5(C_3 + C_5 + C_L)}}}{R_5 g_m - 1}$$
Wz:
$$\sqrt{\frac{1}{C_7 L_7}}$$

9.31 INVALID-WZ-31
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_5L_5L_LR_3R_5s^2 - L_LR_3R_5 + s\left(L_5L_LR_3R_5g_m - L_5L_LR_3\right)}{L_5R_3R_5 + L_LR_3R_5 + s^2\left(C_3L_5L_LR_3R_5 + C_5L_5L_LR_3R_5 + C_LL_5L_LR_3R_5\right) + s\left(L_5L_LR_3 + L_5L_LR_5\right)}$$

$$\begin{aligned} & \text{Q:} \ \frac{R_3 R_5 \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_3 + R_5} \\ & \text{wo:} \ \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{R_3 + R_5}{R_3 R_5 (C_3 + C_5 + C_L)} \\ & \text{K-LP:} \ -\frac{L_L}{C_5 + L_L} \\ & \text{K-HP:} \ -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP:} \ \frac{R_3 (R_5 g_m - 1)}{R_3 + R_5} \\ & \text{Qz:} \ -\frac{C_5 R_5 \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}}}{R_5 g_m - 1} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.32 INVALID-WZ-32
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{-C_5L_5L_LR_3R_5R_Ls^2 - L_LR_3R_5R_L + s\left(L_5L_LR_3R_5R_Lg_m - L_5L_LR_3R_L\right)}{L_5R_3R_5R_L + L_LR_3R_5R_L + s^2\left(C_3L_5L_LR_3R_5R_L + C_5L_5L_LR_3R_5R_L + C_LL_5L_LR_3R_5R_L\right) + s\left(L_5L_LR_3R_5 + L_5L_LR_3R_L + L_5L_LR_5R_L\right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{R_3 R_5 R_L \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_3 R_5 + R_3 R_L} (C_3 + C_5 + C_L)} \\ & \text{wo:} \ \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{R_3 R_5 + R_3 R_L + R_5 R_L}{R_3 R_5 R_L (C_3 + C_5 + C_L)} \\ & \text{K-LP:} \ -\frac{L_L}{L_5 + L_L} \\ & \text{K-HP:} \ -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP:} \ \frac{R_3 R_L (R_5 g_m - 1)}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ & \text{Qz:} \ -\frac{C_5 R_5 \sqrt{\frac{L_5 + L_L}{L_5 L_L (C_3 + C_5 + C_L)}}}{R_5 g_m - 1} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.33 INVALID-WZ-33
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^2 \left(C_3 C_L R_3 R_5 R_L g_m - C_3 C_L R_3 R_L \right) + s \left(C_3 R_3 R_5 g_m - C_3 R_3 + C_L R_5 R_L g_m - C_L R_L \right) - 1}{s^2 \left(C_3 C_L R_3 R_5 + C_3 C_L R_3 R_L + C_3 C_L R_5 R_L \right) + s \left(C_3 R_3 + C_3 R_5 + C_L R_5 + C_L R_L \right) + 1}$$

$$\begin{aligned} & \text{Q:} \ \frac{C_3C_L\sqrt{\frac{1}{C_3C_L(R_3R_5+R_3R_L+R_5R_L)}}(R_3R_5+R_3R_L+R_5R_L)}{C_3R_3+C_3R_5+C_LR_5+C_LR_L} \\ & \text{wo:} \ \sqrt{\frac{1}{C_3C_L(R_3R_5+R_3R_L+R_5R_L)}} \\ & \text{bandwidth:} \ \frac{C_3R_3+C_3R_5+C_LR_5+C_LR_L}{C_3C_L(R_3R_5+R_3R_L+R_5R_L)} \\ & \text{K-LP:} \ R_5g_m - 1 \\ & \text{K-HP:} \ \frac{R_3R_L(R_5g_m-1)}{R_3R_5+R_3R_L+R_5R_L} \\ & \text{K-BP:} \ \frac{C_3R_3R_5g_m-C_3R_3+C_LR_5R_Lg_m-C_LR_L}{C_3R_3+C_LR_5+C_LR_L} \\ & \text{Qz:} \ \frac{C_3C_LR_3R_L\sqrt{\frac{1}{C_3C_L(R_3R_5+R_3R_L+R_5R_L)}}}{C_3R_3+C_LR_L} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_3C_LR_3R_L}} \end{aligned}$$

9.34 INVALID-WZ-34 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, R_L\right)$

$$H(s) = \frac{-C_3C_5R_3R_Ls^2 + R_Lg_m + s\left(C_3R_3R_Lg_m - C_5R_L\right)}{C_3C_5R_3R_Ls^2 + s\left(C_3R_3 + C_3R_L + C_5R_L\right) + 1}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_3C_5R_3R_L\sqrt{\frac{1}{C_3C_5R_3R_L}}}{C_3R_3+C_3R_L+C_5R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{C_3C_5R_3R_L}} \\ & \text{bandwidth:} \ \frac{C_3R_3+C_3R_L+C_5R_L}{C_3C_5R_3R_L} \\ & \text{K-LP:} \ R_Lg_m \\ & \text{K-HP:} \ -1 \\ & \text{K-BP:} \ \frac{R_L(C_3R_3g_m-C_5)}{C_3R_3+C_3R_L+C_5R_L} \\ & \text{Qz:} \ -\frac{C_3C_5R_3\sqrt{\frac{1}{C_3C_5R_3R_L}}}{C_3R_3g_m-C_5} \\ & \text{Wz:} \ \sqrt{-\frac{g_m}{C_3C_5R_3}} \end{aligned}$$

9.35 INVALID-WZ-35 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{-C_3C_5R_3R_Ls^2 + R_Lg_m + s\left(C_3R_3R_Lg_m - C_5R_L\right)}{s^2\left(C_3C_5R_3R_L + C_3C_LR_3R_L\right) + s\left(C_3R_3 + C_3R_L + C_5R_L + C_LR_L\right) + 1}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_3 R_3 R_L \sqrt{\frac{1}{C_3 R_3 R_L (C_5 + C_L)}}(C_5 + C_L)}{C_3 R_3 + C_3 R_L + C_5 R_L + C_L R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{C_3 R_3 R_L (C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{C_3 R_3 + C_3 R_L + C_5 R_L + C_L R_L}{C_3 R_3 R_L (C_5 + C_L)} \\ & \text{K-LP:} \ R_L g_m \\ & \text{K-HP:} \ -\frac{C_5}{C_5 + C_L} \\ & \text{K-BP:} \ \frac{R_L (C_3 R_3 g_m - C_5)}{C_3 R_3 + C_3 R_L + C_5 R_L + C_L R_L} \\ & \text{Qz:} \ -\frac{C_3 C_5 R_3 \sqrt{\frac{1}{C_3 R_3 R_L (C_5 + C_L)}}}{C_3 R_3 g_m - C_5} \\ & \text{Wz:} \ \sqrt{-\frac{g_m}{C_3 C_5 R_3}} \end{aligned}$$

9.36 INVALID-WZ-36
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L\right)$$

$$H(s) = \frac{-C_3C_5R_3R_5R_Ls^2 + R_5R_Lg_m - R_L + s\left(C_3R_3R_5R_Lg_m - C_3R_3R_L - C_5R_5R_L\right)}{C_3C_5R_3R_5R_Ls^2 + R_5 + R_L + s\left(C_3R_3R_5 + C_3R_3R_L + C_3R_5R_L + C_5R_5R_L\right)}$$

$$\begin{array}{l} \text{Q:} \ \, \frac{C_3C_5R_3R_5R_L\sqrt{\frac{R_5+R_L}{C_3C_5R_3R_5R_L}}}{C_3R_3R_5+C_3R_3R_L+C_3R_5R_L+C_5R_5R_L} \\ \text{wo:} \ \, \sqrt{\frac{R_5+R_L}{C_3C_5R_3R_5R_L}} \\ \text{bandwidth:} \ \, \frac{C_3R_3R_5+C_3R_3R_L+C_3R_5R_L+C_5R_5R_L}{C_3C_5R_3R_5R_L} \\ \text{K-LP:} \ \, \frac{R_L(R_5g_m-1)}{R_5+R_L} \\ \text{K-HP:} \ \, -1 \\ \text{K-BP:} \ \, \frac{R_L(C_3R_3R_5g_m-C_3R_3-C_5R_5)}{C_3R_3R_5+C_3R_3R_L+C_3R_5R_L} \\ \text{Qz:} \ \, \frac{C_3C_5R_3R_5\sqrt{\frac{R_5+R_L}{C_3C_5R_3R_5R_L}}}{-C_3R_3R_5g_m+C_3R_3+C_5R_5} \\ \text{Wz:} \ \, \sqrt{\frac{-R_5g_m+1}{C_3C_5R_3R_5}} \end{array}$$

9.37 INVALID-WZ-37
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5R_3R_5s^2 + R_5g_m + s\left(C_3R_3R_5g_m - C_3R_3 - C_5R_5\right) - 1}{s^2\left(C_3C_5R_3R_5 + C_3C_LR_3R_5\right) + s\left(C_3R_3 + C_3R_5 + C_5R_5 + C_LR_5\right) + 1}$$

$$\begin{aligned} & \text{Q:} \ \frac{C_3 R_3 R_5 \sqrt{\frac{1}{C_3 R_3 R_5 (C_5 + C_L)}} (C_5 + C_L)}{C_3 R_3 + C_3 R_5 + C_5 R_5 + C_L R_5} \\ & \text{wo:} \ \sqrt{\frac{1}{C_3 R_3 R_5 (C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{C_3 R_3 + C_3 R_5 + C_5 R_5 + C_L R_5}{C_3 R_3 R_5 (C_5 + C_L)} \\ & \text{K-LP:} \ R_5 g_m - 1 \\ & \text{K-HP:} \ -\frac{C_5}{C_5 + C_L} \\ & \text{K-BP:} \ \frac{C_3 R_3 R_5 g_m - C_3 R_3 - C_5 R_5}{C_3 R_3 R_5 G_5 + C_L R_5} \\ & \text{Qz:} \ \frac{C_3 C_5 R_3 R_5}{-C_3 R_3 R_5 g_m + C_3 R_3 + C_5 R_5} \\ & \text{Wz:} \ \sqrt{\frac{-R_5 g_m + 1}{C_3 C_5 R_3 R_5}} \end{aligned}$$

9.38 INVALID-WZ-38
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_3C_5R_3R_5R_Ls^2 + R_5R_Lg_m - R_L + s\left(C_3R_3R_5R_Lg_m - C_3R_3R_L - C_5R_5R_L\right)}{R_5 + R_L + s^2\left(C_3C_5R_3R_5R_L + C_3C_LR_3R_5R_L\right) + s\left(C_3R_3R_5 + C_3R_3R_L + C_3R_5R_L + C_5R_5R_L + C_LR_5R_L\right)}$$

Parameters:

$$Q \colon \frac{C_3 R_3 R_5 R_L \sqrt{\frac{R_5 + R_L}{C_3 R_3 R_5 R_L (C_5 + C_L)}}}{C_3 R_3 R_5 + C_3 R_3 R_L + C_3 R_5 R_L + C_5 R_5 R_L + C_L R_5 R_L}}$$

$$\text{Wo: } \sqrt{\frac{R_5 + R_L}{C_3 R_3 R_5 R_L (C_5 + C_L)}}$$

$$\text{bandwidth: } \frac{C_3 R_3 R_5 + C_3 R_3 R_L + C_3 R_5 R_L + C_5 R_5 R_L + C_L R_5 R_L}{C_3 R_3 R_5 R_L (C_5 + C_L)}$$

$$\text{K-LP: } \frac{R_L (R_5 g_m - 1)}{R_5 + R_L}$$

$$\text{K-HP: } -\frac{C_5}{C_5 + C_L}$$

$$\text{K-BP: } \frac{R_L (C_3 R_3 R_5 g_m - C_3 R_3 - C_5 R_5)}{C_3 R_3 R_5 + C_3 R_3 R_L + C_3 R_5 R_L + C_5 R_5 R_L + C_L R_5 R_L}$$

$$Qz \colon \frac{C_3 C_5 R_3 R_5 \sqrt{\frac{R_5 + R_L}{C_3 R_3 R_5 R_L (C_5 + C_L)}}}{-C_3 R_3 R_5 g_m + C_3 R_3 + C_5 R_5}$$

$$\text{Wz: } \sqrt{\frac{-R_5 g_m + 1}{C_3 C_5 R_3 R_5}}$$

9.39 INVALID-WZ-39
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, R_L\right)$$

$$H(s) = \frac{R_L g_m + s^2 \left(C_3 C_5 R_3 R_5 R_L g_m - C_3 C_5 R_3 R_L \right) + s \left(C_3 R_3 R_L g_m + C_5 R_5 R_L g_m - C_5 R_L \right)}{s^2 \left(C_3 C_5 R_3 R_5 + C_3 C_5 R_3 R_L + C_3 C_5 R_5 R_L \right) + s \left(C_3 R_3 + C_3 R_L + C_5 R_5 + C_5 R_L \right) + 1}$$

$$\begin{aligned} & \text{Q:} \ \frac{C_3C_5\sqrt{\frac{1}{C_3C_5(R_3R_5+R_3R_L+R_5R_L)}}(R_3R_5+R_3R_L+R_5R_L)}{C_3R_3+C_3R_L+C_5R_5+C_5R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{C_3C_5(R_3R_5+R_3R_L+R_5R_L)}} \\ & \text{bandwidth:} \ \frac{C_3R_3+C_3R_L+C_5R_5+C_5R_L}{C_3C_5(R_3R_5+R_3R_L+R_5R_L)} \\ & \text{K-LP:} \ R_Lg_m \\ & \text{K-HP:} \ \frac{R_3R_L(R_5g_m-1)}{R_3R_5+R_3R_L+R_5R_L} \\ & \text{K-BP:} \ \frac{R_L(C_3R_3g_m+C_5R_5g_m-C_5)}{C_3R_3+C_3R_L+C_5R_5+C_5R_L} \\ & \text{Qz:} \ \frac{C_3C_5R_3\sqrt{\frac{1}{C_3C_5(R_3R_5+R_3R_L+R_5R_L)}}(R_5g_m-1)}{C_3R_3g_m+C_5R_5g_m-C_5} \\ & \text{Wz:} \ \sqrt{\frac{g_m}{C_3C_5R_3(R_5g_m-1)}} \end{aligned}$$

9.40 INVALID-WZ-40
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{L_{5s}}{C_5L_5s^2+1}, R_L\right)$$

$$H(s) = \frac{-C_5 L_3 L_5 R_L s^2 + L_3 L_5 R_L g_m s - L_3 R_L}{L_3 L_5 s + L_3 R_L + L_5 R_L + s^2 \left(C_3 L_3 L_5 R_L + C_5 L_3 L_5 R_L\right)}$$

Q:
$$R_L \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5)}}$$
 ($C_3 + C_5$)
wo: $\sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5)}}$
bandwidth: $\frac{1}{R_L (C_3 + C_5)}$
K-LP: $-\frac{L_3}{C_5}$
K-HP: $-\frac{C_5}{C_5}$
K-BP: $R_L g_m$
Qz: $-\frac{C_5 \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5)}}}{g_m}$
Wz: $\sqrt{\frac{1}{C_5 L_5}}$

9.41 INVALID-WZ-41 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{-C_5 L_3 L_5 R_L s^2 + L_3 L_5 R_L g_m s - L_3 R_L}{L_3 L_5 s + L_3 R_L + L_5 R_L + s^2 \left(C_3 L_3 L_5 R_L + C_5 L_3 L_5 R_L + C_L L_3 L_5 R_L \right)}$$

Parameters:

$$\begin{aligned} & \text{Q: } R_L \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}} \left(C_3 + C_5 + C_L \right) \\ & \text{wo: } \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}} \\ & \text{bandwidth: } \frac{1}{R_L (C_3 + C_5 + C_L)} \\ & \text{K-LP: } -\frac{L_3}{L_3 + L_5} \\ & \text{K-HP: } -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP: } R_L g_m \\ & \text{Qz: } -\frac{C_5 \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}}}{g_m} \\ & \text{Wz: } \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.42 INVALID-WZ-42 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$

$$H(s) = \frac{-C_5L_3L_5L_LR_Ls^2 + L_3L_5L_LR_Lg_ms - L_3L_LR_L}{L_3L_5L_Ls + L_3L_5R_L + L_5L_LR_L + s^2\left(C_3L_3L_5L_LR_L + C_5L_3L_5L_LR_L + C_LL_3L_5L_LR_L\right)}$$

Q:
$$R_L \sqrt{\frac{L_3L_5 + L_3L_L + L_5L_L}{L_3L_5L_L(C_3 + C_5 + C_L)}}$$
 ($C_3 + C_5 + C_L$)
wo: $\sqrt{\frac{L_3L_5 + L_3L_L + L_5L_L}{L_3L_5L_L(C_3 + C_5 + C_L)}}$
bandwidth: $\frac{1}{R_L(C_3 + C_5 + C_L)}$
K-LP: $-\frac{L_3L_L}{L_3L_5 + L_3L_L + L_5L_L}$
K-HP: $-\frac{C_5}{C_3 + C_5 + C_L}$
K-BP: $R_L g_m$
Qz: $-\frac{C_5\sqrt{\frac{L_3L_5 + L_3L_L + L_5L_L}{L_3L_5L_2(C_3 + C_5 + C_L)}}}{g_m}$

9.43 INVALID-WZ-43
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, R_L\right)$$

$$H(s) = \frac{-C_5L_3L_5R_5R_Ls^2 - L_3R_5R_L + s\left(L_3L_5R_5R_Lg_m - L_3L_5R_L\right)}{L_3R_5R_L + L_5R_5R_L + s^2\left(C_3L_3L_5R_5R_L + C_5L_3L_5R_5R_L\right) + s\left(L_3L_5R_5 + L_3L_5R_L\right)}$$

$$\begin{aligned} & \text{Q:} \ \frac{R_5 R_L \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5)}} (C_3 + C_5)}{R_5 + R_L} \\ & \text{wo:} \ \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5)}} \\ & \text{bandwidth:} \ \frac{R_5 + R_L}{R_5 R_L (C_3 + C_5)} \\ & \text{K-LP:} \ -\frac{L_3}{L_3 + L_5} \\ & \text{K-HP:} \ -\frac{C_5}{C_5} \\ & \text{K-BP:} \ \frac{R_L (R_5 g_m - 1)}{R_5 + R_L} \\ & \text{Qz:} \ -\frac{C_5 R_5 \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5)}}}{R_5 g_m - 1} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.44 INVALID-WZ-44 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{1}{C_Ls}\right)$

$$H(s) = \frac{-C_5 L_3 L_5 R_5 s^2 - L_3 R_5 + s \left(L_3 L_5 R_5 g_m - L_3 L_5\right)}{L_3 L_5 s + L_3 R_5 + L_5 R_5 + s^2 \left(C_3 L_3 L_5 R_5 + C_5 L_3 L_5 R_5 + C_L L_3 L_5 R_5\right)}$$

Parameters:

$$\begin{array}{l} \text{Q: } R_5 \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}} \left(C_3 + C_5 + C_L \right) \\ \text{wo: } \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}} \\ \text{bandwidth: } \frac{1}{R_5 (C_3 + C_5 + C_L)} \\ \text{K-LP: } -\frac{L_3}{L_3 + L_5} \\ \text{K-HP: } -\frac{C_5}{C_3 + C_5 + C_L} \\ \text{K-BP: } R_5 g_m - 1 \\ \text{Qz: } -\frac{C_5 R_5 \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}}}{R_5 g_m - 1} \\ \text{Wz: } \sqrt{\frac{1}{C_5 L_5}} \end{array}$$

9.45 INVALID-WZ-45
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{-C_5L_3L_5R_5R_Ls^2 - L_3R_5R_L + s\left(L_3L_5R_5R_Lg_m - L_3L_5R_L\right)}{L_3R_5R_L + L_5R_5R_L + s^2\left(C_3L_3L_5R_5R_L + C_5L_3L_5R_5R_L + C_LL_3L_5R_5R_L\right) + s\left(L_3L_5R_5 + L_3L_5R_L\right)}$$

$$\begin{aligned} & \text{Q:} \ \frac{R_5 R_L \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_5 + R_L} \\ & \text{wo:} \ \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{R_5 + R_L}{R_5 R_L (C_3 + C_5 + C_L)} \\ & \text{K-LP:} \ -\frac{L_3}{L_3 + L_5} \\ & \text{K-HP:} \ -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP:} \ \frac{R_L (R_5 g_m - 1)}{R_5 + R_L} \\ & \text{Qz:} \ -\frac{C_5 R_5 \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}}}{R_5 g_m - 1} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.46 INVALID-WZ-46
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{-C_5L_3L_5L_LR_5s^2 - L_3L_LR_5 + s\left(L_3L_5L_LR_5g_m - L_3L_5L_L\right)}{L_3L_5L_Ls + L_3L_5R_5 + L_3L_LR_5 + L_5L_LR_5 + s^2\left(C_3L_3L_5L_LR_5 + C_5L_3L_5L_LR_5 + C_LL_3L_5L_LR_5\right)}$$

Q:
$$R_5 \sqrt{\frac{L_3L_5 + L_3L_L + L_5L_L}{L_3L_5L_L(C_3 + C_5 + C_L)}}$$
 ($C_3 + C_5 + C_L$)
wo: $\sqrt{\frac{L_3L_5 + L_3L_L + L_5L_L}{L_3L_5L_L(C_3 + C_5 + C_L)}}$
bandwidth: $\frac{1}{R_5(C_3 + C_5 + C_L)}$
K-LP: $-\frac{L_3L_L}{L_3L_5 + L_3L_L + L_5L_L}$
K-HP: $-\frac{C_5}{C_3 + C_5 + C_L}$
K-BP: $R_5g_m - 1$
Qz: $-\frac{C_5R_5\sqrt{\frac{L_3L_5 + L_3L_L + L_5L_L}{L_3L_5L_2(C_3 + C_5 + C_L)}}}{R_5g_m - 1}$

9.47 INVALID-WZ-47
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$$

$$H(s) = \frac{-C_5L_3L_5L_LR_5R_Ls^2 - L_3L_LR_5R_L + s\left(L_3L_5L_LR_5R_Lg_m - L_3L_5L_LR_L\right)}{L_3L_5R_5R_L + L_3L_LR_5R_L + L_5L_LR_5R_L + s^2\left(C_3L_3L_5L_LR_5R_L + C_5L_3L_5L_LR_5R_L + C_LL_3L_5L_LR_5R_L\right) + s\left(L_3L_5L_LR_5 + L_3L_5L_LR_5\right)}$$

Parameters:

$$Q: \frac{R_5R_L\sqrt{\frac{L_3L_5+L_3L_L+L_5L_L}{L_3L_5L_L(C_3+C_5+C_L)}}(C_3+C_5+C_L)}{R_5+R_L}$$
wo:
$$\sqrt{\frac{L_3L_5+L_3L_L+L_5L_L}{L_3L_5+L_5+C_5+C_L)}}$$
bandwidth:
$$\frac{R_5+R_L}{R_5R_L(C_3+C_5+C_L)}$$
K-LP:
$$-\frac{L_3L_L}{L_3L_5+L_3L_L+L_5L_L}$$
K-HP:
$$-\frac{C_5}{C_3+C_5+C_L}$$
K-BP:
$$\frac{R_L(R_5g_m-1)}{R_5+R_L}$$
Qz:
$$-\frac{C_5R_5\sqrt{\frac{L_3L_5+L_3L_L+L_5L_L}{L_3L_5+L_3L_L+L_5L_L}}}{R_5g_m-1}$$

9.48 INVALID-WZ-48
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L\right)$$

$$H(s) = \frac{-C_5L_3L_5R_3R_Ls^2 + L_3L_5R_3R_Lg_ms - L_3R_3R_L}{L_3R_3R_L + L_5R_3R_L + s^2\left(C_3L_3L_5R_3R_L + C_5L_3L_5R_3R_L\right) + s\left(L_3L_5R_3 + L_3L_5R_L\right)}$$

$$\begin{aligned} & \text{Q:} \ \frac{R_3 R_L \sqrt{\frac{L_3 + L_5}{L_3 L_5 (G_3 + C_5)}} (C_3 + C_5)}{R_3 + R_L} \\ & \text{wo:} \ \sqrt{\frac{L_3 + L_5}{L_3 L_5 (G_3 + C_5)}} \\ & \text{bandwidth:} \ \frac{R_3 + R_L}{R_3 R_L (G_3 + C_5)} \\ & \text{K-LP:} \ -\frac{L_3}{L_3 + L_5} \\ & \text{K-HP:} \ -\frac{C_5}{C_3 + C_5} \\ & \text{K-BP:} \ \frac{R_3 R_L g_m}{R_3 + R_L} \\ & \text{Qz:} \ -\frac{C_5 \sqrt{\frac{L_3 + L_5}{L_3 L_5 (G_3 + C_5)}}}{g_m} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.49 INVALID-WZ-49
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5L_3L_5R_3s^2 + L_3L_5R_3g_ms - L_3R_3}{L_3L_5s + L_3R_3 + L_5R_3 + s^2\left(C_3L_3L_5R_3 + C_5L_3L_5R_3 + C_LL_3L_5R_3\right)}$$

Q:
$$R_3\sqrt{\frac{L_3+L_5}{L_3L_5(C_3+C_5+C_L)}}$$
 $(C_3+C_5+C_L)$
wo: $\sqrt{\frac{L_3+L_5}{L_3L_5(C_3+C_5+C_L)}}$
bandwidth: $\frac{1}{R_3(C_3+C_5+C_L)}$
K-LP: $-\frac{L_3}{L_3+L_5}$
K-HP: $-\frac{C_5}{C_3+C_5+C_L}$
K-BP: R_3g_m
Qz: $-\frac{C_5\sqrt{\frac{L_3+L_5}{L_3L_5(C_3+C_5+C_L)}}}{g_m}$
Wz: $\sqrt{\frac{1}{C_5L_5}}$

9.50 INVALID-WZ-50
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5L_3L_5R_3R_Ls^2 + L_3L_5R_3R_Lg_ms - L_3R_3R_L}{L_3R_3R_L + L_5R_3R_L + s^2\left(C_3L_3L_5R_3R_L + C_5L_3L_5R_3R_L + C_LL_3L_5R_3R_L\right) + s\left(L_3L_5R_3 + L_3L_5R_L\right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{R_3 R_L \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_3 + R_L} \\ & \text{wo:} \ \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{R_3 + R_L}{R_3 R_L (C_3 + C_5 + C_L)} \\ & \text{K-LP:} \ -\frac{L_3}{L_3 + L_5} \\ & \text{K-HP:} \ -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP:} \ \frac{R_3 R_L g_m}{R_3 + R_L} \\ & \text{Qz:} \ -\frac{C_5 \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}}}{g_m} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.51 INVALID-WZ-51
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_5L_3L_5L_LR_3s^2 + L_3L_5L_LR_3g_ms - L_3L_LR_3}{L_3L_5L_Ls + L_3L_5R_3 + L_3L_LR_3 + L_5L_LR_3 + s^2\left(C_3L_3L_5L_LR_3 + C_5L_3L_5L_LR_3 + C_LL_3L_5L_LR_3\right)}$$

$$\begin{array}{l} \text{Q: } R_{3}\sqrt{\frac{L_{3}L_{5}+L_{3}L_{L}+L_{5}L_{L}}{L_{3}L_{5}L_{L}(C_{3}+C_{5}+C_{L})}}} \left(C_{3}+C_{5}+C_{L}\right) \\ \text{wo: } \sqrt{\frac{L_{3}L_{5}+L_{3}L_{L}+L_{5}L_{L}}{L_{3}L_{5}L_{L}(C_{3}+C_{5}+C_{L})}} \\ \text{bandwidth: } \frac{1}{R_{3}(C_{3}+C_{5}+C_{L})} \\ \text{K-LP: } -\frac{L_{3}L_{L}}{L_{3}L_{5}+L_{3}L_{L}+L_{5}L_{L}} \\ \text{K-HP: } -\frac{C_{5}}{C_{3}+C_{5}+C_{L}} \\ \text{K-BP: } R_{3}g_{m} \\ \text{Qz: } -\frac{C_{5}\sqrt{\frac{L_{3}L_{5}+L_{3}L_{L}+L_{5}L_{L}}{L_{3}L_{5}+L_{5}L_{L}}}}{g_{m}} \\ \text{Wz: } \sqrt{\frac{1}{C_{5}L_{5}}} \end{array}$$

9.52 INVALID-WZ-52
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{-C_5L_3L_5L_LR_3R_Ls^2 + L_3L_5L_LR_3R_Lg_ms - L_3L_LR_3R_L}{L_3L_5R_3R_L + L_3L_LR_3R_L + L_5L_LR_3R_L + s^2\left(C_3L_3L_5L_LR_3R_L + C_5L_3L_5L_LR_3R_L + C_LL_3L_5L_LR_3R_L\right) + s\left(L_3L_5L_LR_3 + L_3L_5L_LR_3\right)}$$

$$\begin{aligned} & \text{Q:} & \frac{R_3 R_L \sqrt{\frac{L_3 L_5 + L_3 L_L + L_5 L_L}{L_3 L_5 + C_L)}} (C_3 + C_5 + C_L)}{R_3 + R_L} \\ & \text{wo:} & \sqrt{\frac{L_3 L_5 + L_3 L_L + L_5 L_L}{L_3 L_5 L_L (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} & \frac{R_3 + R_L}{R_3 R_L (C_3 + C_5 + C_L)} \\ & \text{K-LP:} & -\frac{L_3 L_L}{L_3 L_5 + L_3 L_L + L_5 L_L} \\ & \text{K-HP:} & -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP:} & \frac{R_3 R_L g_m}{R_3 + R_L} \\ & \text{Qz:} & -\frac{C_5 \sqrt{\frac{L_3 L_5 + L_3 L_L + L_5 L_L}{L_3 L_5 L_2 (C_3 + C_5 + C_L)}}}{g_m} \\ & \text{Wz:} & \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.53 INVALID-WZ-53
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L\right)$$

$$H(s) = \frac{-C_5L_3L_5R_3R_5R_Ls^2 - L_3R_3R_5R_L + s\left(L_3L_5R_3R_5R_Lg_m - L_3L_5R_3R_L\right)}{L_3R_3R_5R_L + L_5R_3R_5R_L + s^2\left(C_3L_3L_5R_3R_5R_L + C_5L_3L_5R_3R_5R_L\right) + s\left(L_3L_5R_3R_5 + L_3L_5R_3R_L + L_3L_5R_5R_L\right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{R_3R_5R_L\sqrt{\frac{L_3+L_5}{L_3L_5(C_3+C_5)}}(C_3+C_5)}{R_3R_5+R_3R_L+R_5R_L}\\ & \text{wo:} \ \sqrt{\frac{L_3+L_5}{L_3L_5(C_3+C_5)}}\\ & \text{bandwidth:} \ \frac{R_3R_5+R_3R_L+R_5R_L}{R_3R_5R_L(C_3+C_5)}\\ & \text{K-LP:} -\frac{L_3}{C_3+L_5}\\ & \text{K-HP:} -\frac{C_5}{C_3+C_5}\\ & \text{K-BP:} \ \frac{R_3R_L(R_5g_m-1)}{R_3R_5+R_3R_L+R_5R_L}\\ & \text{Qz:} \ -\frac{C_5R_5\sqrt{\frac{L_3+L_5}{L_3L_5(C_3+C_5)}}}{R_5g_m-1}\\ & \text{Wz:} \ \sqrt{\frac{1}{C_5L_5}} \end{aligned}$$

9.54 INVALID-WZ-54
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5L_3L_5R_3R_5s^2 - L_3R_3R_5 + s\left(L_3L_5R_3R_5g_m - L_3L_5R_3\right)}{L_3R_3R_5 + L_5R_3R_5 + s^2\left(C_3L_3L_5R_3R_5 + C_5L_3L_5R_3R_5 + C_LL_3L_5R_3R_5\right) + s\left(L_3L_5R_3 + L_3L_5R_5\right)}$$

$$\begin{aligned} & \text{Q:} \ \frac{R_3 R_5 \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_3 + R_5} \\ & \text{wo:} \ \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{R_3 + R_5}{R_3 R_5 (C_3 + C_5 + C_L)} \\ & \text{K-LP:} \ -\frac{L_3}{L_3 + L_5} \\ & \text{K-HP:} \ -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP:} \ \frac{R_3 (R_5 g_m - 1)}{R_3 + R_5} \\ & \text{Qz:} \ -\frac{C_5 R_5 \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}}}{R_5 g_m - 1} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.55 INVALID-WZ-55
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_3 s + R_3}, \infty, \frac{L_5 R_{5s}}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5L_3L_5R_3R_5R_Ls^2 - L_3R_3R_5R_L + s\left(L_3L_5R_3R_5R_Lg_m - L_3L_5R_3R_L\right)}{L_3R_3R_5R_L + L_5R_3R_5R_L + s^2\left(C_3L_3L_5R_3R_5R_L + C_5L_3L_5R_3R_5R_L + C_LL_3L_5R_3R_5R_L\right) + s\left(L_3L_5R_3R_5 + L_3L_5R_3R_L + L_3L_5R_5R_L\right)}$$

$$\begin{aligned} & \text{Q:} & \frac{R_3 R_5 R_L \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}}}{R_3 R_5 + R_3 R_L + R_5 R_L} (C_3 + C_5 + C_L)} \\ & \text{wo:} & \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} & \frac{R_3 R_5 + R_3 R_L + R_5 R_L}{R_3 R_5 R_L (C_3 + C_5 + C_L)} \\ & \text{K-LP:} & -\frac{L_3}{L_3 + L_5} \\ & \text{K-HP:} & -\frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP:} & \frac{R_3 R_L (R_5 g_m - 1)}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ & \text{Qz:} & -\frac{C_5 R_5 \sqrt{\frac{L_3 + L_5}{L_3 L_5 (C_3 + C_5 + C_L)}}}{R_5 g_m - 1} \\ & \text{Wz:} & \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.56 INVALID-WZ-56
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_5L_3L_5L_LR_3R_5s^2 - L_3L_LR_3R_5 + s\left(L_3L_5L_LR_3R_5g_m - L_3L_5L_LR_3\right)}{L_3L_5R_3R_5 + L_3L_LR_3R_5 + L_5L_LR_3R_5 + s^2\left(C_3L_3L_5L_LR_3R_5 + C_5L_3L_5L_LR_3R_5 + C_LL_3L_5L_LR_3R_5\right) + s\left(L_3L_5L_LR_3 + L_3L_5L_LR_3\right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{R_3 R_5 \sqrt{\frac{L_3 L_5 + L_3 L_L + L_5 L_L}{L_3 L_5 L_L (C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_3 + R_5} \\ & \text{wo:} \ \sqrt{\frac{L_3 L_5 + L_3 L_L + L_5 L_L}{L_3 L_5 L_L (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} \ \frac{R_3 + R_5}{R_3 R_5 (C_3 + C_5 + C_L)} \\ & \text{K-LP:} \ -\frac{L_3 L_L}{L_3 L_5 + L_3 L_L + L_5 L_L} \\ & \text{K-HP:} \ -\frac{C_5}{C_3 R_5 C_5 + C_L} \\ & \text{K-BP:} \ \frac{R_3 (R_5 g_m - 1)}{R_3 + R_5} \\ & \text{Qz:} \ -\frac{C_5 R_5 \sqrt{\frac{L_3 L_5 + L_3 L_L + L_5 L_L}{L_3 L_5 L_L (C_3 + C_5 + C_L)}}}{R_5 g_m - 1} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

9.57 INVALID-WZ-57
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$\begin{aligned} & \text{Q:} & \frac{R_3 R_5 R_L \sqrt{\frac{L_3 L_5 + L_3 L_L + L_5 L_L}{L_3 L_5 L_L (C_3 + C_5 + C_L)}} (C_3 + C_5 + C_L)}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ & \text{wo:} & \sqrt{\frac{L_3 L_5 + L_3 L_L + L_5 L_L}{L_3 L_5 L_L (C_3 + C_5 + C_L)}} \\ & \text{bandwidth:} & \frac{R_3 R_5 + R_3 R_L + R_5 R_L}{R_3 R_5 R_L (C_3 + C_5 + C_L)} \\ & \text{K-LP:} & - \frac{L_3 L_L}{L_3 L_5 + L_3 L_L + L_5 L_L} \\ & \text{K-HP:} & - \frac{C_5}{C_3 + C_5 + C_L} \\ & \text{K-BP:} & \frac{R_3 R_L (R_5 g_m - 1)}{R_3 R_5 + R_3 R_L + R_5 R_L} \\ & \text{Qz:} & - \frac{C_5 R_5 \sqrt{\frac{L_3 L_5 + L_3 L_L + L_5 L_L}{L_3 L_5 L_C (C_3 + C_5 + C_L)}}}{R_5 g_m - 1} \\ & \text{Wz:} & \sqrt{\frac{1}{C_5 L_5}} \end{aligned}$$

10 INVALID-ORDER

10.1 INVALID-ORDER-1 $Z(s) = (\infty, \infty, R_3, \infty, R_5, R_L)$

$$H(s) = \frac{R_3 R_5 R_L g_m - R_3 R_L}{R_3 R_5 + R_3 R_L + R_5 R_L}$$

10.2 INVALID-ORDER-2 $Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 R_5 g_m - R_3}{C_L R_3 R_5 s + R_3 + R_5}$$

10.3 INVALID-ORDER-3 $Z(s) = \left(\infty, \infty, R_3, \infty, R_5, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_3 R_5 R_L g_m - R_3 R_L}{C_L R_3 R_5 R_L s + R_3 R_5 + R_3 R_L + R_5 R_L}$$

10.4 INVALID-ORDER-4 $Z(s) = \left(\infty, \infty, R_3, \infty, R_5, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s \left(C_L R_3 R_5 R_L g_m - C_L R_3 R_L \right)}{R_3 + R_5 + s \left(C_L R_3 R_5 + C_L R_3 R_L + C_L R_5 R_L \right)}$$

10.5 INVALID-ORDER-5 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5 s}, R_L\right)$

$$H(s) = \frac{-C_5 R_3 R_L s + R_3 R_L g_m}{C_5 R_3 R_L s + R_3 + R_L}$$

10.6 INVALID-ORDER-6 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_5 R_3 s + R_3 g_m}{s \left(C_5 R_3 + C_L R_3\right) + 1}$$

10.7 INVALID-ORDER-7 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{-C_5 R_3 R_L s + R_3 R_L g_m}{R_3 + R_L + s \left(C_5 R_3 R_L + C_L R_3 R_L\right)}$$

10.8 INVALID-ORDER-8 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_5 C_L L_L R_3 s^3 - C_5 R_3 s + C_L L_L R_3 g_m s^2 + R_3 g_m}{C_5 C_L L_L R_3 s^3 + C_L L_L s^2 + s (C_5 R_3 + C_L R_3) + 1}$$

10.9 INVALID-ORDER-9 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_5C_LL_LR_3s^3 + R_3g_m + s^2\left(-C_5C_LR_3R_L + C_LL_LR_3g_m\right) + s\left(-C_5R_3 + C_LR_3R_Lg_m\right)}{C_5C_LL_LR_3s^3 + s^2\left(C_5C_LR_3R_L + C_LL_L\right) + s\left(C_5R_3 + C_LR_3 + C_LR_L\right) + 1}$$

10.10 INVALID-ORDER-10
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_5C_LL_LR_3R_Ls^3 + R_3R_Lg_m + s^2\left(-C_5L_LR_3 + C_LL_LR_3R_Lg_m\right) + s\left(-C_5R_3R_L + L_LR_3g_m\right)}{C_5C_LL_LR_3R_Ls^3 + R_3 + R_L + s^2\left(C_5L_LR_3 + C_LL_LR_3 + C_LL_LR_L\right) + s\left(C_5R_3R_L + L_L\right)}$$

10.11 INVALID-ORDER-11
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{1}{C_5 s}, \frac{R_L\left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5C_LL_LR_3R_Ls^3 - C_5R_3R_Ls + C_LL_LR_3R_Lg_ms^2 + R_3R_Lg_m}{C_5C_LL_LR_3R_Ls^3 + R_3 + R_L + s^2\left(C_LL_LR_3 + C_LL_LR_L\right) + s\left(C_5R_3R_L + C_LR_3R_L\right)}$$

10.12 INVALID-ORDER-12
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L\right)$$

$$H(s) = \frac{-C_5 R_3 R_5 R_L s + R_3 R_5 R_L g_m - R_3 R_L}{C_5 R_3 R_5 R_L s + R_3 R_5 + R_3 R_L + R_5 R_L}$$

10.13 INVALID-ORDER-13
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5 R_3 R_5 s + R_3 R_5 g_m - R_3}{R_3 + R_5 + s \left(C_5 R_3 R_5 + C_L R_3 R_5\right)}$$

10.14 INVALID-ORDER-14
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5 R_3 R_5 R_L s + R_3 R_5 R_L g_m - R_3 R_L}{R_3 R_5 + R_3 R_L + R_5 R_L + s \left(C_5 R_3 R_5 R_L + C_L R_3 R_5 R_L\right)}$$

10.15 INVALID-ORDER-15
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_LR_3R_5s^3 - C_5R_3R_5s + R_3R_5g_m - R_3 + s^2\left(C_LL_LR_3R_5g_m - C_LL_LR_3\right)}{C_5C_LL_LR_3R_5s^3 + R_3 + R_5 + s^2\left(C_LL_LR_3 + C_LL_LR_5\right) + s\left(C_5R_3R_5 + C_LR_3R_5\right)}$$

10.16 INVALID-ORDER-16
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_LR_3R_5s^3 + R_3R_5g_m - R_3 + s^2\left(-C_5C_LR_3R_5R_L + C_LL_LR_3R_5g_m - C_LL_LR_3\right) + s\left(-C_5R_3R_5 + C_LR_3R_5R_Lg_m - C_LR_3R_L\right)}{C_5C_LL_LR_3R_5s^3 + R_3 + R_5 + s^2\left(C_5C_LR_3R_5R_L + C_LL_LR_3 + C_LL_LR_5\right) + s\left(C_5R_3R_5 + C_LR_3R_5 + C_LR_3R_L + C_LR_5R_L\right)}$$

10.17 INVALID-ORDER-17
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_5C_LL_LR_3R_5R_Ls^3 + R_3R_5R_Lg_m - R_3R_L + s^2\left(-C_5L_LR_3R_5 + C_LL_LR_3R_5R_Lg_m - C_LL_LR_3R_L\right) + s\left(-C_5R_3R_5R_L + L_LR_3R_5g_m - L_LR_3\right)}{C_5C_LL_LR_3R_5R_Ls^3 + R_3R_5 + R_3R_L + R_5R_L + s^2\left(C_5L_LR_3R_5 + C_LL_LR_3R_5 + C_LL_LR_3R_L + C_LL_LR_5R_L\right) + s\left(C_5R_3R_5R_L + L_LR_3 + L_LR_5\right)}$$

10.18 INVALID-ORDER-18
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5C_LL_LR_3R_5R_Ls^3 - C_5R_3R_5R_Ls + R_3R_5R_Lg_m - R_3R_L + s^2\left(C_LL_LR_3R_5R_Lg_m - C_LL_LR_3R_L\right)}{C_5C_LL_LR_3R_5R_Ls^3 + R_3R_5 + R_3R_L + R_5R_L + s^2\left(C_LL_LR_3R_5 + C_LL_LR_3R_L + C_LL_LR_5R_L\right) + s\left(C_5R_3R_5R_L + C_LR_3R_5R_L\right)}$$

10.19 INVALID-ORDER-19
$$Z(s) = \left(\infty, \infty, R_3, \infty, R_5 + \frac{1}{C_5 s}, R_L\right)$$

$$H(s) = \frac{R_3 R_L g_m + s \left(C_5 R_3 R_5 R_L g_m - C_5 R_3 R_L \right)}{R_3 + R_L + s \left(C_5 R_3 R_5 + C_5 R_3 R_L + C_5 R_5 R_L \right)}$$

10.20 INVALID-ORDER-20
$$Z(s) = \left(\infty, \infty, R_3, \infty, R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_L L_L R_3 g_m s^2 + R_3 g_m + s^3 \left(C_5 C_L L_L R_3 R_5 g_m - C_5 C_L L_L R_3 \right) + s \left(C_5 R_3 R_5 g_m - C_5 R_3 \right)}{s^3 \left(C_5 C_L L_L R_3 + C_5 C_L L_L R_5 \right) + s^2 \left(C_5 C_L R_3 R_5 + C_L L_L \right) + s \left(C_5 R_3 + C_5 R_5 + C_L R_3 \right) + 1}$$

10.21 INVALID-ORDER-21
$$Z(s) = \left(\infty, \infty, R_3, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_3 g_m s + s^2 \left(C_5 L_L R_3 R_5 g_m - C_5 L_L R_3 \right)}{C_5 C_L L_L R_3 R_5 s^3 + R_3 + s^2 \left(C_5 L_L R_3 + C_5 L_L R_5 + C_L L_L R_3 \right) + s \left(C_5 R_3 R_5 + L_L \right)}$$

10.22 INVALID-ORDER-22
$$Z(s) = \left(\infty, \infty, R_3, \infty, R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_3 g_m + s^3 \left(C_5 C_L L_L R_3 R_5 g_m - C_5 C_L L_L R_3\right) + s^2 \left(C_5 C_L R_3 R_5 R_L g_m - C_5 C_L R_3 R_L + C_L L_L R_3 g_m\right) + s \left(C_5 R_3 R_5 g_m - C_5 R_3 + C_L R_3 R_L g_m\right)}{s^3 \left(C_5 C_L L_L R_3 + C_5 C_L L_L R_5\right) + s^2 \left(C_5 C_L R_3 R_5 + C_5 C_L R_3 R_L + C_5 C_L R_5 R_L + C_L L_L\right) + s \left(C_5 R_3 + C_5 R_5 + C_L R_3 + C_L R_L\right) + 1}$$

10.23 INVALID-ORDER-23
$$Z(s) = \left(\infty, \infty, R_3, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{L_L R_3 R_L g_m s + s^2 \left(C_5 L_L R_3 R_5 R_L g_m - C_5 L_L R_3 R_L \right)}{C_5 C_L L_L R_3 R_5 R_L s^3 + R_3 R_L + s^2 \left(C_5 L_L R_3 R_5 + C_5 L_L R_3 R_L + C_5 L_L R_5 R_L + C_L L_L R_3 R_L \right) + s \left(C_5 R_3 R_5 R_L + L_L R_3 + L_L R_L \right)}$$

10.24 INVALID-ORDER-24
$$Z(s) = \left(\infty, \infty, R_3, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_3 R_L g_m + s^3 \left(C_5 C_L L_L R_3 R_5 R_L g_m - C_5 C_L L_L R_3 R_L\right) + s^2 \left(C_5 L_L R_3 R_5 g_m - C_5 L_L R_3 + C_L L_L R_3 R_L g_m\right) + s \left(C_5 R_3 R_5 R_L g_m - C_5 R_3 R_L + L_L R_3 g_m\right)}{R_3 + R_L + s^3 \left(C_5 C_L L_L R_3 R_5 + C_5 C_L L_L R_3 R_L + C_5 C_L L_L R_5 R_L\right) + s^2 \left(C_5 L_L R_3 + C_L L_L R_3 + C_L L_L R_3 + C_L L_L R_1\right) + s \left(C_5 R_3 R_5 R_L g_m - C_5 R_3 R_L + L_L R_3 g_m\right)}$$

10.25 INVALID-ORDER-25
$$Z(s) = \left(\infty, \infty, R_3, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_L L_L R_3 R_L g_m s^2 + R_3 R_L g_m + s^3 \left(C_5 C_L L_L R_3 R_5 R_L g_m - C_5 C_L L_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L g_m - C_5 R_3 R_L\right)}{R_3 + R_L + s^3 \left(C_5 C_L L_L R_3 R_5 + C_5 C_L L_L R_3 R_L + C_5 C_L L_L R_5 R_L\right) + s^2 \left(C_5 C_L R_3 R_5 R_L + C_L L_L R_3 + C_L L_L R_L\right) + s \left(C_5 R_3 R_5 + C_5 R_3 R_L + C_5 R_5 R_L + C_L R_3 R_L\right)}$$

10.26 INVALID-ORDER-26 $Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_5 L_5 R_3 g_m s^2 - C_5 R_3 s + R_3 g_m}{C_5 C_L L_5 R_3 s^3 + C_5 L_5 s^2 + s \left(C_5 R_3 + C_L R_3\right) + 1}$$

10.27 INVALID-ORDER-27
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_5 L_5 R_3 R_L g_m s^2 - C_5 R_3 R_L s + R_3 R_L g_m}{C_5 C_L L_5 R_3 R_L s^3 + R_3 + R_L + s^2 \left(C_5 L_5 R_3 + C_5 L_5 R_L \right) + s \left(C_5 R_3 R_L + C_L R_3 R_L \right)}$$

10.28 INVALID-ORDER-28
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_5R_3R_Lg_ms^3 + R_3g_m + s^2\left(-C_5C_LR_3R_L + C_5L_5R_3g_m\right) + s\left(-C_5R_3 + C_LR_3R_Lg_m\right)}{s^3\left(C_5C_LL_5R_3 + C_5C_LL_5R_L\right) + s^2\left(C_5C_LR_3R_L + C_5L_5\right) + s\left(C_5R_3 + C_LR_3 + C_LR_L\right) + 1}$$

10.29 INVALID-ORDER-29
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5 C_L L_5 L_L R_3 g_m s^4 - C_5 C_L L_L R_3 s^3 - C_5 R_3 s + R_3 g_m + s^2 \left(C_5 L_5 R_3 g_m + C_L L_L R_3 g_m \right)}{C_5 C_L L_5 L_L s^4 + s^3 \left(C_5 C_L L_5 R_3 + C_5 C_L L_L R_3 \right) + s^2 \left(C_5 L_5 + C_L L_L \right) + s \left(C_5 R_3 + C_L R_3 \right) + 1}$$

10.30 INVALID-ORDER-30
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_5 L_5 L_L R_3 g_m s^3 - C_5 L_L R_3 s^2 + L_L R_3 g_m s}{C_5 C_L L_5 L_L R_3 s^4 + C_5 L_5 L_L s^3 + L_L s + R_3 + s^2 \left(C_5 L_5 R_3 + C_5 L_L R_3 + C_L L_L R_3 \right)}$$

10.31 INVALID-ORDER-31
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_5L_LR_3g_ms^4 + R_3g_m + s^3\left(C_5C_LL_5R_3R_Lg_m - C_5C_LL_LR_3\right) + s^2\left(-C_5C_LR_3R_L + C_5L_5R_3g_m + C_LL_LR_3g_m\right) + s\left(-C_5R_3 + C_LR_3R_Lg_m\right)}{C_5C_LL_5L_Ls^4 + s^3\left(C_5C_LL_5R_3 + C_5C_LL_5R_L + C_5C_LL_LR_3\right) + s^2\left(C_5C_LR_3R_L + C_5L_5R_3g_m + C_LL_LR_3g_m\right) + s\left(-C_5R_3 + C_LR_3R_Lg_m\right)}$$

10.32 INVALID-ORDER-32
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_5L_5L_LR_3R_Lg_ms^3 - C_5L_LR_3R_Ls^2 + L_LR_3R_Lg_ms}{C_5C_LL_5L_LR_3R_Ls^4 + R_3R_L + s^3\left(C_5L_5L_LR_3 + C_5L_5L_LR_L\right) + s^2\left(C_5L_5R_3R_L + C_5L_LR_3R_L + C_LL_LR_3R_L\right) + s\left(L_LR_3 + L_LR_L\right)}$$

10.33 INVALID-ORDER-33
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{C_5C_LL_5L_LR_3R_Lg_ms^4 + R_3R_Lg_m + s^3\left(-C_5C_LL_LR_3R_L + C_5L_5L_LR_3g_m\right) + s^2\left(C_5L_5R_3R_Lg_m - C_5L_LR_3 + C_LL_LR_3R_Lg_m\right) + s\left(-C_5R_3R_L + L_LR_3g_m\right)}{R_3 + R_L + s^4\left(C_5C_LL_5L_LR_3 + C_5L_LL_LR_3\right) + s^3\left(C_5C_LL_LR_3R_L + C_5L_5L_L\right) + s^2\left(C_5L_5R_3 + C_5L_5R_L + C_5L_LR_3 + C_LL_LR_3 + C_LL_LR_3 + C_LL_LR_3\right) + s\left(C_5R_3R_L + L_LR_3g_m\right)}$$

10.34 INVALID-ORDER-34
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_5C_LL_5L_LR_3R_Lg_ms^4 - C_5C_LL_LR_3R_Ls^3 - C_5R_3R_Ls + R_3R_Lg_m + s^2\left(C_5L_5R_3R_Lg_m + C_LL_LR_3R_Lg_m\right)}{R_3 + R_L + s^4\left(C_5C_LL_5L_LR_3 + C_5C_LL_5L_LR_L\right) + s^3\left(C_5C_LL_5R_3R_L + C_5C_LL_LR_3R_L\right) + s^2\left(C_5L_5R_3 + C_5L_5R_L + C_LL_LR_3 + C_LL_LR_L\right) + s\left(C_5R_3R_L + C_LR_3R_L\right)}$$

10.35 INVALID-ORDER-35 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_{5s}}{C_5L_5s^2+1}, R_L + \frac{1}{C_Ls}\right)$

$$H(s) = \frac{-C_5C_LL_5R_3R_Ls^3 - R_3 + s^2\left(-C_5L_5R_3 + C_LL_5R_3R_Lg_m\right) + s\left(-C_LR_3R_L + L_5R_3g_m\right)}{C_5C_LL_5R_3R_Ls^3 + R_3 + s^2\left(C_5L_5R_3 + C_LL_5R_3 + C_LL_5R_3\right) + s\left(C_LR_3R_L + L_5\right)}$$

10.36 INVALID-ORDER-36
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_5L_LR_3s^4 + C_LL_5L_LR_3g_ms^3 + L_5R_3g_ms - R_3 + s^2\left(-C_5L_5R_3 - C_LL_LR_3\right)}{C_5C_LL_5L_LR_3s^4 + C_LL_5L_Ls^3 + L_5s + R_3 + s^2\left(C_5L_5R_3 + C_LL_5R_3 + C_LL_LR_3\right)}$$

$$\textbf{10.37} \quad \textbf{INVALID-ORDER-37} \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1}, \ L_Ls + R_L + \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{-C_5C_LL_5L_LR_3s^4 - R_3 + s^3\left(-C_5C_LL_5R_3R_L + C_LL_5L_LR_3g_m \right) + s^2\left(-C_5L_5R_3 + C_LL_5R_3R_Lg_m - C_LL_LR_3 \right) + s\left(-C_LR_3R_L + L_5R_3g_m \right) }{C_5C_LL_5L_LR_3s^4 + R_3 + s^3\left(C_5C_LL_5R_3R_L + C_LL_5L_L \right) + s^2\left(C_5L_5R_3 + C_LL_5R_3 + C_LL$$

10.38 INVALID-ORDER-38
$$Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1}, \ \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{-C_5C_LL_5L_LR_3R_Ls^4 - R_3R_L + s^3\left(-C_5L_5L_LR_3 + C_LL_5L_LR_3R_Lg_m\right) + s^2\left(-C_5L_5R_3R_L - C_LL_LR_3R_L + L_5L_LR_3g_m\right) + s\left(L_5R_3R_Lg_m - L_LR_3\right)}{C_5C_LL_5L_LR_3R_Ls^4 + R_3R_L + s^3\left(C_5L_5L_LR_3 + C_LL_5L_LR_3 + C_LL_5L_LR_L\right) + s^2\left(C_5L_5R_3R_L + C_LL_LR_3R_L + L_5L_L\right) + s\left(L_5R_3R_L + L_5L_L\right) + s\left($$

10.39 INVALID-ORDER-39
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5C_LL_5L_LR_3R_Ls^4 + C_LL_5L_LR_3R_Lg_ms^3 + L_5R_3R_Lg_ms - R_3R_L + s^2\left(-C_5L_5R_3R_L - C_LL_LR_3R_L\right)}{C_5C_LL_5L_LR_3R_Ls^4 + R_3R_L + s^3\left(C_LL_5L_LR_3 + C_LL_5L_LR_L\right) + s^2\left(C_5L_5R_3R_L + C_LL_5R_3R_L + C_LL_5R_3R_L\right) + s\left(L_5R_3 + L_5R_L\right)}$$

10.40 INVALID-ORDER-40
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5 L_5 R_3 g_m s^2 + R_3 g_m + s \left(C_5 R_3 R_5 g_m - C_5 R_3\right)}{C_5 C_L L_5 R_3 s^3 + s^2 \left(C_5 C_L R_3 R_5 + C_5 L_5\right) + s \left(C_5 R_3 + C_5 R_5 + C_L R_3\right) + 1}$$

10.41 INVALID-ORDER-41
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_5L_5R_3R_Lg_ms^2 + R_3R_Lg_m + s\left(C_5R_3R_5R_Lg_m - C_5R_3R_L\right)}{C_5C_LL_5R_3R_Ls^3 + R_3 + R_L + s^2\left(C_5C_LR_3R_5R_L + C_5L_5R_3 + C_5L_5R_L\right) + s\left(C_5R_3R_5 + C_5R_3R_L + C_5R_5R_L + C_LR_3R_L\right)}$$

10.42 INVALID-ORDER-42
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_5R_3R_Lg_ms^3 + R_3g_m + s^2\left(C_5C_LR_3R_5R_Lg_m - C_5C_LR_3R_L + C_5L_5R_3g_m\right) + s\left(C_5R_3R_5g_m - C_5R_3 + C_LR_3R_Lg_m\right)}{s^3\left(C_5C_LL_5R_3 + C_5C_LL_5R_L\right) + s^2\left(C_5C_LR_3R_5 + C_5C_LR_3R_L + C_5C_LR_5R_L + C_5L_5\right) + s\left(C_5R_3 + C_5R_3 + C_5R_3 + C_LR_3 + C_LR_L\right) + 1}$$

10.43 INVALID-ORDER-43
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_5L_LR_3g_ms^4 + R_3g_m + s^3\left(C_5C_LL_LR_3R_5g_m - C_5C_LL_LR_3\right) + s^2\left(C_5L_5R_3g_m + C_LL_LR_3g_m\right) + s\left(C_5R_3R_5g_m - C_5R_3\right)}{C_5C_LL_5L_Ls^4 + s^3\left(C_5C_LL_5R_3 + C_5C_LL_LR_3 + C_5C_LL_LR_5\right) + s^2\left(C_5C_LR_3R_5 + C_5L_5 + C_LL_L\right) + s\left(C_5R_3 + C_5R_5 + C_LR_3\right) + 1}$$

10.44 INVALID-ORDER-44
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_5L_5L_LR_3g_ms^3 + L_LR_3g_ms + s^2\left(C_5L_LR_3R_5g_m - C_5L_LR_3\right)}{C_5C_LL_5L_LR_3s^4 + R_3 + s^3\left(C_5C_LL_LR_3R_5 + C_5L_5L_L\right) + s^2\left(C_5L_5R_3 + C_5L_LR_3 + C_5L_LR_5 + C_LL_LR_3\right) + s\left(C_5R_3R_5 + L_L\right)}$$

10.45 INVALID-ORDER-45
$$Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_5L_LR_3g_ms^4 + R_3g_m + s^3\left(C_5C_LL_5R_3R_Lg_m + C_5C_LL_LR_3R_5g_m - C_5C_LL_LR_3\right) + s^2\left(C_5C_LR_3R_5R_Lg_m - C_5C_LR_3R_L + C_5L_5R_3g_m + C_LL_LR_3g_m\right) + s\left(C_5R_3R_5g_m - C_5R_3 + C_LR_3R_Lg_m\right)}{C_5C_LL_5L_Ls^4 + s^3\left(C_5C_LL_5R_3 + C_5C_LL_5R_4 + C_5C_LL_LR_3 + C_5C_LL_LR_3\right) + s^2\left(C_5C_LR_3R_5 + C_5C_LR_3R_L + C_5L_5R_3g_m + C_LL_LR_3g_m\right) + s\left(C_5R_3R_5g_m - C_5R_3 + C_LR_3R_Lg_m\right)}$$

$$\textbf{10.46} \quad \textbf{INVALID-ORDER-46} \ \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right)$$

$$H(s) = \frac{C_5 L_5 L_L R_3 R_L g_m s^3 + L_L R_3 R_L g_m s + s^2 \left(C_5 L_L R_3 R_5 R_L g_m - C_5 L_L R_3 R_L \right) }{C_5 C_L L_5 L_L R_3 R_L s^4 + R_3 R_L + s^3 \left(C_5 C_L L_L R_3 R_5 R_L + C_5 L_5 L_L R_3 + C_5 L_L R_3 R_L \right) + s^2 \left(C_5 L_5 R_3 R_L + C_5 L_L R_3 R_L + C_5 L_L R_3 R_L \right) + s \left(C_5 R_3 R_5 R_L + L_L R_3 + L_L R_L \right) }$$

10.47 INVALID-ORDER-47 $Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

 $H(s) = \frac{C_5C_LL_5L_LR_3R_Lg_ms^4 + R_3R_Lg_m + s^3\left(C_5C_LL_LR_3R_5R_Lg_m - C_5C_LL_LR_3R_L + C_5L_5L_LR_3g_m\right) + s^2\left(C_5L_5R_3R_Lg_m + C_5L_LR_3R_5g_m - C_5L_LR_3 + C_LL_RR_3R_Lg_m\right) + s\left(C_5R_3R_5R_Lg_m - C_5R_3R_L + L_LR_3g_m\right)}{R_3 + R_L + s^4\left(C_5C_LL_5L_LR_3 + C_5C_LL_LR_3R_5 + C_5C_LL_LR_3R_L + C_5C_LL_LR_3R_L + C_5C_LL_LR_3R_L + C_5C_LL_LR_3R_L + C_5C_LL_LR_3R_L + C_5C_LL_RR_3R_L + C_5C_LL_RR_$

10.48 INVALID-ORDER-48 $Z(s) = \left(\infty, \infty, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

 $H(s) = \frac{C_5C_LL_5L_LR_3R_Lg_ms^4 + R_3R_Lg_m + s^3\left(C_5C_LL_LR_3R_5R_Lg_m - C_5C_LL_LR_3R_L\right) + s^2\left(C_5L_5R_3R_Lg_m + C_LL_LR_3R_Lg_m\right) + s\left(C_5R_3R_5R_Lg_m - C_5R_3R_L\right)}{R_3 + R_L + s^4\left(C_5C_LL_5L_LR_3 + C_5C_LL_5R_3R_L + C_5C_LL_LR_3R_L + C_5C_LL_LR_3R_L + C_5C_LL_LR_3R_L\right) + s^2\left(C_5C_LR_3R_5R_Lg_m + C_LL_LR_3R_Lg_m\right) + s\left(C_5R_3R_5R_Lg_m - C_5R_3R_L\right)}$

10.49 INVALID-ORDER-49 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L + \frac{1}{C_L s}\right)$

 $H(s) = \frac{-C_5C_LL_5R_3R_5R_Ls^3 - R_3R_5 + s^2\left(-C_5L_5R_3R_5 + C_LL_5R_3R_5R_Lg_m - C_LL_5R_3R_L\right) + s\left(-C_LR_3R_5R_L + L_5R_3R_5g_m - L_5R_3\right)}{C_5C_LL_5R_3R_5R_Ls^3 + R_3R_5 + s^2\left(C_5L_5R_3R_5 + C_LL_5R_3R_5 + C_LL_5R_3R_L + C_LL_5R_5R_L\right) + s\left(C_LR_3R_5R_L + L_5R_3R_5R_L + L_5R_3 + L_5R_5\right)}$

10.50 INVALID-ORDER-50 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_5C_LL_5L_LR_3R_5s^4 - R_3R_5 + s^3\left(C_LL_5L_LR_3R_5g_m - C_LL_5L_LR_3\right) + s^2\left(-C_5L_5R_3R_5 - C_LL_LR_3R_5\right) + s\left(L_5R_3R_5g_m - L_5R_3\right)}{C_5C_LL_5L_LR_3R_5s^4 + R_3R_5 + s^3\left(C_LL_5L_LR_3 + C_LL_5L_LR_5\right) + s^2\left(C_5L_5R_3R_5 + C_LL_5R_3R_5 + C_LL_4R_3R_5\right) + s\left(L_5R_3R_5 + L_5R_5\right)}$$

10.51 INVALID-ORDER-51 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_5C_LL_5L_LR_3R_5s^4 - R_3R_5 + s^3\left(-C_5C_LL_5R_3R_5R_L + C_LL_5L_LR_3R_5g_m - C_LL_5L_LR_3\right) + s^2\left(-C_5L_5R_3R_5 + C_LL_5R_3R_5R_Lg_m - C_LL_5R_3R_L - C_LL_LR_3R_5\right) + s\left(-C_LR_3R_5R_L + L_5R_3R_5g_m - L_5R_3\right)}{C_5C_LL_5L_LR_3R_5s^4 + R_3R_5 + s^3\left(C_5C_LL_5R_3R_5R_L + C_LL_5L_LR_3 + C_LL_5L_LR_3\right) + s^2\left(C_5L_5R_3R_5 + C_LL_5R_3R_5 + C_LL_5R_3R_5 + C_LL_5R_3R_5 + C_LL_5R_3R_5 + C_LL_5R_3R_5\right) + s\left(-C_LR_3R_5R_L + L_5R_3R_5R_L + L_5R_3R_5R_L + C_LL_5R_3R_5 + C_LL_5R_5 +$$

10.52 INVALID-ORDER-52 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{-C_5C_LL_5L_LR_3R_5R_Ls^4 - R_3R_5R_L + s^3\left(-C_5L_5L_LR_3R_5 + C_LL_5L_LR_3R_5R_Lg_m - C_LL_5L_LR_3R_L\right) + s^2\left(-C_5L_5R_3R_5R_L - C_LL_LR_3R_5R_L + L_5L_LR_3R_5g_m - L_5L_LR_3\right) + s\left(L_5R_3R_5R_Lg_m - L_5R_3R_L - L_LR_3R_5\right)}{C_5C_LL_5L_LR_3R_5R_Ls^4 + R_3R_5R_L + s^3\left(C_5L_5L_LR_3R_5 + C_LL_5L_LR_3R_5 + C_LL_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3R_5R_L + C_LL_LR_3R_5R_L + L_5L_LR_3 + L_5L_LR_3\right) + s\left(L_5R_3R_5R_L + L_5L_LR_3R_5 + L_5L_LR_3R_5 + L_5L_LR_3R_5 + L_5L_LR_3R_5\right)}{C_5C_LL_5L_LR_3R_5R_L + s^3\left(C_5L_5L_LR_3R_5 + C_LL_5L_LR_3R_5 + C_LL_5L_LR_3R_L + C_LL_5L_LR_3R_5\right) + s^2\left(C_5L_5R_3R_5R_L + C_LL_5L_RR_3R_5R_L + L_5L_LR_3R_5 + L_5L_LR_3R_5 + L_5R_3R_L + L_5R_3R_5\right)}$$

10.53 INVALID-ORDER-53 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

$$H(s) = \frac{-C_5C_LL_5L_LR_3R_5R_Ls^4 - R_3R_5R_Ls^4 - R_3R_5R_L + s^3\left(C_LL_5L_LR_3R_5R_Lg_m - C_LL_5L_LR_3R_L\right) + s^2\left(-C_5L_5R_3R_5R_L - C_LL_LR_3R_5R_L\right) + s\left(L_5R_3R_5R_Lg_m - L_5R_3R_L\right)}{C_5C_LL_5L_LR_3R_5R_Ls^4 + R_3R_5R_L + s^3\left(C_LL_5L_LR_3R_5 + C_LL_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3R_5R_L + C_LL_5R_3R_5R_L + C_LL_4R_3R_5R_L\right) + s\left(L_5R_3R_5R_L + L_5R_3R_L + L_5R_5R_L\right)}$$

10.54 INVALID-ORDER-54 $Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_{5s}}{C_5 L_{5s}^2 + 1} + R_5, \frac{1}{C_{Ls}}\right)$

$$H(s) = \frac{L_5 R_3 g_m s + R_3 R_5 g_m - R_3 + s^2 \left(C_5 L_5 R_3 R_5 g_m - C_5 L_5 R_3\right)}{C_5 C_L L_5 R_3 R_5 s^3 + R_3 + R_5 + s^2 \left(C_5 L_5 R_3 + C_5 L_5 R_5 + C_L L_5 R_3\right) + s \left(C_L R_3 R_5 + L_5\right)}$$

10.55 INVALID-ORDER-55
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_5 R_3 R_L g_m s + R_3 R_5 R_L g_m - R_3 R_L + s^2 \left(C_5 L_5 R_3 R_5 R_L g_m - C_5 L_5 R_3 R_L\right)}{C_5 C_L L_5 R_3 R_5 R_L s^3 + R_3 R_5 + R_3 R_L + R_5 R_L + s^2 \left(C_5 L_5 R_3 R_5 + C_5 L_5 R_3 R_L + C_5 L_5 R_3 R_L + C_L L_5 R_3 R_L\right) + s \left(C_L R_3 R_5 R_L + L_5 R_3 + L_5 R_L\right)}$$

10.56 INVALID-ORDER-56
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s^3 \left(C_5 C_L L_5 R_3 R_5 R_L g_m - C_5 C_L L_5 R_3 R_L\right) + s^2 \left(C_5 L_5 R_3 R_5 g_m - C_5 L_5 R_3 + C_L L_5 R_3 R_L g_m\right) + s \left(C_L R_3 R_5 R_L g_m - C_L R_3 R_L + L_5 R_3 g_m\right)}{R_3 + R_5 + s^3 \left(C_5 C_L L_5 R_3 R_5 + C_5 L_5 R_3 R_L + C_5 C_L L_5 R_5 R_L\right) + s^2 \left(C_5 L_5 R_3 + C_5 L_5 R_3 + C_L L_5 R_3 + C_L L_5 R_L\right) + s \left(C_L R_3 R_5 R_L g_m - C_L R_3 R_L + L_5 R_3 g_m\right)}$$

10.57 INVALID-ORDER-57
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_L L_5 L_L R_3 g_m s^3 + L_5 R_3 g_m s + R_3 R_5 g_m - R_3 + s^4 \left(C_5 C_L L_5 L_L R_3 R_5 g_m - C_5 C_L L_5 L_L R_3\right) + s^2 \left(C_5 L_5 R_3 R_5 g_m - C_5 L_5 R_3 + C_L L_L R_3 R_5 g_m - C_L L_L R_3\right)}{R_3 + R_5 + s^4 \left(C_5 C_L L_5 L_L R_3 + C_5 L_L L_L R_5\right) + s^3 \left(C_5 C_L L_5 R_3 R_5 + C_L L_5 L_L\right) + s^2 \left(C_5 L_5 R_3 + C_5 L_5 R_3 + C_L L_L R_3 + C_L L_L R_3\right) + s^2 \left(C_5 L_5 R_3 R_5 R_5 + C_L L_5 R_3 + C_L L_L R_3\right) + s^2 \left(C_5 L_5 R_3 R_5 R_5 R_5 + C_L L_5 R_3 + C_L L_L R_3\right) + s^2 \left(C_5 L_5 R_3 R_5 R_5 R_5 + C_L L_5 R_3 R_5 R_5 R_5 + C_L L_5 R_3 R_5 R_5 R_5 R_5\right)$$

10.58 INVALID-ORDER-58
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_5 L_L R_3 g_m s^2 + s^3 \left(C_5 L_5 L_L R_3 R_5 g_m - C_5 L_5 L_L R_3\right) + s \left(L_L R_3 R_5 g_m - L_L R_3\right)}{C_5 C_L L_5 L_L R_3 R_5 s^4 + R_3 R_5 + s^3 \left(C_5 L_5 L_L R_3 + C_5 L_5 L_L R_5 + C_L L_5 L_L R_3\right) + s^2 \left(C_5 L_5 R_3 R_5 + C_L L_L R_3 R_5 + L_5 L_L\right) + s \left(L_5 R_3 + L_L R_3 + L_L R_5\right)}$$

10.59 INVALID-ORDER-59
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s^4 \left(C_5 C_L L_5 L_L R_3 R_5 g_m - C_5 C_L L_5 L_L R_3\right) + s^3 \left(C_5 C_L L_5 R_3 R_5 R_L g_m - C_5 C_L L_5 R_3 R_L + C_L L_5 L_L R_3 g_m\right) + s^2 \left(C_5 L_5 R_3 R_5 g_m - C_5 L_5 R_3 + C_L L_5 R_3 R_L g_m + C_L L_L R_3 R_5 g_m - C_L L_L R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L R_3 R_L + L_5 R_3 g_m\right)}{R_3 + R_5 + s^4 \left(C_5 C_L L_5 L_L R_3 + C_5 C_L L_5 L_L R_5\right) + s^3 \left(C_5 C_L L_5 R_3 R_5 + C_5 C_L L_5 R_3 R_L + C_L L_5 L_L\right) + s^2 \left(C_5 L_5 R_3 + C_L L_5 R_3 R_5 + C_L L_5 R_3 R_5 R_L + C_L L_5 R_5 R_L + C_L L_$$

10.60 INVALID-ORDER-60
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{L_5 L_L R_3 R_L g_m s^2 + s^3 \left(C_5 L_5 L_L R_3 R_5 R_L g_m - C_5 L_5 L_L R_3 R_L\right) + s \left(L_L R_3 R_5 R_L g_m - L_L R_3 R_L\right)}{C_5 C_L L_5 L_L R_3 R_5 R_L s^4 + R_3 R_5 R_L + s^3 \left(C_5 L_5 L_L R_3 R_5 + C_5 L_5 L_L R_3 R_L + C_5 L_5 L_L R_3 R_L\right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_L L_L R_3 R_5 R_L + L_5 L_L R_3 + L_5 L_L R_3 + L_5 L_L R_3 R_5 + L_L R_3 R_5 + L_L R_3 R_5 R_L + L_$$

10.61 INVALID-ORDER-61
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_I s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_3 R_5 R_L g_m - R_3 R_L + s^4 \left(C_5 C_L L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_5 L_L R_3 R_L + C_L L_L R_3 R_5 g_m - C_5 L_5 L_L R_3 R_L g_m + L_L R_3 R_5 g_m - C_5 L_5 L_L R_3 R_L g_m + L_L R_3 R_5 R_L g_m - C_5 L_5 R_3 R_L + C_5 L_L R_3 R_L + L_5 L_L R_3 R_L + C_5 L_L R$$

10.62 INVALID-ORDER-62
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_L L_5 L_L R_3 R_L g_m s^3 + L_5 R_3 R_L g_m s + R_3 R_5 R_L g_m - R_3 R_L + s^4 \left(C_5 C_L L_5 L_L R_3 R_5 R_L g_m - C_5 L_5 L_L R_3 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L g_m - C_5 L_5 R_3 R_L + C_L L_L R_3 R_5 R_L g_m - C_L L_L R_3 R_L \right)}{R_3 R_5 + R_3 R_L + R_5 R_L + s^4 \left(C_5 C_L L_5 L_L R_3 R_L + C_5 L_L L_R R_5 R_L \right) + s^3 \left(C_5 C_L L_5 L_L R_3 R_5 + C_L L_5 L_L R_3 + C_L L_5 L_L R_3 R_L + C_L L_5 R_3 R_L + C_L L_5 R_3 R_L + C_L L_5 R_3 R_L + C_L L_L R_3 R_L +$$

10.63 INVALID-ORDER-63
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{-C_5 R_3 R_5 s + R_3 R_5 g_m - R_3 + s^2 \left(C_5 L_5 R_3 R_5 g_m - C_5 L_5 R_3\right)}{C_5 C_L L_5 R_3 R_5 s^3 + R_3 + R_5 + s^2 \left(C_5 L_5 R_3 + C_5 L_5 R_5\right) + s \left(C_5 R_3 R_5 + C_L R_3 R_5\right)}$$

10.64 INVALID-ORDER-64
$$Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{-C_5R_3R_5R_Ls + R_3R_5R_Lg_m - R_3R_L + s^2\left(C_5L_5R_3R_5R_Lg_m - C_5L_5R_3R_L\right)}{C_5C_LL_5R_3R_5R_Ls^3 + R_3R_5 + R_3R_L + R_5R_L + s^2\left(C_5L_5R_3R_5 + C_5L_5R_3R_L\right) + s\left(C_5R_3R_5R_L + C_LR_3R_5R_L\right)}$$

$$\textbf{10.65} \quad \textbf{INVALID-ORDER-65} \ \ Z(s) = \left(\infty, \ \ \infty, \ \ R_3, \ \ \infty, \ \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \ R_L + \frac{1}{C_L s} \right) \\ H(s) = \frac{R_3 R_5 g_m - R_3 + s^3 \left(C_5 C_L L_5 R_3 R_5 R_L g_m - C_5 C_L L_5 R_3 R_L \right) + s^2 \left(-C_5 C_L R_3 R_5 R_L + C_5 L_5 R_3 R_5 g_m - C_5 L_5 R_3 \right) + s \left(-C_5 R_3 R_5 + C_L R_3 R_5 R_L g_m - C_L R_3 R_L \right) }{R_3 + R_5 + s^3 \left(C_5 C_L L_5 R_3 R_5 + C_5 C_L L_5 R_3 R_L + C_5 C_L L_5 R_5 R_L \right) + s^2 \left(C_5 C_L R_3 R_5 R_L + C_5 L_5 R_3 + C_5 L_5 R_3 \right) + s \left(C_5 R_3 R_5 + C_L R_3 R_5 + C_L R_3 R_5 + C_L R_3 R_L + C_L R_5 R_L \right) }$$

10.66 INVALID-ORDER-66
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{-C_5C_LL_LR_3R_5s^3 - C_5R_3R_5s + R_3R_5g_m - R_3 + s^4\left(C_5C_LL_5L_LR_3R_5g_m - C_5C_LL_5L_LR_3\right) + s^2\left(C_5L_5R_3R_5g_m - C_5L_5R_3 + C_LL_LR_3R_5g_m - C_LL_LR_3\right)}{R_3 + R_5 + s^4\left(C_5C_LL_5L_LR_3 + C_5C_LL_5L_RR_5\right) + s^3\left(C_5C_LL_5R_3R_5 + C_5C_LL_LR_3R_5\right) + s^2\left(C_5L_5R_3 + C_5L_5R_3 + C_LL_LR_3 + C_LL_RR_5\right) + s\left(C_5R_3R_5 + C_LR_3R_5\right)}$$

10.67 INVALID-ORDER-67
$$Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{-C_5L_LR_3R_5s^2+s^3\left(C_5L_5L_LR_3R_5g_m-C_5L_5L_LR_3\right)+s\left(L_LR_3R_5g_m-L_LR_3\right)}{C_5C_LL_5L_LR_3R_5s^4+R_3R_5+s^3\left(C_5L_5L_LR_3+C_5L_5L_LR_3\right)+s^2\left(C_5L_5R_3R_5+C_5L_LR_3R_5\right)+s\left(L_LR_3R$$

$$\begin{aligned} \textbf{10.68} \quad & \textbf{INVALID-ORDER-68} \ Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ L_L s + R_L + \frac{1}{C_L s} \right) \\ H(s) & = \frac{R_3 R_5 g_m - R_3 + s^4 \left(C_5 C_L L_5 L_L R_3 R_5 g_m - C_5 C_L L_5 L_L R_3 \right) + s^3 \left(C_5 C_L L_5 R_3 R_5 R_L g_m - C_5 C_L L_5 R_3 R_5 - C_5 C_L L_5 R_3 R_5 R_L g_m - C_5 C_L L_5 R_3 R_5 R_L + C_5 C_L L_5 R_3 R_5 g_m - C_5 L_5 R_3 + C_L L_L R_3 R_5 g_m - C_L L_L R_3 \right) + s \left(C_5 R_3 R_5 + C_L R_3 R_5 R_L g_m - C_L R_3 R_5 \right) \\ R_3 + R_5 + s^4 \left(C_5 C_L L_5 L_L R_3 + C_5 C_L L_5 L_L R_3 \right) + s^3 \left(C_5 C_L L_5 R_3 R_5 + C_5 C_L L_5 R_3 R_5 + C_5 C_L L_5 R_3 R_5 \right) + s^2 \left(C_5 C_L R_3 R_5 R_L + C_5 L_5 R_3 + C_L L_L R_3 + C_L L_L R_3 \right) + s \left(C_5 R_3 R_5 + C_L R_3 R_5 + C_L R_3 R_5 R_L + C_5 C_L L_5 R_3 R_5 R_L \right) \\ R_5 + \frac{1}{2} \left(C_5 C_L R_3 R_5 R_L + C_5 C_L L_5 R_3 R_5 R_L \right) \\ R_5 + \frac{1}{2} \left(C_5 C_L R_3 R_5 R_L + C_5 C_L L_5 R_3 R_5 R_L \right) \\ R_5 + \frac{1}{2} \left(C_5 C_L R_5 R_5 R_5 R_L + C_5 C_L L_5 R_5 R_5 R_L + C_5 C_L L_5 R_5 R_5 R_L + C_5 C_L L_5 R_3 R_5 R_L + C_5 C_L L_5 R_$$

$$\begin{aligned} \textbf{10.69} \quad \textbf{INVALID-ORDER-69} \ \ Z(s) &= \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \\ & \qquad \qquad \\ H(s) &= \frac{-C_5 L_L R_3 R_5 R_L s^2 + s^3 \left(C_5 L_5 L_L R_3 R_5 R_L g_m - C_5 L_5 L_L R_3 R_L \right) + s \left(L_L R_3 R_5 R_L g_m - L_L R_3 R_L \right)}{C_5 C_L L_5 L_L R_3 R_5 R_L s^4 + R_3 R_5 R_L + s^3 \left(C_5 L_5 L_L R_3 R_5 + C_5 L_5 L_L R_3 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 L_L R_3 R_5 R_L \right) + s \left(L_L R_3 R_5 R_L \right)$$

10.70 INVALID-ORDER-70
$$Z(s) = \left(\infty, \infty, R_3, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{R_3 R_5 R_L g_m - R_3 R_L + s^4 \left(C_5 C_L L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_5 L_L R_3 R_5 R_L + C_5 L_5 L_L R_3 R_5 + C_5 L_L R_3 R_5 R_L + C_5 L_L R_3 R_5 R_L + C_5 L_5 L_L R_3 R_5 R_L + C_5 L_5 R_5 R_L + C_5 L_5 R_3 R_5 R_L + C_5 L_5 R_5 R_L + C$$

10.71 INVALID-ORDER-71
$$Z(s) = \left(\infty, \ \infty, \ R_3, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{R_L\left(C_LL_Ls^2+1\right)}{C_LL_Ls^2+C_LR_Ls+1}\right)$$

$$H(s) = \frac{-C_5C_LL_R3R_5R_Ls^3 - C_5R_3R_5R_Ls + R_3R_5R_Lg_m - R_3R_L + s^4\left(C_5C_LL_5L_LR_3R_5R_Lg_m - C_5C_LL_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3R_5R_Lg_m - C_5L_5R_3R_L + C_LL_LR_3R_5R_Lg_m - C_LL_LR_3R_L\right)}{R_3R_5 + R_3R_L + R_5R_L + s^4\left(C_5C_LL_5L_LR_3R_L + C_5C_LL_5L_LR_3R_L\right) + s^3\left(C_5C_LL_5R_3R_5R_L + C_5C_LL_5R_3R_5 + C_5L_5R_3R_L + C_5L_LR_3R_5 + C_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3R_5 + C_5L_5R_3R_L + C_5L_LR_3R_5 + C_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3R_5 + C_5L_5R_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3R_5 + C_5L_5R_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3R_5 + C_5L_5R_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3R_5 + C_5L_5R_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3R_5 + C_5L_5R_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3R_5 + C_5L_5R_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3R_5 + C_5L_LR_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3R_5 + C_5L_5R_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3R_5 + C_5L_5R_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3R_5 + C_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3$$

10.72 INVALID-ORDER-72
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5, R_L\right)$$

$$H(s) = \frac{R_5 R_L g_m - R_L}{C_3 R_5 R_L s + R_5 + R_L}$$

10.73 INVALID-ORDER-73
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m - 1}{s \left(C_3 R_5 + C_L R_5 \right) + 1}$$

10.74 INVALID-ORDER-74
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_5 R_L g_m - R_L}{R_5 + R_L + s \left(C_3 R_5 R_L + C_L R_5 R_L \right)}$$

10.75 INVALID-ORDER-75
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^2 \left(C_L L_L R_5 g_m - C_L L_L \right) - 1}{C_3 C_L L_L R_5 s^3 + C_L L_L s^2 + s \left(C_3 R_5 + C_L R_5 \right) + 1}$$

10.76 INVALID-ORDER-76
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^2 \left(C_L L_L R_5 g_m - C_L L_L \right) + s \left(C_L R_5 R_L g_m - C_L R_L \right) - 1}{C_3 C_L L_L R_5 s^3 + s^2 \left(C_3 C_L R_5 R_L + C_L L_L \right) + s \left(C_3 R_5 + C_L R_5 + C_L R_L \right) + 1}$$

10.77 INVALID-ORDER-77
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^2 \left(C_L L_L R_5 R_L g_m - C_L L_L R_L \right) + s \left(L_L R_5 g_m - L_L \right)}{C_3 C_L L_L R_5 R_L s^3 + R_5 + R_L + s^2 \left(C_3 L_L R_5 + C_L L_L R_5 + C_L L_L R_L \right) + s \left(C_3 R_5 R_L + L_L \right)}$$

10.78 INVALID-ORDER-78
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^2 \left(C_L L_L R_5 R_L g_m - C_L L_L R_L \right)}{C_3 C_L L_L R_5 R_L s^3 + R_5 + R_L + s^2 \left(C_L L_L R_5 + C_L L_L R_L \right) + s \left(C_3 R_5 R_L + C_L R_5 R_L \right)}$$

10.79 INVALID-ORDER-79 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, R_L\right)$

$$H(s) = \frac{-C_5 R_L s + R_L g_m}{s (C_3 R_L + C_5 R_L) + 1}$$

10.80 INVALID-ORDER-80 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_5 s + g_m}{s (C_3 + C_5 + C_L)}$$

10.81 INVALID-ORDER-81 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{-C_5 R_L s + R_L g_m}{s \left(C_3 R_L + C_5 R_L + C_L R_L \right) + 1}$$

10.82 INVALID-ORDER-82 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_5 C_L R_L s^2 + g_m + s \left(-C_5 + C_L R_L g_m\right)}{s^2 \left(C_3 C_L R_L + C_5 C_L R_L\right) + s \left(C_3 + C_5 + C_L\right)}$$

10.83 INVALID-ORDER-83
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5 C_L L_L s^3 - C_5 s + C_L L_L g_m s^2 + g_m}{s^3 \left(C_3 C_L L_L + C_5 C_L L_L \right) + s \left(C_3 + C_5 + C_L \right)}$$

10.84 INVALID-ORDER-84
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_5 L_L s^2 + L_L g_m s}{s^2 (C_3 L_L + C_5 L_L + C_L L_L) + 1}$$

10.85 INVALID-ORDER-85
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_Ls^3 + g_m + s^2\left(-C_5C_LR_L + C_LL_Lg_m\right) + s\left(-C_5 + C_LR_Lg_m\right)}{s^3\left(C_3C_LL_L + C_5C_LL_L\right) + s^2\left(C_3C_LR_L + C_5C_LR_L\right) + s\left(C_3 + C_5 + C_L\right)}$$

10.86 INVALID-ORDER-86
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_5C_LL_LR_Ls^3 + R_Lg_m + s^2\left(-C_5L_L + C_LL_LR_Lg_m\right) + s\left(-C_5R_L + L_Lg_m\right)}{s^3\left(C_3C_LL_LR_L + C_5C_LL_LR_L\right) + s^2\left(C_3L_L + C_5L_L + C_LL_L\right) + s\left(C_3R_L + C_5R_L\right) + 1}$$

10.87 INVALID-ORDER-87
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5C_LL_LR_Ls^3 - C_5R_Ls + C_LL_LR_Lg_ms^2 + R_Lg_m}{C_LL_Ls^2 + s^3\left(C_3C_LL_LR_L + C_5C_LL_LR_L\right) + s\left(C_3R_L + C_5R_L + C_LR_L\right) + 1}$$

10.88 INVALID-ORDER-88
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L\right)$$

$$H(s) = \frac{-C_5 R_5 R_L s + R_5 R_L g_m - R_L}{R_5 + R_L + s \left(C_3 R_5 R_L + C_5 R_5 R_L\right)}$$

10.89 INVALID-ORDER-89
$$Z(s) = \left(\infty, \infty, \frac{1}{C_{3s}}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{1}{C_{Ls}}\right)$$

$$H(s) = \frac{-C_5 R_5 s + R_5 g_m - 1}{s \left(C_3 R_5 + C_5 R_5 + C_L R_5\right) + 1}$$

10.90 INVALID-ORDER-90
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5 R_5 R_L s + R_5 R_L g_m - R_L}{R_5 + R_L + s \left(C_3 R_5 R_L + C_5 R_5 R_L + C_L R_5 R_L\right)}$$

10.91 INVALID-ORDER-91
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_LR_5s^3 - C_5R_5s + R_5g_m + s^2\left(C_LL_LR_5g_m - C_LL_L\right) - 1}{C_LL_Ls^2 + s^3\left(C_3C_LL_LR_5 + C_5C_LL_LR_5\right) + s\left(C_3R_5 + C_5R_5 + C_LR_5\right) + 1}$$

10.92 INVALID-ORDER-92
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_LR_5s^3 + R_5g_m + s^2\left(-C_5C_LR_5R_L + C_LL_LR_5g_m - C_LL_L\right) + s\left(-C_5R_5 + C_LR_5R_Lg_m - C_LR_L\right) - 1}{s^3\left(C_3C_LL_LR_5 + C_5C_LL_LR_5\right) + s^2\left(C_3C_LR_5R_L + C_5C_LR_5R_L + C_LL_L\right) + s\left(C_3R_5 + C_5R_5 + C_LR_5 + C_LR_5\right) + 1}$$

10.93 INVALID-ORDER-93
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s+1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_5C_LL_LR_5R_Ls^3 + R_5R_Lg_m - R_L + s^2\left(-C_5L_LR_5 + C_LL_LR_5R_Lg_m - C_LL_LR_L\right) + s\left(-C_5R_5R_L + L_LR_5g_m - L_L\right)}{R_5 + R_L + s^3\left(C_3C_LL_LR_5R_L + C_5C_LL_LR_5R_L\right) + s^2\left(C_3L_LR_5 + C_5L_LR_5 + C_LL_LR_5 + C_LL_LR_L\right) + s\left(C_3R_5R_L + C_5R_5R_L + L_LR_5R_L\right)}$$

10.94 INVALID-ORDER-94
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s+1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s+1}\right)$$

$$H(s) = \frac{-C_5C_LL_LR_5R_Ls^3 - C_5R_5R_Ls + R_5R_Lg_m - R_L + s^2\left(C_LL_LR_5R_Lg_m - C_LL_LR_L\right)}{R_5 + R_L + s^3\left(C_3C_LL_LR_5R_L + C_5C_LL_LR_5R_L\right) + s^2\left(C_LL_LR_5 + C_LL_LR_L\right) + s\left(C_3R_5R_L + C_5R_5R_L + C_LR_5R_L\right)}$$

10.95 INVALID-ORDER-95
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m + s (C_5 R_5 g_m - C_5)}{s^2 (C_3 C_5 R_5 + C_5 C_L R_5) + s (C_3 + C_5 + C_L)}$$

10.96 INVALID-ORDER-96
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m + s^2 \left(C_5 C_L R_5 R_L g_m - C_5 C_L R_L \right) + s \left(C_5 R_5 g_m - C_5 + C_L R_L g_m \right)}{C_3 C_5 C_L R_5 R_L s^3 + s^2 \left(C_3 C_5 R_5 + C_3 C_L R_L + C_5 C_L R_5 + C_5 C_L R_L \right) + s \left(C_3 + C_5 + C_L R_L \right)}$$

10.97 INVALID-ORDER-97
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_L L_L g_m s^2 + g_m + s^3 \left(C_5 C_L L_L R_5 g_m - C_5 C_L L_L \right) + s \left(C_5 R_5 g_m - C_5 \right)}{C_3 C_5 C_L L_L R_5 s^4 + s^3 \left(C_3 C_L L_L + C_5 C_L L_L \right) + s^2 \left(C_3 C_5 R_5 + C_5 C_L R_5 \right) + s \left(C_3 + C_5 + C_L \right)}$$

10.98 INVALID-ORDER-98
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s + s^2 \left(C_5 L_L R_5 g_m - C_5 L_L \right)}{C_5 R_5 s + s^3 \left(C_3 C_5 L_L R_5 + C_5 C_L L_L R_5 \right) + s^2 \left(C_3 L_L + C_5 L_L + C_L L_L \right) + 1}$$

10.99 INVALID-ORDER-99
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m + s^3 \left(C_5 C_L L_L R_5 g_m - C_5 C_L L_L \right) + s^2 \left(C_5 C_L R_5 R_L g_m - C_5 C_L R_L + C_L L_L g_m \right) + s \left(C_5 R_5 g_m - C_5 + C_L R_L g_m \right)}{C_3 C_5 C_L L_L R_5 s^4 + s^3 \left(C_3 C_5 C_L R_5 R_L + C_3 C_L L_L + C_5 C_L L_L \right) + s^2 \left(C_3 C_5 R_5 + C_3 C_L R_L + C_5 C_L R_5 + C_5 C_L R_L \right) + s \left(C_3 + C_5 + C_L R_L \right)}$$

10.100 INVALID-ORDER-100
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{L_L R_L g_m s + s^2 \left(C_5 L_L R_5 R_L g_m - C_5 L_L R_L \right)}{R_L + s^3 \left(C_3 C_5 L_L R_5 R_L + C_5 C_L L_L R_5 R_L \right) + s^2 \left(C_3 L_L R_L + C_5 L_L R_5 + C_5 L_L R_L + C_L L_L R_L \right) + s \left(C_5 R_5 R_L + L_L \right)}$$

10.101 INVALID-ORDER-101
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_L g_m + s^3 \left(C_5 C_L L_L R_5 R_L g_m - C_5 C_L L_L R_L \right) + s^2 \left(C_5 L_L R_5 g_m - C_5 L_L + C_L L_L R_L g_m \right) + s \left(C_5 R_5 R_L g_m - C_5 R_L + L_L g_m \right)}{C_3 C_5 C_L L_L R_5 R_L s^4 + s^3 \left(C_3 C_5 L_L R_5 + C_3 C_L L_L R_L + C_5 C_L L_L R_5 \right) + s^2 \left(C_3 C_5 R_5 R_L + C_3 L_L + C_5 L_L + C_L L_L \right) + s \left(C_3 R_L + C_5 R_5 + C_5 R_L \right) + 1}$$

$$\textbf{10.102} \quad \textbf{INVALID-ORDER-102} \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) \\ H(s) = \frac{C_L L_L R_L g_m s^2 + R_L g_m + s^3 \left(C_5 C_L L_L R_5 R_L g_m - C_5 C_L L_L R_L \right) + s \left(C_5 R_5 R_L g_m - C_5 R_L \right)}{C_3 C_5 C_L L_L R_5 R_L s^4 + s^3 \left(C_3 C_L L_L R_L + C_5 C_L L_L R_5 + C_5 C_L L_L R_L \right) + s^2 \left(C_3 C_5 R_5 R_L + C_5 C_L R_5 R_L + C_5 R_L + C_5 R_L + C_5 R_L \right) + 1}$$

10.103 INVALID-ORDER-103
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, R_L\right)$$

$$H(s) = \frac{C_5 L_5 R_L g_m s^2 - C_5 R_L s + R_L g_m}{C_3 C_5 L_5 R_L s^3 + C_5 L_5 s^2 + s \left(C_3 R_L + C_5 R_L\right) + 1}$$

10.104 INVALID-ORDER-104
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5 L_5 g_m s^2 - C_5 s + g_m}{s^3 \left(C_3 C_5 L_5 + C_5 C_L L_5 \right) + s \left(C_3 + C_5 + C_L \right)}$$

10.105 INVALID-ORDER-105
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_5 L_5 R_L g_m s^2 - C_5 R_L s + R_L g_m}{C_5 L_5 s^2 + s^3 \left(C_3 C_5 L_5 R_L + C_5 C_L L_5 R_L \right) + s \left(C_3 R_L + C_5 R_L + C_L R_L \right) + 1}$$

10.106 INVALID-ORDER-106
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5 C_L L_5 R_L g_m s^3 + g_m + s^2 \left(-C_5 C_L R_L + C_5 L_5 g_m \right) + s \left(-C_5 + C_L R_L g_m \right)}{C_3 C_5 C_L L_5 R_L s^4 + s^3 \left(C_3 C_5 L_5 + C_5 C_L L_5 \right) + s^2 \left(C_3 C_L R_L + C_5 C_L R_L \right) + s \left(C_3 + C_5 + C_L R_L \right)}$$

10.107 INVALID-ORDER-107
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5 C_L L_5 L_L g_m s^4 - C_5 C_L L_L s^3 - C_5 s + g_m + s^2 \left(C_5 L_5 g_m + C_L L_L g_m \right)}{C_3 C_5 C_L L_5 L_L s^5 + s^3 \left(C_3 C_5 L_5 + C_3 C_L L_L + C_5 C_L L_5 + C_5 C_L L_L \right) + s \left(C_3 + C_5 + C_L L_1 \right)}$$

10.108 INVALID-ORDER-108
$$Z(s) = \left(\infty, \infty, \frac{1}{C_{3s}}, \infty, L_{5}s + \frac{1}{C_{5}s}, \frac{L_{L}s}{C_{L}L_{L}s^{2}+1}\right)$$

$$H(s) = \frac{C_5 L_5 L_L g_m s^3 - C_5 L_L s^2 + L_L g_m s}{s^4 \left(C_3 C_5 L_5 L_L + C_5 C_L L_5 L_L \right) + s^2 \left(C_3 L_L + C_5 L_5 + C_5 L_L + C_L L_L \right) + 1}$$

10.109 INVALID-ORDER-109
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_5L_Lg_ms^4 + g_m + s^3\left(C_5C_LL_5R_Lg_m - C_5C_LL_L\right) + s^2\left(-C_5C_LR_L + C_5L_5g_m + C_LL_Lg_m\right) + s\left(-C_5 + C_LR_Lg_m\right)}{C_3C_5C_LL_5L_Ls^5 + C_3C_5L_Ls^4 + s^3\left(C_3C_5L_5 + C_3C_LL_L + C_5C_LL_5 + C_5C_LL_L\right) + s^2\left(C_3C_LR_L + C_5C_LR_L\right) + s\left(C_3 + C_5 + C_LL_L\right)}$$

10.110 INVALID-ORDER-110
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_5 L_5 L_L R_L g_m s^3 - C_5 L_L R_L s^2 + L_L R_L g_m s}{C_5 L_5 L_L s^3 + L_L s + R_L + s^4 \left(C_3 C_5 L_5 L_L R_L + C_5 C_L L_5 L_L R_L \right) + s^2 \left(C_3 L_L R_L + C_5 L_5 R_L + C_5 L_L R_L + C_L L_L R_L \right)}$$

10.111 INVALID-ORDER-111
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{C_5C_LL_5L_LR_Lg_ms^4 + R_Lg_m + s^3\left(-C_5C_LL_LR_L + C_5L_5L_Lg_m\right) + s^2\left(C_5L_5R_Lg_m - C_5L_L + C_LL_LR_Lg_m\right) + s\left(-C_5R_L + L_Lg_m\right)}{C_3C_5C_LL_5L_LR_Ls^5 + s^4\left(C_3C_5L_5L_L + C_5C_LL_5L_L\right) + s^3\left(C_3C_5L_5R_L + C_3C_LL_LR_L + C_5C_LL_LR_L\right) + s^2\left(C_3L_L + C_5L_5 + C_5L_L + C_LL_L\right) + s\left(C_3R_L + C_5R_L\right) + 1}$$

10.112 INVALID-ORDER-112
$$Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right)$$

$$H(s) = \frac{C_5 C_L L_5 L_L R_L g_m s^4 - C_5 C_L L_L R_L s^3 - C_5 R_L s + R_L g_m + s^2 \left(C_5 L_5 R_L g_m + C_L L_L R_L g_m \right)}{C_3 C_5 C_L L_5 L_L R_L s^5 + C_5 C_L L_5 L_L s^4 + s^3 \left(C_3 C_5 L_5 R_L + C_3 C_L L_L R_L + C_5 C_L L_5 R_L + C_5 C_L L_L R_L \right) + s^2 \left(C_5 L_5 + C_L L_L \right) + s \left(C_3 R_L + C_5 R_L + C_L R_L \right) + 1}$$

10.113 INVALID-ORDER-113 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_{5s}}{C_5 L_5 s^2 + 1}, \frac{1}{C_{Ls}}\right)$

$$H(s) = \frac{-C_5 L_5 s^2 + L_5 g_m s - 1}{s^2 \left(C_3 L_5 + C_5 L_5 + C_L L_5 \right) + 1}$$

10.114 INVALID-ORDER-114
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_5R_Ls^3 + s^2\left(-C_5L_5 + C_LL_5R_Lg_m\right) + s\left(-C_LR_L + L_5g_m\right) - 1}{C_LR_Ls + s^3\left(C_3C_LL_5R_L + C_5C_LL_5R_L\right) + s^2\left(C_3L_5 + C_5L_5 + C_LL_5\right) + 1}$$

10.115 INVALID-ORDER-115
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_5L_Ls^4 + C_LL_5L_Lg_ms^3 + L_5g_ms + s^2\left(-C_5L_5 - C_LL_L\right) - 1}{s^4\left(C_3C_LL_5L_L + C_5C_LL_5L_L\right) + s^2\left(C_3L_5 + C_5L_5 + C_LL_5 + C_LL_1\right) + 1}$$

10.116 INVALID-ORDER-116
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_5 L_5 L_L s^2 + L_5 L_L g_m s - L_L}{L_5 + L_L + s^2 \left(C_3 L_5 L_L + C_5 L_5 L_L + C_L L_5 L_L \right)}$$

10.117 INVALID-ORDER-117
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_5L_Ls^4 + s^3\left(-C_5C_LL_5R_L + C_LL_5L_Lg_m\right) + s^2\left(-C_5L_5 + C_LL_5R_Lg_m - C_LL_L\right) + s\left(-C_LR_L + L_5g_m\right) - 1}{C_LR_Ls + s^4\left(C_3C_LL_5L_L + C_5C_LL_5L_L\right) + s^3\left(C_3C_LL_5R_L + C_5C_LL_5R_L\right) + s^2\left(C_3L_5 + C_LL_5 + C_LL_5 + C_LL_5 + C_LL_5\right) + 1}$$

10.118 INVALID-ORDER-118
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_5C_LL_5L_LR_Ls^4 - R_L + s^3\left(-C_5L_5L_L + C_LL_5L_LR_Lg_m\right) + s^2\left(-C_5L_5R_L - C_LL_LR_L + L_5L_Lg_m\right) + s\left(L_5R_Lg_m - L_L\right)}{R_L + s^4\left(C_3C_LL_5L_LR_L + C_5C_LL_5L_LR_L\right) + s^3\left(C_3L_5L_L + C_5L_5L_L + C_LL_5L_L\right) + s^2\left(C_3L_5R_L + C_5L_5R_L + C_LL_RL\right) + s\left(L_5R_L + C_5L_5R_L + C_5L_5R_L\right) + s^2\left(C_3L_5R_L + C_5L_5R_L\right) + s^2\left(C_3L_5R_L + C_5L_5R_L\right) + s^2\left(C_3L_5R_L + C_5L_5R_L\right) + s^2\left(C_3R_L + C_5R_L\right) + s^2\left(C_3R_L + C_5R_L\right) + s^2\left(C_3R_L + C_5R_L\right) + s^2\left(C_3R_L\right) + s^2\left(C_3R_L\right$$

10.119 INVALID-ORDER-119
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5C_LL_5L_LR_Ls^4 + C_LL_5L_LR_Lg_ms^3 + L_5R_Lg_ms - R_L + s^2\left(-C_5L_5R_L - C_LL_LR_L\right)}{C_LL_5L_Ls^3 + L_5s + R_L + s^4\left(C_3C_LL_5L_LR_L + C_5C_LL_5L_LR_L\right) + s^2\left(C_3L_5R_L + C_5L_5R_L + C_LL_5R_L + C_LL_5R_L\right)}$$

10.120 INVALID-ORDER-120
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L\right)$$

$$H(s) = \frac{C_5 L_5 R_L g_m s^2 + R_L g_m + s \left(C_5 R_5 R_L g_m - C_5 R_L\right)}{C_3 C_5 L_5 R_L s^3 + s^2 \left(C_3 C_5 R_5 R_L + C_5 L_5\right) + s \left(C_3 R_L + C_5 R_5 + C_5 R_L\right) + 1}$$

10.121 INVALID-ORDER-121
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5 L_5 g_m s^2 + g_m + s \left(C_5 R_5 g_m - C_5\right)}{s^3 \left(C_3 C_5 L_5 + C_5 C_L L_5\right) + s^2 \left(C_3 C_5 R_5 + C_5 C_L R_5\right) + s \left(C_3 + C_5 + C_L\right)}$$

10.122 INVALID-ORDER-122
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_5L_5R_Lg_ms^2 + R_Lg_m + s\left(C_5R_5R_Lg_m - C_5R_L\right)}{s^3\left(C_3C_5L_5R_L + C_5C_LL_5R_L\right) + s^2\left(C_3C_5R_5R_L + C_5C_LR_5R_L + C_5L_5\right) + s\left(C_3R_L + C_5R_5 + C_5R_L + C_LR_L\right) + 1}$$

10.123 INVALID-ORDER-123
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_5R_Lg_ms^3 + g_m + s^2\left(C_5C_LR_5R_Lg_m - C_5C_LR_L + C_5L_5g_m\right) + s\left(C_5R_5g_m - C_5 + C_LR_Lg_m\right)}{C_3C_5C_LL_5R_Ls^4 + s^3\left(C_3C_5C_LR_5R_L + C_3C_5L_5 + C_5C_LL_5\right) + s^2\left(C_3C_5R_5 + C_3C_LR_L + C_5C_LR_5 + C_5C_LR_L\right) + s\left(C_3 + C_5 + C_LR_L\right)}$$

10.124 INVALID-ORDER-124
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_5L_Lg_ms^4 + g_m + s^3\left(C_5C_LL_LR_5g_m - C_5C_LL_L\right) + s^2\left(C_5L_5g_m + C_LL_Lg_m\right) + s\left(C_5R_5g_m - C_5\right)}{C_3C_5C_LL_5L_Ls^5 + C_3C_5C_LL_LR_5s^4 + s^3\left(C_3C_5L_5 + C_3C_LL_L + C_5C_LL_5 + C_5C_LL_L\right) + s^2\left(C_3C_5R_5 + C_5C_LR_5\right) + s\left(C_3 + C_5 + C_L\right)}$$

10.125 INVALID-ORDER-125
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_5 L_5 L_L g_m s^3 + L_L g_m s + s^2 \left(C_5 L_L R_5 g_m - C_5 L_L\right)}{C_5 R_5 s + s^4 \left(C_3 C_5 L_5 L_L + C_5 C_L L_5 L_L\right) + s^3 \left(C_3 C_5 L_L R_5 + C_5 C_L L_L R_5\right) + s^2 \left(C_3 L_L + C_5 L_5 + C_5 L_L + C_L L_L\right) + 1}$$

10.126 INVALID-ORDER-126
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_5L_Lg_ms^4 + g_m + s^3\left(C_5C_LL_5R_Lg_m + C_5C_LL_LR_5g_m - C_5C_LL_L\right) + s^2\left(C_5C_LR_5R_Lg_m - C_5C_LR_L + C_5L_5g_m + C_LL_Lg_m\right) + s\left(C_5R_5g_m - C_5 + C_LR_Lg_m\right)}{C_3C_5C_LL_5L_Ls^5 + s^4\left(C_3C_5C_LL_5R_L + C_3C_5C_LL_Rs\right) + s^3\left(C_3C_5C_LR_5R_L + C_3C_5L_L + C_5C_LL_1\right) + s^2\left(C_3C_5R_5 + C_3C_LR_L + C_5C_LR_5 + C_5C_LR_L\right) + s^2\left(C_3C_5R_5 + C_3C_LR_L + C_5C_LR_L\right) + s^2\left(C_3C_5R_5 + C_3C_LR_L + C_5C_LR_L\right) + s^2\left(C_3C_5R_5 + C_3C_LR_L\right) + s^2\left(C_3C_5R_L\right) + s^2\left(C_3C_5R_L\right) + s^2\left(C_3C_5R_L\right) +$$

10.127 INVALID-ORDER-127 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{C_5L_5L_LR_Lg_ms^3 + L_LR_Lg_ms + s^2\left(C_5L_LR_5R_Lg_m - C_5L_LR_L\right)}{R_L + s^4\left(C_3C_5L_5L_LR_L + C_5C_LL_5L_LR_L\right) + s^3\left(C_3C_5L_LR_5R_L + C_5C_LL_LR_5R_L + C_5L_LR_L\right) + s^2\left(C_3L_LR_L + C_5L_LR_5 + C_5L_LR_$$

10.128 INVALID-ORDER-128
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{C_5C_LL_5L_LR_Lg_ms^4 + R_Lg_m + s^3\left(C_5C_LL_LR_5R_Lg_m - C_5C_LL_LR_L + C_5L_5L_Lg_m\right) + s^2\left(C_5L_5R_Lg_m + C_5L_LR_5g_m - C_5L_L + C_LL_LR_Lg_m\right) + s\left(C_5R_5R_Lg_m - C_5R_L + L_Lg_m\right)}{C_3C_5C_LL_5L_LR_5s^5 + s^4\left(C_3C_5C_LL_LR_5R_L + C_3C_5L_LR_5 + C_3C_LL_LR_5 + C_3C_LL_LR_5 + C_5C_LL_LR_5\right) + s^2\left(C_3C_5R_5R_L + C_3L_LR_5 + C_5C_LL_LR_5\right) + s^2\left(C_3C_5R_5R_L + C_3L_LR_5 + C_5C_LL_LR_5\right) + s^2\left(C_3C_5R_5R_L + C_3L_LR_5 + C_5C_LL_RR_5\right) + s^2\left(C_3C_5R_5R_L + C_3C_5L_LR_5 + C_5C_LL_RR_5\right) + s^2\left(C_3C_5R_5R_L + C_3C_5L_LR_5\right) + s^2\left(C_3C_5R_5R_5R_5\right) + s^2\left(C_3C_5R_5R_5R_5R_5\right) + s^2\left(C_3C_5R_5R_5R_5R_5\right) + s^2\left(C_3C_5R_5R_5R_5\right) + s^2\left(C_3C_5R_5R_5R_5\right) + s^2\left(C_3C_5R_5R_5R_5\right) + s^2\left(C_3C_5R_5R_5R_5\right) + s^2\left(C_3C_5R_5R_5R_5\right) + s^2\left(C_3C_5R_5R_5R_5R_5\right) + s^2\left(C_3C_5R_5R_5R_5R_5\right) + s^2\left(C_3C_5R_5R_5R_5R_5\right) + s^2\left(C_3C_5R_5R_5R_5R_5$$

10.129 INVALID-ORDER-129
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_5C_LL_5L_LR_Lg_ms^4 + R_Lg_m + s^3\left(C_5C_LL_LR_5R_Lg_m - C_5C_LL_LR_L\right) + s^2\left(C_5L_5R_Lg_m + C_LL_LR_Lg_m\right) + s\left(C_5R_5R_Lg_m - C_5R_L\right)}{C_3C_5C_LL_5L_LR_5^5 + s^4\left(C_3C_5C_LL_LR_5R_L + C_5C_LL_5L_L\right) + s^3\left(C_3C_5L_LR_5 + C_5C_LL_LR_5 + C_5C_LL_LR_5 + C_5C_LL_LR_5 + C_5C_LL_LR_L\right) + s^2\left(C_3C_5R_5R_L + C_5C_LR_5R_L + C_5C_LL_L\right) + s\left(C_3R_L + C_5R_5 + C_5R_L + C_5C_LL_LR_1\right) + s^2\left(C_3C_5R_5R_L + C_5C_LR_5R_L + C_5C_LL_LR_1\right) + s^2\left(C_3C_5R_5R_L + C_5C_LR_5R_L + C_5C_LR_5R_L + C_5C_LR_5R_L\right) + s^2\left(C_3C_5R_5R_L + C_5C_LR_5R_L + C_5C_LR_5R_L + C_5C_LR_5R_L\right) + s^2\left(C_3C_5R_5R_L + C_5C_LR_5R_L + C_5C_LR_5R_L + C_5C_LR_5R_L\right) + s^2\left(C_3C_5R_5R_L + C_5C_LR_5R_L\right) + s^2\left(C_3C_5R_5R_L\right) + s^2\left(C_3C_5R_L\right) + s^2\left(C_3C_5R_L\right) + s^2\left(C_3C_5R_L\right) +$$

10.130 INVALID-ORDER-130
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_5R_5R_Ls^3 - R_5 + s^2\left(-C_5L_5R_5 + C_LL_5R_5R_Lg_m - C_LL_5R_L\right) + s\left(-C_LR_5R_L + L_5R_5g_m - L_5\right)}{R_5 + s^3\left(C_3C_LL_5R_5R_L + C_5C_LL_5R_5R_L\right) + s^2\left(C_3L_5R_5 + C_5L_5R_5 + C_LL_5R_5 + C_LL_5R_L\right) + s\left(C_LR_5R_L + L_5R_5R_L + L_5R_5R_L\right)}$$

10.131 INVALID-ORDER-131
$$Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_5L_LR_5s^4 - R_5 + s^3\left(C_LL_5L_LR_5g_m - C_LL_5L_L\right) + s^2\left(-C_5L_5R_5 - C_LL_LR_5\right) + s\left(L_5R_5g_m - L_5\right)}{C_LL_5L_Ls^3 + L_5s + R_5 + s^4\left(C_3C_LL_5L_LR_5 + C_5C_LL_5L_LR_5\right) + s^2\left(C_3L_5R_5 + C_5L_5R_5 + C_LL_5R_5 + C_LL_5R_5\right)}$$

10.132 INVALID-ORDER-132
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_5L_LR_5s^4 - R_5 + s^3\left(-C_5C_LL_5R_5R_L + C_LL_5L_LR_5g_m - C_LL_5L_L\right) + s^2\left(-C_5L_5R_5 + C_LL_5R_5R_Lg_m - C_LL_5R_L - C_LL_LR_5\right) + s\left(-C_LR_5R_L + L_5R_5g_m - L_5\right)}{R_5 + s^4\left(C_3C_LL_5L_LR_5 + C_5C_LL_5L_LR_5\right) + s^3\left(C_3C_LL_5R_5R_L + C_5C_LL_5R_5R_L + C_LL_5L_L\right) + s^2\left(C_3L_5R_5 + C_5L_5R_5 + C_LL_5R_5 + C_LL_5R_5 + C_LL_5R_5\right) + s\left(C_LR_5R_L + L_5R_5R_L + C_LL_5R_5\right) + s\left(C_LR_5R_L + C_LL_5R_5\right) + s\left(C_LR_5R_5R_L + C_LR_5R_5\right) + s\left(C_LR_5R_5R_L + C_LR_5R_5\right) + s\left(C_LR_5R_5R_5R_L + C_LR_5R_5\right) + s\left(C_LR_5R_5R_L + C_LR_5R_5\right) + s\left(C_LR_5R_5R_L + C_LR_5R_5\right) + s\left(C_LR_5R_5R_5R_L$$

10.133 INVALID-ORDER-133
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_5C_LL_5L_LR_5R_Ls^4 - R_5R_L + s^3\left(-C_5L_5L_LR_5 + C_LL_5L_LR_5R_Lg_m - C_LL_5L_LR_L\right) + s^2\left(-C_5L_5R_5R_L - C_LL_LR_5R_L + L_5L_LR_5g_m - L_5L_L\right) + s\left(L_5R_5R_Lg_m - L_5R_L - L_LR_5\right)}{R_5R_L + s^4\left(C_3C_LL_5L_LR_5R_L + C_5C_LL_5L_LR_5R_L\right) + s^3\left(C_3L_5L_LR_5 + C_5L_5L_LR_5 + C_LL_5L_LR_5\right) + s^2\left(C_3L_5R_5R_L + C_5L_5R_5R_L + C_5$$

10.134 INVALID-ORDER-134
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5C_LL_5L_LR_5R_Ls^4 - R_5R_L + s^3\left(C_LL_5L_LR_5R_Lg_m - C_LL_5L_LR_L\right) + s^2\left(-C_5L_5R_5R_L - C_LL_LR_5R_L\right) + s\left(L_5R_5R_Lg_m - L_5R_L\right)}{R_5R_L + s^4\left(C_3C_LL_5L_LR_5R_L + C_5C_LL_5L_LR_5R_L\right) + s^3\left(C_LL_5L_LR_5 + C_LL_5L_LR_L\right) + s^2\left(C_3L_5R_5R_L + C_5L_5R_5R_L + C_LL_5R_5R_L\right) + s\left(L_5R_5R_L + C_LL_5R_L\right) + s\left(L_5R_5R_L + C_LL_$$

10.135 INVALID-ORDER-135
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L\right)$$

$$H(s) = \frac{L_5 R_L g_m s + R_5 R_L g_m - R_L + s^2 \left(C_5 L_5 R_5 R_L g_m - C_5 L_5 R_L \right)}{C_3 C_5 L_5 R_5 R_L s^3 + R_5 + R_L + s^2 \left(C_3 L_5 R_L + C_5 L_5 R_5 + C_5 L_5 R_L \right) + s \left(C_3 R_5 R_L + L_5 \right)}$$

10.136 INVALID-ORDER-136
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_5 g_m s + R_5 g_m + s^2 \left(C_5 L_5 R_5 g_m - C_5 L_5 \right) - 1}{s^3 \left(C_3 C_5 L_5 R_5 + C_5 C_L L_5 R_5 \right) + s^2 \left(C_3 L_5 + C_5 L_5 + C_L L_5 \right) + s \left(C_3 R_5 + C_L R_5 \right) + 1}$$

10.137 INVALID-ORDER-137
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_5 R_L g_m s + R_5 R_L g_m - R_L + s^2 \left(C_5 L_5 R_5 R_L g_m - C_5 L_5 R_L\right)}{R_5 + R_L + s^3 \left(C_3 C_5 L_5 R_5 R_L + C_5 C_L L_5 R_5 R_L\right) + s^2 \left(C_3 L_5 R_L + C_5 L_5 R_L + C_5 L_5 R_L + C_L L_5 R_L\right) + s \left(C_3 R_5 R_L + C_L R_5 R_L + L_5\right)}$$

10.138 INVALID-ORDER-138
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^3 \left(C_5 C_L L_5 R_5 R_L g_m - C_5 C_L L_5 R_L\right) + s^2 \left(C_5 L_5 R_5 g_m - C_5 L_5 + C_L L_5 R_L g_m\right) + s \left(C_L R_5 R_L g_m - C_L R_L + L_5 g_m\right) - 1}{C_3 C_5 C_L L_5 R_5 R_L s^4 + s^3 \left(C_3 C_5 L_5 R_5 + C_3 C_L L_5 R_L + C_5 C_L L_5 R_L\right) + s^2 \left(C_3 C_L R_5 R_L + C_3 L_5 + C_5 L_5 + C_L L_5\right) + s \left(C_3 R_5 + C_L R_5 + C_L R_5 + C_L R_5\right) + 1}$$

$$\begin{aligned} \textbf{10.139} \quad \textbf{INVALID-ORDER-139} \ \ Z(s) &= \left(\infty, \ \infty, \ \frac{L_{5s}}{C_5 L_5 s^2 + 1} + R_5, \ L_L s + \frac{1}{C_L s} \right) \\ H(s) &= \frac{C_L L_5 L_L g_m s^3 + L_5 g_m s + R_5 g_m + s^4 \left(C_5 C_L L_5 L_L R_5 g_m - C_5 C_L L_5 L_L \right) + s^2 \left(C_5 L_5 R_5 g_m - C_5 L_5 + C_L L_L R_5 g_m - C_L L_L \right) - 1}{C_3 C_5 C_L L_5 L_L R_5 s^5 + s^4 \left(C_3 C_L L_5 L_L + C_5 C_L L_5 L_L \right) + s^3 \left(C_3 C_5 L_5 R_5 + C_3 C_L L_5 R_5 \right) + s^2 \left(C_3 L_5 + C_5 L_5 + C_L L_5 + C_L L_1 \right) + s \left(C_3 R_5 + C_L R_5 \right) + 1} \end{aligned}$$

10.140 INVALID-ORDER-140
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_5 L_L g_m s^2 + s^3 \left(C_5 L_5 L_L R_5 g_m - C_5 L_5 L_L\right) + s \left(L_L R_5 g_m - L_L\right)}{R_5 + s^4 \left(C_3 C_5 L_5 L_L R_5 + C_5 C_L L_5 L_L R_5\right) + s^3 \left(C_3 L_5 L_L + C_5 L_5 L_L + C_L L_5 L_L\right) + s^2 \left(C_3 L_L R_5 + C_5 L_5 R_5 + C_L L_L R_5\right) + s \left(L_5 + L_L\right)}$$

10.141 INVALID-ORDER-141
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_1 s + R_1 + \frac{1}{C_1 s}\right)$$

$$H(s) = \frac{R_5 g_m + s^4 \left(C_5 C_L L_5 L_L R_5 g_m - C_5 C_L L_5 L_L\right) + s^3 \left(C_5 C_L L_5 R_5 R_L g_m - C_5 C_L L_5 R_L + C_L L_5 L_L g_m\right) + s^2 \left(C_5 L_5 R_5 g_m - C_5 L_5 + C_L L_5 R_L g_m + C_L L_L R_5 g_m - C_L L_L\right) + s \left(C_L R_5 R_L g_m - C_L R_L + L_5 g_m\right) - 1}{C_3 C_5 C_L L_5 L_L R_5 s^5 + s^4 \left(C_3 C_5 C_L L_5 R_5 R_L + C_3 C_L L_5 L_L\right) + s^3 \left(C_3 C_5 L_5 R_5 + C_3 C_L L_5 R_L + C_3 C_L L_5 R_L\right) + s^2 \left(C_3 C_L L_5 R_L + C_3 L_5 L_L + C_5 C_L L_5 L_L\right) + s \left(C_3 R_5 R_L + C_3 C_L L_5 R_L + C_5 C_L L_5 R_L\right) + s^2 \left(C_3 C_L R_5 R_L + C_3 C_L L_5 R_L + C_5 C_L L_5 R_L\right) + s \left(C_3 R_5 R_L + C_3 C_L L_5 R_L + C_5 C_L L_5 R_L\right) + s \left(C_3 R_5 R_L + C_3 C_L L_5 R_L + C_5 C_L L_5 R_L\right) + s \left(C_3 R_5 R_L + C_5 C_L L_5 R_L\right) + s \left(C_3 R_5 R_L + C_5 C_L L_5 R_L\right) + s \left(C_3 R_5 R_L + C_5 C_L L_5 R_L\right) + s \left(C_3 R_5 R_L + C_5 C_L L_5 R_L\right) + s \left(C_3 R_5 R_L + C_5 C_L L_5 R_L\right) + s \left(C_3 R_5 R_L + C_5 C_L L_5 R_L\right) + s \left(C_3 R_5 R_L + C_5 C_L L_5 R_L\right) + s \left(C_3 R_5 R_L + C_5 C_L L_5 R_L\right) + s \left(C_5 R_5 R_L + C_5 C_L L_5 R_L\right) + s \left(C_5 R_5 R_L + C_5 C_L L_5 R_L\right) + s \left(C_5 R_5 R_L + C_5 C_L L_5 R_L\right) + s \left(C_5 R_5 R_L + C_5 C_L L_5 R_L\right) + s \left(C_5 R_5 R_L + C_5 R_L R_L\right) + s \left(C_5 R_5 R_L + C_5 R_L R_L\right) + s \left(C_5 R_5 R_L + C_5 R_L R_L\right) + s \left(C_5 R_5 R_L + C_5 R_L R_L\right) + s \left(C_5 R_5 R_L + C_5 R_L R_L\right) + s \left(C_5 R_5 R_L + C_5 R_L R_L\right) + s \left(C_5 R_5 R_L\right) + s \left(C_5 R_$$

10.142 INVALID-ORDER-142
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{L_5L_LR_Lg_ms^2 + s^3\left(C_5L_5L_LR_5R_Lg_m - C_5L_5L_LR_L\right) + s\left(L_LR_5R_Lg_m - L_LR_L\right)}{R_5R_L + s^4\left(C_3C_5L_5L_LR_5R_L + C_5C_LL_5L_LR_5R_L\right) + s^3\left(C_3L_5L_LR_5 + C_5L_5L_LR_5 + C_5L_5L_LR_L\right) + s^2\left(C_3L_LR_5R_L + C_5L_5R_5R_L + C_5L_5R_5R_L + C_5L_5R_5R_L + C_5L_5R_5R_L + C_5L_5R_5R_L + C_5R_5R_L + C$$

10.143 INVALID-ORDER-143
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^4 \left(C_5 C_L L_5 L_L R_5 R_L g_m - C_5 L_L L_L R_5 R_L g_m - C_5 L_5 L_L R_5 R_L g_m - C_5 L_5 R_L + C_L L_L R_5 R_L g_m - C_L L_L R_L + L_5 L_L g_m\right) + s \left(L_5 R_L g_m + L_L R_5 g_m - L_L\right)}{C_3 C_5 C_L L_5 L_L R_5 R_L s^5 + R_5 + R_L + s^4 \left(C_3 C_5 L_5 L_L R_5 + C_5 C_L L_5 L_L R_5 + C_5 C_L L_5 L_L R_5\right) + s^3 \left(C_3 C_5 L_5 R_5 R_L + C_3 L_L R_5 R_L + C_5 L_5 L_L + C_5 L_5 L_L + C_5 L_5 L_L + C_5 L_5 L_L R_5 + C_5 L_5 R_L + C_5 L_5 R_$$

10.144 INVALID-ORDER-144
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_L L_5 L_L R_L g_m s^3 + L_5 R_L g_m - R_L + s^4 \left(C_5 C_L L_5 L_L R_5 R_L g_m - C_5 C_L L_5 L_L R_L\right) + s^2 \left(C_5 L_5 R_5 R_L g_m - C_5 L_5 R_L + C_L L_L R_5 R_L g_m - C_L L_L R_L\right)}{C_3 C_5 C_L L_5 L_L R_5 R_L s^5 + R_5 + R_L + s^4 \left(C_3 C_L L_5 L_L R_5 + C_5 C_L L_5 L_L R_L\right) + s^3 \left(C_3 C_5 L_5 R_5 R_L + C_5 C_L L_5 R_$$

10.145 INVALID-ORDER-145
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, R_L\right)$$

$$H(s) = \frac{-C_5 R_5 R_L s + R_5 R_L g_m - R_L + s^2 \left(C_5 L_5 R_5 R_L g_m - C_5 L_5 R_L\right)}{C_3 C_5 L_5 R_5 R_L s^3 + R_5 + R_L + s^2 \left(C_5 L_5 R_5 + C_5 L_5 R_L\right) + s \left(C_3 R_5 R_L + C_5 R_5 R_L\right)}$$

10.146 INVALID-ORDER-146
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5R_5s + R_5g_m + s^2\left(C_5L_5R_5g_m - C_5L_5\right) - 1}{C_5L_5s^2 + s^3\left(C_3C_5L_5R_5 + C_5C_LL_5R_5\right) + s\left(C_3R_5 + C_5R_5 + C_LR_5\right) + 1}$$

10.147 INVALID-ORDER-147
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5R_5R_Ls + R_5R_Lg_m - R_L + s^2\left(C_5L_5R_5R_Lg_m - C_5L_5R_L\right)}{R_5 + R_L + s^3\left(C_3C_5L_5R_5R_L + C_5C_LL_5R_5R_L\right) + s^2\left(C_5L_5R_5 + C_5L_5R_L\right) + s\left(C_3R_5R_L + C_5R_5R_L + C_LR_5R_L\right)}$$

$$\begin{aligned} \textbf{10.148} \quad \textbf{INVALID-ORDER-148} \ \ Z(s) &= \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L + \frac{1}{C_L s} \right) \\ & H(s) &= \frac{R_5 g_m + s^3 \left(C_5 C_L L_5 R_5 R_L g_m - C_5 C_L L_5 R_L \right) + s^2 \left(-C_5 C_L R_5 R_L + C_5 L_5 R_5 g_m - C_5 L_5 \right) + s \left(-C_5 R_5 + C_L R_5 R_L g_m - C_L R_L \right) - 1}{C_3 C_5 C_L L_5 R_5 R_L s^4 + s^3 \left(C_3 C_5 L_5 R_5 + C_5 C_L L_5 R_5 \right) + s^2 \left(C_3 C_L L_5 R_5 R_L + C_5 L_5 R_5 R_L + C_5 L_5 \right) + s \left(C_3 R_5 + C_5 R_5 + C_L R_5 + C_L R_5 \right) + 1} \end{aligned}$$

10.149 INVALID-ORDER-149
$$Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5 C_L L_L R_5 s^3 - C_5 R_5 s + R_5 g_m + s^4 \left(C_5 C_L L_5 L_L R_5 g_m - C_5 C_L L_5 L_L\right) + s^2 \left(C_5 L_5 R_5 g_m - C_5 L_5 + C_L L_L R_5 g_m - C_L L_L\right) - 1}{C_3 C_5 C_L L_5 L_L R_5 s^5 + C_5 C_L L_5 L_L s^4 + s^3 \left(C_3 C_5 L_5 R_5 + C_3 C_L L_L R_5 + C_5 C_L L_5 R_5 + C_5 C_L L_L R_5\right) + s^2 \left(C_5 L_5 + C_L L_L\right) + s \left(C_3 R_5 + C_5 R_5 + C_L R_5\right) + 1}$$

10.150 INVALID-ORDER-150
$$Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_5 L_L R_5 s^2 + s^3 \left(C_5 L_5 L_L R_5 g_m - C_5 L_5 L_L\right) + s \left(L_L R_5 g_m - L_L\right)}{C_5 L_5 L_L s^3 + L_L s + R_5 + s^4 \left(C_3 C_5 L_5 L_L R_5 + C_5 C_L L_5 L_L R_5\right) + s^2 \left(C_3 L_L R_5 + C_5 L_L R_5 + C_5 L_L R_5\right)}$$

$$\begin{aligned} \textbf{10.151} \quad & \textbf{INVALID-ORDER-151} \ \ Z(s) = \left(\infty, \ \ \infty, \ \ \frac{1}{C_3 s}, \ \ \infty, \ \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \ L_L s + R_L + \frac{1}{C_L s} \right) \\ & H(s) = \frac{R_5 g_m + s^4 \left(C_5 C_L L_5 L_L R_5 g_m - C_5 C_L L_5 L_L \right) + s^3 \left(C_5 C_L L_5 R_5 R_L g_m - C_5 C_L L_5 R_L - C_5 C_L L_L R_5 \right) + s^2 \left(-C_5 C_L R_5 R_L + C_5 L_5 R_5 g_m - C_5 L_L \right) + s \left(-C_5 R_5 + C_L R_5 R_L g_m - C_L R_L \right) - 1}{C_3 C_5 C_L L_5 L_L R_5 s^5 + s^4 \left(C_3 C_5 C_L L_5 R_5 R_L + C_5 C_L L_5 R_5 + C_3 C_L L_L R_5 + C_5 C_L L_5 R_L + C_5 C_L L_5 R_L + C_5 C_L L_5 R_L + C_5 C_L R_5 R$$

$$\textbf{10.152} \quad \textbf{INVALID-ORDER-152} \ \ Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L} \right) \\ H(s) = \frac{-C_5 L_L R_5 R_L s^2 + s^3 \left(C_5 L_5 L_L R_5 R_L g_m - C_5 L_5 L_L R_L \right) + s \left(L_L R_5 R_L g_m - L_L R_L \right)}{R_5 R_L + s^4 \left(C_3 C_5 L_5 L_L R_5 R_L + C_5 C_L L_5 L_L R_5 R_L \right) + s^3 \left(C_5 L_5 L_L R_5 + C_5 L_5 L_L R_L \right) + s^2 \left(C_3 L_L R_5 R_L + C_5 L_L R_5 R_L + C_5 L_L R_5 R_L \right) + s \left(L_L R_5 R_L + C_5 L_L R_5 R_L \right) + s \left(L_L R_5 R_L$$

10.155 INVALID-ORDER-155 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, R_L\right)$

$$H(s) = \frac{R_3 R_5 R_L g_m - R_3 R_L}{C_3 R_3 R_5 R_L s + R_3 R_5 + R_3 R_L + R_5 R_L}$$

10.156 INVALID-ORDER-156
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_3 R_5 g_m - R_3}{R_3 + R_5 + s \left(C_3 R_3 R_5 + C_L R_3 R_5\right)}$$

10.157 INVALID-ORDER-157
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_3 R_5 R_L g_m - R_3 R_L}{R_3 R_5 + R_3 R_L + R_5 R_L + s \left(C_3 R_3 R_5 R_L + C_L R_3 R_5 R_L \right)}$$

10.158 INVALID-ORDER-158
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s^2 \left(C_L L_L R_3 R_5 g_m - C_L L_L R_3 \right)}{C_3 C_L L_L R_3 R_5 s^3 + R_3 + R_5 + s^2 \left(C_L L_L R_3 + C_L L_L R_5 \right) + s \left(C_3 R_3 R_5 + C_L R_3 R_5 \right)}$$

10.159 INVALID-ORDER-159
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s^2 \left(C_L L_L R_3 R_5 g_m - C_L L_L R_3 \right) + s \left(C_L R_3 R_5 R_L g_m - C_L R_3 R_L \right)}{C_3 C_L L_L R_3 R_5 s^3 + R_3 + R_5 + s^2 \left(C_3 C_L R_3 R_5 R_L + C_L L_L R_3 + C_L L_L R_5 \right) + s \left(C_3 R_3 R_5 + C_L R_3 R_5 + C_L R_3 R_L + C_L R_5 R_L \right)}$$

10.160 INVALID-ORDER-160
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_3R_5R_Lg_m - R_3R_L + s^2\left(C_LL_LR_3R_5R_Lg_m - C_LL_LR_3R_L\right) + s\left(L_LR_3R_5g_m - L_LR_3\right)}{C_3C_LL_LR_3R_5R_Ls^3 + R_3R_5 + R_3R_L + R_5R_L + s^2\left(C_3L_LR_3R_5 + C_LL_LR_3R_5 + C_LL_LR_3R_L + C_LL_LR_5R_L\right) + s\left(C_3R_3R_5R_L + L_LR_3 + L_LR_5\right)}$$

10.161 INVALID-ORDER-161
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_3 R_5 R_L g_m - R_3 R_L + s^2 \left(C_L L_L R_3 R_5 R_L g_m - C_L L_L R_3 R_L\right)}{C_3 C_L L_L R_3 R_5 R_L s^3 + R_3 R_5 + R_3 R_L + R_5 R_L + s^2 \left(C_L L_L R_3 R_5 + C_L L_L R_3 R_L + C_L L_L R_5 R_L\right) + s \left(C_3 R_3 R_5 R_L + C_L R_3 R_5 R_L\right)}$$

10.162 INVALID-ORDER-162 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, R_L\right)$

$$H(s) = \frac{-C_5 R_3 R_L s + R_3 R_L g_m}{R_3 + R_L + s \left(C_3 R_3 R_L + C_5 R_3 R_L\right)}$$

10.163 INVALID-ORDER-163 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_5 R_3 s + R_3 g_m}{s \left(C_3 R_3 + C_5 R_3 + C_L R_3\right) + 1}$$

10.164 INVALID-ORDER-164 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{-C_5 R_3 R_L s + R_3 R_L g_m}{R_3 + R_L + s \left(C_3 R_3 R_L + C_5 R_3 R_L + C_L R_3 R_L\right)}$$

10.165 INVALID-ORDER-165 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_5C_LL_LR_3s^3 - C_5R_3s + C_LL_LR_3g_ms^2 + R_3g_m}{C_LL_Ls^2 + s^3\left(C_3C_LL_LR_3 + C_5C_LL_LR_3\right) + s\left(C_3R_3 + C_5R_3 + C_LR_3\right) + 1}$$

10.166 INVALID-ORDER-166 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_5C_LL_LR_3s^3 + R_3g_m + s^2\left(-C_5C_LR_3R_L + C_LL_LR_3g_m\right) + s\left(-C_5R_3 + C_LR_3R_Lg_m\right)}{s^3\left(C_3C_LL_LR_3 + C_5C_LL_LR_3\right) + s^2\left(C_3C_LR_3R_L + C_5C_LR_3R_L + C_LL_L\right) + s\left(C_3R_3 + C_5R_3 + C_LR_3 + C_LR_1\right) + 1}$$

10.167 INVALID-ORDER-167
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_5C_LL_LR_3R_Ls^3 + R_3R_Lg_m + s^2\left(-C_5L_LR_3 + C_LL_LR_3R_Lg_m\right) + s\left(-C_5R_3R_L + L_LR_3g_m\right)}{R_3 + R_L + s^3\left(C_3C_LL_LR_3R_L + C_5C_LL_LR_3R_L\right) + s^2\left(C_3L_LR_3 + C_5L_LR_3 + C_LL_LR_3 + C_LL_LR_3 + C_LL_LR_L\right) + s\left(C_3R_3R_L + C_5R_3R_L + L_LR_3R_L\right)}$$

10.168 INVALID-ORDER-168
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5C_LL_LR_3R_Ls^3 - C_5R_3R_Ls + C_LL_LR_3R_Lg_ms^2 + R_3R_Lg_m}{R_3 + R_L + s^3\left(C_3C_LL_LR_3R_L + C_5C_LL_LR_3R_L\right) + s^2\left(C_LL_LR_3 + C_LL_LR_L\right) + s\left(C_3R_3R_L + C_5R_3R_L + C_LR_3R_L\right)}$$

10.169 INVALID-ORDER-169
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L\right)$$

$$H(s) = \frac{-C_5 R_3 R_5 R_L s + R_3 R_5 R_L g_m - R_3 R_L}{R_3 R_5 + R_3 R_L + R_5 R_L + s \left(C_3 R_3 R_5 R_L + C_5 R_3 R_5 R_L\right)}$$

10.170 INVALID-ORDER-170
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5 R_3 R_5 s + R_3 R_5 g_m - R_3}{R_3 + R_5 + s \left(C_3 R_3 R_5 + C_5 R_3 R_5 + C_L R_3 R_5\right)}$$

10.171 INVALID-ORDER-171
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5 R_3 R_5 R_L s + R_3 R_5 R_L g_m - R_3 R_L}{R_3 R_5 + R_3 R_L + R_5 R_L + s \left(C_3 R_3 R_5 R_L + C_5 R_3 R_5 R_L + C_L R_3 R_5 R_L\right)}$$

10.172 INVALID-ORDER-172
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_LR_3R_5s^3 - C_5R_3R_5s + R_3R_5g_m - R_3 + s^2\left(C_LL_LR_3R_5g_m - C_LL_LR_3\right)}{R_3 + R_5 + s^3\left(C_3C_LL_LR_3R_5 + C_5C_LL_LR_3R_5\right) + s^2\left(C_LL_LR_3 + C_LL_LR_5\right) + s\left(C_3R_3R_5 + C_5R_3R_5 + C_LR_3R_5\right)}$$

10.173 INVALID-ORDER-173
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_LR_3R_5s^3 + R_3R_5g_m - R_3 + s^2\left(-C_5C_LR_3R_5R_L + C_LL_LR_3R_5g_m - C_LL_LR_3\right) + s\left(-C_5R_3R_5 + C_LR_3R_5R_Lg_m - C_LR_3R_L\right)}{R_3 + R_5 + s^3\left(C_3C_LL_LR_3R_5 + C_5C_LL_LR_3R_5\right) + s^2\left(C_3C_LR_3R_5R_L + C_5C_LR_3R_5R_L + C_LL_LR_3 + C_LL_LR_3\right) + s\left(C_3R_3R_5 + C_5R_3R_5 + C_LR_3R_5 + C_LR_3R_L + C_LR_5R_L\right)}$$

10.174 INVALID-ORDER-174
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_5C_LL_LR_3R_5R_Ls^3 + R_3R_5R_Lg_m - R_3R_L + s^2\left(-C_5L_LR_3R_5 + C_LL_LR_3R_5R_Lg_m - C_LL_LR_3R_L\right) + s\left(-C_5R_3R_5R_L + L_LR_3R_5g_m - L_LR_3\right)}{R_3R_5 + R_3R_L + R_5R_L + s^3\left(C_3C_LL_RR_3R_5R_L + C_5C_LL_RR_3R_5R_L\right) + s^2\left(C_3L_LR_3R_5 + C_LL_RR_3R_5 + C_LL_RR_3R_5 + C_LL_RR_3R_L + C_LL_RR_5R_L\right) + s\left(C_3R_3R_5R_L + C_5R_3R_5R_L + L_LR_3 + L_LR_5\right)}$$

10.175 INVALID-ORDER-175
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5C_LL_LR_3R_5R_Ls^3 - C_5R_3R_5R_Ls + R_3R_5R_Lg_m - R_3R_L + s^2\left(C_LL_LR_3R_5R_Lg_m - C_LL_LR_3R_L\right)}{R_3R_5 + R_3R_L + R_5R_L + s^3\left(C_3C_LL_LR_3R_5R_L + C_5C_LL_LR_3R_5R_L\right) + s^2\left(C_LL_LR_3R_5 + C_LL_LR_3R_L + C_LL_LR_5R_L\right) + s\left(C_3R_3R_5R_L + C_5R_3R_5R_L + C_LR_3R_5R_L\right)}$$

10.176 INVALID-ORDER-176
$$Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3R_3s+1}, \ \infty, \ R_5 + \frac{1}{C_5s}, \ R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_3g_m + s^2\left(C_5C_LR_3R_5R_Lg_m - C_5C_LR_3R_L\right) + s\left(C_5R_3R_5g_m - C_5R_3 + C_LR_3R_Lg_m\right)}{C_3C_5C_LR_3R_5R_Ls^3 + s^2\left(C_3C_5R_3R_5 + C_3C_LR_3R_L + C_5C_LR_3R_L + C_5C_LR_3R_L\right) + s\left(C_3R_3 + C_5R_3 + C_5R_3$$

10.177 INVALID-ORDER-177
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_L L_L R_3 g_m s^2 + R_3 g_m + s^3 \left(C_5 C_L L_L R_3 R_5 g_m - C_5 C_L L_L R_3\right) + s \left(C_5 R_3 R_5 g_m - C_5 R_3\right)}{C_3 C_5 C_L L_L R_3 R_5 s^4 + s^3 \left(C_3 C_L L_L R_3 + C_5 C_L L_L R_3 + C_5 C_L L_L R_5\right) + s^2 \left(C_3 C_5 R_3 R_5 + C_5 C_L R_3 R_5 + C_L L_L\right) + s \left(C_3 R_3 + C_5 R_3 + C_5 R_5 + C_L R_3\right) + 1}$$

10.178 INVALID-ORDER-178
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_3 g_m s + s^2 \left(C_5 L_L R_3 R_5 g_m - C_5 L_L R_3 \right)}{R_3 + s^3 \left(C_3 C_5 L_L R_3 R_5 + C_5 C_L L_L R_3 R_5 \right) + s^2 \left(C_3 L_L R_3 + C_5 L_L R_3 + C_5 L_L R_5 + C_L L_L R_3 \right) + s \left(C_5 R_3 R_5 + L_L \right)}$$

10.179 INVALID-ORDER-179
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_3 g_m + s^3 \left(C_5 C_L L_L R_3 R_5 g_m - C_5 C_L L_L R_3\right) + s^2 \left(C_5 C_L R_3 R_5 R_L g_m - C_5 C_L R_3 R_L + C_L L_L R_3 g_m\right) + s \left(C_5 R_3 R_5 g_m - C_5 R_3 + C_L R_3 R_L g_m\right)}{C_3 C_5 C_L L_L R_3 R_5 s^4 + s^3 \left(C_3 C_5 C_L R_3 R_5 R_L + C_3 C_L L_L R_3 + C_5 C_L L_L R_3 + C_5 C_L L_L R_3\right) + s^2 \left(C_3 C_5 R_3 R_5 + C_3 C_L R_3 R_L + C_5 C_L R_3 R_L +$$

10.180 INVALID-ORDER-180
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{L_L R_3 R_L g_m s + s^2 \left(C_5 L_L R_3 R_5 R_L g_m - C_5 L_L R_3 R_L\right)}{R_3 R_L + s^3 \left(C_3 C_5 L_L R_3 R_5 R_L + C_5 C_L L_L R_3 R_5 R_L\right) + s^2 \left(C_3 L_L R_3 R_L + C_5 L_L R_3 R_L + C_5 L_L R_3 R_L + C_5 L_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + L_L R_3 + L_L R_L\right)}$$

10.181 INVALID-ORDER-181
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_3 R_L g_m + s^3 \left(C_5 C_L L_L R_3 R_5 R_L g_m - C_5 C_L L_L R_3 R_L \right) + s^2 \left(C_5 L_L R_3 R_5 g_m - C_5 L_L R_3 + C_L L_L R_3 R_L g_m\right) + s \left(C_5 R_3 R_5 R_L g_m - C_5 R_3 R_L + L_L R_3 g_m\right)}{C_3 C_5 C_L L_L R_3 R_5 R_L s^4 + R_3 + R_L + s^3 \left(C_3 C_5 L_L R_3 R_5 + C_5 C_L L_L R_3 R_L + C_5 C$$

10.182 INVALID-ORDER-182
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_L L_L R_3 R_L g_m s^2 + R_3 R_L g_m + s^3 \left(C_5 C_L L_L R_3 R_5 R_L g_m - C_5 C_L L_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L g_m - C_5 R_3 R_L\right)}{C_3 C_5 C_L L_L R_3 R_5 R_L s^4 + R_3 + R_L + s^3 \left(C_3 C_L L_L R_3 R_L + C_5 C_L L_L R_3 R_L + C_5 C_L L_L R_3 R_L\right) + s^2 \left(C_3 C_5 R_3 R_5 R_L + C_5 L_L R_3 + C_L L_L R_3\right) + s \left(C_3 R_3 R_L + C_5 R_3 R_L + C_5$$

10.183 INVALID-ORDER-183 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, R_L\right)$

$$H(s) = \frac{C_5 L_5 R_3 R_L g_m s^2 - C_5 R_3 R_L s + R_3 R_L g_m}{C_3 C_5 L_5 R_3 R_L s^3 + R_3 + R_L + s^2 (C_5 L_5 R_3 + C_5 L_5 R_L) + s (C_3 R_3 R_L + C_5 R_3 R_L)}$$

10.184 INVALID-ORDER-184
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5 L_5 R_3 g_m s^2 - C_5 R_3 s + R_3 g_m}{C_5 L_5 s^2 + s^3 \left(C_3 C_5 L_5 R_3 + C_5 C_L L_5 R_3 \right) + s \left(C_3 R_3 + C_5 R_3 + C_L R_3 \right) + 1}$$

10.185 INVALID-ORDER-185
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_5L_5R_3R_Lg_ms^2 - C_5R_3R_Ls + R_3R_Lg_m}{R_3 + R_L + s^3\left(C_3C_5L_5R_3R_L + C_5C_LL_5R_3R_L\right) + s^2\left(C_5L_5R_3 + C_5L_5R_L\right) + s\left(C_3R_3R_L + C_5R_3R_L + C_LR_3R_L\right)}$$

10.186 INVALID-ORDER-186
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_5R_3R_Lg_ms^3 + R_3g_m + s^2\left(-C_5C_LR_3R_L + C_5L_5R_3g_m\right) + s\left(-C_5R_3 + C_LR_3R_Lg_m\right)}{C_3C_5C_LL_5R_3R_Ls^4 + s^3\left(C_3C_5L_5R_3 + C_5C_LL_5R_3 + C_5C_LL_5R_L\right) + s^2\left(C_3C_LR_3R_L + C_5C_LR_3R_L + C_5C_LS_3\right) + s\left(C_3R_3 + C_5R_3 + C_5R_3 + C_5R_3 + C_5R_3\right) + s\left(C_3R_3R_L + C_5R_3R_L + C_5R_$$

10.187 INVALID-ORDER-187
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_5L_LR_3g_ms^4 - C_5C_LL_LR_3s^3 - C_5R_3s + R_3g_m + s^2\left(C_5L_5R_3g_m + C_LL_LR_3g_m\right)}{C_3C_5C_LL_5L_LR_3s^5 + C_5C_LL_5L_Ls^4 + s^3\left(C_3C_5L_5R_3 + C_3C_LL_LR_3 + C_5C_LL_5R_3 + C_5C_LL_LR_3\right) + s^2\left(C_5L_5 + C_LL_L\right) + s\left(C_3R_3 + C_5R_3 + C_LR_3\right) + 1}$$

10.188 INVALID-ORDER-188
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_5 L_5 L_L R_3 g_m s^3 - C_5 L_L R_3 s^2 + L_L R_3 g_m s}{C_5 L_5 L_L s^3 + L_L s + R_3 + s^4 \left(C_3 C_5 L_5 L_L R_3 + C_5 C_L L_5 L_L R_3\right) + s^2 \left(C_3 L_L R_3 + C_5 L_5 R_3 + C_5 L_L R_3 + C_L L_L R_3\right)}$$

10.189 INVALID-ORDER-189
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_5L_LR_3g_ms^4 + R_3g_m + s^3\left(C_5C_LL_5R_3R_Lg_m - C_5C_LL_LR_3\right) + s^2\left(-C_5C_LR_3R_L + C_5L_5R_3g_m + C_LL_LR_3g_m\right) + s\left(-C_5R_3 + C_LR_3R_Lg_m\right)}{C_3C_5C_LL_5L_LR_3s^5 + s^4\left(C_3C_5C_LL_5R_3R_L + C_5C_LL_5L_L\right) + s^3\left(C_3C_5L_LR_3 + C_5C_LL_5R_3 + C_5C_$$

10.190 INVALID-ORDER-190
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_5L_5L_LR_3R_Lg_ms^3 - C_5L_LR_3R_Ls^2 + L_LR_3R_Lg_ms}{R_3R_L + s^4\left(C_3C_5L_5L_LR_3R_L + C_5C_LL_5L_LR_3R_L\right) + s^3\left(C_5L_5L_LR_3 + C_5L_5L_LR_1\right) + s^2\left(C_3L_LR_3R_L + C_5L_5R_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L\right) + s\left(L_LR_3 + L_LR_L\right)}$$

10.191 INVALID-ORDER-191
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{C_5C_LL_5L_LR_3R_Lg_m + s^3\left(-C_5C_LL_LR_3R_L + C_5L_5L_LR_3g_m\right) + s^2\left(C_5L_5R_3R_Lg_m - C_5L_LR_3 + C_LL_LR_3R_Lg_m\right) + s\left(-C_5R_3R_L + L_LR_3g_m\right)}{C_3C_5C_LL_5L_LR_3R_Ls^5 + R_3 + R_L + s^4\left(C_3C_5L_5L_LR_3 + C_5C_LL_5L_LR_3 + C_5C_LL_5L_LR_3R_L + C_5C_LL_LR_3R_L + C_5C_LL_LR_3R_L + C_5C_LL_LR_3R_L + C_5L_5R_3 +$$

10.192 INVALID-ORDER-192
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_5C_LL_5L_LR_3R_Lg_ms^4 - C_5C_LL_LR_3R_Ls^3 - C_5R_3R_Ls + R_3R_Lg_m + s^2\left(C_5L_5R_3R_Lg_m + C_LL_LR_3R_Lg_m\right)}{C_3C_5C_LL_5L_LR_3R_Ls^5 + R_3 + R_L + s^4\left(C_5C_LL_5L_LR_3 + C_5C_LL_5L_RL\right) + s^3\left(C_3C_5L_5R_3R_L + C_5C_LL_5R_3R_L + C_5C_LL_5R_3R_L + C_5C_LL_5R_3R_L\right) + s^2\left(C_5L_5R_3 + C_5L_5R_3 + C_5L$$

10.193 INVALID-ORDER-193
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_5R_3R_Ls^3 - R_3 + s^2\left(-C_5L_5R_3 + C_LL_5R_3R_Lg_m\right) + s\left(-C_LR_3R_L + L_5R_3g_m\right)}{R_3 + s^3\left(C_3C_LL_5R_3R_L + C_5C_LL_5R_3R_L\right) + s^2\left(C_3L_5R_3 + C_LL_5R_3 + C_LL_5R_3 + C_LL_5R_3 + C_LL_5R_L\right) + s\left(C_LR_3R_L + L_5\right)}$$

10.194 INVALID-ORDER-194
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_5L_LR_3s^4 + C_LL_5L_LR_3g_ms^3 + L_5R_3g_ms - R_3 + s^2\left(-C_5L_5R_3 - C_LL_LR_3\right)}{C_LL_5L_Ls^3 + L_5s + R_3 + s^4\left(C_3C_LL_5L_LR_3 + C_5C_LL_5L_LR_3\right) + s^2\left(C_3L_5R_3 + C_5L_5R_3 + C_LL_5R_3 + C_LL_LR_3\right)}$$

10.195 INVALID-ORDER-195
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_5L_LR_3s^4 - R_3 + s^3\left(-C_5C_LL_5R_3R_L + C_LL_5L_LR_3g_m\right) + s^2\left(-C_5L_5R_3 + C_LL_5R_3R_Lg_m - C_LL_LR_3\right) + s\left(-C_LR_3R_L + L_5R_3g_m\right)}{R_3 + s^4\left(C_3C_LL_5L_LR_3 + C_5C_LL_5L_LR_3\right) + s^3\left(C_3C_LL_5R_3R_L + C_5C_LL_5R_3R_L + C_LL_5L_L\right) + s^2\left(C_3L_5R_3 + C_5L_5R_3 + C_LL_5R_3 + C_LL_5R_3 + C_LL_5R_3\right) + s\left(C_LR_3R_L + L_5R_3g_m\right)}$$

10.196 INVALID-ORDER-196
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_5C_LL_5L_LR_3R_Ls^4 - R_3R_L + s^3\left(-C_5L_5L_LR_3 + C_LL_5L_LR_3R_Lg_m\right) + s^2\left(-C_5L_5R_3R_L - C_LL_LR_3R_L + L_5L_LR_3g_m\right) + s\left(L_5R_3R_Lg_m - L_LR_3\right)}{R_3R_L + s^4\left(C_3C_LL_5L_LR_3R_L + C_5C_LL_5L_LR_3R_L\right) + s^3\left(C_3L_5L_LR_3 + C_LL_5L_LR_3 + C_LL_5L_LR_3 + C_LL_5L_LR_1\right) + s^2\left(C_3L_5R_3R_L + C_5L_5R_3R_L + C_5L_LR_3R_L + L_5L_L\right) + s\left(L_5R_3 + L_5R_L + L_5R_L\right)}$$

10.197 INVALID-ORDER-197
$$Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5C_LL_5L_LR_3R_Ls^4 + C_LL_5L_LR_3R_Lg_ms^3 + L_5R_3R_Lg_ms - R_3R_L + s^2\left(-C_5L_5R_3R_L - C_LL_LR_3R_L\right)}{R_3R_L + s^4\left(C_3C_LL_5L_LR_3R_L + C_5C_LL_5L_LR_3R_L\right) + s^3\left(C_LL_5L_LR_3 + C_LL_5L_LR_4\right) + s^2\left(C_3L_5R_3R_L + C_5L_5R_3R_L + C_LL_5R_3R_L\right) + s\left(L_5R_3 + L_5R_L\right)}$$

10.198 INVALID-ORDER-198
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L\right)$$

$$H(s) = \frac{C_5L_5R_3R_Lg_ms^2 + R_3R_Lg_m + s\left(C_5R_3R_5R_Lg_m - C_5R_3R_L\right)}{C_3C_5L_5R_3R_Ls^3 + R_3 + R_L + s^2\left(C_3C_5R_3R_5R_L + C_5L_5R_3 + C_5L_5R_L\right) + s\left(C_3R_3R_L + C_5R_3R_5 + C_5R_3R_L + C_5R_5R_L\right)}$$

10.199 INVALID-ORDER-199
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5 L_5 R_3 g_m s^2 + R_3 g_m + s \left(C_5 R_3 R_5 g_m - C_5 R_3\right)}{s^3 \left(C_3 C_5 L_5 R_3 + C_5 C_L L_5 R_3\right) + s^2 \left(C_3 C_5 R_3 R_5 + C_5 C_L R_3 R_5 + C_5 L_5\right) + s \left(C_3 R_3 + C_5 R_3 + C_5 R_5 + C_L R_3\right) + 1}$$

10.200 INVALID-ORDER-200
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_5L_5R_3R_Lg_ms^2 + R_3R_Lg_m + s\left(C_5R_3R_5R_Lg_m - C_5R_3R_L\right)}{R_3 + R_L + s^3\left(C_3C_5L_5R_3R_L + C_5C_LL_5R_3R_L\right) + s^2\left(C_3C_5R_3R_5R_L + C_5C_LR_3R_5R_L + C_5L_5R_3 + C_5L_5R_L\right) + s\left(C_3R_3R_L + C_5R_3R_L + C_5R_3R_L + C_5R_3R_L + C_5R_3R_L\right)}$$

10.201 INVALID-ORDER-201
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_5R_3R_Lg_ms^3 + R_3g_m + s^2\left(C_5C_LR_3R_5R_Lg_m - C_5C_LR_3R_L + C_5L_5R_3g_m\right) + s\left(C_5R_3R_5g_m - C_5R_3 + C_LR_3R_Lg_m\right)}{C_3C_5C_LL_5R_3R_Ls^4 + s^3\left(C_3C_5C_LR_3R_5R_L + C_3C_5L_5R_3 + C_5C_LL_5R_3 + C_5C_LL_5R_3 + C_5C_LL_5R_3 + C_5C_LL_5R_3 + C_5C_LL_5R_3 + C_5C_LL_5R_3 + C_5C_LR_3R_5 + C_5C_L$$

10.202 INVALID-ORDER-202
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_5L_LR_3g_ms^4 + R_3g_m + s^3\left(C_5C_LL_LR_3R_5g_m - C_5C_LL_LR_3\right) + s^2\left(C_5L_5R_3g_m + C_LL_LR_3g_m\right) + s\left(C_5R_3R_5g_m - C_5R_3\right)}{C_3C_5C_LL_5L_LR_3s^5 + s^4\left(C_3C_5C_LL_LR_3R_5 + C_5C_LL_5L_L\right) + s^3\left(C_3C_5L_LR_3 + C_5C_LL_LR_3 + C_5C_LL$$

10.203 INVALID-ORDER-203 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$ $H(s) = \frac{C_5L_5L_LR_3g_ms^3 + L_LR_3g_ms + s^2\left(C_5L_LR_3R_5g_m - C_5L_LR_3\right)}{R_3 + s^4\left(C_3C_5L_5L_LR_3 + C_5C_LL_5L_LR_3\right) + s^3\left(C_3C_5L_LR_3R_5 + C_5C_LL_LR_3R_5 + C_5L_LL\right) + s^2\left(C_3L_LR_3 + C_5L_5R_3 + C_5L_LR_3 + C_5L_LR_3 + C_5L_LR_3\right) + s\left(C_5R_3R_5 + L_LR_3R_5 + C_5L_LR_3 + C_5L_LR_3 + C_5L_LR_3 + C_5L_LR_3\right) + s\left(C_5R_3R_5 + L_LR_3R_5 + C_5L_LR_3 + C_5L_LR_3 + C_5L_LR_3 + C_5L_LR_3\right) + s\left(C_5R_3R_5 + C_5L_LR_3 + C_5L_LR_3 + C_5L_LR_3 + C_5L_LR_3\right) + s\left(C_5R_3R_5 + C_5L_LR_3 + C_5L_LR_3 + C_5L_LR_3 + C_5L_LR_3\right) + s\left(C_5R_3R_5 + C_5L_LR_3 + C_5L_LR_3\right) + s\left(C_5R_3R_5 + C_5L_LR_3 + C_5L_LR_3\right) + s\left(C_5R_3R_5 + C_5R_3R_5\right) + s\left(C_5R_3R_5 + C_5R_3R_5\right) + s\left(C_5R_3R_5 + C_5R_3R_5\right) + s\left(C_5R_3R_5 + C_5R_5R_5\right) + s\left(C_5R_5R_5R_5\right) + s\left(C_5R_5R_5R_5R_5\right) + s\left(C_5R_5R_5R_5R_5\right) + s\left(C_5R_5R_5R_5R_5R_5R_5\right) + s\left(C_5R_5R_5R_5R_5R_5R_5R_5R_5R$ 10.204 INVALID-ORDER-204 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$ $H(s) = \frac{C_5C_LL_5L_R_3g_ms^4 + R_3g_m + s^3\left(C_5C_LL_5R_3R_Lg_m + C_5C_LL_LR_3p_m + s^2\left(C_5C_LR_3R_5R_Lg_m - C_5C_LL_RR_3p_m + C_LL_RR_3g_m + C_LL_RR_3g_m + s^2\left(C_5C_LR_3R_5R_Lg_m - C_5C_LL_RR_3p_m + C_LL_RR_3g_m + C_LL_RR_3g_m + s^2\left(C_5C_LR_3R_5R_Lg_m - C_5C_LL_RR_3p_m + C_5C_LL_RR_3p_m + s^2\left(C_5C_LR_3R_5R_Lg_m - C_5C_LL_RR_3p_m + C_5C_LL_RR_3p_m + C_5C_LL_RR_3p_m + s^2\left(C_5C_LR_3R_5R_Lg_m - C_5C_LL_RR_3p_m + C_5C_LL_RR_3p_m + s^2\left(C_5C_LR_3R_5R_Lg_m - C_5C_LL_RR_3p_m + C_5C_LL_RR_3p_m + C_5C_LL_RR_3p_m + s^2\left(C_5C_LR_3R_5R_Lg_m - C_5C_LL_RR_3p_m + c_5C_LL$ 10.205 INVALID-ORDER-205 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$ $H(s) = \frac{C_5L_5L_RR_3R_Lg_ms^3 + L_LR_3R_Lg_ms + s^2\left(C_5L_LR_3R_5R_Lg_m - C_5L_LR_3R_L\right)}{R_3R_L + s^4\left(C_3C_5L_5L_LR_3R_L + C_5C_LL_5L_LR_3R_L\right) + s^3\left(C_3C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_5L_LR_3 + C_5L_LR_3R_L + C_5L_L$ 10.206 INVALID-ORDER-206 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$ $H(s) = \frac{C_5C_LL_5L_LR_3R_Lg_m + s^3\left(C_5C_LL_LR_3R_5R_Lg_m - C_5C_LL_LR_3R_L + C_5L_5L_LR_3g_m\right) + s^2\left(C_5L_5R_3R_Lg_m + C_5L_LR_3R_5g_m - C_5L_LR_3 + C_LL_LR_3R_Lg_m\right) + s\left(C_5C_LL_LR_3R_Lg_m + s^2\left(C_5L_5R_3R_Lg_m + C_5L_LR_3R_Lg_m + C_5L_LR_3R_Lg_m\right) + s\left(C_5C_LL_LR_3R_Lg_m + C_5C_LL_RR_3R_Lg_m + C_5C_LL_RR_3R_Lg_m\right) + s\left(C_5C_LL_RR_3R_Lg_m + C_5C_LL_RR_3R_Lg_m + C_5C_LL_RR_3R_Lg_m + C_5C_LL_RR_3R_Lg_m\right) + s\left(C_5C_LL_RR_3R_Lg_m + C_5C_LL_RR_3R_Lg_m + C_5C_LL_RR_3R_Lg_m\right) + s\left(C_5C_LL_RR_3R_L + C_5C_LL_RR_3R_L + C_5C_LL_RR_3R_$ 10.207 INVALID-ORDER-207 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$ $\frac{C_5C_LL_5L_LR_3R_Lg_ms^4 + R_3R_Lg_m + s^3\left(C_5C_LL_LR_3R_5R_Lg_m - C_5C_LL_LR_3R_L\right) + s^2\left(C_5L_5R_3R_Lg_m + C_LL_LR_3R_Lg_m\right) + s\left(C_5R_3R_5R_Lg_m - C_5R_3R_L\right)}{C_3C_5C_LL_5L_LR_3R_Ls^5 + R_3 + R_L + s^4\left(C_3C_5C_LL_LR_3R_5R_L + C_5C_LL_5L_LR_3 + C_5C_LL_LR_3R_L + C_5C_LL_RR_3R_L + C_5C_LL_R$ 10.208 INVALID-ORDER-208 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3R_3s+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, R_L + \frac{1}{C_Ls}\right)$ $H(s) = \frac{-C_5C_LL_5R_3R_5R_Ls^3 - R_3R_5 + s^2\left(-C_5L_5R_3R_5 + C_LL_5R_3R_5R_Lg_m - C_LL_5R_3R_L\right) + s\left(-C_LR_3R_5R_L + L_5R_3R_5g_m - L_5R_3\right)}{R_3R_5 + s^3\left(C_3C_LL_5R_3R_5R_L + C_5C_LL_5R_3R_5R_L\right) + s^2\left(C_3L_5R_3R_5 + C_5L_5R_3R_5 + C_LL_5R_3R_5 + C_LL_5R_3R_L + C_LL_5R_5R_L\right) + s\left(C_LR_3R_5R_L + L_5R_3R_5R_L + L_5R_3R_5R_L + L_5R_3R_5R_L\right) + s\left(C_LR_3R_5R_L + C_LL_5R_3R_5 + C_LL_5R_3R_5 + C_LL_5R_3R_5 + C_LL_5R_3R_L + C_LL_5R_3R_L + C_LL_5R_3R_L + C_LL_5R_3R_L + C_LL_5R_3R_L + C_LL_5R_3R_L\right) + s\left(C_LR_3R_5R_L + C_LL_5R_3R_5R_L + C_LL_5R_3R_5R_L + C_LL_5R_3R_5 + C_LL_5R_3R_5 + C_LL_5R_3R_5 + C_LL_5R_3R_L +$ 10.209 INVALID-ORDER-209 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + \frac{1}{C_L s}\right)$ 10.210 INVALID-ORDER-210 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3R_3s+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, L_Ls + R_L + \frac{1}{C_Ls}\right)$ $H(s) = \frac{-C_5C_LL_5L_LR_3R_5s^4 - R_3R_5 + s^3\left(-C_5C_LL_5R_3R_5R_L + C_LL_5L_LR_3R_5g_m - C_LL_5L_LR_3\right) + s^2\left(-C_5L_5R_3R_5 + C_LL_5R_3R_5R_L - C_LL_LR_3R_5\right) + s\left(-C_LR_3R_5R_L + L_5R_3R_5g_m - L_5R_3\right)}{R_3R_5 + s^4\left(C_3C_LL_5L_LR_3R_5 + C_5C_LL_5L_LR_3R_5\right) + s^3\left(C_3C_LL_5R_3R_5R_L + C_LL_5R_3R_5R_L + C_LL_5R_3R_5 + C_LL_5R_5 + C_LL_5R_5$ 10.211 INVALID-ORDER-211 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_I s^2 + 1} + R_L\right)$

 $H(s) = \frac{-C_5C_LL_5L_LR_3R_5R_Ls^4 - R_3R_5R_Ls^4 - R_3R_5R_L + s^3\left(-C_5L_5L_LR_3R_5 + C_LL_5L_LR_3R_5R_Lg_m - C_LL_5L_LR_3R_5R_L + L_5L_LR_3R_5R_L + L_5$

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10.212 INVALID-ORDER-212 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
                                                                             H(s) = \frac{-C_5C_LL_5L_LR_3R_5R_Ls^4 - R_3R_5R_Ls^4 - R_3R_5R_Ls + s^3\left(C_LL_5L_LR_3R_5R_Lg_m - C_LL_5L_LR_3R_L\right) + s^2\left(-C_5L_5R_3R_5R_L - C_LL_LR_3R_5R_L\right) + s\left(L_5R_3R_5R_Lg_m - L_5R_3R_L\right)}{R_3R_5R_L + s^4\left(C_3C_LL_5L_LR_3R_5R_L\right) + s^3\left(C_LL_5L_LR_3R_5 + C_LL_5L_LR_3R_L\right) + s^2\left(C_3L_5R_3R_5R_L + C_5L_5R_3R_5R_L + C_LL_5R_3R_5R_L\right) + s\left(L_5R_3R_5R_L\right) + s\left(L_
10.213 INVALID-ORDER-213 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L\right)
                                                                                                                                                                                                                                                                                                                                   H(s) = \frac{L_5 R_3 R_L g_m s + R_3 R_5 R_L g_m - R_3 R_L + s^2 \left(C_5 L_5 R_3 R_5 R_L g_m - C_5 L_5 R_3 R_L\right)}{C_2 C_5 L_5 R_3 R_5 R_L s^3 + R_3 R_5 + R_3 R_L + R_5 R_L + s^2 \left(C_3 L_5 R_3 R_L + C_5 L_5 R_5 R_L 
10.214 INVALID-ORDER-214 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                                                                                                                                            H(s) = \frac{L_5 R_3 g_m s + R_3 R_5 g_m - R_3 + s^2 \left(C_5 L_5 R_3 R_5 g_m - C_5 L_5 R_3\right)}{R_3 + R_5 + s^3 \left(C_3 C_5 L_5 R_3 R_5 + C_5 L_L E_3 R_5\right) + s^2 \left(C_3 L_5 R_3 + C_5 L_5 R_3 + C_5 L_5 R_3 + C_5 L_5 R_3\right) + s \left(C_3 R_3 R_5 + C_L R_3 R_5 + L_5\right)}
10.215 INVALID-ORDER-215 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L}{C_L R_L s + 1}\right)
                                                                                                                                                                             H(s) = \frac{L_5 R_3 R_L g_m s + R_3 R_5 R_L g_m - R_3 R_L + s^2 \left(C_5 L_5 R_3 R_5 R_L g_m - C_5 L_5 R_3 R_L\right)}{R_3 R_5 + R_3 R_L + R_5 R_L + s^3 \left(C_3 C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 R_3 R_5 R_L\right) + s^2 \left(C_3 L_5 R_3 R_5 + C_5 L_5 R_3 R_5 + C_5 L_5 R_3 R_L + C_5 L_5 R_3 R_L\right) + s \left(C_3 R_3 R_5 R_L + C_L R_3 R_5 R_L + L_5 R_3 + L_5 R_L\right)}
10.216 INVALID-ORDER-216 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L + \frac{1}{C_L s}\right)
H(s) = \frac{R_3R_5g_m - R_3 + s^3\left(C_5C_LL_5R_3R_5R_Lg_m - C_5C_LL_5R_3R_Lg_m - C_5L_5R_3R_Lg_m - C_5L_5R_3R_Lg_m - C_5L_5R_3R_Lg_m - C_LR_3R_L + L_5R_3g_m\right)}{C_3C_5C_LL_5R_3R_5R_Ls^4 + R_3 + R_5 + s^3\left(C_3C_5L_5R_3R_5 + C_5C_LL_5R_3R_L + C_5C_LL_
10.217 INVALID-ORDER-217 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, L_Ls + \frac{1}{C_Ls}\right)
                                               \frac{C_{L}L_{5}L_{L}R_{3}g_{m}s^{3}+L_{5}R_{3}g_{m}s+R_{3}R_{5}g_{m}-R_{3}+s^{4}\left(C_{5}C_{L}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{5}L_{L}R_{3}\right)+s^{2}\left(C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}+C_{L}L_{L}R_{3}R_{5}g_{m}-C_{L}L_{L}R_{3}\right)}{C_{3}C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{3}+C_{5}C_{L}L_{5}L_{L}R_{5}+C_{5}C_{L}L_{5}L_{L}R_{5}+C_{5}C_{L}L_{5}L_{L}R_{5}+C_{5}C_{L}L_{5}L_{L}R_{5}+C_{5}C_{L}L_{5}L_{L}R_{5}+C_{5}C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{L}R_{5}+C_{L}L_{5}L_{
10.218 INVALID-ORDER-218 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                                                                                                                                                                        H(s) = \frac{L_5L_LR_3g_ms^2 + s^3\left(C_5L_5L_LR_3R_5g_m - C_5L_5L_LR_3\right) + s\left(L_LR_3R_5g_m - L_LR_3\right)}{R_3R_5 + s^4\left(C_3C_5L_5L_LR_3R_5 + C_5C_LL_5L_LR_3R_5\right) + s^3\left(C_3L_5L_LR_3 + C_5L_5L_LR_3 + C_5L_5L_LR_3\right) + s^2\left(C_3L_LR_3R_5 + C_5L_5R_3R_5 + C_5L_5R_5R_5 + C_5L_5R_5 + C_5L_5R_5 + C_5L_5R_5 + C_5L_5R_5 + C_5L_5R_5 + C
10.219 INVALID-ORDER-219 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + R_L + \frac{1}{C_L s}\right)
                                               \frac{R_{3}R_{5}g_{m}-R_{3}+s^{4}\left(C_{5}C_{L}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{5}L_{L}R_{3}\right)+s^{3}\left(C_{5}C_{L}L_{5}R_{3}R_{L}+C_{L}L_{5}L_{L}R_{3}g_{m}\right)+s^{2}\left(C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}+C_{L}L_{5}R_{3}R_{L}g_{m}+C_{L}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{L}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{5}R_{5}g_{m}-C_{5}L_{5}R_{5}R_{5}R_{5}g_{m}-C_{5}L_{5}R_{5}R_{5}g_{m}-C_{5}L_{5}R_{5}R_{5}g_{m}-C_{5}L_{5}R_{5}R_{5}g_{m}-C_{5}L_{5}R_{5}R_{5}g_{m}-C_{5}L_{5}R_{5}R_{5}g_{m}-C_{5}L_{5}R_{5}R_{5}g_{m}-C_{5}L_{5}R_{5}R_{5}g_{m}-C_{5}L_{5}R_{5}R_{5}g_{m}-C_{5}L_{5}R_{5}R_{5}g_{m}-C_{5}L_{5
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10.220 INVALID-ORDER-220 $Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3R_3s+1}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1} + R_5, \ \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$ $L_5L_4R_2R_1R_2R_2S^2 + s^3\left(C_5L_5L_4R_2R_5R_1R_2 - C_5L_5L_4R_2R_4\right) + s\left(L_4R_2R_5R_1R_2 - L_4R_2R_4\right)$

10.221 INVALID-ORDER-221 $Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

 $H(s) = \frac{R_3R_5R_Lg_m - R_3R_L + s^4\left(C_5C_LL_5L_LR_3R_5R_Lg_m - C_5C_LL_5L_LR_3R_5g_m - C_5L_5L_LR_3 + C_LL_5L_LR_3R_Lg_m\right) + s^2\left(C_5L_5R_3R_5R_Lg_m - C_5L_5R_3R_5R_Lg_m - C_5L_5L_LR_3R_5R_Lg_m - C_5L_5L_LR_3R_Lg_m - C_5L_5L_LR_3R_5R_Lg_m - C_5L_5L_LR_3R_5R_Lg_m - C_5L_5L_LR_3R_5R_Lg_m - C_5L_5L_LR_3R_5R_Lg_m - C_5L_5L_LR_3R_5R_Lg_m - C$

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10.222 INVALID-ORDER-222 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_L L_5 L_L R_3 R_L g_m s^3 + L_5 R_3 R_L g_m s + R_3 R_5 R_L g_m - R_3 R_L + s^4 \left(C_5 C_L L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_5 L_L R_3 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L g_m - C_5 L_5 R_3 R_5 R_L + C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L \right) + s^2 \left(C_5 L_5 R_5 R_5 R_L + C_5 L_L R_5 R_5 R_L \right) + s^2 \left(C_5 L_5 R_5 R_5 R_L + C_5 L_L R_5 R_L \right) + s^2 \left(C_5 L_5 R_5 R_5 R_L + C_5 L_L R_5 R_L \right) + s^2 \left(C_5 L_5 R_5 R_5 R_L + C_5 L_L R_5 R_L \right) + s^2 \left(C_5 L_5 R_5 R_5 R_L + C_5 L_L R_5 R_L \right) + s^2 \left(C_5 L_5 R_5 R_5 R_L + C_5 L_L R_5 R_L \right) + s^2 \left(C_5 L_5 R_5 R_5 R_L + C_5 L_L R_5 R_L \right) + s^2 \left(C_5 L_5 R_5 R_5 R_L + C_5 L_L R_5 R_L \right) + s^2 \left(C_5 L_5 R_5 R_5 R_L + C_5 L_L R_5 R_L \right) + s^2 \left(C_5 L_5 R_5 R_5 R_L + C_5 L_L R_5 R_L \right) + s^2 \left(C_5 L_5 R_5 R_5 R_L + C_5 L
10.223 INVALID-ORDER-223 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, R_L\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                            H(s) = \frac{-C_5R_3R_5R_Ls + R_3R_5R_Lg_m - R_3R_L + s^2\left(C_5L_5R_3R_5R_Lg_m - C_5L_5R_3R_L\right)}{C_3C_5L_5R_3R_5R_Ls^3 + R_3R_5 + R_3R_L + R_5R_L + s^2\left(C_5L_5R_3R_5 + C_5L_5R_3R_L + C_5L_5R_3R_L\right) + s\left(C_3R_3R_5R_L + C_5R_3R_5R_L\right)}
10.224 INVALID-ORDER-224 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       H(s) = \frac{-C_5 R_3 R_5 s + R_3 R_5 g_m - R_3 + s^2 \left(C_5 L_5 R_3 R_5 g_m - C_5 L_5 R_3\right)}{R_3 + R_5 + s^3 \left(C_3 C_5 L_5 R_3 R_5 + C_5 C_L L_5 R_3 R_5\right) + s^2 \left(C_5 L_5 R_3 + C_5 L_5 R_5\right) + s \left(C_3 R_3 R_5 + C_5 R_3 R_5 + C_L R_3 R_5\right)}
10.225 INVALID-ORDER-225 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)
                                                                                                                                                                                                                                                                                                                H(s) = \frac{-C_5R_3R_5R_Ls + R_3R_5R_Lg_m - R_3R_L + s^2\left(C_5L_5R_3R_5R_Lg_m - C_5L_5R_3R_L\right)}{R_3R_5 + R_3R_L + R_5R_L + s^3\left(C_3C_5L_5R_3R_5R_L + C_5C_LL_5R_3R_5R_L\right) + s^2\left(C_5L_5R_3R_5 + C_5L_5R_3R_L + C_5L_5R_5R_L\right) + s\left(C_3R_3R_5R_L + C_5R_3R_5R_L + C_5R_3R_5R_L\right) + s\left(C_3R_3R_5R_L + C_5R_3R_5R_L + C_5R_3R_5R_L\right) + s\left(C_3R_3R_5R_L + C_5R_3R_5R_L\right) + s\left(C_3R_3R_5R_L + C_5R_3R_5R_L\right) + s\left(C_3R_3R_5R_L\right) + s\left(C_3R_3R_5R_
10.226 INVALID-ORDER-226 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)
                                                                                  H(s) = \frac{R_3R_5g_m - R_3 + s^3\left(C_5C_LL_5R_3R_5R_Lg_m - C_5C_LL_5R_3R_L\right) + s^2\left(-C_5C_LR_3R_5R_L + C_5L_5R_3R_5g_m - C_5L_5R_3\right) + s\left(-C_5R_3R_5 + C_LR_3R_5R_Lg_m - C_LR_3R_L\right)}{C_3C_5C_LL_5R_3R_5R_Ls^4 + R_3 + R_5 + s^3\left(C_3C_5L_5R_3R_5 + C_5C_LL_5R_3R_L + C_5C_LL_5R_3R_L + C_5C_LL_5R_3R_5R_L + C_5C_LR_3R_5R_L + C_5L_5R_3 + 
10.227 INVALID-ORDER-227 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, L_L s + \frac{1}{C_L s}\right)
                                                                         H(s) = \frac{-C_5C_LL_LR_3R_5s^3 - C_5R_3R_5s + R_3R_5g_m - R_3 + s^4\left(C_5C_LL_5L_LR_3R_5g_m - C_5C_LL_5L_LR_3\right) + s^2\left(C_5L_5R_3R_5g_m - C_5L_5R_3 + C_LL_LR_3R_5g_m - C_LL_LR_3\right)}{C_3C_5C_LL_5L_LR_3R_5s^5 + R_3 + R_5 + s^4\left(C_5C_LL_5L_LR_3 + C_5C_LL_5L_LR_3\right) + s^3\left(C_3C_5L_5R_3R_5 + C_5C_LL_5R_3R_5 + C_5C_LL_5R_3R_5\right) + s^2\left(C_5L_5R_3 + C_5L_LR_3 + C_5L_LR_3 + C_5L_LR_3\right) + s^2\left(C_5L_5R_3 + C_5L_LR_3 + C_5L_LR_3\right) + s^2\left(C_5L_5R_3 + C_5L_LR_3 + C_5L_LR_3\right) + s^2\left(C_5L_5R_3 + C_5L_LR_3\right) + s^
10.228 INVALID-ORDER-228 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                                                                                                                                                                                                                                                                                                         H(s) = \frac{-C_5L_LR_3R_5s^2 + s^3\left(C_5L_5L_LR_3R_5g_m - C_5L_5L_LR_3\right) + s\left(L_LR_3R_5g_m - L_LR_3\right)}{R_3R_5 + s^4\left(C_3C_5L_5L_LR_3R_5 + C_5L_LL_5L_LR_3R_5\right) + s^3\left(C_5L_5L_LR_3 + C_5L_5L_LR_3\right) + s^2\left(C_3L_LR_3R_5 + C_5L_LR_3R_5 + C_5L_LR_3R_5\right) + s\left(L_LR_3R_5 + C_5L_LR_3R_5\right) + s\left(L_L
10.229 INVALID-ORDER-229 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)
                                                      \frac{R_{3}R_{5}g_{m}-R_{3}+s^{4}\left(C_{5}C_{L}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{5}L_{L}R_{3}\right)+s^{3}\left(C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}-C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}L_{5}R_{3}R_{5}g_{m}-C_{5}L_{5}R_{3}+C_{L}L_{L}R_{3}R_{5}g_{m}-C_{L}L_{L}R_{3}\right)+s\left(-C_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}L_{L}R_{3}R_{5}g_{m}-C_{L}L_{L}R_{3}\right)+s\left(-C_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{5}R_{3}R_{5}R
10.230 INVALID-ORDER-230 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3R_3s+1}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)
                                                                                        H(s) = \frac{-C_5L_LR_3R_5R_Ls^2 + s^3\left(C_5L_5L_LR_3R_5R_Lg_m - C_5L_5L_LR_3R_L\right) + s\left(L_LR_3R_5R_Lg_m - L_LR_3R_L\right)}{R_3R_5R_L + s^4\left(C_3C_5L_5L_LR_3R_5R_L + C_5C_LL_5L_LR_3R_5R_L\right) + s^3\left(C_5L_5L_LR_3R_5 + C_5L_5L_LR_3R_L + C_5L_5L_LR_3R_5R_L + C_5L_5R_3R_5R_L + C_5L_LR_3R_5R_L\right) + s\left(L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L\right) + s\left(L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L\right) + s\left(L_LR_3R_5R_L + C_5L_LR_3R_5R_L\right) + s\left(L_LR
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10.231 INVALID-ORDER-231 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3R_3s+1}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$

 $H(s) = \frac{R_3R_5R_Lg_m - R_3R_L + s^4\left(C_5C_LL_5L_LR_3R_5R_Lg_m - C_5C_LL_5L_LR_3R_5R_L + C_5L_5L_LR_3R_5g_m - C_5L_5L_LR_3\right) + s^2\left(C_5L_5R_3R_5R_Lg_m - C_5L_5R_3R_L - C_5L_LR_3R_5 + C$

10.232 INVALID-ORDER-232 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

 $H(s) = \frac{-C_5C_LL_LR_3R_5R_Ls^3 - C_5R_3R_5R_Ls + R_3R_5R_Lg_m - R_3R_L + s^4\left(C_5C_LL_5L_LR_3R_5R_Lg_m - C_5C_LL_5L_LR_3R_L\right) + s^2\left(C_5L_5R_3R_5R_Lg_m - C_5L_5R_3R_L + C_LL_LR_3R_5R_Lg_m - C_5L_LR_3R_L\right)}{C_3C_5C_LL_5L_LR_3R_5R_Ls^5 + R_3R_5 + R_3R_L + R_5R_L + s^4\left(C_5C_LL_5L_LR_3R_5 + C_5C_LL_5L_LR_3R_5R_L + C_5C_LL_5R_3R_5R_L + C_5C_LL_5R_5R_L + C_5C_LL_5R_5R_L + C_5C_LL_5R_5R_5R_L + C_5C_LL_5R_5R_$

10.233 INVALID-ORDER-233 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, R_L\right)$

$$H(s) = \frac{R_5 R_L g_m - R_L + s \left(C_3 R_3 R_5 R_L g_m - C_3 R_3 R_L \right)}{R_5 + R_L + s \left(C_3 R_3 R_5 + C_3 R_3 R_L + C_3 R_5 R_L \right)}$$

10.234 INVALID-ORDER-234 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_5 g_m + s^3 \left(C_3 C_L L_L R_3 R_5 g_m - C_3 C_L L_L R_3 \right) + s^2 \left(C_L L_L R_5 g_m - C_L L_L \right) + s \left(C_3 R_3 R_5 g_m - C_3 R_3 \right) - 1}{s^3 \left(C_3 C_L L_L R_3 + C_3 C_L L_L R_5 \right) + s^2 \left(C_3 C_L R_3 R_5 + C_L L_L \right) + s \left(C_3 R_3 + C_3 R_5 + C_L R_5 \right) + 1}$$

10.235 INVALID-ORDER-235 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{s^2 \left(C_3 L_L R_3 R_5 g_m - C_3 L_L R_3 \right) + s \left(L_L R_5 g_m - L_L \right)}{C_3 C_L L_L R_3 R_5 s^3 + R_5 + s^2 \left(C_3 L_L R_3 + C_3 L_L R_5 + C_L L_L R_5 \right) + s \left(C_3 R_3 R_5 + L_L \right)}$$

10.236 INVALID-ORDER-236 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_5 g_m + s^3 \left(C_3 C_L L_L R_3 R_5 g_m - C_3 C_L L_L R_3\right) + s^2 \left(C_3 C_L R_3 R_5 R_L g_m - C_3 C_L R_3 R_L + C_L L_L R_5 g_m - C_L L_L\right) + s \left(C_3 R_3 R_5 g_m - C_3 R_3 + C_L R_5 R_L g_m - C_L R_L\right) - 1}{s^3 \left(C_3 C_L L_L R_3 + C_3 C_L L_L R_5\right) + s^2 \left(C_3 C_L R_3 R_5 + C_3 C_L R_3 R_L + C_3 C_L R_5 R_L + C_L L_L\right) + s \left(C_3 R_3 R_5 g_m - C_3 R_3 + C_L R_5 R_L g_m - C_L R_L\right) - 1}$$

10.237 INVALID-ORDER-237 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{s^2 \left(C_3 L_L R_3 R_5 R_L g_m - C_3 L_L R_3 R_L \right) + s \left(L_L R_5 R_L g_m - L_L R_L \right)}{C_3 C_L L_L R_3 R_5 R_L s^3 + R_5 R_L + s^2 \left(C_3 L_L R_3 R_5 + C_3 L_L R_3 R_L + C_3 L_L R_5 R_L + C_L L_L R_5 R_L \right) + s \left(C_3 R_3 R_5 R_L + L_L R_5 + L_L R_L \right)}$$

10.238 INVALID-ORDER-238 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^3 \left(C_3 C_L L_L R_3 R_5 R_L g_m - C_3 C_L L_L R_3 R_L\right) + s^2 \left(C_3 L_L R_3 R_5 g_m - C_3 L_L R_3 + C_L L_L R_5 R_L g_m - C_L L_L R_L\right) + s \left(C_3 R_3 R_5 R_L g_m - C_3 R_3 R_L + L_L R_5 g_m - L_L\right)}{R_5 + R_L + s^3 \left(C_3 C_L L_L R_3 R_5 + C_3 C_L L_L R_3 R_L + C_3 C_L L_L R_5 R_L\right) + s^2 \left(C_3 L_L R_3 + C_3 L_L R_5 + C_L L_L R_5 + C_L L_L R_5 + C_L L_L R_L\right) + s \left(C_3 R_3 R_5 + C_3 R_3 R_L + C_3 R_5 R_L + L_L\right)}$$

10.239 INVALID-ORDER-239 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^3 \left(C_3 C_L L_L R_3 R_5 R_L g_m - C_3 C_L L_L R_3 R_L \right) + s^2 \left(C_L L_L R_5 R_L g_m - C_L L_L R_L \right) + s \left(C_3 R_3 R_5 R_L g_m - C_3 R_3 R_L \right)}{R_5 + R_L + s^3 \left(C_3 C_L L_L R_3 R_5 + C_3 C_L L_L R_3 R_L + C_3 C_L L_L R_5 R_L \right) + s^2 \left(C_3 C_L R_3 R_5 R_L + C_L L_L R_5 + C_L L_L R_L \right) + s \left(C_3 R_3 R_5 R_L + C_3 R_3 R_L + C_3 R_5 R_L + C_L R_5 R_L \right)}$$

10.240 INVALID-ORDER-240
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5R_3s^2 + g_m + s\left(C_3R_3g_m - C_5\right)}{s^2\left(C_3C_5R_3 + C_3C_LR_3\right) + s\left(C_3 + C_5 + C_L\right)}$$

10.241 INVALID-ORDER-241
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LR_3R_Ls^3 + g_m + s^2\left(-C_3C_5R_3 + C_3C_LR_3R_Lg_m - C_5C_LR_L\right) + s\left(C_3R_3g_m - C_5 + C_LR_Lg_m\right)}{C_3C_5C_LR_3R_Ls^3 + s^2\left(C_3C_5R_3 + C_3C_LR_3 + C_3C_LR_L + C_5C_LR_L\right) + s\left(C_3 + C_5 + C_LR_Lg_m\right)}$$

10.242 INVALID-ORDER-242
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_LR_3s^4 + g_m + s^3\left(C_3C_LL_LR_3g_m - C_5C_LL_L\right) + s^2\left(-C_3C_5R_3 + C_LL_Lg_m\right) + s\left(C_3R_3g_m - C_5\right)}{C_3C_5C_LL_LR_3s^4 + s^3\left(C_3C_LL_L + C_5C_LL_L\right) + s^2\left(C_3C_5R_3 + C_3C_LR_3\right) + s\left(C_3 + C_5 + C_L\right)}$$

10.243 INVALID-ORDER-243
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_3C_5L_LR_3s^3 + L_Lg_ms + s^2\left(C_3L_LR_3g_m - C_5L_L\right)}{C_3R_3s + s^3\left(C_3C_5L_LR_3 + C_3C_LL_LR_3\right) + s^2\left(C_3L_L + C_5L_L + C_LL_L\right) + 1}$$

10.244 INVALID-ORDER-244
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_LR_3s^4 + g_m + s^3\left(-C_3C_5C_LR_3R_L + C_3C_LL_LR_3g_m - C_5C_LL_L\right) + s^2\left(-C_3C_5R_3 + C_3C_LR_3R_Lg_m - C_5C_LR_L + C_LL_Lg_m\right) + s\left(C_3R_3g_m - C_5 + C_LR_Lg_m\right)}{C_3C_5C_LL_LR_3s^4 + s^3\left(C_3C_5C_LR_3R_L + C_3C_LL_L + C_5C_LL_L\right) + s^2\left(C_3C_5R_3 + C_3C_LR_3 + C_3C_LR_L + C_5C_LR_L\right) + s\left(C_3 + C_5 + C_LR_Lg_m\right)}$$

10.245 INVALID-ORDER-245
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{-C_3C_5L_LR_3R_Ls^3 + L_LR_Lg_ms + s^2\left(C_3L_LR_3R_Lg_m - C_5L_LR_L\right)}{R_L + s^3\left(C_3C_5L_LR_3R_L + C_3C_LL_LR_3R_L\right) + s^2\left(C_3L_LR_3 + C_3L_LR_L + C_5L_LR_L + C_LL_LR_L\right) + s\left(C_3R_3R_L + L_L\right)}$$

10.246 INVALID-ORDER-246
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_3C_5C_LL_LR_3R_Ls^4 + R_Lg_m + s^3\left(-C_3C_5L_LR_3 + C_3C_LL_LR_3R_Lg_m - C_5C_LL_LR_L\right) + s^2\left(-C_3C_5R_3R_L + C_3L_LR_3g_m - C_5L_L + C_LL_LR_Lg_m\right) + s\left(C_3R_3R_Lg_m - C_5R_L + L_Lg_m\right)}{C_3C_5C_LL_LR_3R_Ls^4 + s^3\left(C_3C_5L_LR_3 + C_3C_LL_R_3 + C_3C_LL_RL_L + C_5C_LL_RL\right) + s^2\left(C_3C_5R_3R_L + C_3L_LR_3g_m - C_5L_L + C_LL_RL\right) + s\left(C_3R_3R_Lg_m - C_5R_L + L_Lg_m\right)}$$

10.247 INVALID-ORDER-247
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_LR_3R_Ls^4 + R_Lg_m + s^3\left(C_3C_LL_LR_3R_Lg_m - C_5C_LL_LR_L\right) + s^2\left(-C_3C_5R_3R_L + C_LL_LR_Lg_m\right) + s\left(C_3R_3R_Lg_m - C_5R_L\right)}{C_3C_5C_LL_LR_3R_Ls^4 + s^3\left(C_3C_LL_LR_3 + C_3C_LL_LR_L\right) + s^2\left(C_3C_5R_3R_L + C_LL_LR_L\right) + s\left(C_3R_3R_L + C_LL_LR_L\right) + s\left(C_3R_3R_L + C_LL_LR_L\right) + s\left(C_3R_3R_L + C_LL_LR_L\right) + s\left(C_3R_3R_L + C_LR_L\right) + s\left(C_3R_3R_L\right) + s$$

10.248 INVALID-ORDER-248
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LR_3R_5R_Ls^3 + R_5g_m + s^2\left(-C_3C_5R_3R_5 + C_3C_LR_3R_5R_Lg_m - C_3C_LR_3R_L - C_5C_LR_5R_L\right) + s\left(C_3R_3R_5g_m - C_3R_3 - C_5R_5 + C_LR_5R_Lg_m - C_LR_L\right) - 1}{C_3C_5C_LR_3R_5R_Ls^3 + s^2\left(C_3C_5R_3R_5 + C_3C_LR_3R_5 + C_3C_LR_3R_L + C_3C_LR_5R_L + C_5C_LR_5R_L\right) + s\left(C_3R_3R_5g_m - C_3R_3 - C_5R_5 + C_LR_5R_Lg_m - C_LR_L\right) - 1}$$

10.249 INVALID-ORDER-249
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_LR_3R_5s^4 + R_5g_m + s^3\left(C_3C_LL_LR_3R_5g_m - C_3C_LL_LR_3 - C_5C_LL_LR_5\right) + s^2\left(-C_3C_5R_3R_5 + C_LL_LR_5g_m - C_LL_L\right) + s\left(C_3R_3R_5g_m - C_3R_3 - C_5R_5\right) - 1}{C_3C_5C_LL_LR_3R_5s^4 + s^3\left(C_3C_LL_LR_3 + C_3C_LL_LR_5 + C_5C_LL_LR_5\right) + s^2\left(C_3C_5R_3R_5 + C_3C_LR_3R_5 + C_LL_L\right) + s\left(C_3R_3 + C_3R_5 + C_5R_5\right) + 1}$$

10.250 INVALID-ORDER-250
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_3C_5L_LR_3R_5s^3 + s^2\left(C_3L_LR_3R_5g_m - C_3L_LR_3 - C_5L_LR_5\right) + s\left(L_LR_5g_m - L_L\right)}{R_5 + s^3\left(C_3C_5L_LR_3R_5 + C_3C_LL_LR_3R_5\right) + s^2\left(C_3L_LR_3 + C_3L_LR_5 + C_5L_LR_5 + C_LL_LR_5\right) + s\left(C_3R_3R_5 + L_L\right)}$$

10.251 INVALID-ORDER-251
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_LR_3R_5s^4 + R_5g_m + s^3\left(-C_3C_5C_LR_3R_5R_L + C_3C_LL_LR_3R_5g_m - C_3C_LL_LR_3 + s^2\left(-C_3C_5R_3R_5 + C_3C_LR_3R_5R_Lg_m - C_3C_LR_3R_L + C_5C_LR_5R_L + C_LL_LR_5g_m - C_LL_L\right) + s\left(C_3R_3R_5g_m - C_3R_3 - C_5R_5 + C_LR_5R_Lg_m - C_LR_L\right) - 1}{C_3C_5C_LL_LR_3R_5s^4 + s^3\left(C_3C_5C_LR_3R_5R_L + C_3C_LL_RR_3 + C_3C_LL_RR_5 + c_3C_LR_3R_5 +$$

10.252 INVALID-ORDER-252
$$Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{-C_3C_5L_LR_3R_5R_Ls^3 + s^2\left(C_3L_LR_3R_5R_Lg_m - C_3L_LR_3R_L - C_5L_LR_5R_L\right) + s\left(L_LR_5R_Lg_m - L_LR_L\right)}{R_5R_L + s^3\left(C_3C_5L_LR_3R_5R_L + C_3C_LL_LR_3R_5R_L\right) + s^2\left(C_3L_LR_3R_5 + C_3L_LR_3R_L + C_3L_LR_5R_L + C_5L_LR_5R_L\right) + s\left(C_3R_3R_5R_L + L_LR_5 + L_LR_L\right)}$$

10.253 INVALID-ORDER-253
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_3C_5C_LL_LR_3R_5R_Ls^4 + R_5R_Lg_m - R_L + s^3\left(-C_3C_5L_LR_3R_5 + C_3C_LL_LR_3R_5R_Lg_m - C_3C_LL_LR_3R_L - C_5C_LL_LR_5R_L\right) + s^2\left(-C_3C_5R_3R_5R_L + C_3L_LR_3R_5g_m - C_3L_LR_3 - C_5L_LR_5 + C_LL_LR_5R_Lg_m - C_LL_LR_L\right) + s\left(C_3R_3R_5R_Lg_m - C_3R_3R_L - C_5R_5R_L + C_3C_LL_RR_3R_5R_L + C_3C_LL_RR_3R_5R_$$

10.254 INVALID-ORDER-254
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_LR_3R_5R_Ls^4 + R_5R_Lg_m - R_L + s^3\left(C_3C_LL_LR_3R_5R_Lg_m - C_3C_LL_LR_3R_L - C_5C_LL_LR_5R_L\right) + s^2\left(-C_3C_5R_3R_5R_L + C_LL_LR_5R_Lg_m - C_LL_LR_L\right) + s\left(C_3R_3R_5R_Lg_m - C_3R_3R_L - C_5R_5R_L\right)}{C_3C_5C_LL_LR_3R_5R_Ls^4 + R_5 + R_L + s^3\left(C_3C_LL_LR_3R_5 + C_3C_LL_LR_3R_L + C_5C_LL_LR_5R_L\right) + s^2\left(C_3C_5R_3R_5R_L + C_LL_LR_5 + C_LL_LR_5\right) + s\left(C_3R_3R_5R_L + C_3R_3R_5 + C_3R_3R_5 + C_3R_3R_5 + C_3R_3R_5 + C_3R_5R_L + C_3R_5R_L\right)}$$

10.255 INVALID-ORDER-255
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{1}{C_{Ls}}\right)$$

$$H(s) = \frac{g_m + s^2 \left(C_3 C_5 R_3 R_5 g_m - C_3 C_5 R_3 \right) + s \left(C_3 R_3 g_m + C_5 R_5 g_m - C_5 \right)}{C_3 C_5 C_L R_3 R_5 s^3 + s^2 \left(C_3 C_5 R_3 + C_3 C_5 R_5 + C_3 C_L R_3 + C_5 C_L R_5 \right) + s \left(C_3 + C_5 + C_L \right)}$$

10.256 INVALID-ORDER-256
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m + s^2 \left(C_3 C_5 R_3 R_5 R_L g_m - C_3 C_5 R_3 R_L \right) + s \left(C_3 R_3 R_L g_m + C_5 R_5 R_L g_m - C_5 R_L \right)}{C_3 C_5 C_L R_3 R_5 R_L s^3 + s^2 \left(C_3 C_5 R_3 R_5 + C_3 C_5 R_3 R_L + C_3 C_5 R_5 R_L + C_5 C_L R_3 R_L + C_5 C_L R_5 R_L \right) + s \left(C_3 R_3 R_5 R_L s^3 + c_3 R_L + C_5 R_5 R_L + C_5 R_L + C_4 R_L \right) + 1}$$

10.257 INVALID-ORDER-257
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m + s^3 \left(C_3 C_5 C_L R_3 R_5 R_L g_m - C_3 C_5 C_L R_3 R_L\right) + s^2 \left(C_3 C_5 R_3 R_5 g_m - C_3 C_5 R_3 + C_3 C_L R_3 R_L g_m + C_5 C_L R_5 R_L g_m - C_5 C_L R_L\right) + s \left(C_3 R_3 g_m + C_5 R_5 g_m - C_5 + C_L R_L g_m\right)}{s^3 \left(C_3 C_5 C_L R_3 R_5 + C_3 C_5 C_L R_3 R_L + C_3 C_5 C_L R_5 R_L\right) + s^2 \left(C_3 C_5 R_3 + C_3 C_5 R_3 + C_3 C_L R_3 + C_3 C_L R_3 + C_5 C_L R_5 + C_5 C_L R_5\right) + s \left(C_3 R_3 R_5 + C_5 C_L R_3 R_L + C_5 C_L R_5 R_L \right) + s \left(C_3 R_3 R_5 R_L g_m - C_5 R_L g_m - C$$

10.258 INVALID-ORDER-258 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$

10.259 INVALID-ORDER-259 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L g_m s + s^3 \left(C_3 C_5 L_L R_3 R_5 g_m - C_3 C_5 L_L R_3 \right) + s^2 \left(C_3 L_L R_3 g_m + C_5 L_L R_5 g_m - C_5 L_L \right)}{C_3 C_5 C_L L_L R_3 R_5 s^4 + s^3 \left(C_3 C_5 L_L R_3 + C_3 C_5 L_L R_5 + C_3 C_L L_L R_3 + C_5 C_L L_L R_5 \right) + s^2 \left(C_3 C_5 R_3 R_5 + C_3 L_L + C_5 L_L + C_L L_L \right) + s \left(C_3 R_3 + C_5 R_5 \right) + 1}$$

10.260 INVALID-ORDER-260 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$

 $H(s) = \frac{g_m + s^4 \left(C_3 C_5 C_L L_L R_3 R_5 g_m - C_3 C_5 C_L L_L R_3 \right) + s^3 \left(C_3 C_5 C_L R_3 R_5 R_L g_m - C_3 C_5 C_L R_3 R_L + C_3 C_L L_L R_3 g_m + C_5 C_L L_L R_5 g_m - C_5 C_L L_L \right) + s^2 \left(C_3 C_5 R_3 R_5 g_m - C_3 C_5 R_3 R_L g_m + C_5 C_L R_5 R_L g_m - C_5 C_L R_L + C_L L_L g_m \right) + s \left(C_3 R_3 g_m + C_5 R_5 g_m - C_5 C_L R_3 R_L + C_3 C_L R_3 R_L + C_3 C_L R_2 R_L + C_5 C_L R_2 R_L +$

10.261 INVALID-ORDER-261 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{L_L R_L g_m s + s^3 \left(C_3 C_5 L_L R_3 R_5 R_L g_m - C_3 C_5 L_L R_3 R_L \right) + s^2 \left(C_3 L_L R_3 R_L g_m + C_5 L_L R_5 R_L g_m - C_5 L_L R_L \right)}{C_3 C_5 C_L L_L R_3 R_5 R_L s^4 + R_L + s^3 \left(C_3 C_5 L_L R_3 R_5 + C_3 C_5 L_L R_3 R_L + C_5 C_L L_L R_3 R_L + C_5 C_L L_L R_5 R_L \right) + s^2 \left(C_3 C_5 R_3 R_5 R_L + C_3 L_L R_3 + C_5 L_L R_5 + C_5 L_L R_5 + C_5 L_L R_5 R_L + C_5 L_L$$

10.262 INVALID-ORDER-262 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{R_L g_m + s^4 \left(C_3 C_5 C_L L_L R_3 R_5 R_L g_m - C_3 C_5 C_L L_L R_3 R_L \right) + s^3 \left(C_3 C_5 L_L R_3 R_5 g_m - C_3 C_5 L_L R_3 R_L g_m + C_5 C_L L_L R_3 R_L g_m + C_5 C_L L_L R_3 R_L g_m - C_3 C_5 R_3 R_L + C_3 L_L R_3 g_m + C_5 L_L R_5 g_m - C_5 L_L R_1 g_m \right) + s \left(C_3 R_3 R_L g_m - C_3 C_5 L_L R_3 R_L + C_3 C_L L_L R_3 R_L + C_3 C_5 R_3 R_L + C_5 C_L L_L R_3 R_$$

10.263 INVALID-ORDER-263 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

$$H(s) = \frac{R_L g_m + s^4 \left(C_3 C_5 C_L L_L R_3 R_5 R_L g_m - C_3 C_5 C_L L_L R_3 R_L g_m + C_5 C_L L_L R_3 R_L g_m + C_5 C_L L_L R_3 R_L g_m + C_5 C_L L_L R_3 R_L g_m - C_3 C_5 R_3 R_L + C_L L_L R_L g_m \right) + s \left(C_3 R_3 R_L g_m + C_5 R_L g_m - C_5 R_L L_L R_3 R_L + C_5 C_L L_L R_3 R_$$

10.264 INVALID-ORDER-264 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, R_L\right)$

$$H(s) = \frac{C_3C_5L_5R_3R_Lg_ms^3 + R_Lg_m + s^2\left(-C_3C_5R_3R_L + C_5L_5R_Lg_m\right) + s\left(C_3R_3R_Lg_m - C_5R_L\right)}{s^3\left(C_3C_5L_5R_3 + C_3C_5L_5R_L\right) + s^2\left(C_3C_5R_3R_L + C_5L_5\right) + s\left(C_3R_3 + C_3R_L + C_5R_L\right) + 1}$$

10.265 INVALID-ORDER-265 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_3C_5L_5R_3g_ms^3 + g_m + s^2\left(-C_3C_5R_3 + C_5L_5g_m\right) + s\left(C_3R_3g_m - C_5\right)}{C_3C_5C_LL_5R_3s^4 + s^3\left(C_3C_5L_5 + C_5C_LL_5\right) + s^2\left(C_3C_5R_3 + C_3C_LR_3\right) + s\left(C_3 + C_5 + C_L\right)}$$

10.266 INVALID-ORDER-266 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{C_3C_5L_5R_3R_Lg_ms^3 + R_Lg_m + s^2\left(-C_3C_5R_3R_L + C_5L_5R_Lg_m\right) + s\left(C_3R_3R_Lg_m - C_5R_L\right)}{C_3C_5C_LL_5R_3R_Ls^4 + s^3\left(C_3C_5L_5R_3 + C_3C_5L_5R_L + C_5C_LL_5R_L\right) + s^2\left(C_3C_5R_3R_L + C_3C_LR_3R_L + C_5L_5\right) + s\left(C_3R_3 + C_3R_L + C_5R_L + C_LR_L\right) + 1}$$

10.267 INVALID-ORDER-267
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_3C_5C_LL_5R_3R_Lg_ms^4 + g_m + s^3\left(-C_3C_5C_LR_3R_L + C_3C_5L_5R_3g_m + C_5C_LL_5R_Lg_m\right) + s^2\left(-C_3C_5R_3 + C_3C_LR_3R_Lg_m - C_5C_LR_L + C_5L_5g_m\right) + s\left(C_3R_3g_m - C_5 + C_LR_Lg_m\right)}{s^4\left(C_3C_5C_LL_5R_3 + C_3C_5C_LL_5R_L\right) + s^3\left(C_3C_5C_LR_3R_L + C_3C_5L_5R_3R_L + C_3C_5L_5\right) + s^2\left(C_3C_5R_3 + C_3C_LR_3 + C_3C_LR_3 + C_3C_LR_L + C_5C_LR_L\right) + s\left(C_3R_3g_m - C_5 + C_LR_Lg_m\right)}$$

10.268 INVALID-ORDER-268
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_3C_5C_LL_5L_LR_3g_ms^5 + g_m + s^4\left(-C_3C_5C_LL_LR_3 + C_5C_LL_5L_Lg_m\right) + s^3\left(C_3C_5L_5R_3g_m + C_3C_LL_LR_3g_m - C_5C_LL_L\right) + s^2\left(-C_3C_5R_3 + C_5L_5g_m + C_LL_Lg_m\right) + s\left(C_3R_3g_m - C_5C_LL_5L_Ls^5 + s^4\left(C_3C_5C_LL_5R_3 + C_3C_5C_LL_LR_3\right) + s^3\left(C_3C_5L_5 + C_3C_LL_L + C_5C_LL_5 + C_5C_LL_L\right) + s^2\left(C_3C_5R_3 + C_5L_2g_m\right) + s\left(C_3R_3g_m - C_5C_LL_1\right) + s^2\left(C_3C_5R_3 + C_5C_LL_1\right) + s^2\left(C_5C_5R_3 + C_5C_LL_1\right) + s^2\left(C_5C_5R_3 + C_5C_LL_1\right) + s^2\left(C_5C_5R_3 + C_5C_LL_1\right) + s^2\left(C_5C_5R_3 + C_5C_LL_$$

10.269 INVALID-ORDER-269
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_3C_5L_5L_LR_3g_ms^4 + L_Lg_ms + s^3\left(-C_3C_5L_LR_3 + C_5L_5L_Lg_m\right) + s^2\left(C_3L_LR_3g_m - C_5L_L\right)}{C_3C_5C_LL_5L_LR_3s^5 + C_3R_3s + s^4\left(C_3C_5L_5L_L + C_5C_LL_5L_L\right) + s^3\left(C_3C_5L_5R_3 + C_3C_5L_LR_3 + C_3C_LL_LR_3\right) + s^2\left(C_3L_LR_3g_m - C_5L_L\right)}$$

10.270 INVALID-ORDER-270
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_3C_5C_LL_5L_LR_3g_ms^5 + g_m + s^4\left(C_3C_5C_LL_5R_3R_Lg_m - C_3C_5C_LL_LR_3 + C_5C_LL_5L_g_m\right) + s^3\left(-C_3C_5C_LR_3R_L + C_3C_5L_5R_3g_m + C_3C_LL_LR_3g_m + C_5C_LL_L\right) + s^2\left(-C_3C_5R_3 + C_3C_LR_3R_Lg_m - C_5C_LR_L + C_5L_5g_m + C_LL_Lg_m\right) + s\left(C_3R_3g_m - C_5C_LL_LR_3g_m + C_5C_LL_LR_3g_m + C_5C_LL_L\right) + s^2\left(-C_3C_5R_3 + C_3C_LR_3R_Lg_m - C_5C_LR_L + C_5L_5g_m + C_LL_Lg_m\right) + s\left(C_3R_3g_m - C_5C_LL_LR_3g_m + C_5C_LL_LR_3g_m + C_5C_LL_LR_3g_m + C_5C_LL_L\right) + s^2\left(-C_3C_5R_3 + C_3C_LR_3R_Lg_m - C_5C_LR_L + C_5C_LR_3R_Lg_m - C_5C_LR_L\right) + s^2\left(-C_3C_5R_3 + C_3C_LR_3R_Lg_m - C_5C_LR_L + C_5C_LR_2\right) + s^2\left(-C_3C_5R_3 + C_3C_LR_3R_Lg_m - C_5C_LR_L\right) + s^2\left(-C_3C_5R_3R_L + C_3C_5C_LR_3R_L + C_3C_5C_LR_3R_L + C_3C_5C_LR_3R_L\right) + s^2\left(-C_3C_5R_3R_L + C_3C_5C_LR_3R_L + C_3C_5C_LR_3R_L\right) + s^2\left(-C_3C_5R_3R_L + C_3C_5C_LR_3R_L\right) + s^2\left(-C_3C_5R_3R_L + C_3C_5C_LR_3R_L\right) + s^2\left(-C_3C_5R_3R_L + C_3C_5C_LR_3R_L\right) + s^2\left(-C_3C_5R_3R_L + C_3C_LR_3R_L\right) + s^2\left(-C_3C_5R_3R_L + C_3C_LR_3R_L\right) + s^2\left(-C_3C_5R_3R_L\right) + s^2\left(-C$$

10.271 INVALID-ORDER-271
$$Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_3C_5L_LR_3R_Lg_ms^4 + L_LR_Lg_ms + s^3\left(-C_3C_5L_LR_3R_L + C_5L_5L_LR_Lg_m\right) + s^2\left(C_3L_LR_3R_Lg_m - C_5L_LR_L\right)}{C_3C_5C_LL_5L_LR_3R_Ls^5 + R_L + s^4\left(C_3C_5L_5L_LR_3 + C_3C_5L_LR_L\right) + s^3\left(C_3C_5L_5R_3R_L + C_3C_5L_LR_3R_L + C_5L_5L_L\right) + s^2\left(C_3L_LR_3R_L + C_5L_5L_LR_L\right) + s^2\left(C_3L_LR_3R_L + C_5L_5L_R\right) + s^2\left(C_3L_LR_3R_L + C_5L_5L_R\right) + s^2\left(C_3L_LR_3R_L + C_5L_5L_R\right) + s^2\left(C_3L_LR_3R_L + C_5L_5L_R\right) + s^2\left(C_3L_LR_3R_L + C_5L_LR_L\right) + s^2\left(C_3L_LR_3R_L\right) + s^2\left(C_3L_LR_3R_L\right$$

10.272 INVALID-ORDER-272
$$Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{C_3C_5C_LL_5L_LR_3R_Lg_ms^5 + R_Lg_m + s^4\left(-C_3C_5C_LL_LR_3R_L + C_3C_5L_LR_3g_m + C_5C_LL_LR_2g_m\right) + s^3\left(C_3C_5L_5R_3R_Lg_m - C_3C_5L_LR_3 + C_3C_LL_LR_3R_Lg_m - C_5C_LL_LR_4 + C_5L_5L_Lg_m\right) + s^2\left(-C_3C_5R_3R_L + C_3L_LR_3g_m + C_5L_5R_Lg_m - C_5L_LR_Lg_m\right) + s^2\left(-C_3C_5R_3R_L + C_3L_LR_3g_m + C_5L_LR_3g_m + C_5L_LR_2g_m\right) + s^2\left(-C_3C_5R_3R_L + C_3L_LR_3g_m + C_5L_LR_3g_m\right) + s^2\left(-C_3C_5R$$

10.273 INVALID-ORDER-273
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_3C_5C_LL_5L_LR_3R_Lg_ms^5 + R_Lg_m + s^4\left(-C_3C_5C_LL_LR_3R_L + C_5C_LL_5L_LR_2g_m\right) + s^3\left(C_3C_5L_LR_3R_Lg_m - C_5C_LL_LR_3\right) + s^2\left(-C_3C_5R_3R_L + C_5L_5R_Lg_m + C_LL_LR_Lg_m\right) + s\left(C_3R_3R_Lg_m - C_5R_L\right)}{s^5\left(C_3C_5C_LL_5L_LR_3 + C_3C_5C_LL_5R_2R_L + C_3C_5C_LL_5R_3R_L + C_5C_LL_5R_2\right) + s^3\left(C_3C_5L_5R_3R_L + C_5C_LL_5R_2\right) + s^3\left(C_3C_5L_5R_3R_L + C_5C_LL_5R_2\right) + s^3\left(C_3C_5C_LL_5R_3R_L + C_5C_LL_5R_3R_L + C_5C_LL_5R_2\right) + s^3\left(C_3C_5C_LL_5R_3R_L + C_5C_LL_5R_3R_L + C_5C_LL_5R_3R_L + C_5C_LL_5R_3R_L\right) + s^3\left(C_3C_5C_LL_5R_3R_L + C_5C_LL_5R_3R_L\right) + s^3\left(C_3C_5C_LL_5R_3R_L + C_5C_LL_5R_3R_L\right) + s^3\left(C_3C_5C_LL_5R_3R_L + C_5C_LL_5R_3R_L\right) + s^3\left(C_3C_5C_LL_5R_3R_L + C_5C_LL_5R_3R_L\right) + s^3\left(C_3C_5C_LL_5R_3R_L\right) + s^3\left(C_3C_5C_LL_5R_3R_L\right) + s^3\left(C_3C_5C_LL_5R_3R_L\right) + s^3\left(C_3C_5C_LL_5R_3R_L\right) + s^3\left(C_3C_5C_LL_5R_3R_L\right) + s^3\left(C_3C_5C_LL_5R_3R_L\right) + s$$

10.274 INVALID-ORDER-274
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L\right)$$

$$H(s) = \frac{-C_3C_5L_5R_3R_Ls^3 - R_L + s^2\left(C_3L_5R_3R_Lg_m - C_5L_5R_L\right) + s\left(-C_3R_3R_L + L_5R_Lg_m\right)}{C_3C_5L_5R_3R_Ls^3 + R_L + s^2\left(C_3L_5R_3 + C_3L_5R_L + C_5L_5R_L\right) + s\left(C_3R_3R_L + L_5R_Lg_m\right)}$$

10.275 INVALID-ORDER-275
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5L_5R_3s^3 + s^2\left(C_3L_5R_3g_m - C_5L_5\right) + s\left(-C_3R_3 + L_5g_m\right) - 1}{C_3R_3s + s^3\left(C_3C_5L_5R_3 + C_3C_LL_5R_3\right) + s^2\left(C_3L_5 + C_5L_5 + C_LL_5\right) + 1}$$

10.276 INVALID-ORDER-276
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_3C_5L_5R_3R_Ls^3 - R_L + s^2\left(C_3L_5R_3R_Lg_m - C_5L_5R_L\right) + s\left(-C_3R_3R_L + L_5R_Lg_m\right)}{R_L + s^3\left(C_3C_5L_5R_3R_L + C_3C_LL_5R_3R_L\right) + s^2\left(C_3L_5R_3 + C_3L_5R_L + C_5L_5R_L + C_LL_5R_L\right) + s\left(C_3R_3R_L + L_5R_L\right)}$$

10.277 INVALID-ORDER-277
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_5R_3R_Ls^4 + s^3\left(-C_3C_5L_5R_3 + C_3C_LL_5R_3R_Lg_m - C_5C_LL_5R_L\right) + s^2\left(-C_3C_LR_3R_L + C_3L_5R_3g_m - C_5L_5 + C_LL_5R_Lg_m\right) + s\left(-C_3R_3 - C_LR_L + L_5g_m\right) - 1}{C_3C_5C_LL_5R_3R_Ls^4 + s^3\left(C_3C_5L_5R_3 + C_3C_LL_5R_3 + C_3C_LL_5R_L + C_5C_LL_5R_L\right) + s^2\left(C_3C_LR_3R_L + C_3L_5R_3g_m - C_5L_5 + C_LL_5\right) + s\left(C_3R_3 + C_LR_L + L_5g_m\right) - 1}{C_3C_5C_LL_5R_3R_Ls^4 + s^3\left(C_3C_5L_5R_3 + C_3C_LL_5R_3 + C_3C_LL_5R_L\right) + s^2\left(C_3C_LR_3R_L + C_3L_5R_3R_L + C_3L_5R_3R_L\right) + s^2\left(C_3C_LR_3R_L + C_3L_5R_3R_L\right) + s^2\left(C_3C_LR_3R_L\right) + s^2\left(C$$

10.278 INVALID-ORDER-278
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_5L_LR_3s^5 + s^4\left(C_3C_LL_5L_LR_3g_m - C_5C_LL_5L_L\right) + s^3\left(-C_3C_5L_5R_3 - C_3C_LL_LR_3 + C_LL_5L_Lg_m\right) + s^2\left(C_3L_5R_3g_m - C_5L_5 - C_LL_L\right) + s\left(-C_3R_3 + L_5g_m\right) - 1}{C_3C_5C_LL_5L_LR_3s^5 + C_3R_3s + s^4\left(C_3C_LL_5L_L + C_5C_LL_5L_L\right) + s^3\left(C_3C_5L_5R_3 + C_3C_LL_5R_3 + C_3C_LL_5R_3\right) + s^2\left(C_3L_5R_3g_m - C_5L_5 - C_LL_L\right) + s\left(-C_3R_3 + L_5g_m\right) - 1}{C_3C_5C_LL_5L_LR_3s^5 + C_3R_3s + s^4\left(C_3C_LL_5L_L + C_5C_LL_5L_L\right) + s^3\left(C_3C_5L_5R_3 + C_3C_LL_5R_3 + C_3C_LL_5R_3\right) + s^2\left(C_3L_5R_3g_m - C_5L_5 - C_LL_L\right) + s\left(-C_3R_3 + L_5g_m\right) - 1}{C_3C_5C_LL_5L_LR_3s^5 + C_3R_3s + s^4\left(C_3C_LL_5L_L + C_5C_LL_5L_L\right) + s^3\left(C_3C_5L_5R_3 + C_3C_LL_5R_3\right) + s^2\left(C_3L_5R_3 + C_5C_LL_5R_3\right) + s^2\left(C_5C_LL_5R_3 + C_5C_LL_5R_3\right) + s^2\left(C_5C_LL_5R_3 + C_5C_LL_5R_3\right) + s^2\left(C_5C_LL$$

10.279 INVALID-ORDER-279
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_3C_5L_5L_LR_3s^3 - L_L + s^2\left(C_3L_5L_LR_3g_m - C_5L_5L_L\right) + s\left(-C_3L_LR_3 + L_5L_Lg_m\right)}{L_5 + L_L + s^3\left(C_3C_5L_5L_LR_3 + C_3C_LL_5L_LR_3\right) + s^2\left(C_3L_5L_L + C_5L_5L_L + C_LL_5L_L\right) + s\left(C_3L_5R_3 + C_3L_LR_3\right)}$$

10.280 INVALID-ORDER-280
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_1 s + R_1 + \frac{1}{C_1 s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_5L_LR_3s^5 + s^4\left(-C_3C_5C_LL_5R_3R_L + C_3C_LL_5L_LR_3g_m - C_5C_LL_5L_L\right) + s^3\left(-C_3C_5L_5R_3 + C_3C_LL_5R_3R_Lg_m - C_3C_LL_5R_3R_L + C_LL_5L_Lg_m\right) + s^2\left(-C_3C_LR_3R_L + C_3L_5R_3g_m - C_5L_5 + C_LL_5R_Lg_m - C_LL_L\right) + s\left(-C_3R_3 - C_LR_L + L_5g_m\right) + s^2\left(-C_3C_LR_3R_L + C_3L_5R_3g_m - C_5L_5 + C_LL_5R_Lg_m - C_LL_L\right) + s\left(-C_3R_3 - C_LR_L + L_5g_m\right) + s^2\left(-C_3C_LR_3R_L + C_3L_5R_3g_m - C_5L_5 + C_LL_5R_2g_m - C_LL_L\right) + s\left(-C_3R_3 - C_LR_L + L_5g_m\right) + s^2\left(-C_3C_LR_3R_L + C_3L_5R_3g_m - C_5L_5 + C_LL_5R_2g_m - C_LL_L\right) + s\left(-C_3R_3 - C_LR_L + L_5g_m\right) + s^2\left(-C_3C_LR_3R_L + C_3L_5R_3g_m - C_5L_5 + C_LL_5R_2g_m - C_LL_L\right) + s\left(-C_3R_3 - C_LR_L + L_5g_m\right) + s^2\left(-C_3C_LR_3R_L + C_3L_5R_3g_m - C_5L_5 + C_LL_5R_2g_m - C_LL_L\right) + s\left(-C_3R_3 - C_LR_L + L_5g_m\right) + s^2\left(-C_3C_LR_3R_L + C_3L_5R_3g_m - C_5L_5R_3R_L + C_3C_LL_5R_3R_L + C_3C_LL_5R_L + C_3C_LL_5R_3R_L + C_3C_LL_$$

10.281 INVALID-ORDER-281
$$Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{-C_3C_5L_5L_LR_3R_Ls^3 - L_LR_L + s^2\left(C_3L_5L_LR_3R_Lg_m - C_5L_5L_LR_L\right) + s\left(-C_3L_LR_3R_L + L_5L_LR_Lg_m\right)}{L_5R_L + L_LR_L + s^3\left(C_3C_5L_5L_LR_3R_L + C_3C_LL_5L_LR_3R_L\right) + s^2\left(C_3L_5L_LR_3 + C_3L_5L_LR_L + C_5L_5L_LR_L\right) + s\left(C_3L_5R_3R_L + C_3L_LR_3R_L + L_5L_L\right)}$$

10.282 INVALID-ORDER-282
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_3C_5C_LL_5L_LR_3R_Ls^5 - R_L + s^4\left(-C_3C_5L_5L_LR_3 + C_3C_LL_5L_LR_3R_Lg_m - C_5C_LL_5L_LR_3 + C_3C_LL_5L_LR_3R_L - C_3C_LL_LR_3R_L - C_3C_LL_LR_3R_L + C_3L_5L_LR_3g_m - C_5L_5L_LR_2g_m\right) + s^2\left(C_3L_5R_3R_Lg_m - C_3L_LR_3 - C_5L_5R_L - C_LL_LR_L + L_5L_Lg_m\right) + s\left(-C_3R_3R_Lg_m - C_3L_LR_3R_Lg_m - C_3L_LR_3R_Lg_m - C_3L_LR_3R_Lg_m - C_3L_LR_3R_Lg_m - C_3L_LR_3R_L + C_3L_LR_3R_$$

10.283 INVALID-ORDER-283
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_5L_LR_3R_Ls^5 - R_L + s^4\left(C_3C_LL_5L_LR_3R_Lg_m - C_5C_LL_5L_LR_L\right) + s^3\left(-C_3C_5L_5R_3R_L - C_3C_LL_LR_3R_L + C_LL_5L_LR_Lg_m\right) + s^2\left(C_3L_5R_3R_Lg_m - C_5L_5R_L - C_LL_LR_L\right) + s\left(-C_3R_3R_L + L_5R_Lg_m\right)}{C_3C_5C_LL_5L_LR_3R_Ls^5 + R_L + s^4\left(C_3C_LL_5L_LR_3 + C_3C_LL_5L_LR_L\right) + s^3\left(C_3C_5L_5R_3R_L + C_3C_LL_5R_3R_L + C_4L_5L_L\right) + s^2\left(C_3L_5R_3R_L + C_4L_5L_L\right) + s^2\left(C_3L_5R_3R_L + C_5L_5R_L + C_4L_5R_L\right) + s^2\left(C_3R_3R_L + C_4L_5R_L\right) + s^2\left(C_3R_3R_L + C_4R_5R_L\right) + s^2\left(C_3R_3R_L\right) + s^2\left(C_3R_3$$

10.284 INVALID-ORDER-284
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L\right)$$

$$H(s) = \frac{C_3C_5L_5R_3R_Lg_ms^3 + R_Lg_m + s^2\left(C_3C_5R_3R_5R_Lg_m - C_3C_5R_3R_L + C_5L_5R_Lg_m\right) + s\left(C_3R_3R_Lg_m + C_5R_5R_Lg_m - C_5R_L\right)}{s^3\left(C_3C_5L_5R_3 + C_3C_5L_5R_L\right) + s^2\left(C_3C_5R_3R_5 + C_3C_5R_3R_L + C_3C_5R_5R_L + C_5L_5\right) + s\left(C_3R_3 + C_3R_L + C_5R_5 + C_5R_L\right) + 1}$$

10.285 INVALID-ORDER-285 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_3C_5L_5R_3g_ms^3 + g_m + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_3 + C_5L_5g_m\right) + s\left(C_3R_3g_m + C_5R_5g_m - C_5\right)}{C_3C_5C_LL_5R_3s^4 + s^3\left(C_3C_5C_LR_3R_5 + C_3C_5L_5 + C_5C_LL_5\right) + s^2\left(C_3C_5R_3 + C_3C_5R_5 + C_3C_LR_3 + C_5C_LR_5\right) + s\left(C_3 + C_5 + C_L\right)}$$

10.286 INVALID-ORDER-286 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$

 $H(s) = \frac{C_3C_5L_5R_3R_Lg_ms^3 + R_Lg_m + s^2\left(C_3C_5R_3R_5R_Lg_m - C_3C_5R_3R_L + C_5L_5R_Lg_m\right) + s\left(C_3R_3R_Lg_m + C_5R_5R_Lg_m - C_5R_L\right)}{C_3C_5C_LL_5R_3R_Ls^4 + s^3\left(C_3C_5C_LR_3R_5R_L + C_3C_5L_5R_3 + C_3C_5L_5R_L\right) + s^2\left(C_3C_5R_3R_5 + C_3C_5R_3R_L + C_3C_5R_3R_L + C_5C_LR_3R_L + C_5C_LR_5R_L +$

10.287 INVALID-ORDER-287 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$

 $H(s) = \frac{C_3C_5C_LL_5R_3R_Lg_ms^4 + g_m + s^3\left(C_3C_5C_LR_3R_5R_Lg_m - C_3C_5C_LR_3R_L + C_3C_5L_5R_3g_m + C_5C_LL_5R_Lg_m\right) + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_3 + C_3C_LR_3R_Lg_m + C_5C_LR_5R_Lg_m - C_5C_LR_L + C_5L_5g_m\right) + s\left(C_3R_3g_m + C_5R_5g_m - C_5 + C_LR_Lg_m\right)}{s^4\left(C_3C_5C_LL_5R_3 + C_3C_5C_LL_5R_L\right) + s^3\left(C_3C_5C_LR_3R_L + C_3C_5C_LR_3R_L + C_3C_5C_LR_5R_L + C_3C_5C_LR_5R_L + C_3C_5C_LR_5 + C_5C_LL_5\right) + s^2\left(C_3C_5R_3 + C_3C_LR_3 +$

10.288 INVALID-ORDER-288 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$

 $H(s) = \frac{C_3C_5C_LL_5L_LR_3g_ms^5 + g_m + s^4\left(C_3C_5C_LL_LR_3R_5g_m - C_3C_5C_LL_LR_3 + C_5C_LL_Lg_m\right) + s^3\left(C_3C_5L_5R_3g_m + C_3C_LL_LR_3g_m + C_5C_LL_LR_5g_m - C_5C_LL_L\right) + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_3 + C_5L_5g_m + C_LL_Lg_m\right) + s\left(C_3R_3g_m + C_5R_5g_m - C_5C_LL_LR_5g_m - C_5C_LL_L\right) + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_3 + C_5L_5g_m + C_LL_Lg_m\right) + s\left(C_3R_3g_m + C_5R_5g_m - C_5C_LL_L\right) + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_3 + C_5C_LL_Lg_m\right) + s\left(C_3R_3g_m + C_5R_5g_m - C_5C_LL_L\right) + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_3 + C_5C_LL_Lg_m\right) + s\left(C_3R_3g_m + C_5R_5g_m - C_5C_LL_L\right) + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_3 + C_5L_Lg_m\right) + s\left(C_3R_3g_m + C_5R_5g_m - C_5C_LL_L\right) + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_3 + C_5L_Lg_m\right) + s\left(C_3R_3g_m + C_5R_5g_m - C_5C_LL_L\right) + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_3 + C_5L_Lg_m\right) + s\left(C_3R_3g_m + C_5R_5g_m - C_5C_LL_L\right) + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_3 + C_5C_LR_3\right) + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_3\right) + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_3\right) + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_3R_5g_m - C_3C_5R_3\right) + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_5R_5g_m - C_3C_5R_5\right) + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_5R_5\right) + s^2\left(C_3C_5R_5R_5g_m - C_3C_5R_5R_5\right) + s^2\left(C_3C_5R_5R_5g_m - C_3C_5R_5g_m - C_3C_5R_5g_m\right) + s^2\left(C_3C_5R_5R_5g_m - C_5C_5R_5g_m - C_5C_5R_5g_m\right) + s^2\left(C_3C_5R_5R_5g_m - C_5C_5R_5g_m - C_5C_5R_5g_m\right) + s^2\left(C_3C_5R_5g_m - C_5C_5R_5g_m - C_5C_5R_5g_m\right) + s^2\left(C$

10.289 INVALID-ORDER-289 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{C_3C_5L_5L_LR_3g_ms^4 + L_Lg_ms + s^3\left(C_3C_5L_LR_3R_5g_m - C_3C_5L_LR_3 + C_5L_Lg_m\right) + s^2\left(C_3L_LR_3g_m + C_5L_LR_5g_m - C_5L_L\right)}{C_3C_5C_LL_5L_LR_3s^5 + s^4\left(C_3C_5C_LL_LR_3R_5 + C_3C_5L_LL + C_5C_LL_5L\right) + s^3\left(C_3C_5L_LR_3 + C_3C_5L_LR_3 + C_3C_5L_LR_3 + C_5C_LL_LR_3\right) + s^2\left(C_3C_5R_3R_5 + C_5L_L + C_5L_5 +$$

10.290 INVALID-ORDER-290 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$

 $H(s) = \frac{C_3C_5C_LL_5L_LR_3g_ms^5 + g_m + s^4\left(C_3C_5C_LL_5R_3R_Lg_m + C_3C_5C_LL_LR_3R_5g_m - C_3C_5C_LL_LR_3 + C_5C_LL_LR_3g_m + C_3C_5C_LR_3R_Lg_m + C_3C_5L_LR_3g_m + C_3C_LL_LR_3g_m + C_5C_LL_LR_3g_m + C_5C_LL_LR_5g_m - C_5C_LL_L\right) + s^2\left(C_3C_5R_3R_5g_m - C_5C_LL_LR_3 + C_3C_5C_LL_LR_3 + C_3C_5C_LL_RR_3 + C_3C_5C_LR_3R_L + C_3C$

10.291 INVALID-ORDER-291 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

 $H(s) = \frac{C_3C_5L_5L_RR_3R_Lg_ms^4 + L_LR_Lg_ms + s^3\left(C_3C_5L_LR_3R_5R_Lg_m - C_3C_5L_LR_3R_L + C_5L_5L_LR_Lg_m\right) + s^2\left(C_3L_LR_3R_Lg_m + C_5L_LR_5R_Lg_m - C_5L_LR_L\right)}{C_3C_5C_LL_5L_LR_3R_Ls^5 + R_L + s^4\left(C_3C_5C_LL_RR_3R_5R_L + C_3C_5L_LR_3 + C_3C_5L_LR_3R_L + C_3C_5L_LR_3R_L + C_3C_5L_LR_3R_L + C_3C_5L_LR_3R_L + C_5C_LL_RR_3R_L + C_5C_LL_RR_3R_L$

10.292 INVALID-ORDER-292 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

 $H(s) = \frac{C_3C_5C_LL_5L_LR_3R_Lg_ms^5 + R_Lg_m + s^4\left(C_3C_5C_LL_LR_3R_5R_Lg_m - C_3C_5L_LR_3R_L + C_3C_5L_LR_3g_m + C_5C_LL_LR_3g_m + C_3C_5L_LR_3g_m + C_3C_5L_LR_3R_Lg_m + C_$

10.293 INVALID-ORDER-293 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

 $H(s) = \frac{C_3C_5C_LL_5L_LR_3R_Lg_ms^5 + R_Lg_m + s^4\left(C_3C_5C_LL_LR_3R_Lg_m - C_3C_5C_LL_LR_3R_L + C_5C_LL_5L_LR_2g_m\right) + s^3\left(C_3C_5L_5R_3R_Lg_m + C_3C_LL_LR_3R_Lg_m + C_5C_LL_LR_5R_Lg_m - C_5C_LL_LR_5\right) + s^2\left(C_3C_5R_3R_5R_L + C_5C_LL_5L_LR_3R_L + C_5C_LL_5L_LR_3R_L + C_5C_LL_5L_LR_3R_L + C_5C_LL_5R_3R_L + C_5C_LL_5R_L + C_5C_LL_5R_L$

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10.294 INVALID-ORDER-294 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L\right)
                                                                                                                                                                                                                                                                                                        H(s) = \frac{-C_3C_5L_5R_3R_5R_Ls^3 - R_5R_L + s^2\left(C_3L_5R_3R_5R_Lg_m - C_3L_5R_3R_L - C_5L_5R_5R_L\right) + s\left(-C_3R_3R_5R_L + L_5R_5R_Lg_m - L_5R_L\right)}{C_3C_5L_5R_3R_5R_Ls^3 + R_5R_L + s^2\left(C_3L_5R_3R_5 + C_3L_5R_3R_L + C_3L_5R_5R_L + C_5L_5R_5R_L\right) + s\left(C_3R_3R_5R_L + L_5R_5R_Lg_m - L_5R_L\right)}
10.295 INVALID-ORDER-295 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                                                                                                            H(s) = \frac{-C_3C_5L_5R_3R_5s^3 - R_5 + s^2\left(C_3L_5R_3R_5g_m - C_3L_5R_3 - C_5L_5R_5\right) + s\left(-C_3R_3R_5 + L_5R_5g_m - L_5\right)}{R_5 + s^3\left(C_3C_5L_5R_3R_5 + C_3C_LL_5R_3R_5\right) + s^2\left(C_3L_5R_3 + C_3L_5R_5 + C_5L_5R_5 + C_5L_5R_5\right) + s\left(C_3R_3R_5 + L_5R_5\right)}
10.296 INVALID-ORDER-296 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L}{C_L R_L s + 1}\right)
                                                                                                                                                                                                                      H(s) = \frac{-C_3C_5L_5R_3R_5R_Ls^3 - R_5R_L + s^2\left(C_3L_5R_3R_5R_Lg_m - C_3L_5R_3R_L - C_5L_5R_5R_L\right) + s\left(-C_3R_3R_5R_L + L_5R_5R_Lg_m - L_5R_L\right)}{R_5R_L + s^3\left(C_3C_5L_5R_3R_5R_L + C_3L_5R_3R_5R_L\right) + s^2\left(C_3L_5R_3R_5 + C_3L_5R_3R_L + C_3L_5R_5R_L + C_5L_5R_5R_L + C_5L_5R_5R_L\right) + s\left(C_3R_3R_5R_L + L_5R_5 + L_5R_L\right)}
10.297 INVALID-ORDER-297 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L + \frac{1}{C_L s}\right)
               H(s) = \frac{-C_3C_5C_LL_5R_3R_5R_Ls^4 - R_5 + s^3\left(-C_3C_5L_5R_3R_5 + C_3C_LL_5R_3R_5R_Lg_m - C_3C_LL_5R_3R_L - C_5C_LL_5R_5R_L\right) + s^2\left(-C_3C_LR_3R_5R_L + C_3L_5R_3R_5g_m - C_3L_5R_3 - C_5L_5R_5 + C_LL_5R_5R_Lg_m - C_LL_5R_L\right) + s\left(-C_3R_3R_5 - C_LR_5R_L + L_5R_5g_m - L_5\right)}{C_3C_5C_LL_5R_3R_5R_Ls^4 + R_5 + s^3\left(C_3C_5L_5R_3R_5 + C_3C_LL_5R_3R_5 + C_3C_LL_5R_3R_L + C_3C_LL_5R_3R_L + C_3C_LL_5R_5R_L\right) + s^2\left(C_3C_LR_3R_5R_L + C_3L_5R_3 + C_3L_5R_5 + C_LL_5R_5\right) + s^2\left(C_3C_LR_3R_5R_L + C_3L_5R_3R_5 + C_LL_5R_5 + C_LL_5R_5\right) + s^2\left(C_3C_LR_3R_5R_L + C_3C_LL_5R_3R_5 + C_LL_5R_5\right) + s^2\left(C_3C_LR_3R_5R_L + C_3C_LL_5R_5R_L + C_3C_LL_5R_5\right) + s^2\left(C_3C_LR_3R_5R_L + C_3C_LL_5R_5R_L + C_3C_LL_5R_5R_L + C_3C_LL_5R_5\right) + s^2\left(C_3C_LR_3R_5R_L + C_3C_LL_5R_5R_L + C_3C_LL_5R_5\right) + s^2\left(C_3C_LR_3R_5R_L + C_3C_LL_5R_5\right) + s^2\left(C_3C_LR_3R_5R_L + C_3C_LL_5R_5R_L + C_3C_LL_5R_5\right) + s^2\left(C_3C_LR_3R_5R_L + C_3C_LL_5R_5\right) + s^2\left(C_3C_LR_3R_5 + C_3C_LL_5R_5\right) + s^2\left(C_3C_LR_3R_5 + C_3C_LL_5R_5\right) + s^2\left(C_3C_LR_3R_5 + C_3C_LL_5R_5\right) + s^2\left(C_3C_LR_3R_5 + C_3C_LL_5R_5\right) + s^2\left(C_3C_LR_3R_5\right) + s^2\left(C_3C_LR_3R_5
10.298 INVALID-ORDER-298 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + \frac{1}{C_{Ls}}\right)
             H(s) = \frac{-C_3C_5C_LL_5L_LR_3R_5s^5 - R_5 + s^4\left(C_3C_LL_5L_LR_3R_5g_m - C_3C_LL_5L_LR_3 - C_5C_LL_5L_LR_5\right) + s^3\left(-C_3C_5L_5R_3R_5 - C_3C_LL_5L_LR_3R_5 + C_LL_5L_LR_5g_m - C_LL_5L_L\right) + s^2\left(C_3L_5R_3R_5g_m - C_3L_5R_3 - C_5L_5R_5 - C_LL_LR_5\right) + s\left(-C_3R_3R_5 + L_5R_5g_m - L_5\right)}{C_3C_5C_LL_5L_LR_3R_5s^5 + R_5 + s^4\left(C_3C_LL_5L_LR_3 + C_3C_LL_5L_RR_5 + C_5C_LL_5L_RR_5\right) + s^3\left(C_3C_5L_5R_3R_5 + C_3C_LL_5R_3R_5 + C_3C_LL_5R_3R_5 + C_3C_LL_5R_5\right) + s^2\left(C_3L_5R_3R_5 + C_3L_5R_3 + C_3L_5R_5 + C_3L_5R_5\right) + s^2\left(C_3L_5R_3R_5 + C_3L_5R_5 + C_3L_5R_5 + C_3L_5R_5\right) + s^2\left(C_3L_5R_3R_5 + C_3L_5R_5\right) + s^2\left(C_3L_5R_5R_5 + C_3L_5R_5\right) + s^2\left(C_3L_5R_5 + C_3L_5R_5\right) + s^2\left(C_3L_5R_5R_5 + C_3L_5R_5\right) + s^2\left(C_3L_5R_5
10.299 INVALID-ORDER-299 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                                                                                                                                                                                                                        H(s) = \frac{-C_3C_5L_5L_LR_3R_5s^3 - L_LR_5 + s^2\left(C_3L_5L_LR_3R_5g_m - C_3L_5L_LR_3 - C_5L_5L_LR_5\right) + s\left(-C_3L_LR_3R_5 + L_5L_LR_5g_m - L_5L_L\right)}{L_5R_5 + L_LR_5 + s^3\left(C_3C_5L_5L_LR_3R_5 + C_3C_LL_5L_LR_3R_5\right) + s^2\left(C_3L_5L_LR_3 + C_3L_5L_LR_5 + C_5L_5L_LR_5\right) + s\left(C_3L_5R_3R_5 + C_3L_LR_3R_5 + L_5L_L\right)}
10.300 INVALID-ORDER-300 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + R_L + \frac{1}{C_{I.s}}\right)
H(s) = \frac{-C_3C_5C_LL_5L_LR_3R_5s^5 - R_5 + s^4\left(-C_3C_5C_LL_5R_3R_5R_L + C_3C_LL_5L_LR_3R_5g_m - C_3C_LL_5L_LR_3 - C_5C_LL_5R_3R_5 + C_3C_LL_5R_3R_5 + C_3C_LL_5R_3R_5 + C_3C_LL_5R_3R_5 - C_5C_LL_5R_3R_5 - C_5C_LL_5R_5R_L + C_LL_5L_LR_5g_m - C_LL_5L_L\right) + s^2\left(-C_3C_LR_3R_5R_5R_L + C_3C_LL_5R_3R_5 + C_3C_LL_5R_5R_5 + C_3C_LL_5R_5R_5 + C_3C_LL_5R_5R_5 + C_3C_LL_5R_5R_5 
10.301 INVALID-ORDER-301 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
                                                                         H(s) = \frac{-C_3C_5L_5L_LR_3R_5R_Ls^3 - L_LR_5R_L + s^2\left(C_3L_5L_LR_3R_5R_Lg_m - C_3L_5L_LR_3R_L - C_5L_5L_LR_5R_L\right) + s\left(-C_3L_LR_3R_5R_L + L_5L_LR_5R_Lg_m - L_5L_LR_L\right)}{L_5R_5R_L + L_LR_5R_L + s^3\left(C_3C_5L_5L_LR_3R_5R_L + C_3L_LL_RR_3R_5R_L\right) + s^2\left(C_3L_5L_LR_3R_5 + C_3L_5L_LR_3R_5 + C_3L_5L_LR_5R_L + C_5L_5L_LR_5R_L + C_5L_5L_LR_5R_L\right) + s\left(C_3L_5R_3R_5R_L + C_3L_LR_3R_5R_L + L_5L_LR_5R_L\right) + s\left(C_3L_5R_3R_5R_L + C_3L_LR_3R_5R_L + C_3L_
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10.302 INVALID-ORDER-302
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

 $H(s) = \frac{-C_3C_5C_LL_5L_LR_3R_5R_Ls^5 - R_5R_L + s^4\left(-C_3C_5L_5L_LR_3R_5 + C_3C_LL_5L_LR_3R_5R_Lg_m - C_3C_LL_5L_LR_3R_5R_L - C_3C_LL_5L_RR_3R_5R_L - C_3C_LL_5L_RR_3R_5R_L$

10.303 INVALID-ORDER-303
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

 $H(s) = \frac{-C_3C_5C_LL_5L_LR_3R_5R_Ls^5 - R_5R_L + s^4\left(C_3C_LL_5L_LR_3R_5R_Lg_m - C_3C_LL_5L_LR_3R_L - C_5C_LL_5L_LR_5R_L\right) + s^3\left(-C_3C_5L_5R_3R_5R_L - C_3C_LL_LR_3R_5R_L + C_LL_5L_LR_5R_Lg_m - C_LL_5L_LR_L\right) + s^2\left(C_3L_5R_3R_5R_Lg_m - C_3L_5R_3R_L - C_5L_5R_5R_L - C_3C_LL_5R_5R_L\right) + s^2\left(C_3L_5R_3R_5R_L + C_4L_5L_LR_5R_L\right) + s^2\left(C_3L_5R_3R_5R_L - C_5L_5R_3R_5R_L - C_5L_5R_5R_L\right) + s^2\left(C_3L_5R_3R_5R_L + C_4L_5L_LR_3R_5R_L + C_4L_5L_LR_3R_5R_L + C_4L_5L_LR_5R_L\right) + s^2\left(C_3L_5R_3R_5R_L + C_5L_5R_5R_L + C_4L_5L_LR_3R_5R_L +$

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10.304 INVALID-ORDER-304 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L\right)
                                                                                                                                                                                                                   H(s) = \frac{R_5 R_L g_m - R_L + s^3 \left(C_3 C_5 L_5 R_3 R_5 R_L g_m - C_3 C_5 L_5 R_3 R_L\right) + s^2 \left(C_3 L_5 R_3 R_L g_m + C_5 L_5 R_5 R_L g_m - C_5 L_5 R_L\right) + s \left(C_3 R_3 R_5 R_L g_m - C_3 R_3 R_L + L_5 R_L g_m\right)}{R_5 + R_L + s^3 \left(C_3 C_5 L_5 R_3 R_5 + C_3 C_5 L_5 R_3 R_L + C_3 C_5 L_5 R_5 R_L\right) + s^2 \left(C_3 L_5 R_3 R_5 R_L g_m - C_5 L_5 R_L\right) + s \left(C_3 R_3 R_5 R_L g_m - C_3 R_3 R_L + L_5 R_L g_m\right)}
                                           INVALID-ORDER-305 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_{3s}}, \infty, \frac{L_{5s}}{C_5 L_5 s^2 + 1} + R_5, \frac{1}{C_{Ls}}\right)
                                                                                                                                                                                                                   H(s) = \frac{R_5 g_m + s^3 \left(C_3 C_5 L_5 R_3 R_5 g_m - C_3 C_5 L_5 R_3\right) + s^2 \left(C_3 L_5 R_3 g_m + C_5 L_5 R_5 g_m - C_5 L_5\right) + s \left(C_3 R_3 R_5 g_m - C_3 R_3 + L_5 g_m\right) - 1}{C_3 C_5 C_L L_5 R_3 R_5 s^4 + s^3 \left(C_3 C_5 L_5 R_3 + C_3 C_5 L_5 R_5 + C_3 C_L L_5 R_3 + C_5 C_L L_5 R_5\right) + s^2 \left(C_3 C_L R_3 R_5 + C_3 L_5 + C_5 L_5\right) + s \left(C_3 R_3 R_5 g_m - C_3 R_3 + L_5 g_m\right) - 1}
 10.306 INVALID-ORDER-306 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L}{C_L R_L s + 1}\right)
H(s) = \frac{R_5 R_L g_m - R_L + s^3 \left(C_3 C_5 L_5 R_3 R_5 R_L g_m - C_3 C_5 L_5 R_3 R_L g_m + C_5 L_5 R_5 R_L g_m - C_5 L_5 R_L \right) + s \left(C_3 R_3 R_5 R_L g_m - C_3 R_3 R_L + L_5 R_L g_m \right)}{C_3 C_5 C_L L_5 R_3 R_5 R_L s^4 + R_5 + R_L + s^3 \left(C_3 C_5 L_5 R_3 R_L + C_3 C_5 L_5 R_3 R_L + C_5 C_L L_5 R_3 R_L + C_5 C_L L_5 R_5 R_L \right) + s^2 \left(C_3 C_L R_3 R_5 R_L + C_5 L_5 R_5 R
10.307 INVALID-ORDER-307 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L + \frac{1}{C_L s}\right)
                                   \frac{R_{5}g_{m} + s^{4} \left(C_{3}C_{5}C_{L}L_{5}R_{3}R_{5}R_{L}g_{m} - C_{3}C_{5}C_{L}L_{5}R_{3}R_{L}\right) + s^{3} \left(C_{3}C_{5}L_{5}R_{3}R_{5}g_{m} - C_{3}C_{5}L_{5}R_{3} + C_{3}C_{L}L_{5}R_{3}R_{L}g_{m} + C_{5}C_{L}L_{5}R_{5}R_{L}g_{m} - C_{5}C_{L}L_{5}R_{3}R_{L} + C_{3}L_{5}R_{3}g_{m} + C_{5}L_{5}R_{5}g_{m} - C_{5}L_{5}R_{5
10.308 INVALID-ORDER-308 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + \frac{1}{C_L s}\right)
H(s) = \frac{R_5 g_m + s^5 \left(C_3 C_5 C_L L_5 L_L R_3 R_5 g_m - C_3 C_5 C_L L_5 L_L R_3\right) + s^4 \left(C_3 C_L L_5 L_L R_3 g_m + C_5 C_L L_5 L_L R_5 g_m - C_5 C_L L_5 L_L\right) + s^3 \left(C_3 C_5 L_5 R_3 R_5 g_m - C_3 C_L L_L R_3 R_5 g_m - C_3 C_L L_L R_3 + C_L L_5 L_L g_m\right) + s^2 \left(C_3 L_5 R_3 g_m + C_5 L_5 R_5 g_m - C_5 L_5 R_5 g
10.309 INVALID-ORDER-309 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                                   \frac{s^4 \left(C_3 C_5 L_5 L_L R_3 R_5 g_m - C_3 C_5 L_5 L_L R_3 \right) + s^3 \left(C_3 L_5 L_L R_3 g_m + C_5 L_5 L_L R_5 g_m - C_5 L_5 L_L\right) + s^2 \left(C_3 L_L R_3 R_5 g_m - C_3 L_L R_3 + L_5 L_L g_m\right) + s \left(L_L R_5 g_m - L_L\right)}{C_3 C_5 C_L L_5 L_L R_3 + C_3 C_5 L_5 L_L R_3 + C_5 C_L L_5 L_L R_3 + C_5 C_L L_5 L_L R_5\right) + s^3 \left(C_3 C_5 L_5 R_3 R_5 + C_3 L_L R_3 R_5 + C_3 L_L R_3 R_5 + C_3 L_L R_5\right) + s^2 \left(C_3 L_5 R_3 R_5 + C_5 L_5 R_5 + C_5 L_5 R_5 + C_5 L_5 R_5\right) + s^2 \left(C_3 R_3 R_5 + L_5 L_L R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 + C_5 L_5 R_5 + C_5 L_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 + C_5 L_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 + C_5 L_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 R_5 R_5 R_5 
10.310 INVALID-ORDER-310 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + R_L + \frac{1}{C_L s}\right)
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10.311 INVALID-ORDER-311
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

 $H(s) = \frac{s^4 \left(C_3 C_5 L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 L_5 L_L R_3 R_L g_m + C_5 L_5 L_L R_5 R_L g_m - C_5 L_5 L_L R_3 R_L g_m - C_3 L_L R_3 R_L + L_5 L_L R_L g_m - C_5 L_5 L_L R_3 R_L + L_5 L_L R_2 R_2 R_2 R_2 R_3 R_5 R_L + C_5 C_4 L_5 L_L R_3 R_5 R_L + C_5 C_4 L_5 L_L R_3 R_5 R_L + C_5 C_4 L_5 L_L R_3 R_5 R_L + C_5 L_5 L_L R_5 R_L + C_5 L_5 L_L$

10.312 INVALID-ORDER-312
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

 $H(s) = \frac{R_5 R_L g_m - R_L + s^5 \left(C_3 C_5 C_L L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 L_L L_R R_3 R_L \right) + s^4 \left(C_3 C_5 L_L L_R R_3 R_L g_m - C_3 C_5 L_L R_$

10.313 INVALID-ORDER-313
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

 $\frac{R_{5}R_{L}g_{m}-R_{L}+s^{5}\left(C_{3}C_{5}C_{L}L_{5}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{3}C_{5}C_{L}L_{5}L_{L}R_{3}R_{L}g_{m}+C_{5}C_{L}L_{5}L_{L}R_{3}R_{L}g_{m}-C_{5}C_{L}L_{5}L_{L}R_{3}R_{L}+S^{3}\left(C_{3}C_{5}L_{5}L_{R}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{L}+C_{5}C_{L}L_{$

$$\textbf{10.314} \quad \textbf{INVALID-ORDER-314} \ Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L \right) \\ H(s) = \frac{R_5 R_L g_m - R_L + s^3 \left(C_3 C_5 L_5 R_3 R_5 R_L g_m - C_3 C_5 L_5 R_3 R_L \right) + s^2 \left(-C_3 C_5 R_3 R_5 R_L + C_5 L_5 R_5 R_L g_m - C_5 L_5 R_L \right) + s \left(C_3 R_3 R_5 R_L g_m - C_3 R_3 R_L - C_5 R_5 R_L \right) }{R_5 + R_L + s^3 \left(C_3 C_5 L_5 R_3 R_5 + C_3 C_5 L_5 R_3 R_L \right) + s^2 \left(C_3 C_5 R_3 R_5 R_L + C_5 L_5 R_5 + C_5 L_5 R_L \right) + s \left(C_3 R_3 R_5 + C_3 R_3 R_L + C_3 R_5 R_L \right) }$$

10.317 INVALID-ORDER-317
$$Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^4 \left(C_3 C_5 C_L L_5 R_3 R_5 R_L g_m - C_3 C_5 C_L L_5 R_3 R_L\right) + s^3 \left(-C_3 C_5 C_L R_3 R_5 R_L + C_3 C_5 L_5 R_3 R_5 g_m - C_3 C_5 L_5 R_3 R_5 g_m - C_3 C_5 L_5 R_3 R_5 g_m - C_5 C_L L_5 R_5 R_L + C_5 C_L R_5 R_L + C_5 C_$$

10.318 INVALID-ORDER-318
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^5 \left(C_3 C_5 C_L L_5 L_L R_3 R_5 g_m - C_3 C_5 C_L L_5 L_L R_3\right) + s^4 \left(-C_3 C_5 C_L L_L R_3 R_5 + C_5 C_L L_5 L_L R_5 g_m - C_5 C_L L_5 L_L\right) + s^3 \left(C_3 C_5 L_5 R_3 R_5 g_m - C_3 C_5 L_L R_3 R_5 g_m - C_3 C_L L_L R_3 - C_5 C_L L_L R_5\right) + s^2 \left(-C_3 C_5 R_3 R_5 + C_5 L_5 R_5 g_m - C_5 L_5 L_L R_5 g_m - C_5 L_5 L_L R_5\right) + s^2 \left(C_3 C_5 C_L L_5 R_5 R_5 + C_5 C_L L_5 L_L\right) + s^3 \left(C_3 C_5 L_5 R_3 R_5 + C_5 C_L L_L R_5\right) + s^2 \left(C_3 C_5 R_5 R_5 R_5\right) + s^2 \left(C_3 C_5 R_5 R_5\right) + s^2 \left(C_5 R_5 R_5\right) +$$

$$\begin{aligned} \textbf{10.319} \quad \textbf{INVALID-ORDER-319} \ Z(s) &= \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1 \right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} \right) \\ H(s) &= \frac{s^4 \left(C_3 C_5 L_5 L_L R_3 R_5 g_m - C_3 C_5 L_5 L_L R_3 \right) + s^3 \left(-C_3 C_5 L_L R_3 R_5 + C_5 L_5 L_L R_5 g_m - C_5 L_5 L_L \right) + s^2 \left(C_3 L_L R_3 R_5 g_m - C_3 L_L R_3 - C_5 L_L R_5 \right) + s \left(L_L R_5 g_m - L_L \right)}{C_3 C_5 C_L L_5 L_L R_3 R_5 s^5 + R_5 + s^4 \left(C_3 C_5 L_5 L_L R_3 + C_3 C_5 L_5 L_L R_5 \right) + s^3 \left(C_3 C_5 L_5 R_3 R_5 + C_3 C_5 L_L R_3 R_5 + C_5 L_5 L_L \right) + s^2 \left(C_3 L_L R_3 R_5 + C_5 L_5 L_R \right) + s^2 \left(C_3 L_L R_3 R_5 + C_5 L_5 L_R \right) + s^2 \left(C_3 L_L R_3 R_5 + C_5 L_5 L_R \right) + s^2 \left(C_3 L_L R_3 R_5 + C_5 L_5 L_R \right) + s^2 \left(C_3 L_L R_3 R_5 + C_5 L_5 L_R \right) + s^2 \left(C_3 L_L R_3 R_5 + C_5 L_5 L_R \right) + s^2 \left(C_3 L_L R_3 R_5 + C_5 L_5 L_R \right) + s^2 \left(C_3 L_L R_3 R_5 + C_5 L_5 R_5 \right) + s^2 \left(C_3 L_L R_3 R_5 + C_5 L_5 L_R \right) + s^2 \left($$

10.320 INVALID-ORDER-320
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^5 \left(C_3 C_5 C_L L_5 L_L R_3 R_5 g_m - C_3 C_5 C_L L_5 L_L R_3\right) + s^4 \left(C_3 C_5 C_L L_5 R_3 R_5 R_L g_m - C_3 C_5 C_L L_5 R_3 R_5 - C_5 C_L L_5 R_3 R_5 - C_5 C_L L_5 L_L R_3 R_5 - C_5 C_L L_5 R_3 R_5 R_L + C_3 C_5 C_L R_3 R_5 R_L + C_3 C_5 L_5 R_3 R_5 g_m - C_3 C_5 L_5 R_3 R_5 g_m - C_3 C_5 L_L R_3 R_5 g_m - C_3 C_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 R_3 R_5 R_L + C_3 C_5 L_5 R_5 R_5 R_L + C_5 C_5 L_5 R_5$$

10.321 INVALID-ORDER-321
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{s^4 \left(C_3 C_5 L_L R_3 R_5 R_L g_m - C_3 C_5 L_L R_3 R_L \right) + s^3 \left(-C_3 C_5 L_L R_3 R_5 R_L g_m - C_5 L_5 L_L R_3 R_L + C_5 L_L R_3 R_5 R_L + C_5 L_L R_5 R_L + C_5 L_L$$

10.322 INVALID-ORDER-322
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^5 \left(C_3 C_5 C_L L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 L_L L_R R_5 R_L + C_3 C_5 L_L R_5 R_L + C_3 C_5 L_L R_5 R_L + C_5 C_L L_5 L_L R_5 R_L + C$$

10.323 INVALID-ORDER-323
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

 $H(s) = \frac{R_5 R_L g_m - R_L + s^5 \left(C_3 C_5 C_L L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 C_L L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 L_L L_R R_3 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L + C_5 C_L L_5 L_L R_5 R_L g_m - C_5 C_L L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 L_5 R_3 R_5 R_L + C_3 C_5 L_L R_3 R_5 R_L + C_3 C_5 L_L R_3 R_5 R_L + C_5 C_L L_5 L_L R_5 R_L + C_5 C$

10.324 INVALID-ORDER-324
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^2 (C_3 L_3 R_5 g_m - C_3 L_3) - 1}{C_3 C_L L_3 R_5 s^3 + C_3 L_3 s^2 + s (C_3 R_5 + C_L R_5) + 1}$$

10.325 INVALID-ORDER-325
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^2 \left(C_3 L_3 R_5 R_L g_m - C_3 L_3 R_L \right)}{C_3 C_L L_3 R_5 R_L s^3 + R_5 + R_L + s^2 \left(C_3 L_3 R_5 + C_3 L_3 R_L \right) + s \left(C_3 R_5 R_L + C_L R_5 R_L \right)}$$

10.326 INVALID-ORDER-326
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^3 \left(C_3 C_L L_3 R_5 R_L g_m - C_3 C_L L_3 R_L \right) + s^2 \left(C_3 L_3 R_5 g_m - C_3 L_3 \right) + s \left(C_L R_5 R_L g_m - C_L R_L \right) - 1}{s^3 \left(C_3 C_L L_3 R_5 + C_3 C_L L_3 R_L \right) + s^2 \left(C_3 C_L R_5 R_L + C_3 L_3 \right) + s \left(C_3 R_5 + C_L R_5 + C_L R_L \right) + 1}$$

10.327 INVALID-ORDER-327
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ R_5, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^4 \left(C_3 C_L L_3 L_L R_5 g_m - C_3 C_L L_3 L_L \right) + s^2 \left(C_3 L_3 R_5 g_m - C_3 L_3 + C_L L_L R_5 g_m - C_L L_L \right) - 1}{C_3 C_L L_3 L_L s^4 + s^3 \left(C_3 C_L L_3 R_5 + C_3 C_L L_L R_5 \right) + s^2 \left(C_3 L_3 + C_L L_L \right) + s \left(C_3 R_5 + C_L R_5 \right) + 1}$$

10.328 INVALID-ORDER-328
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{s^3 \left(C_3 L_3 L_L R_5 g_m - C_3 L_3 L_L \right) + s \left(L_L R_5 g_m - L_L \right)}{C_3 C_L L_3 L_L R_5 s^4 + C_3 L_3 L_L s^3 + L_L s + R_5 + s^2 \left(C_3 L_3 R_5 + C_3 L_L R_5 + C_L L_L R_5 \right)}$$

10.329 INVALID-ORDER-329
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^4 \left(C_3 C_L L_3 L_L R_5 g_m - C_3 C_L L_3 L_L\right) + s^3 \left(C_3 C_L L_3 R_5 R_L g_m - C_3 C_L L_3 R_L\right) + s^2 \left(C_3 L_3 R_5 g_m - C_3 L_3 + C_L L_L R_5 g_m - C_L L_L\right) + s \left(C_L R_5 R_L g_m - C_L R_L\right) - 1}{C_3 C_L L_3 L_L s^4 + s^3 \left(C_3 C_L L_3 R_5 + C_3 C_L L_3 R_L + C_3 C_L L_L R_5\right) + s^2 \left(C_3 C_L R_5 R_L + C_3 L_3 + C_L L_L\right) + s \left(C_3 R_5 + C_L R_5 + C_L R_L\right) + 1}$$

10.330 INVALID-ORDER-330
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ R_5, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{s^3 \left(C_3 L_3 L_L R_5 R_L g_m - C_3 L_3 L_L R_L \right) + s \left(L_L R_5 R_L g_m - L_L R_L \right)}{C_3 C_L L_3 L_L R_5 R_L s^4 + R_5 R_L + s^3 \left(C_3 L_3 L_L R_5 + C_3 L_3 L_L R_L \right) + s^2 \left(C_3 L_3 R_5 R_L + C_3 L_L R_5 R_L + C_L L_L R_5 R_L \right) + s \left(L_L R_5 + L_L R_L \right)}$$

10.331 INVALID-ORDER-331
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^4 \left(C_3 C_L L_3 L_L R_5 R_L g_m - C_3 C_L L_3 L_L R_L \right) + s^3 \left(C_3 L_3 L_L R_5 g_m - C_3 L_3 L_L \right) + s^2 \left(C_3 L_3 R_5 R_L g_m - C_3 L_3 R_L + C_L L_L R_5 R_L g_m - C_L L_L R_L \right) + s \left(L_L R_5 g_m - L_L \right)}{R_5 + R_L + s^4 \left(C_3 C_L L_3 L_L R_5 + C_3 C_L L_3 L_L R_L \right) + s^3 \left(C_3 C_L L_L R_5 R_L + C_3 L_3 L_L \right) + s^2 \left(C_3 L_3 R_5 + C_3 L_3 R_L + C_3 L_L R_5 + C_L L_L R_5 + C_L L_L R_L \right) + s \left(C_3 R_5 R_L + L_L \right)}$$

$$\textbf{10.332} \quad \textbf{INVALID-ORDER-332} \quad Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ R_5, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) \\ H(s) = \frac{R_5 R_L g_m - R_L + s^4 \left(C_3 C_L L_3 L_L R_5 R_L g_m - C_3 C_L L_3 L_L R_L \right) + s^2 \left(C_3 L_3 R_5 R_L g_m - C_3 L_3 R_L + C_L L_L R_5 R_L g_m - C_L L_L R_L \right) }{R_5 + R_L + s^4 \left(C_3 C_L L_3 L_L R_5 + C_3 C_L L_3 L_L R_L \right) + s^3 \left(C_3 C_L L_3 R_5 R_L + C_3 C_L L_L R_5 R_L \right) + s^2 \left(C_3 L_3 R_5 + C_3 L_3 R_L + C_L L_L R_5 + C_L L_L R_L \right) + s \left(C_3 R_5 R_L + C_L R_5 R_L \right) }$$

10.333 INVALID-ORDER-333 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, R_L\right)$

$$H(s) = \frac{-C_3C_5L_3R_Ls^3 + C_3L_3R_Lg_ms^2 - C_5R_Ls + R_Lg_m}{C_3C_5L_3R_Ls^3 + C_3L_3s^2 + s\left(C_3R_L + C_5R_L\right) + 1}$$

10.334 INVALID-ORDER-334 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_3C_5L_3s^3 + C_3L_3g_ms^2 - C_5s + g_m}{s^3\left(C_3C_5L_3 + C_3C_LL_3\right) + s\left(C_3 + C_5 + C_L\right)}$$

10.335 INVALID-ORDER-335 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{-C_3C_5L_3R_Ls^3 + C_3L_3R_Lg_ms^2 - C_5R_Ls + R_Lg_m}{C_3L_3s^2 + s^3\left(C_3C_5L_3R_L + C_3C_LL_3R_L\right) + s\left(C_3R_L + C_5R_L + C_LR_L\right) + 1}$$

10.336 INVALID-ORDER-336 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_3C_5C_LL_3R_Ls^4 + g_m + s^3\left(-C_3C_5L_3 + C_3C_LL_3R_Lg_m\right) + s^2\left(C_3L_3g_m - C_5C_LR_L\right) + s\left(-C_5 + C_LR_Lg_m\right)}{C_3C_5C_LL_3R_Ls^4 + s^3\left(C_3C_5L_3 + C_3C_LL_3\right) + s^2\left(C_3C_LR_L + C_5C_LR_L\right) + s\left(C_3 + C_5 + C_LR_Lg_m\right)}$$

10.337 INVALID-ORDER-337 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_3C_5C_LL_3L_Ls^5 + C_3C_LL_3L_Lg_ms^4 - C_5s + g_m + s^3\left(-C_3C_5L_3 - C_5C_LL_L\right) + s^2\left(C_3L_3g_m + C_LL_Lg_m\right)}{C_3C_5C_LL_3L_Ls^5 + s^3\left(C_3C_5L_3 + C_3C_LL_3 + C_3C_LL_L + C_5C_LL_L\right) + s\left(C_3 + C_5 + C_L\right)}$$

10.338 INVALID-ORDER-338 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{-C_3C_5L_3L_Ls^4 + C_3L_3L_Lg_ms^3 - C_5L_Ls^2 + L_Lg_ms}{s^4\left(C_3C_5L_3L_L + C_3C_LL_3L_L\right) + s^2\left(C_3L_3 + C_3L_L + C_5L_L + C_LL_L\right) + 1}$$

10.339 INVALID-ORDER-339 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_3C_5C_LL_3L_Ls^5 + g_m + s^4\left(-C_3C_5C_LL_3R_L + C_3C_LL_3L_Lg_m\right) + s^3\left(-C_3C_5L_3 + C_3C_LL_3R_Lg_m - C_5C_LL_L\right) + s^2\left(C_3L_3g_m - C_5C_LR_L + C_LL_Lg_m\right) + s\left(-C_5 + C_LR_Lg_m\right)}{C_3C_5C_LL_3L_Ls^5 + C_3C_5C_LL_3R_Ls^4 + s^3\left(C_3C_5L_3 + C_3C_LL_3 + C_3C_LL_1 + C_5C_LL_L\right) + s^2\left(C_3C_LR_L + C_5C_LR_L\right) + s\left(C_3 + C_5 + C_LR_Lg_m\right)}$$

10.340 INVALID-ORDER-340 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{-C_3C_5L_3L_LR_Ls^4 + C_3L_3L_LR_Lg_ms^3 - C_5L_LR_Ls^2 + L_LR_Lg_ms}{C_3L_3L_Ls^3 + L_Ls + R_L + s^4\left(C_3C_5L_3L_LR_L + C_3C_LL_3L_LR_L\right) + s^2\left(C_3L_3R_L + C_3L_LR_L + C_5L_LR_L + C_LL_LR_L\right)}$$

10.341 INVALID-ORDER-341 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{-C_3C_5C_LL_3L_LR_Ls^5 + R_Lg_m + s^4\left(-C_3C_5L_3L_L + C_3C_LL_3L_LR_Lg_m\right) + s^3\left(-C_3C_5L_3R_L + C_3L_3L_Lg_m - C_5C_LL_LR_L\right) + s^2\left(C_3L_3R_Lg_m - C_5L_L + C_LL_LR_Lg_m\right) + s\left(-C_5R_L + L_Lg_m\right)}{C_3C_5C_LL_3L_LR_Ls^5 + s^4\left(C_3C_5L_3L_L + C_3C_LL_3L_L\right) + s^3\left(C_3C_5L_3R_L + C_3C_LL_RL\right) + s^2\left(C_3L_3R_Lg_m - C_5L_L + C_LL_Rg_m\right) + s\left(-C_5R_L + L_Lg_m\right)}$$

10.342 INVALID-ORDER-342
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right)$$

$$H(s) = \frac{-C_3 C_5 C_L L_3 L_L R_L s^5 + C_3 C_L L_3 L_L R_L g_m s^4 - C_5 R_L s + R_L g_m + s^3 \left(-C_3 C_5 L_3 R_L - C_5 C_L L_L R_L \right) + s^2 \left(C_3 L_3 R_L g_m + C_L L_L R_L g_m \right)}{C_3 C_5 C_L L_3 L_L R_L s^5 + C_3 C_L L_3 L_L s^4 + s^3 \left(C_3 C_5 L_3 R_L + C_3 C_L L_3 R_L + C_5 C_L L_L R_L \right) + s^2 \left(C_3 L_3 + C_L L_L \right) + s \left(C_3 R_L + C_5 R_L + C_L R_L \right) + 1}$$

10.343 INVALID-ORDER-343
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L\right)$$

$$H(s) = \frac{-C_3C_5L_3R_5R_Ls^3 - C_5R_5R_Ls + R_5R_Lg_m - R_L + s^2\left(C_3L_3R_5R_Lg_m - C_3L_3R_L\right)}{C_3C_5L_3R_5R_Ls^3 + R_5 + R_L + s^2\left(C_3L_3R_5 + C_3L_3R_L\right) + s\left(C_3R_5R_L + C_5R_5R_L\right)}$$

10.344 INVALID-ORDER-344
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5L_3R_5s^3 - C_5R_5s + R_5g_m + s^2(C_3L_3R_5g_m - C_3L_3) - 1}{C_3L_3s^2 + s^3(C_3C_5L_3R_5 + C_3C_LL_3R_5) + s(C_3R_5 + C_5R_5 + C_LR_5) + 1}$$

10.345 INVALID-ORDER-345
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_3C_5L_3R_5R_Ls^3 - C_5R_5R_Ls + R_5R_Lg_m - R_L + s^2\left(C_3L_3R_5R_Lg_m - C_3L_3R_L\right)}{R_5 + R_L + s^3\left(C_3C_5L_3R_5R_L + C_3C_LL_3R_5R_L\right) + s^2\left(C_3L_3R_5 + C_3L_3R_L\right) + s\left(C_3R_5R_L + C_5R_5R_L + C_LR_5R_L\right)}$$

10.346 INVALID-ORDER-346
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3R_5R_Ls^4 + R_5g_m + s^3\left(-C_3C_5L_3R_5 + C_3C_LL_3R_5R_Lg_m - C_3C_LL_3R_L\right) + s^2\left(C_3L_3R_5g_m - C_3L_3 - C_5C_LR_5R_L\right) + s\left(-C_5R_5 + C_LR_5R_Lg_m - C_LR_L\right) - 1}{C_3C_5C_LL_3R_5R_Ls^4 + s^3\left(C_3C_5L_3R_5 + C_3C_LL_3R_5 + C_3C_LL_3R_L\right) + s^2\left(C_3C_LR_5R_L + C_3L_3 + C_5C_LR_5R_L\right) + s\left(C_3R_5 + C_LR_5R_L\right) + s\left(C_3R_5 + C_LR$$

10.347 INVALID-ORDER-347
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_LR_5s^5 - C_5R_5s + R_5g_m + s^4\left(C_3C_LL_3L_LR_5g_m - C_3C_LL_3L_L\right) + s^3\left(-C_3C_5L_3R_5 - C_5C_LL_LR_5\right) + s^2\left(C_3L_3R_5g_m - C_3L_3 + C_LL_LR_5g_m - C_LL_L\right) - 1}{C_3C_5C_LL_3L_LR_5s^5 + C_3C_LL_3L_Ls^4 + s^3\left(C_3C_5L_3R_5 + C_3C_LL_3R_5 + C_5C_LL_LR_5\right) + s^2\left(C_3L_3R_5g_m - C_3L_3 + C_LL_LR_5g_m - C_LL_L\right) - 1}{C_3C_5C_LL_3L_LR_5s^5 + C_3C_LL_3L_Ls^4 + s^3\left(C_3C_5L_3R_5 + C_3C_LL_3R_5 + C_5C_LL_LR_5\right) + s^2\left(C_3L_3R_5g_m - C_3L_3 + C_LL_LR_5g_m - C_LL_L\right) - 1}{C_3C_5C_LL_3L_LR_5s^5 + C_3C_LL_3L_Ls^4 + s^3\left(C_3C_5L_3R_5 + C_3C_LL_3R_5 + C_5C_LL_LR_5\right) + s^2\left(C_3L_3R_5g_m - C_3L_3 + C_LL_LR_5g_m - C_LL_L\right) - 1}{C_3C_5C_LL_3L_LR_5s^5 + C_3C_LL_3L_Ls^4 + s^3\left(C_3C_5L_3R_5 + C_3C_LL_3R_5 + C_5C_LL_LR_5\right) + s^2\left(C_3L_3R_5g_m - C_3L_3 + C_LL_LR_5g_m - C_LL_L\right) - 1}{C_3C_5C_LL_3L_LR_5s^5 + C_3C_LL_3L_Ls^4 + s^3\left(C_3C_5L_3R_5 + C_3C_LL_3R_5 + C_5C_LL_LR_5\right) + s^2\left(C_3L_3R_5 + C_5C_LL_L\right) + s^2\left(C_3L_3R_5 + C_5C_LL\right) + s^2\left(C_$$

10.348 INVALID-ORDER-348
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_3C_5L_3L_LR_5s^4 - C_5L_LR_5s^2 + s^3\left(C_3L_3L_LR_5g_m - C_3L_3L_L\right) + s\left(L_LR_5g_m - L_L\right)}{C_3L_3L_Ls^3 + L_Ls + R_5 + s^4\left(C_3C_5L_3L_LR_5 + C_3C_LL_3L_LR_5\right) + s^2\left(C_3L_3R_5 + C_3L_LR_5 + C_5L_LR_5 + C_5L_LR_5\right)}$$

10.349 INVALID-ORDER-349
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_LR_5s^5 + R_5g_m + s^4\left(-C_3C_5C_LL_3R_5R_L + C_3C_LL_3L_LR_5g_m - C_3C_LL_3L_L\right) + s^3\left(-C_3C_5L_3R_5R_Lg_m - C_3C_LL_3R_5R_Lg_m - C_3C_LL_3R_5 + s^2\left(C_3L_3R_5g_m - C_3L_3R_5 + C_4C_LL_RS\right) + s^2\left(C_3C_LR_5R_L + C_4C_LR_S\right) + s^2\left(C_3C_LR_5R_L + C$$

10.350 INVALID-ORDER-350
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{-C_3C_5L_3L_LR_5R_Ls^4 - C_5L_LR_5R_Ls^2 + s^3\left(C_3L_3L_LR_5R_Lg_m - C_3L_3L_LR_L\right) + s\left(L_LR_5R_Lg_m - L_LR_L\right)}{R_5R_L + s^4\left(C_3C_5L_3L_LR_5R_L + C_3C_LL_3L_LR_5R_L\right) + s^3\left(C_3L_3L_LR_5 + C_3L_3L_LR_L\right) + s^2\left(C_3L_3R_5R_L + C_3L_LR_5R_L + C_5L_LR_5R_L\right) + s\left(L_LR_5R_L\right) + s\left(L_L$$

10.351 INVALID-ORDER-351
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_LR_5R_Ls^5 + R_5R_Lg_m - R_L + s^4\left(-C_3C_5L_3L_LR_5 + C_3C_LL_3L_LR_5R_Lg_m - C_3L_3L_LR_5 + C_3C_LL_3L_LR_5 +$$

10.359 INVALID-ORDER-359
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

 $H(s) = \frac{g_m + s^5 \left(C_3 C_5 C_L L_3 L_L R_5 g_m - C_3 C_5 C_L L_3 L_L \right) + s^4 \left(C_3 C_5 C_L L_3 R_5 R_L g_m - C_3 C_5 C_L L_3 R_L + C_3 C_L L_3 L_L g_m \right) + s^3 \left(C_3 C_5 L_3 R_5 g_m - C_3 C_5 L_4 R_5 g_m - C_5 C_L L_L \right) + s^2 \left(C_3 L_3 g_m + C_5 C_L R_5 R_L g_m - C_5 C_L R_L + C_L L_L g_m \right) + s \left(C_5 R_5 g_m - C_5 C_L R_5 R_L + C_5 C_L R_5 R_L + C_5 C_L R_5 R_L + C_5 C_L R_5 R_L \right) + s^2 \left(C_3 C_5 R_5 R_5 + C_3 C_L R_5 R_L + C_5 C_L R_5 R_L + C_5 C_L R_5 R_L \right) + s \left(C_5 R_5 g_m - C_5 C_L R_5 R_L + C_5 C_L R_5 R_L + C_5 C_L R_5 R_L \right) + s \left(C_5 R_5 R_5 R_L + C_5 C_L R_5 R_L + C_5 C_L R_5 R_L + C_5 C_L R_5 R_L \right) + s \left(C_5 R_5 R_5 R_L + C_5 C_L R_5 R_L + C_5 C_L R_5 R_L \right) + s \left(C_5 R_5 R_5 R_L + C_5 C_L R_5 R_L + C_5 C_L R_5 R_L \right) + s \left(C_5 R_5 R_5 R_L + C_5 C_L R_5 R_L + C_5 C_L R_5 R_L \right) + s \left(C_5 R_5 R_5 R_L + C_5 C_L R_5 R_L + C_5 C_L R_5 R_L \right) + s \left(C_5 R_5 R_5 R_L + C_5 C_L R_5 R_L + C_5 C_L R_5 R_L \right) + s \left(C_5 R_5 R_L + C_5 C_L R_5 R_L + C_5 C_L R_5 R_L \right) + s \left(C_5 R_5 R_L + C_5 C_L R_5 R_L + C_5 C_L R_5 R_L \right) + s \left(C_5 R_5 R_L + C_5 C_L R_5 R_L + C_5 C_L R_5 R_L \right) + s \left(C_5 R_5 R_L + C_5 C_L R_5 R_L + C_5 C_L R_5 R_L \right) + s \left(C_5 R_5 R_L + C_5 C_L$

10.360 INVALID-ORDER-360
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

 $H(s) = \frac{C_3L_3L_LR_Lg_ms^3 + L_LR_Lg_ms + s^4\left(C_3C_5L_3L_LR_5R_Lg_m - C_3C_5L_3L_LR_L\right) + s^2\left(C_5L_LR_5R_Lg_m - C_5L_LR_L\right)}{C_3C_5C_LL_3L_LR_5R_Ls^5 + R_L + s^4\left(C_3C_5L_3L_LR_5 + C_3C_5L_3L_LR_L\right) + s^3\left(C_3C_5L_3L_LR_5R_L + C_3C_5L_LR_5R_L\right) + s^2\left(C_5L_LR_5R_Lg_m - C_5L_LR_L\right) + s^2\left(C_5L_LR_5R_L + C_5L_LR_5R_L + C_5L_LR_5R_L\right) + s^2\left(C_5L_LR_5R_L + C_5L_LR_5R_L\right) + s^2\left(C_5L_LR_5R_L\right) + s^2\left($

10.361 INVALID-ORDER-361
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

 $H(s) = \frac{R_L g_m + s^5 \left(C_3 C_5 C_L L_3 L_L R_5 R_L g_m - C_3 C_5 C_L L_3 L_L R_L\right) + s^4 \left(C_3 C_5 L_3 L_L R_5 g_m - C_3 C_5 L_3 L_L R_5 g_m - C_3 C_5 L_3 L_L R_5 g_m - C_3 C_5 L_3 L_L R_5 g_m - C_5 L_L R_5 R_L g_m - C_5 C_L L_L R_5 R_L g_m - C_5 C$

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10.362 INVALID-ORDER-362 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_3C_LL_3L_LR_Lg_ms^4 + R_Lg_m + s^5\left(C_3C_5C_LL_3L_LR_5R_Lg_m - C_3C_5L_LL_RL_L\right) + s^3\left(C_3C_5L_LR_LR_L\right) + s^3\left(C_3C_5L_LR_LR_L\right) + s^2\left(C_3L_3R_Lg_m - C_5C_LL_LR_L\right) + s^2\left(C_3L_3R_Lg_m + C_LL_LR_Lg_m\right) + s\left(C_5R_5R_Lg_m - C_5R_L\right)}{s^5\left(C_3C_5C_LL_3L_LR_5 + C_3C_5C_LL_3L_LR_L\right) + s^4\left(C_3C_5C_LL_3R_LR_L + C_3C_LL_3R_L\right) + s^3\left(C_3C_5L_3R_L + C_3C_LL_2R_L\right) + s^2\left(C_3C_5R_5R_L + C_3L_2R_L\right) + s^4\left(C_3C_5C_LL_3R_LR_L + C_3C_LL_2R_L\right) + s^4\left(C_3C_5C_LL_3R_LR_L + C_3C_LL_2R_L\right) + s^4\left(C_3C_5C_LL_3R_LR_L + C_3C_LL_3R_L\right) + s^4\left(C_3C_5C_LL_3R_L + C_3C_LL_3R_L\right) + s^4\left(C_3C_5C_LL_3R_L\right) + s^4\left(C_5C_LL_3R_L\right) + s^4\left(C_5C_LL_3R_L\right) + s^4\left(C_5C_LL_3R_L\right) + s^4\left(
10.363 INVALID-ORDER-363 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, R_L\right)
                                                                                                                                                                                                                                                                                 H(s) = \frac{C_3C_5L_3L_5R_Lg_ms^4 - C_3C_5L_3R_Ls^3 - C_5R_Ls + R_Lg_m + s^2\left(C_3L_3R_Lg_m + C_5L_5R_Lg_m\right)}{C_3C_5L_3L_5s^4 + s^3\left(C_3C_5L_3R_L + C_3C_5L_5R_L\right) + s^2\left(C_3L_3 + C_5L_5\right) + s\left(C_3R_L + C_5R_L\right) + 1}
10.364 INVALID-ORDER-364 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                                                           H(s) = \frac{C_3C_5L_3L_5g_ms^4 - C_3C_5L_3s^3 - C_5s + g_m + s^2(C_3L_3g_m + C_5L_5g_m)}{C_3C_5C_LL_3L_5s^5 + s^3(C_3C_5L_3 + C_3C_5L_5 + C_3C_LL_3 + C_5C_LL_5) + s(C_3 + C_5 + C_L)}
10.365 INVALID-ORDER-365 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)
                                                                                                                                                                            H(s) = \frac{C_3C_5L_3L_5R_Lg_ms^4 - C_3C_5L_3R_Ls^3 - C_5R_Ls + R_Lg_m + s^2\left(C_3L_3R_Lg_m + C_5L_5R_Lg_m\right)}{C_3C_5C_LL_2L_5R_Ls^5 + C_3C_5L_3L_5s^4 + s^3\left(C_3C_5L_3R_L + C_3C_5L_5R_L + C_3C_LL_3R_L + C_5C_LL_5R_L\right) + s^2\left(C_3L_3 + C_5L_5\right) + s\left(C_3R_L + C_5R_L + C_LR_L\right) + 1}
10.366 INVALID-ORDER-366 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)
                                                                                                                          H(s) = \frac{C_3C_5C_LL_3L_5R_Lg_ms^5 + g_m + s^4\left(-C_3C_5C_LL_3R_L + C_3C_5L_3L_5g_m\right) + s^3\left(-C_3C_5L_3 + C_3C_LL_3R_Lg_m + C_5C_LL_5R_Lg_m\right) + s^2\left(C_3L_3g_m - C_5C_LR_L + C_5L_5g_m\right) + s\left(-C_5 + C_LR_Lg_m\right)}{C_3C_5C_LL_3L_5s^5 + s^4\left(C_3C_5C_LL_3R_L + C_3C_5C_LL_5R_L\right) + s^3\left(C_3C_5L_3 + C_3C_5L_5 + C_3C_LL_3 + C_5C_LL_5\right) + s^2\left(C_3C_LR_L + C_5C_LR_L\right) + s\left(C_3 + C_5 + C_LR_Lg_m\right)}
10.367 INVALID-ORDER-367 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)
                                                                                                                                 H(s) = \frac{C_3C_5C_LL_3L_5L_Lg_ms^6 - C_3C_5C_LL_3L_Ls^5 - C_5s + g_m + s^4\left(C_3C_5L_3L_5g_m + C_3C_LL_3L_Lg_m + C_5C_LL_5L_Lg_m\right) + s^3\left(-C_3C_5L_3 - C_5C_LL_L\right) + s^2\left(C_3L_3g_m + C_5L_5g_m + C_LL_Lg_m\right)}{s^5\left(C_3C_5C_LL_3L_5 + C_3C_5C_LL_3L_L + C_3C_5C_LL_5L_L\right) + s^3\left(C_3C_5L_3 + C_3C_5L_3 + C_3C_5L_3 + C_3C_LL_3 + C_5C_LL_5 + C_5C_LL_5 + C_5C_LL_5\right) + s^2\left(C_3L_3g_m + C_5L_5g_m + C_LL_Lg_m\right)}
10.368 INVALID-ORDER-368 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                                                                                                                                                                                      H(s) = \frac{C_3C_5L_3L_5L_Lg_ms^5 - C_3C_5L_3L_Ls^4 - C_5L_Ls^2 + L_Lg_ms + s^3\left(C_3L_3L_Lg_m + C_5L_5L_Lg_m\right)}{C_3C_5C_LL_3L_5L_Ls^6 + s^4\left(C_3C_5L_3L_5 + C_3C_5L_3L_L + C_3C_5L_5L_L + C_3C_LL_3L_L + C_5C_LL_5L_L\right) + s^2\left(C_3L_3 + C_3L_L + C_5L_5 + C_5L_L + C_LL_L\right) + 1}
10.369 INVALID-ORDER-369 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)
H(s) = \frac{C_3C_5C_LL_3L_5L_Lg_ms^6 + g_m + s^5\left(C_3C_5C_LL_3L_5R_Lg_m - C_3C_5C_LL_3L_L\right) + s^4\left(-C_3C_5C_LL_3R_L + C_3C_5L_3L_5g_m + C_3C_LL_3L_Lg_m + C_5C_LL_5L_Lg_m\right) + s^3\left(-C_3C_5L_3R_Lg_m + C_5C_LL_5R_Lg_m - C_5C_LL_L\right) + s^2\left(C_3L_3g_m - C_5C_LR_L + C_5L_5g_m + C_LL_Lg_m\right) + s^2\left(C_3C_5C_LL_3L_5 + C_3C_5C_LL_3L_5 + C_3C_5C_LL_3L_5 + C_3C_5C_LL_3R_L + C_3C_5C_LL_
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 $H(s) = \frac{C_3C_5C_LL_3L_5L_LR_Lg_ms^6 + R_Lg_m + s^5\left(-C_3C_5C_LL_3L_LR_L + C_3C_5L_3L_5L_Lg_m\right) + s^4\left(C_3C_5L_3L_5R_Lg_m - C_3C_5L_3L_LR_L + C_3C_5L_3L_L + C_3C_5L_3$

 $H(s) = \frac{C_3C_5L_3L_5L_LR_Lg_ms^5 - C_3C_5L_3L_LR_Ls^4 - C_5L_LR_Ls^2 + L_LR_Lg_ms + s^3\left(C_3L_3L_LR_Lg_m + C_5L_5L_LR_Lg_m\right)}{C_3C_5C_LL_3L_5L_LR_Ls^6 + C_3C_5L_3L_5L_Ls^5 + L_Ls + R_L + s^4\left(C_3C_5L_3L_5R_L + C_3C_5L_3L_LR_L + C_3C_5L_5L_LR_L + C_5C_LL_5L_LR_L\right) + s^3\left(C_3L_3L_LR_Ls^6 + C_3C_5L_3L_LR_L + C_5L_5R_L + C_5L_5R_L + C_5L_5R_L + C_5L_5R_L\right) + s^3\left(C_3L_3L_LR_Ls^6 + C_3C_5L_3L_LR_L + C_5L_5R_L + C_5L_5R_L + C_5L_5R_L\right) + s^3\left(C_3L_3L_LR_Ls^6 + C_3C_5L_3L_LR_L + C_5L_5R_L + C_5L_5R_L\right) + s^3\left(C_3L_3L_LR_Ls^6 + C_3C_5L_3L_LR_L + C_5L_5R_L + C_5L_5R_L\right) + s^3\left(C_3L_3L_LR_Ls^6 + C_3C_5L_3L_LR_L + C_5L_5R_L\right) + s^3\left(C_3L_3L_LR_L + C_5L_5R_L\right) + s^3\left(C_3L_3R_L + C_5L_5R_L\right) + s^3\left(C_3L_3R_L + C_5L_5R_L\right) + s^3\left(C_3L_3R_L + C_3L_5R_L\right) + s^3\left(C_3L_3R_L\right) + s^3\left(C_3L_3$

10.370 INVALID-ORDER-370 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

10.371 INVALID-ORDER-371 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_7 L_7 s^2 + 1} + R_L\right)$

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10.372 INVALID-ORDER-372 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
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 $H(s) = \frac{C_3C_5C_LL_3L_5L_LR_Lg_ms^6 - C_3C_5C_LL_3L_LR_Ls^5 - C_5R_Ls + R_Lg_m + s^4\left(C_3C_5L_3L_5R_Lg_m + C_5C_LL_5L_LR_Lg_m\right) + s^3\left(-C_3C_5L_3R_L - C_5C_LL_LR_L\right) + s^2\left(C_3L_3R_Lg_m + C_5L_5R_Lg_m + C_LL_RLg_m\right)}{C_3C_5C_LL_3L_5L_Ls^6 + s^5\left(C_3C_5C_LL_3L_5R_L + C_3C_5C_LL_3L_LR_L\right) + s^4\left(C_3C_5L_3L_5R_L + C_3C_5L_3L_LR_L\right) + s^4\left(C_3C_5L_3L_LR_L\right) + s^4\left(C_3C_$

10.373 INVALID-ORDER-373
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L\right)$$

$$H(s) = \frac{-C_3C_5L_3L_5R_Ls^4 + C_3L_3L_5R_Lg_ms^3 + L_5R_Lg_ms - R_L + s^2\left(-C_3L_3R_L - C_5L_5R_L\right)}{C_3C_5L_3L_5R_Ls^4 + C_3L_3L_5s^3 + L_5s + R_L + s^2\left(C_3L_3R_L + C_3L_5R_L + C_5L_5R_L\right)}$$

10.374 INVALID-ORDER-374
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5L_3L_5s^4 + C_3L_3L_5g_ms^3 + L_5g_ms + s^2\left(-C_3L_3 - C_5L_5\right) - 1}{s^4\left(C_3C_5L_3L_5 + C_3C_LL_3L_5\right) + s^2\left(C_3L_3 + C_3L_5 + C_5L_5 + C_LL_5\right) + 1}$$

10.375 INVALID-ORDER-375
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_3C_5L_3L_5R_Ls^4 + C_3L_3L_5R_Lg_ms^3 + L_5R_Lg_ms - R_L + s^2\left(-C_3L_3R_L - C_5L_5R_L\right)}{C_3L_3L_5s^3 + L_5s + R_L + s^4\left(C_3C_5L_3L_5R_L + C_3C_LL_3L_5R_L\right) + s^2\left(C_3L_3R_L + C_3L_5R_L + C_5L_5R_L\right)}$$

10.376 INVALID-ORDER-376
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_5R_Ls^5 + s^4\left(-C_3C_5L_3L_5 + C_3C_LL_3L_5R_Lg_m\right) + s^3\left(-C_3C_LL_3R_L + C_3L_3L_5g_m - C_5C_LL_5R_L\right) + s^2\left(-C_3L_3 - C_5L_5 + C_LL_5R_Lg_m\right) + s\left(-C_LR_L + L_5g_m\right) - 1}{C_3C_5C_LL_3L_5R_Ls^5 + C_LR_Ls + s^4\left(C_3C_5L_3L_5 + C_3C_LL_3L_5\right) + s^3\left(C_3C_LL_3R_L + C_3C_LL_5R_L\right) + s^2\left(C_3L_3 - C_5L_5 + C_LL_5R_Lg_m\right) + s\left(-C_LR_L + L_5g_m\right) - 1}{C_3C_5C_LL_3L_5R_Ls^5 + C_LR_Ls + s^4\left(C_3C_5L_3L_5 + C_3C_LL_3L_5\right) + s^3\left(C_3C_LL_3R_L + C_3C_LL_5R_L\right) + s^2\left(C_3L_3 - C_5L_5 + C_LL_5R_Lg_m\right) + s\left(-C_LR_L + L_5g_m\right) - 1}{C_3C_5C_LL_3L_5R_Ls^5 + C_LR_Ls + s^4\left(C_3C_5L_3L_5 + C_3C_LL_3L_5\right) + s^3\left(C_3C_LL_3R_L + C_3C_LL_5R_L\right) + s^2\left(C_3L_3 - C_5L_5 + C_LL_5R_Lg_m\right) + s\left(-C_LR_L + L_5g_m\right) - 1}{C_3C_5C_LL_3L_5R_Ls^5 + C_LR_Ls + s^4\left(C_3C_5L_3L_5 + C_3C_LL_3L_5\right) + s^3\left(C_3C_LL_3R_L + C_3C_LL_5R_L\right) + s^2\left(C_3L_3 + C_3L_5 + C_5L_5\right) + s^3\left(C_3C_LL_3R_L + C_3C_LL_5R_L\right) + s^2\left(C_3L_3 + C_3L_5 + C_5L_5\right) + s^3\left(C_3C_LL_3R_L + C_3C_LL_5R_L\right) + s^3\left(C_3C_LL_3R_L + C_3C_LL_5R_L\right) + s^3\left(C_3C_LL_3R_L + C_3C_LL_5R_L\right) + s^3\left(C_3C_LL_3R_L + C_3C_LL_5R_L\right) + s^3\left(C_3C_LL_5R_L\right) + s^3\left(C_3C_LL_$$

10.377 INVALID-ORDER-377
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_5L_Ls^6 + C_3C_LL_3L_5L_Lg_ms^5 + L_5g_ms + s^4\left(-C_3C_5L_3L_5 - C_3C_LL_3L_L - C_5C_LL_5L_L\right) + s^3\left(C_3L_3L_5g_m + C_LL_5L_Lg_m\right) + s^2\left(-C_3L_3 - C_5L_5 - C_LL_L\right) - 1}{C_3C_5C_LL_3L_5L_Ls^6 + s^4\left(C_3C_5L_3L_5 + C_3C_LL_3L_5 + C_3C_LL_3L_L + C_3C_LL_5L_L\right) + s^2\left(C_3L_3 + C_3L_5 + C_5L_5 + C_LL_5 + C_LL_5\right) + 1}$$

10.378 INVALID-ORDER-378
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_3C_5L_3L_5L_Ls^4 + C_3L_3L_5L_Lg_ms^3 + L_5L_Lg_ms - L_L + s^2\left(-C_3L_3L_L - C_5L_5L_L\right)}{L_5 + L_L + s^4\left(C_3C_5L_3L_5L_L + C_3C_LL_3L_5L_L\right) + s^2\left(C_3L_3L_5 + C_3L_3L_L + C_3L_5L_L + C_5L_5L_L\right)}$$

10.379 INVALID-ORDER-379
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_5L_Ls^6 + s^5\left(-C_3C_5C_LL_3L_5R_L + C_3C_LL_3L_5R_L + C_3C_LL_3L_5R_Lg_m - C_3C_LL_3L_5 + C_3C_LL_3$$

10.380 INVALID-ORDER-380
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{-C_3C_5L_3L_5L_LR_Ls^4 + C_3L_3L_5L_LR_Lg_ms^3 + L_5L_LR_Lg_ms - L_LR_L + s^2\left(-C_3L_3L_LR_L - C_5L_5L_LR_L\right)}{C_3L_3L_5L_Ls^3 + L_5L_Ls + L_5R_L + L_LR_L + s^4\left(C_3C_5L_3L_5L_LR_L + C_3C_LL_3L_5L_LR_L\right) + s^2\left(C_3L_3L_5R_L + C_3L_3L_LR_L + C_3L_5L_LR_L + C_5L_5L_LR_L\right)}$$

10.381 INVALID-ORDER-381
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_Ls^6 - R_L + s^5\left(-C_3C_5L_3L_5L_L + C_3C_LL_3L_5L_LR_Lg_m\right) + s^4\left(-C_3C_5L_3L_5R_L - C_3C_LL_3L_LR_L + C_3L_3L_5L_LR_L\right) + s^3\left(C_3L_3L_5R_Lg_m - C_3L_3L_L - C_5L_5L_L + C_LL_5L_LR_Lg_m\right) + s^2\left(-C_3L_3R_L - C_5L_5R_L - C_LL_LR_L + L_5L_Lg_m\right) + s^2\left(-C_3L_3R_L - C_5L_5R_L - C_LL_LR_L + C_5L_LR_L + C_5L$$

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10.382 INVALID-ORDER-382 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
                                           H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_Ls^6 + C_3C_LL_3L_5L_LR_Lg_ms^5 + L_5R_Lg_ms - R_L + s^4\left(-C_3C_5L_3L_5R_L - C_3C_LL_3L_LR_L - C_5C_LL_5L_LR_L\right) + s^3\left(C_3L_3L_5R_Lg_m + C_LL_5L_LR_Lg_m\right) + s^2\left(-C_3L_3R_L - C_5L_5R_L - C_LL_LR_L\right)}{C_3C_5C_LL_3L_5L_LR_Ls^6 + C_3C_LL_3L_5L_Ls^5 + L_5s + R_L + s^4\left(C_3C_5L_3L_5R_L + C_3C_LL_3L_LR_L + C_3C_LL_5L_LR_L\right) + s^3\left(C_3L_3L_5R_Lg_m + C_LL_5L_LR_L\right) + s^2\left(C_3L_3R_L + C_3L_5R_L + C_5L_5R_L + C_5L_5R_L + C_5L_5R_L + C_5L_5R_L\right)}
10.383 INVALID-ORDER-383 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L\right)
                                                                                                                                                                                                                                                                     H(s) = \frac{C_3C_5L_3L_5R_Lg_ms^4 + R_Lg_m + s^3\left(C_3C_5L_3R_5R_Lg_m - C_3C_5L_3R_L\right) + s^2\left(C_3L_3R_Lg_m + C_5L_5R_Lg_m\right) + s\left(C_5R_5R_Lg_m - C_5R_L\right)}{C_3C_5L_3L_5s^4 + s^3\left(C_3C_5L_3R_5 + C_3C_5L_3R_L + C_3C_5L_5R_L\right) + s^2\left(C_3C_5R_5R_L + C_3L_3 + C_5L_5\right) + s\left(C_3R_L + C_5R_5 + C_5R_L\right) + 1}
10.384 INVALID-ORDER-384 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                              H(s) = \frac{C_3C_5L_3L_5g_ms^4 + g_m + s^3\left(C_3C_5L_3R_5g_m - C_3C_5L_3\right) + s^2\left(C_3L_3g_m + C_5L_5g_m\right) + s\left(C_5R_5g_m - C_5\right)}{C_3C_5C_LL_3L_5s^5 + C_3C_5L_L3R_5s^4 + s^3\left(C_3C_5L_3 + C_3C_5L_5 + C_3C_LL_3 + C_5C_LL_5\right) + s^2\left(C_3C_5R_5 + C_5C_LR_5\right) + s\left(C_3 + C_5 + C_L\right)}
10.385 INVALID-ORDER-385 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)
                                                             H(s) = \frac{C_3C_5L_3L_5R_Lg_ms^4 + R_Lg_m + s^3\left(C_3C_5L_3R_5R_Lg_m - C_3C_5L_3R_L\right) + s^2\left(C_3L_3R_Lg_m + C_5L_5R_Lg_m\right) + s\left(C_5R_5R_Lg_m - C_5R_L\right)}{C_3C_5C_LL_3L_5R_Ls^5 + s^4\left(C_3C_5L_LR_5R_L + C_3C_5L_3R_5\right) + s^3\left(C_3C_5L_3R_5 + C_3C_5L_3R_L + C_3C_5L_3R_L + C_5C_LL_5R_L\right) + s^2\left(C_3C_5R_5R_L + C_3L_3 + C_5C_LR_5R_L + C_5L_5\right) + s\left(C_3R_L + C_5R_5 + C_5R_L + C_5R_L\right) + s^2\left(C_3C_5R_5R_L + C_3C_5R_5R_L + C_5R_5R_L + C_5R_5R_L + C_5R_5R_L\right) + s^2\left(C_3C_5R_5R_L + C_5R_5R_L + C_5R_5R_L\right) + s^2\left(C_3C_5R_5R_L + C_5R_5R_L\right) + s^2\left(C_3C_5R_5R_L\right) + s^2\left(C_3C_5R_L\right) + s^2\left(C_3C_5R_L\right) + s^2\left(C_3C_5R_L\right) + s^2\left(C_3C_5R_L\right) 
10.386 INVALID-ORDER-386 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)
                   H(s) = \frac{C_3C_5C_LL_3L_5R_Lg_ms^5 + g_m + s^4\left(C_3C_5C_LL_3R_5R_Lg_m - C_3C_5C_LL_3R_L + C_3C_5L_3L_5g_m\right) + s^3\left(C_3C_5L_3R_5g_m - C_3C_5L_4R_Lg_m + C_5C_LL_5R_Lg_m\right) + s^2\left(C_3L_3g_m + C_5C_LR_5R_Lg_m - C_5C_LR_L + C_5L_5g_m\right) + s\left(C_5R_5g_m - C_5 + C_LR_Lg_m\right)}{C_3C_5C_LL_3L_5s^5 + s^4\left(C_3C_5C_LL_3R_5 + C_3C_5C_LL_3R_L + C_3C_5C_LL_3R_L + C_3C_5C_LL_3R_L\right) + s^3\left(C_3C_5C_LR_5R_L + C_3C_5L_3 + C_3C_5L_3 + C_3C_5L_3 + C_3C_5L_3 + C_3C_5L_3 + C_3C_5L_5 + C_3C_LL_3\right) + s^2\left(C_3C_5R_5 + C_3C_LR_5 + C_5C_LR_5 + C_5C_LR_5 + C_5C_LR_5\right) + s^2\left(C_3C_5R_5 + C_3C_LR_5 + C_5C_LR_5\right) + s^2\left(C_3C_5R_5 + C_3C_LR_5\right) 
10.387 INVALID-ORDER-387 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)
                H(s) = \frac{C_3C_5C_LL_3L_5L_Lg_ms^6 + g_m + s^5\left(C_3C_5C_LL_3L_LR_5g_m - C_3C_5C_LL_3L_L\right) + s^4\left(C_3C_5L_3L_5g_m + C_3C_LL_3L_Lg_m + C_5C_LL_5L_Lg_m\right) + s^3\left(C_3C_5L_3R_5g_m - C_3C_5L_3 + C_5C_LL_LR_5g_m - C_5C_LL_L\right) + s^2\left(C_3L_3g_m + C_5L_5g_m + C_LL_Lg_m\right) + s\left(C_5R_5g_m - C_5C_LL_3L_1 + C_5C_LL_3L_5 + C_5C_LL_1\right) + s^2\left(C_3C_5C_LL_3L_1 + C_5C_LL_3L_1 + C_5C_LL_3L_1 + C_5C_LL_3 + C_
10.388 INVALID-ORDER-388 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                                                                H(s) = \frac{C_3C_5L_3L_5L_1g_ms^5 + L_Lg_ms + s^4\left(C_3C_5L_3L_LR_5g_m - C_3C_5L_3L_L\right) + s^3\left(C_3L_3L_Lg_m + C_5L_5L_Lg_m\right) + s^2\left(C_5L_LR_5g_m - C_5L_L\right)}{C_3C_5C_LL_3L_5L_Ls^6 + C_3C_5C_LL_3L_LR_5s^5 + C_5R_5s + s^4\left(C_3C_5L_3L_L + C_3C_5L_5L_L + C_3C_LL_3L_L + C_5C_LL_5L_L\right) + s^3\left(C_3C_5L_3R_5 + C_3C_5L_LR_5 + C_5C_LL_LR_5\right) + s^2\left(C_3L_3 + C_3L_L + C_5L_5 + C_5L_L + C_4L_L\right) + 1}
10.389 INVALID-ORDER-389 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)
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10.389 INVALID-ORDER-389
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

 $H(s) = \frac{C_3C_5C_LL_3L_5L_Lg_ms^6 + g_m + s^5\left(C_3C_5C_LL_3L_5R_Lg_m + C_3C_5C_LL_3L_LR_5g_m - C_3C_5C_LL_3L_L\right) + s^4\left(C_3C_5C_LL_3R_5R_Lg_m - C_3C_5C_LL_3R_L + C_3C_5L_Lg_m + C_5C_LL_5L_Lg_m\right) + s^3\left(C_3C_5L_3R_5g_m - C_3C_5L_3R_5g_m - C_3C_5L_3R_Lg_m + C_5C_LL_5R_Lg_m + C_5C_LL_5R_Lg_m\right) + s^4\left(C_3C_5C_LL_3L_5R_Lg_m + C_5C_LL_3R_Lg_m + C_5C_LL_5R_Lg_m + C_5C_LL_5R_Lg_m\right) + s^4\left(C_3C_5C_LL_3L_5R_Lg_m + C_5C_LL_3R_Lg_m + C_5C_LL_3R_Lg_m + C_5C_LL_5R_Lg_m\right) + s^4\left(C_3C_5C_LL_3L_5R_Lg_m + C_5C_LL_3R_Lg_m + C_5C_LL_5R_Lg_m\right) + s^4\left(C_3C_5C_LL_3L_5R_Lg_m + C_5C_LL_3R_Lg_m + C_5C_LL_5R_Lg_m\right) + s^4\left(C_3C_5C_LL_3L_5R_Lg_m + C_5C_LL_3R_Lg_m + C_5C_LL_5R_Lg_m\right) + s^4\left(C_3C_5C_LL_3R_Lg_m + C_5C_LL_3R_Lg_m + C_5C_LL_3R_Lg_m + C_5C_LL_3R_Lg_m\right) + s^4\left(C_3C_5C_LL_3R_Lg_m + C_5C_LL_3R_Lg_m + C_5C_LL_3R_Lg_m + C_5C_LL_3R_Lg_m\right) + s^4\left(C_3C_5C_LL_3R_Lg_m + C_5C_LL_3R_Lg_m\right) + s^4\left(C_3C_5$

10.390 INVALID-ORDER-390
$$Z(s) = \left(\infty, \ \infty, \ L_3s + \frac{1}{C_3s}, \ \infty, \ L_5s + R_5 + \frac{1}{C_5s}, \ \frac{L_LR_Ls}{C_LL_LR_Ls^2 + L_Ls + R_L}\right)$$

 $C_{3}C_{5}L_{3}L_{5}L_{L}R_{L}g_{m}s^{5} + L_{L}R_{L}g_{m}s + s^{4}\left(C_{3}C_{5}L_{3}L_{L}R_{5}R_{L}g_{m} - C_{3}C_{5}L_{3}L_{L}R_{L}\right) + s^{3}\left(C_{3}L_{3}L_{L}R_{L}g_{m} + C_{5}L_{5}L_{L}R_{L}g_{m}\right) + s^{2}\left(C_{5}L_{L}R_{5}R_{L}g_{m} - C_{5}L_{L}R_{L}\right) + s^{2}\left(C_{5}L_{L}R_{L}g_{m} - C_{5}L_$ $H(s) = \frac{C_3C_5L_3L_5L_1R_2s^6 + R_L + s^5\left(C_3C_5L_4L_2R_5R_L + C_3C_5L_3L_2R_L + C_3C_5L_3L_3L_2R_L + C_3C_5L_3L_3L_2R_L + C_3C_5L_3L_3L_2R_L + C_3C_5L_3L_3L_2R_L + C_3C_5L_3L_3L_2R_L + C_3C_5L_3L_3R_L + C_3C_5L_3R_3R_L + C_3C_5L_3R_1 + C_3C_5L_3R_$

10.391 INVALID-ORDER-391
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

 $H(s) = \frac{C_3C_5C_LL_3L_5L_LR_Lg_ms^6 + R_Lg_m + s^5\left(C_3C_5C_LL_3L_LR_5R_Lg_m - C_3C_5L_3L_LR_L + C_3C_5L_3L_LR_5g_m - C_3C_5L_3L_LR_5g_m + C_3C_5L_3L_LR_5g_m - C_3C_5L_3L_LR_5g_m - C_3C_5L_3L_LR_5g_m + C_3C_5L_3L_LR_$

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10.392 INVALID-ORDER-392 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_3C_5C_LL_3L_5L_LR_Lg_ms^6 + R_Lg_m + s^5\left(C_3C_5C_LL_3L_LR_5R_Lg_m - C_3C_5C_LL_3L_LR_Lg_m + C_5C_LL_5L_LR_Lg_m + s^4\left(C_3C_5L_3L_5R_Lg_m + C_5C_LL_5L_LR_Lg_m + s^4\left(C_3C_5L_4R_Lg_m + c_5C_LL_5L_LR_Lg_m + c_5C_LL_5L_LR_Lg_m + s^4\left(C_3C_5L_4R_Lg_m + c_5C_LL_5L_Lg_m + s^4\left(C_3C_5L_4R_Lg_m + s^4\left(C_3C_5L_4R_Lg_m + c_5C_LL_5L_Lg_m + s^4\left(C_3C_5L_4R_Lg_m + c_5C_LL_5L_Lg_m + s^4\left(C_3C_5L_4R_Lg_m + c_5C_LL_5L_Lg_m + s^4\left(C_3C_5L_4R_Lg_m + s^4\left(C_3C_5L_4R_Lg_m + c_5C_LL_5L_Lg_m + s^4\left(C_3C_5L_4R_Lg_m + c_5C_LL_5L_Lg_m + s^4\left(C_3C_5L_4R_Lg_m + c_5C_LL_5L_Lg_m + s^4\left(C_3C_5L_4R_Lg_m + s^4\left(C_3C_5L_4R_Lg_m + c_5C_LL_5L_Lg_m + s^4c_3C_LL_4R_Lg_m + s^4c_3C_LL_4R
10.393 INVALID-ORDER-393 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L\right)
                                                                                                                                                                                                                                                                            H(s) = \frac{-C_3C_5L_3L_5R_5R_Ls^4 - R_5R_L + s^3\left(C_3L_3L_5R_5R_Lg_m - C_3L_3L_5R_L\right) + s^2\left(-C_3L_3R_5R_L - C_5L_5R_5R_L\right) + s\left(L_5R_5R_Lg_m - L_5R_L\right)}{C_3C_5L_3L_5R_5R_Ls^4 + R_5R_L + s^3\left(C_3L_3L_5R_5 + C_3L_3L_5R_L\right) + s^2\left(C_3L_3R_5R_L + C_3L_5R_5R_L + C_5L_5R_5R_L\right) + s\left(L_5R_5R_Lg_m - L_5R_L\right)}
10.394 INVALID-ORDER-394 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                                                                                     H(s) = \frac{-C_3C_5L_3L_5R_5s^4 - R_5 + s^3\left(C_3L_3L_5R_5g_m - C_3L_3L_5\right) + s^2\left(-C_3L_3R_5 - C_5L_5R_5\right) + s\left(L_5R_5g_m - L_5\right)}{C_3L_3L_5s^3 + L_5s + R_5 + s^4\left(C_3C_5L_3L_5R_5 + C_3L_4L_5R_5\right) + s^2\left(C_3L_3R_5 + C_3L_5R_5 + C_5L_5R_5 + C_5L_5R_5\right)}
10.395 INVALID-ORDER-395 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_{3s}}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L}{C_L R_L s + 1}\right)
                                                                                                                                                                                                 H(s) = \frac{-C_3C_5L_3L_5R_5R_Ls^4 - R_5R_L + s^3\left(C_3L_3L_5R_5R_Lg_m - C_3L_3L_5R_L\right) + s^2\left(-C_3L_3R_5R_L - C_5L_5R_5R_L\right) + s\left(L_5R_5R_Lg_m - L_5R_L\right)}{R_5R_L + s^4\left(C_3C_5L_3L_5R_5R_L + C_3C_LL_3L_5R_5R_L\right) + s^3\left(C_3L_3L_5R_5 + C_3L_3L_5R_L\right) + s^2\left(C_3L_3R_5R_L + C_3L_5R_5R_L + C_5L_5R_5R_L\right) + s\left(L_5R_5R_Lg_m - L_5R_L\right)}
10.396 INVALID-ORDER-396 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L + \frac{1}{C_{L,s}}\right)
     H(s) = \frac{-C_3C_5C_LL_3L_5R_5R_Ls^5 - R_5 + s^4\left(-C_3C_5L_3L_5R_5 + C_3C_LL_3L_5R_5R_Lg_m - C_3C_LL_3L_5R_L\right) + s^3\left(-C_3C_LL_3R_5R_L + C_3L_3L_5R_5g_m - C_3L_3L_5 - C_5C_LL_5R_5R_L\right) + s^2\left(-C_3L_3R_5 - C_5L_5R_5 + C_LL_5R_5R_Lg_m - C_LL_5R_L\right) + s\left(-C_LR_5R_L + L_5R_5g_m - L_5\right)}{C_3C_5C_LL_3L_5R_5R_Ls^5 + R_5 + s^4\left(C_3C_5L_3L_5R_5 + C_3C_LL_3L_5R_5 + C_3C_LL_3L_5R_L\right) + s^3\left(C_3C_LL_3R_5R_L + C_3L_3L_5R_5 + C_5C_LL_5R_5R_L\right) + s^2\left(C_3L_3R_5 + C_3L_5R_5 + C_LL_5R_5 + C_LL_5R_5
10.397 INVALID-ORDER-397 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + \frac{1}{C_L s}\right)
     H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_5s^6 - R_5 + s^5\left(C_3C_LL_3L_5L_LR_5g_m - C_3C_LL_3L_5L_L\right) + s^4\left(-C_3C_5L_3L_5R_5 - C_3C_LL_3L_LR_5 - C_5C_LL_5L_LR_5\right) + s^3\left(C_3L_3L_5R_5g_m - C_3L_3L_5 + C_LL_5L_LR_5g_m - C_LL_5L_L\right) + s^2\left(-C_3L_3R_5 - C_5L_5R_5 - C_LL_LR_5\right) + s\left(L_5R_5g_m - L_5\right)}{C_3C_5C_LL_3L_5L_LR_5s^6 + C_3C_LL_3L_5L_5s^5 + L_5s + R_5 + s^4\left(C_3C_5L_3L_5R_5 + C_3C_LL_3L_LR_5 + C_3C_LL_5L_LR_5\right) + s^3\left(C_3L_3L_5R_5 + C_5L_5L_L\right) + s^2\left(C_3L_3R_5 - C_5L_5R_5 - C_LL_LR_5\right) + s^2\left(C_3L_3R_5 - C_5L_5R_5 - C_LL_LR_5\right) + s^2\left(C_3L_3L_5L_LR_5s^6 - C_5L_5L_LR_5\right) + s^2\left(C_3L_3L_5L_LR_5s^6 - C_5L_5R_5 - C_5L_5R_5 - C_5L_5R_5\right) + s^2\left(C_3L_3L_5L_Rs^6 - C_5L_5L_LR_5\right) + s^2\left(C_3
10.398 INVALID-ORDER-398 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                                                                                                                                                                                                            H(s) = \frac{-C_3C_5L_3L_5L_LR_5s^4 - L_LR_5 + s^3\left(C_3L_3L_5L_LR_5g_m - C_3L_3L_5L_L\right) + s^2\left(-C_3L_3L_LR_5 - C_5L_5L_LR_5\right) + s\left(L_5L_LR_5g_m - L_5L_L\right)}{C_3L_3L_5L_Ls^3 + L_5L_Ls + L_5R_5 + L_LR_5 + s^4\left(C_3C_5L_3L_5L_LR_5 + C_3C_LL_3L_5L_LR_5\right) + s^2\left(C_3L_3L_5L_LR_5 + C_3L_3L_LR_5 + C_3L_5L_LR_5 + C_5L_5L_LR_5\right)}
10.399 INVALID-ORDER-399 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + R_L + \frac{1}{C_L s}\right)
H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_5s^6 - R_5 + s^5\left(-C_3C_5C_LL_3L_5R_5R_L + C_3C_LL_3L_5L_LR_5g_m - C_3C_LL_3L_5R_5R_L + C_3C_LL_3L_5R_5R_L + C_3C_LL_3L_5R_5R_L + C_3C_LL_3L_5R_5R_L + C_3C_LL_3L_5R_5 + C_3C_LL_3
10.400 INVALID-ORDER-400 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
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 $H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_5R_Ls^6 - R_5R_L + s^5\left(-C_3C_5L_3L_5L_LR_5 + C_3C_LL_3L_5L_LR_5R_Lg_m - C_3C_LL_3L_5L_LR_5R_L - C_3C_LL_3L_5L_LR_5g_m - C_3L_3L_5L_LR_5g_m - C_3$

 $H(s) = \frac{-C_3C_5L_3L_5L_LR_5R_Ls^4 - L_LR_5R_L + s^3\left(C_3L_3L_5L_LR_5R_Lg_m - C_3L_3L_5L_LR_5\right) + s^2\left(-C_3L_3L_LR_5R_L - C_5L_5L_LR_5R_L\right) + s\left(L_5L_LR_5R_Lg_m - L_5L_LR_L\right)}{L_5R_5R_L + L_LR_5R_L + s^4\left(C_3C_5L_3L_5L_LR_5R_L + C_3C_LL_3L_5L_LR_5\right) + s^3\left(C_3L_3L_5L_LR_5 + C_3L_3L_5L_LR_5\right) + s^2\left(C_3L_3L_5R_5R_L + C_3L_5L_LR_5R_L + C_5L_5L_LR_5R_L + C_5L_5L_LR_5R_L\right) + s\left(L_5L_LR_5R_L + C_5L_LR_5R_L\right) + s\left(L_5L_LR_5R_L + C_5L_LR_5R_L\right) + s\left(L_5L_LR_5R_L + C_5L_LR_5R_L\right) + s\left(L_5L_LR_5R_L + C_5L_LR_5R_L\right) + s\left(L_5L_LR_5R_$

10.401 INVALID-ORDER-401 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

10.405 INVALID-ORDER-405 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{C_3L_3L_5R_Lg_ms^3 + L_5R_Lg_ms + R_5R_Lg_m - R_L + s^4\left(C_3C_5L_3L_5R_5R_Lg_m - C_3C_5L_3L_5R_L\right) + s^2\left(C_3L_3R_5R_Lg_m - C_3L_3R_L + C_5L_5R_5R_Lg_m - C_5L_5R_L\right)}{C_3C_5C_LL_3L_5R_5R_Ls^5 + R_5 + R_L + s^4\left(C_3C_5L_3L_5R_L + C_3C_LL_3L_5R_L\right) + s^3\left(C_3C_5L_3R_5R_L + C_3L_3R_5R_L + C_3L_3R_5 + C_5L_5R_5R_L + C_5L_5R_5 + C_5L_5R_5 + C_5L_5R_L\right) + s^2\left(C_3L_3R_5R_L + C_5L_5R_5R_L + C_5L_5R_5 + C_5L_5R_L + C_5L_5R_L + C_5L_5R_L\right) + s^2\left(C_3L_3R_5R_L + C_5L_5R_5R_L + C_5L_5R_5 + C_5L_5R_L + C_5L_5R_L\right) + s^2\left(C_3L_3R_5R_L + C_5L_5R_5R_L + C_5L_5R_5 + C_5L_5R_L + C_5L_5R_L\right) + s^2\left(C_3L_3R_5R_L + C_5L_5R_5R_L + C_5L_5R_L + C_5L_5R_L\right) + s^2\left(C_3L_3R_5R_L + C_5L_5R_5R_L + C_5L_5R_L\right) + s^2\left(C_3L_3R_5R_L + C_5L_5R_L + C_5L_5R_L\right) + s^2\left(C_3L_3R_5R_L + C_5L_5R_L\right) + s^2\left(C_3L_3R_5R_L\right) + s^2\left(C_3L_3R_5R_L\right)$$

10.406 INVALID-ORDER-406 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_5 g_m + s^5 \left(C_3 C_5 C_L L_3 L_5 R_5 R_L g_m - C_3 C_5 C_L L_3 L_5 R_L\right) + s^4 \left(C_3 C_5 L_3 L_5 R_5 g_m - C_3 C_5 L_3 L_5 R_5 g_m - C_3 C_5 L_4 L_5 R_L g_m\right) + s^3 \left(C_3 C_L L_3 R_5 R_L g_m - C_3 C_L L_3 R_L + C_3 L_4 L_5 R_L g_m - C_5 C_L L_5 R_L\right) + s^2 \left(C_3 L_3 R_5 g_m - C_3 L_3 + C_5 L_5 R_5 g_m - C_5 L_5 R_L + C_5 L_5 R_L g_m\right) + s^3 \left(C_3 C_5 L_4 L_5 R_5 R_L + C_3 C_4 L_5 R_L + C_5 C_4 L_5 R_L\right) + s^2 \left(C_3 L_4 R_5 R_L + C_5 C_4 L_5 R_L\right) + s^2 \left(C_3 L_4 R_5 R_L + C_5 C_4 L_5 R_L\right) + s^2 \left(C_3 C_4 R_5 R_L\right) +$$

10.407 INVALID-ORDER-407 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + \frac{1}{C_L s}\right)$

10.408 INVALID-ORDER-408 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{C_3L_3L_5L_Lg_ms^4 + L_5L_Lg_ms^2 + s^5\left(C_3C_5L_3L_5L_LR_5g_m - C_3C_5L_3L_5L_L\right) + s^3\left(C_3L_3L_LR_5g_m - C_5L_5L_L\right) + s\left(L_LR_5g_m - C_5L_5L_L\right) + s\left(L_LR_5g_m - L_L\right)}{C_3C_5C_LL_3L_5L_LR_5s^6 + R_5 + s^5\left(C_3C_5L_3L_5L_L\right) + s^4\left(C_3C_5L_3L_5R_5 + C_3C_5L_3L_LR_5 + C_5C_LL_5L_R\right) + s^3\left(C_3L_3L_LR_5g_m - C_5L_5L_L\right) + s^2\left(C_3L_3R_5 + C_3L_LR_5 + C_5L_5R_5 + C_5L_LR_5\right) + s^3\left(C_3L_3L_5L_L + C_5L_5L_L + C_5L_5L_L + C_5L_5L_L\right) + s^2\left(C_3L_3R_5 + C_5L_5R_5 + C_5L_5R_5 + C_5L_5R_5\right) + s^2\left(C_3L_3L_5L_L + C_5L_5L_L + C_5L_5L_L\right) + s^2\left(C_3L_3L_5L_L + C_5L_5L_L\right) + s^2\left(C_3L_3L_5L_L\right) + s^2\left(C_3L_3L_5L$$

10.409 INVALID-ORDER-409 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_5 g_m + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 g_m - C_3 C_5 C_L L_3 L_5 L_L\right) + s^5 \left(C_3 C_5 C_L L_3 L_5 R_L g_m - C_3 C_5 C_L L_3 L_5 R_L g_m - C_3 C_5 L_L L_3 L_5 R_L g_m + C_3 C_L L_3 L_5 R_L g_m + C_3 C_L L_3 L_L R_5 g_m - C_3 C_L L_3 L_L$$

10.410 INVALID-ORDER-410 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{C_3L_3L_5L_LR_Lg_ms^4 + L_5L_LR_Lg_ms^2 + s^5\left(C_3C_5L_3L_5L_LR_5R_Lg_m - C_3C_5L_3L_5L_LR_L\right) + s^3\left(C_3L_3L_LR_5R_Lg_m - C_3L_3L_LR_L + C_5L_5L_LR_5R_Lg_m - C_5L_5L$$

10.411 INVALID-ORDER-411 $Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 L_L L_3 L_L R_5 R_L g_m - C_3 C_5 L_4 L_5 L_L R_5 g_m - C_3 C_5 L_4 L_5 L_L R_5 g_m - C_3 C_5 L_3 L_5 L_L R_5 g_m - C_3 C_5 L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L R_5 R_L g_m - C_3 C_5 L_5 L_5 R_5 R_L g_m - C_5 C_5 L_5 L_5 R_L g_m - C_5 C_5 L_5 L_5 R_5$$

```
10.412 INVALID-ORDER-412 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_3C_LL_3L_5L_LR_2g_ms^5 + L_5R_Lg_m - R_L + s^6\left(C_3C_5C_LL_3L_5L_LR_5R_Lg_m - C_3C_5L_LL_3L_5L_LR_L\right) + s^4\left(C_3C_5L_3L_5R_Lg_m - C_3C_5L_3L_5R_L + C_3C_LL_3L_LR_5R_Lg_m - C_3C_5L_3L_5R_L + C_3C_LL_3L_LR_5R_Lg_m - C_3C_5L_3L_5R_L + C_3C_LL_3L_LR_5 + C
10.413 INVALID-ORDER-413 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, R_L\right)
                                                                                                                                                                                                                H(s) = \frac{-C_3C_5L_3R_5R_Ls^3 - C_5R_5R_Ls + R_5R_Lg_m - R_L + s^4\left(C_3C_5L_3L_5R_5R_Lg_m - C_3C_5L_3L_5R_L\right) + s^2\left(C_3L_3R_5R_Lg_m - C_3L_3R_L + C_5L_5R_5R_Lg_m - C_5L_5R_L\right)}{R_5 + R_L + s^4\left(C_3C_5L_3L_5R_5 + C_3C_5L_3L_5R_L\right) + s^3\left(C_3C_5L_3R_5R_L + C_3C_5L_5R_5R_L\right) + s^2\left(C_3L_3R_5 + C_3L_3R_5 + C_5L_5R_5 + C_5L_5R_L\right) + s\left(C_3R_5R_L + C_5R_5R_L\right)}
10.414 INVALID-ORDER-414 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                             H(s) = \frac{-C_3C_5L_3R_5s^3 - C_5R_5s + R_5g_m + s^4\left(C_3C_5L_3L_5R_5g_m - C_3C_5L_3L_5\right) + s^2\left(C_3L_3R_5g_m - C_3L_3 + C_5L_5R_5g_m - C_5L_5\right) - 1}{C_3C_5C_LL_3L_5R_5s^5 + C_3C_5L_3L_5s^4 + s^3\left(C_3C_5L_3R_5 + C_3C_5L_5R_5 + C_3C_LL_3R_5 + C_5C_LL_5R_5\right) + s^2\left(C_3L_3 + C_5L_5R_5\right) + s\left(C_3R_5 + C_5R_5 + C_LR_5\right) + 1}
10.415 INVALID-ORDER-415 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)
                                                  H(s) = \frac{-C_3C_5L_3R_5R_Ls^3 - C_5R_5R_Ls + R_5R_Lg_m - R_L + s^4\left(C_3C_5L_3L_5R_5R_Lg_m - C_3C_5L_3L_5R_L\right) + s^2\left(C_3L_3R_5R_Lg_m - C_3L_3R_L + C_5L_5R_5R_Lg_m - C_5L_5R_L\right)}{C_3C_5C_LL_3L_5R_5R_Ls^5 + R_5 + R_L + s^4\left(C_3C_5L_3L_5R_5\right) + s^3\left(C_3C_5L_3R_5R_L + C_3C_5L_5R_5R_L + C_3C_LL_3R_5R_L + C_5C_LL_5R_5R_L\right) + s^2\left(C_3L_3R_5 + C_3L_3R_5 + C_5L_5R_5 + C_5L_5R_5\right) + s^2\left(C_3L_3R_5 + C_3L_3R_5 + C_5L_5R_5 + C_5L_5R_5\right) + s^2\left(C_3L_3R_5 + C_3L_3R_5 + C_5L_5R_5\right) + s^2\left(C_3L_3R_5 + C_3L_3R_5 + C_5L_5R_5\right) + s^2\left(C_3L_3R_5 + C_5L_5R_5\right) + s^2\left(C_3L
10.416 INVALID-ORDER-416 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)
H(s) = \frac{R_5 g_m + s^5 \left(C_3 C_5 C_L L_3 L_5 R_5 R_L g_m - C_3 C_5 C_L L_3 L_5 R_L\right) + s^4 \left(-C_3 C_5 C_L L_3 R_5 R_L + C_3 C_5 L_3 L_5 R_5 g_m - C_3 C_5 L_3 R_5 + C_3 C_L L_3 R_5 R_L g_m - C_3 C_L L_3 R_L + C_5 C_L L_5 R_5 R_L g_m - C_5 C_L L_5 R_L\right) + s^2 \left(C_3 L_3 R_5 g_m - C_3 L_3 R_5 R_L + C_5 C_L L_5 R_5 R_L + C_5 L_5 R_5 g_m - C_3 L_5 R_5 R_L + C_5 L_5 R_5 R_L + C_5 C_L L_5 R_5 R_L + 
10.417 INVALID-ORDER-417 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, L_L s + \frac{1}{C_L s}\right)
H(s) = \frac{-C_3C_5C_LL_3L_LR_5s^5 - C_5R_5s + R_5g_m + s^6\left(C_3C_5C_LL_3L_5L_LR_5g_m - C_3C_5L_LL_3L_5L_L\right) + s^4\left(C_3C_5L_3L_5R_5g_m - C_3C_5L_3L_5R_5g_m - C_3C_LL_3L_LR_5g_m - C_3C_LL_3L_LR_5g_m - C_3C_LL_5L_L\right) + s^3\left(C_3C_5L_3L_5C_LL_5L_L\right) + s^3\left(C_3C_5L_3L_5C_LL_5C_L\right) + s^3\left(C_3C_5L_3L_5C_LL_5C_L\right) + s^3\left(C_3C_5L_3L_5C_LC_5C_LL_5C_L\right) + s^3\left(C_3C_5L_3L_5C_LC_5C_LL_5C_L\right) + s^3\left(C_3C_5L_3L_5C_LC_5C_LL_5C_L\right) + s^3\left(C_3C_5C_LL_5C_LC_5C_LC_5C_LC_5C_LC_5C_L\right) + s^3\left(C_3C_5C_LL_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5C_LC_5
10.418 INVALID-ORDER-418 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                                                       H(s) = \frac{-C_3C_5L_3L_LR_5s^4 - C_5L_LR_5s^2 + s^5\left(C_3C_5L_3L_5L_LR_5g_m - C_3C_5L_3L_L\right) + s^3\left(C_3L_3L_LR_5g_m - C_3L_3L_L + C_5L_5L_LR_5g_m - C_5L_5L_L\right) + s\left(L_LR_5g_m - L_L\right)}{C_3C_5C_LL_3L_5L_LR_5s^6 + C_3C_5L_3L_5L_Ls^5 + L_Ls + R_5 + s^4\left(C_3C_5L_3L_5R_5 + C_3C_5L_3L_LR_5 + C_3C_5L_3L_LR_5 + C_5C_LL_5L_LR_5\right) + s^3\left(C_3L_3L_LR_5g_m - C_5L_5L_L\right) + s^2\left(C_3L_3R_5 + C_5L_5R_5 + C_5L_5R_5 + C_5L_LR_5\right)}
10.419 INVALID-ORDER-419 Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)
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 $H(s) = \frac{R_5 g_m + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 g_m - C_3 C_5 C_L L_3 L_5 L_L R_5 g_m - C_3 C_5 C_L L_3 L_5 R_5 R_L g_m - C_3 C_5 C_L L_3 L_5 R_5 R_L g_m - C_3 C_5 C_L L_3 L_4 R_5) + s^4 \left(-C_3 C_5 C_L L_3 R_5 R_L + C_3 C_5 L_4 R_5 R_5 R_m - C_3 C_5 L_4 R_5 R_m - C_5 L_5 L_4 R_5$

10.421 INVALID-ORDER-421
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 C_L L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 L_L L_3 L_L R_5 R_L + C_3 C_5 L_3 L_5 L_L R_5 g_m - C_3 C_5 L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 L_3 L_L R_5 R_L g_m - C_3 C_5 L_L R_5 R_L g_m - C_3 C_5$$

10.422 INVALID-ORDER-422
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_LR_5R_Ls^5 - C_5R_5R_Ls + R_5R_Lg_m - R_L + s^6\left(C_3C_5C_LL_3L_5L_LR_5R_Lg_m - C_3C_5L_LL_3L_LR_5 + R_Lg_m - R_Lg_m -$$

10.423 INVALID-ORDER-423
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_3 s^2 + 1}, \infty, R_5, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{s^2 \left(C_L L_3 R_5 R_L g_m - C_L L_3 R_L \right) + s \left(L_3 R_5 g_m - L_3 \right)}{C_3 C_L L_3 R_5 R_L s^3 + R_5 + s^2 \left(C_3 L_3 R_5 + C_L L_3 R_5 + C_L L_3 R_L \right) + s \left(C_L R_5 R_L + L_3 \right)}$$

10.424 INVALID-ORDER-424
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{s^3 \left(C_L L_3 L_L R_5 g_m - C_L L_3 L_L \right) + s \left(L_3 R_5 g_m - L_3 \right)}{C_3 C_L L_3 L_L R_5 s^4 + C_L L_3 L_L s^3 + L_3 s + R_5 + s^2 \left(C_3 L_3 R_5 + C_L L_3 R_5 + C_L L_1 R_5 \right)}$$

10.425 INVALID-ORDER-425
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{s^3 \left(C_L L_3 L_L R_5 g_m - C_L L_3 L_L \right) + s^2 \left(C_L L_3 R_5 R_L g_m - C_L L_3 R_L \right) + s \left(L_3 R_5 g_m - L_3 \right)}{C_3 C_L L_3 L_L R_5 s^4 + R_5 + s^3 \left(C_3 C_L L_3 R_5 R_L + C_L L_3 L_L \right) + s^2 \left(C_3 L_3 R_5 + C_L L_3 R_5 + C_L L_3 R_L + C_L L_2 R_5 \right) + s \left(C_L R_5 R_L + L_3 \right)}$$

10.426 INVALID-ORDER-426
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, R_5, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{s^3 \left(C_L L_3 L_L R_5 R_L g_m - C_L L_3 L_L R_L \right) + s^2 \left(L_3 L_L R_5 g_m - L_3 L_L \right) + s \left(L_3 R_5 R_L g_m - L_3 R_L \right)}{C_3 C_L L_3 L_L R_5 R_L s^4 + R_5 R_L + s^3 \left(C_3 L_3 L_L R_5 + C_L L_3 L_L R_L \right) + s^2 \left(C_3 L_3 L_L R_L \right) + s^2 \left(C_3 L_3 R_5 R_L + C_L L_L R_5 R_L + L_3 L_L \right) + s \left(L_3 R_5 R_L + L_3 R_L \right) + s \left(L_3 R$$

10.427 INVALID-ORDER-427
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, R_5, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$$

$$H(s) = \frac{s^3 \left(C_L L_3 L_L R_5 R_L g_m - C_L L_3 L_L R_L \right) + s \left(L_3 R_5 R_L g_m - L_3 R_L \right)}{C_3 C_L L_3 L_L R_5 R_L s^4 + R_5 R_L + s^3 \left(C_L L_3 L_L R_5 + C_L L_3 L_L R_L \right) + s^2 \left(C_3 L_3 R_5 R_L + C_L L_3 R_5 R_L + C_L L_4 R_5 R_L \right) + s \left(L_3 R_5 + L_3 R_L \right)}$$

10.428 INVALID-ORDER-428
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{1}{C_5s}, \frac{1}{C_{Ls}}\right)$$

$$H(s) = \frac{-C_5 L_3 s^2 + L_3 g_m s}{s^2 (C_3 L_3 + C_5 L_3 + C_L L_3) + 1}$$

10.429 INVALID-ORDER-429
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{1}{C_5s}, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{-C_5C_LL_3R_Ls^3 + L_3g_ms + s^2\left(-C_5L_3 + C_LL_3R_Lg_m\right)}{C_LR_Ls + s^3\left(C_3C_LL_3R_L + C_5C_LL_3R_L\right) + s^2\left(C_3L_3 + C_5L_3 + C_LL_3\right) + 1}$$

10.430 INVALID-ORDER-430
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{1}{C_5s}, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{-C_5C_LL_3L_Ls^4 - C_5L_3s^2 + C_LL_3L_Lg_ms^3 + L_3g_ms}{s^4\left(C_3C_LL_3L_L + C_5C_LL_3L_L\right) + s^2\left(C_3L_3 + C_5L_3 + C_LL_3 + C_LL_1\right) + 1}$$

10.431 INVALID-ORDER-431
$$Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{1}{C_5s}, \ \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{-C_5 L_3 L_L s^2 + L_3 L_L g_m s}{L_3 + L_L + s^2 \left(C_3 L_3 L_L + C_5 L_3 L_L + C_L L_3 L_L \right)}$$

10.432 INVALID-ORDER-432
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{-C_5C_LL_3L_Ls^4 + L_3g_ms + s^3\left(-C_5C_LL_3R_L + C_LL_3L_Lg_m\right) + s^2\left(-C_5L_3 + C_LL_3R_Lg_m\right)}{C_LR_Ls + s^4\left(C_3C_LL_3L_L + C_5C_LL_3L_L\right) + s^3\left(C_3C_LL_3R_L + C_5C_LL_3R_L\right) + s^2\left(C_3L_3 + C_5L_3 + C_LL_3 + C_LL_1\right) + 1}$$

10.433 INVALID-ORDER-433
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{1}{C_5s}, \frac{L_{Ls}}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{-C_5C_LL_3L_LR_Ls^4 + L_3R_Lg_ms + s^3\left(-C_5L_3L_L + C_LL_3L_LR_Lg_m\right) + s^2\left(-C_5L_3R_L + L_3L_Lg_m\right)}{R_L + s^4\left(C_3C_LL_3L_LR_L + C_5C_LL_3L_LR_L\right) + s^3\left(C_3L_3L_L + C_5L_3L_L + C_LL_3L_L\right) + s^2\left(C_3L_3R_L + C_5L_3R_L + C_LL_RL\right) + s\left(L_3 + L_L\right)}$$

10.434 INVALID-ORDER-434
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{1}{C_5s}, \frac{R_L(C_LL_s^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$$

$$H(s) = \frac{-C_5C_LL_3L_LR_Ls^4 - C_5L_3R_Ls^2 + C_LL_3L_LR_Lg_ms^3 + L_3R_Lg_ms}{C_LL_3L_Ls^3 + L_3s + R_L + s^4\left(C_3C_LL_3L_LR_L + C_5C_LL_3L_LR_L\right) + s^2\left(C_3L_3R_L + C_5L_3R_L + C_LL_3R_L + C_LL_LR_L\right)}$$

10.435 INVALID-ORDER-435
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{R_5}{C_5R_5s+1}, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{-C_5C_LL_3R_5R_Ls^3 + s^2\left(-C_5L_3R_5 + C_LL_3R_5R_Lg_m - C_LL_3R_L\right) + s\left(L_3R_5g_m - L_3\right)}{R_5 + s^3\left(C_3C_LL_3R_5R_L + C_5C_LL_3R_5R_L\right) + s^2\left(C_3L_3R_5 + C_LL_3R_5 + C_LL_3R_5 + C_LL_3R_5\right) + s\left(C_LR_5R_L + L_3\right)}$$

10.436 INVALID-ORDER-436
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{R_5}{C_5R_5s+1}, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{-C_5C_LL_3L_LR_5s^4 - C_5L_3R_5s^2 + s^3\left(C_LL_3L_LR_5g_m - C_LL_3L_L\right) + s\left(L_3R_5g_m - L_3\right)}{C_LL_3L_Ls^3 + L_3s + R_5 + s^4\left(C_3C_LL_3L_LR_5 + C_5C_LL_3L_LR_5\right) + s^2\left(C_3L_3R_5 + C_5L_3R_5 + C_LL_3R_5 + C_LL_2R_5\right)}$$

10.437 INVALID-ORDER-437
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_5C_LL_3L_LR_5s^4 + s^3\left(-C_5C_LL_3R_5R_L + C_LL_3L_LR_5g_m - C_LL_3L_L\right) + s^2\left(-C_5L_3R_5 + C_LL_3R_5R_Lg_m - C_LL_3R_L\right) + s\left(L_3R_5g_m - L_3\right)}{R_5 + s^4\left(C_3C_LL_3L_LR_5 + C_5C_LL_3L_LR_5\right) + s^3\left(C_3C_LL_3R_5R_L + C_5C_LL_3R_5R_L + C_LL_3R_L\right) + s^2\left(C_3L_3R_5 + C_5L_3R_5 + C_5L_3R_5 + C_LL_3R_L + C_LL_3R_L\right) + s\left(C_4R_5R_L + L_3\right)}$$

10.438 INVALID-ORDER-438
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{R_5}{C_5R_5s+1}, \frac{L_{Ls}}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{-C_5C_LL_3L_LR_5R_Ls^4 + s^3\left(-C_5L_3L_LR_5 + C_LL_3L_LR_5R_Lg_m - C_LL_3L_LR_L\right) + s^2\left(-C_5L_3R_5R_L + L_3L_LR_5g_m - L_3L_L\right) + s\left(L_3R_5R_Lg_m - L_3R_L\right)}{R_5R_L + s^4\left(C_3C_LL_3L_LR_5R_L + C_5C_LL_3L_LR_5R_L\right) + s^3\left(C_3L_3L_LR_5 + C_5L_3L_LR_5 + C_LL_3L_LR_5 + C_LL_3L_LR_L\right) + s^2\left(C_3L_3R_5R_L + C_5L_3R_5R_L + C_5L_3$$

$$\begin{aligned} \textbf{10.439} \quad \textbf{INVALID-ORDER-439} \ \ Z(s) &= \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{R_L\left(C_LL_Ls^2+1\right)}{C_LL_Ls^2+C_LR_Ls+1} \right) \\ & H(s) &= \frac{-C_5C_LL_3L_LR_5R_Ls^4 - C_5L_3R_5R_Ls^2 + s^3\left(C_LL_3L_LR_5R_Lg_m - C_LL_3L_LR_L\right) + s\left(L_3R_5R_Lg_m - L_3R_L\right)}{R_5R_L + s^4\left(C_3C_LL_3L_LR_5R_L + C_5C_LL_3L_LR_5R_L\right) + s^3\left(C_LL_3L_LR_5 + C_LL_3L_LR_L\right) + s^2\left(C_3L_3R_5R_L + C_5L_3R_5R_L + C_LL_3R_5R_L\right) + s\left(L_3R_5R_L + C_LL_3R_5R_L\right) + s\left(L_3R_5R_L\right) +$$

10.440 INVALID-ORDER-440
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, R_5 + \frac{1}{C_5s}, R_L\right)$$

$$H(s) = \frac{L_3 R_L g_m s + s^2 \left(C_5 L_3 R_5 R_L g_m - C_5 L_3 R_L \right)}{C_3 C_5 L_3 R_5 R_L s^3 + R_L + s^2 \left(C_3 L_3 R_L + C_5 L_3 R_5 + C_5 L_3 R_L \right) + s \left(C_5 R_5 R_L + L_3 \right)}$$

10.441 INVALID-ORDER-441
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_3 s^2 + 1}, \infty, R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_3 g_m s + s^2 \left(C_5 L_3 R_5 g_m - C_5 L_3 \right)}{C_5 R_5 s + s^3 \left(C_3 C_5 L_3 R_5 + C_5 C_L L_3 R_5 \right) + s^2 \left(C_3 L_3 + C_5 L_3 + C_L L_3 \right) + 1}$$

10.442 INVALID-ORDER-442
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_3 R_L g_m s + s^2 \left(C_5 L_3 R_5 R_L g_m - C_5 L_3 R_L \right)}{R_L + s^3 \left(C_3 C_5 L_3 R_5 R_L + C_5 C_L L_3 R_5 R_L \right) + s^2 \left(C_3 L_3 R_L + C_5 L_3 R_5 + C_5 L_3 R_L + C_L L_3 R_L \right) + s \left(C_5 R_5 R_L + L_3 \right)}$$

10.443 INVALID-ORDER-443
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, R_5 + \frac{1}{C_5s}, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_3 g_m s + s^3 \left(C_5 C_L L_3 R_5 R_L g_m - C_5 C_L L_3 R_L\right) + s^2 \left(C_5 L_3 R_5 g_m - C_5 L_3 + C_L L_3 R_L g_m\right)}{C_3 C_5 C_L L_3 R_5 R_L s^4 + s^3 \left(C_3 C_5 L_3 R_5 + C_3 C_L L_3 R_L + C_5 C_L L_3 R_5 + C_5 C_L L_3 R_L\right) + s^2 \left(C_3 L_3 + C_5 C_L R_5 R_L + C_5 L_3 + C_L L_3\right) + s \left(C_5 R_5 + C_L R_L\right) + 1}$$

10.444 INVALID-ORDER-444
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, R_5 + \frac{1}{C_5s}, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_L L_3 L_L g_m s^3 + L_3 g_m s + s^4 \left(C_5 C_L L_3 L_L R_5 g_m - C_5 C_L L_3 L_L\right) + s^2 \left(C_5 L_3 R_5 g_m - C_5 L_3\right)}{C_3 C_5 C_L L_3 L_L R_5 s^5 + C_5 R_5 s + s^4 \left(C_3 C_L L_3 L_L + C_5 C_L L_3 L_L\right) + s^3 \left(C_3 C_5 L_3 R_5 + C_5 C_L L_3 R_5 + C_5 C_L L_3 R_5\right) + s^2 \left(C_3 L_3 + C_5 L_3 + C_L L_3 + C_L L_1\right) + 1}$$

10.445 INVALID-ORDER-445
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_3 L_L g_m s + s^2 \left(C_5 L_3 L_L R_5 g_m - C_5 L_3 L_L\right)}{L_3 + L_L + s^3 \left(C_3 C_5 L_3 L_L R_5 + C_5 C_L L_3 L_L R_5\right) + s^2 \left(C_3 L_3 L_L + C_5 L_3 L_L + C_L L_3 L_L\right) + s \left(C_5 L_3 R_5 + C_5 L_L R_5\right)}$$

10.446 INVALID-ORDER-446
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, R_5 + \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_3 g_m s + s^4 \left(C_5 C_L L_3 L_L R_5 g_m - C_5 C_L L_3 L_L\right) + s^3 \left(C_5 C_L L_3 R_5 R_L g_m - C_5 C_L L_3 R_L + C_L L_3 L_L g_m\right) + s^2 \left(C_5 L_3 R_5 g_m - C_5 L_3 + C_L L_3 R_L g_m\right)}{C_3 C_5 C_L L_3 L_L R_5 s^5 + s^4 \left(C_3 C_5 C_L L_3 R_5 R_L + C_3 C_L L_3 L_L\right) + s^3 \left(C_3 C_5 L_3 R_5 + C_3 C_L L_3 R_L + C_5 C_L L_3 R_$$

10.447 INVALID-ORDER-447
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{L_3L_LR_Lg_ms + s^2\left(C_5L_3L_LR_5R_Lg_m - C_5L_3L_LR_L\right)}{L_3R_L + L_LR_L + s^3\left(C_3C_5L_3L_LR_5R_L + C_5C_LL_3L_LR_5R_L\right) + s^2\left(C_3L_3L_LR_5 + C_5L_3L_LR_5 + C_5L_3L_LR_5 + C_5L_3L_LR_L\right) + s\left(C_5L_3R_5R_L + C_5L_LR_5R_L + L_3L_L\right)}$$

10.448 INVALID-ORDER-448
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, R_5 + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{L_3 R_L g_m s + s^4 \left(C_5 C_L L_3 L_L R_5 R_L g_m - C_5 C_L L_3 L_L R_5 g_m - C_5 L_3 L_L + C_L L_3 L_L R_5 g_m - C_5 L_3 L_L + C_L L_3 L_L R_5 g_m - C_5 L_3 R_L + L_3 L_L g_m\right)}{C_3 C_5 C_L L_3 L_L R_5 F_L + s^4 \left(C_3 C_5 L_3 L_L R_5 + C_5 C_L L_3 L_L R_5 R_L + C_5 C_L L_3 L_L R_5 R_L + C_5 L_3 L_L + C_5 L_3 L_L + C_5 L_3 L_L R_5 R_L + C_5 L_3 R_L + C_5 L_3 R_L + C_5 L_3 R_L + C_5 L_3 R_L + C_5 L_4 R_5 R_L + C_5 L_5 R_L$$

10.449 INVALID-ORDER-449
$$Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ R_5 + \frac{1}{C_5s}, \ \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1} \right)$$

$$H(s) = \frac{C_LL_3L_LR_2g_ms^3 + L_3R_Lg_ms + s^4\left(C_5C_LL_3L_LR_5R_Lg_m - C_5C_LL_3L_LR_5\right) + s^2\left(C_5L_3R_5R_Lg_m - C_5L_3R_L\right)}{C_3C_5C_LL_3L_LR_5R_Ls^5 + R_L + s^4\left(C_3C_LL_3L_LR_5 + C_5C_LL_3L_LR_5 + C_5C_LL_3L_RR_5 + C_5C_LL_3R_5R_L + C_5C_LL$$

10.451 INVALID-ORDER-451
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, L_5s + \frac{1}{C_5s}, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_5 L_3 L_5 g_m s^3 - C_5 L_3 s^2 + L_3 g_m s}{s^4 \left(C_3 C_5 L_3 L_5 + C_5 C_L L_3 L_5 \right) + s^2 \left(C_3 L_3 + C_5 L_3 + C_5 L_5 + C_L L_3 \right) + 1}$$

 $H(s) = \frac{C_5 L_3 L_5 R_L g_m s^3 - C_5 L_3 R_L s^2 + L_3 R_L g_m s}{C_3 C_5 L_3 L_5 R_L s^4 + C_5 L_3 L_5 s^3 + L_3 s + R_L + s^2 (C_3 L_3 R_L + C_5 L_3 R_L + C_5 L_5 R_L)}$

10.452 INVALID-ORDER-452
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, L_5s + \frac{1}{C_5s}, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{C_5 L_3 L_5 R_L g_m s^3 - C_5 L_3 R_L s^2 + L_3 R_L g_m s}{C_5 L_3 L_5 s^3 + L_3 s + R_L + s^4 \left(C_3 C_5 L_3 L_5 R_L + C_5 C_L L_3 L_5 R_L \right) + s^2 \left(C_3 L_3 R_L + C_5 L_3 R_L + C_5 L_5 R_L + C_L L_3 R_L \right)}$$

10.453 INVALID-ORDER-453
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, L_5 s + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_3L_5R_Lg_ms^4 + L_3g_ms + s^3\left(-C_5C_LL_3R_L + C_5L_3L_5g_m\right) + s^2\left(-C_5L_3 + C_LL_3R_Lg_m\right)}{C_3C_5C_LL_3L_5R_Ls^5 + C_LR_Ls + s^4\left(C_3C_5L_3L_5 + C_5C_LL_3L_5\right) + s^3\left(C_3C_LL_3R_L + C_5C_LL_3R_L + C_5C_LL_5R_L\right) + s^2\left(C_3L_3 + C_5L_3 + C_5L_3 + C_5L_5 + C_LL_3\right) + 1}$$

10.454 INVALID-ORDER-454
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, L_5s + \frac{1}{C_5s}, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_5C_LL_3L_5L_Lg_ms^5 - C_5C_LL_3L_Ls^4 - C_5L_3s^2 + L_3g_ms + s^3\left(C_5L_3L_5g_m + C_LL_3L_Lg_m\right)}{C_3C_5C_LL_3L_5L_Ls^6 + s^4\left(C_3C_5L_3L_5 + C_3C_LL_3L_L + C_5C_LL_3L_5 + C_5C_LL_3L_L + C_5C_LL_5L_L\right) + s^2\left(C_3L_3 + C_5L_3 + C_5L_3 + C_5L_5 + C_LL_3 + C_LL_L\right) + 1}$$

10.455 INVALID-ORDER-455
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_5L_3L_5L_Lg_ms^3 - C_5L_3L_Ls^2 + L_3L_Lg_ms}{L_3 + L_L + s^4\left(C_3C_5L_3L_5L_L + C_5C_LL_3L_5L_L\right) + s^2\left(C_3L_3L_L + C_5L_3L_5 + C_5L_3L_L + C_5L_5L_L + C_LL_3L_L\right)}$$

10.456 INVALID-ORDER-456
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, L_5s + \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_5C_LL_3L_5L_Lg_ms^5 + L_3g_ms + s^4\left(C_5C_LL_3L_5R_Lg_m - C_5C_LL_3L_L\right) + s^3\left(-C_5C_LL_3R_L + C_5L_3L_5g_m + C_LL_3L_Lg_m\right) + s^2\left(-C_5L_3 + C_LL_3R_Lg_m\right)}{C_3C_5C_LL_3L_5L_Ls^6 + C_3C_5C_LL_3L_5R_Ls^5 + C_LR_Ls + s^4\left(C_3C_5L_3L_5 + C_5C_LL_3L_5 + C_5C_LL_3L_1 + C_5C_LL_3L_1 + C_5C_LL_3R_L + C_5C_LL_3R_$$

10.457 INVALID-ORDER-457
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, L_5s + \frac{1}{C_5s}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$$

$$H(s) = \frac{C_5L_3L_5L_LR_Lg_ms^3 - C_5L_3L_LR_Ls^2 + L_3L_LR_Lg_ms}{C_5L_3L_5L_Ls^3 + L_3L_Ls + L_3R_L + L_LR_L + s^4\left(C_3C_5L_3L_5L_LR_L + C_5C_LL_3L_5L_LR_L\right) + s^2\left(C_3L_3L_LR_L + C_5L_3L_LR_L + C_5L_3L_LR_L + C_5L_3L_LR_L\right)}$$

10.458 INVALID-ORDER-458
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{C_5C_LL_3L_5L_LR_Lg_ms^5 + L_3R_Lg_ms + s^4\left(-C_5C_LL_3L_LR_L + C_5L_3L_5L_Lg_m\right) + s^3\left(C_5L_3L_5R_Lg_m - C_5L_3L_L + C_LL_3L_LR_Lg_m\right) + s^2\left(-C_5L_3R_L + L_3L_Lg_m\right)}{C_3C_5C_LL_3L_5L_LR_Ls^6 + R_L + s^5\left(C_3C_5L_3L_5L_L\right) + s^4\left(C_3C_5L_3L_5R_L + C_5C_LL_3L_LR_L + C_5C_LL_3L_LR_L\right) + s^3\left(C_3L_3L_L + C_5L_3L_L + C_5L_3L_L + C_5L_3L_L\right) + s^2\left(C_3L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L\right) + s^2\left(C_3L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L\right) + s^2\left(C_3L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L\right) + s^2\left(C_3L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L\right) + s^2\left(C_3L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L\right) + s^2\left(C_3L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L\right) + s^2\left(C_3L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L\right) + s^2\left(C_3L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_3R_L\right) + s^2\left(C_3L_3R_L + C_5L_3R_L\right) + s^2\left(C_3R_3R_L + C_5L_3R_L\right) + s^2\left(C_3R_3R_L + C_5R_3R_L\right) + s^2\left(C_3R_3R_L\right) + s^2\left$$

10.460 INVALID-ORDER-460 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_{3s}^2+1}, \infty, \frac{L_{5s}}{C_5L_5s^2+1}, \frac{1}{C_{Ls}}\right)$

$$H(s) = \frac{-C_5 L_3 L_5 s^2 + L_3 L_5 g_m s - L_3}{L_3 + L_5 + s^2 \left(C_3 L_3 L_5 + C_5 L_3 L_5 + C_L L_3 L_5\right)}$$

10.461 INVALID-ORDER-461 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, R_L + \frac{1}{C_Ls}\right)$

$$H(s) = \frac{-C_5C_LL_3L_5R_Ls^3 - L_3 + s^2\left(-C_5L_3L_5 + C_LL_3L_5R_Lg_m\right) + s\left(-C_LL_3R_L + L_3L_5g_m\right)}{L_3 + L_5 + s^3\left(C_3C_LL_3L_5R_L + C_5C_LL_3L_5R_L\right) + s^2\left(C_3L_3L_5 + C_5L_3L_5 + C_LL_3L_5\right) + s\left(C_LL_3R_L + C_LL_5R_L\right)}$$

10.462 INVALID-ORDER-462 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{L_{5s}}{C_5L_5s^2+1}, L_Ls + \frac{1}{C_{Ls}}\right)$

$$H(s) = \frac{-C_5C_LL_3L_5L_Ls^4 + C_LL_3L_5L_Lg_ms^3 + L_3L_5g_ms - L_3 + s^2\left(-C_5L_3L_5 - C_LL_3L_L\right)}{L_3 + L_5 + s^4\left(C_3C_LL_3L_5L_L + C_5C_LL_3L_5L_L\right) + s^2\left(C_3L_3L_5 + C_5L_3L_5 + C_LL_3L_5 + C_LL_3L_L\right)}$$

10.463 INVALID-ORDER-463 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_{3s}^2+1}, \infty, \frac{L_{5s}}{C_5L_{5s}^2+1}, \frac{L_{Ls}}{C_LL_Ls^2+1}\right)$

$$H(s) = \frac{-C_5 L_3 L_5 L_L s^2 + L_3 L_5 L_L g_m s - L_3 L_L}{L_3 L_5 + L_3 L_L + L_5 L_L + s^2 \left(C_3 L_3 L_5 L_L + C_5 L_3 L_5 L_L + C_L L_3 L_5 L_L \right)}$$

10.464 INVALID-ORDER-464 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, L_Ls + R_L + \frac{1}{C_Ls}\right)$

$$H(s) = \frac{-C_5C_LL_3L_5L_Ls^4 - L_3 + s^3\left(-C_5C_LL_3L_5R_L + C_LL_3L_5L_Lg_m\right) + s^2\left(-C_5L_3L_5 + C_LL_3L_5R_Lg_m - C_LL_3L_L\right) + s\left(-C_LL_3R_L + L_3L_5g_m\right)}{L_3 + L_5 + s^4\left(C_3C_LL_3L_5L_L + C_5C_LL_3L_5L_L\right) + s^3\left(C_3C_LL_3L_5R_L + C_5C_LL_3L_5R_L\right) + s^2\left(C_3L_3L_5 + C_5L_3L_5 + C_5L_3L_5 + C_LL_3L_5 + C_LL_3L_1 + C_LL_5R_L\right)}$$

10.465 INVALID-ORDER-465 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{L_{5s}}{C_5L_5s^2+1}, \frac{L_{Ls}}{C_LL_Ls^2+1} + R_L\right)$

$$H(s) = \frac{-C_5C_LL_3L_5L_LR_Ls^4 - L_3R_L + s^3\left(-C_5L_3L_5L_L + C_LL_3L_5L_LR_Lg_m\right) + s^2\left(-C_5L_3L_5R_L - C_LL_3L_LR_L + L_3L_5L_Lg_m\right) + s\left(L_3L_5R_Lg_m - L_3L_L\right)}{L_3R_L + L_5R_L + s^4\left(C_3C_LL_3L_5L_LR_L + C_5C_LL_3L_5L_LR_L\right) + s^3\left(C_3L_3L_5L_L + C_LL_3L_5L_L\right) + s^2\left(C_3L_3L_5R_L + C_5L_3L_5R_L + C_LL_3L_5R_L\right) + s^2\left(C_3L_3L_5R_L + C_5L_3L_5R_L + C_5L_3L_5R_L\right) + s^2\left(C_3L_3L_5R_L + C_5L_3L_5R_L + C_5L_3L_5R_L\right) + s^2\left(C_3L_3L_5R_L + C_5L_3L_5R_L\right) + s^2\left(C_3L_3L_5R_L\right) + s^2\left(C_3L_3L_5$$

10.466 INVALID-ORDER-466 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{R_L\left(C_LL_Ls^2+1\right)}{C_LL_Ls^2+C_LR_Ls+1}\right)$

$$H(s) = \frac{-C_5C_LL_3L_5L_LR_Ls^4 + C_LL_3L_5L_LR_Lg_ms^3 + L_3L_5R_Lg_ms - L_3R_L + s^2\left(-C_5L_3L_5R_L - C_LL_3L_LR_L\right)}{C_LL_3L_5L_Ls^3 + L_3L_5s + L_3R_L + L_5R_L + s^4\left(C_3C_LL_3L_5L_LR_L + C_5C_LL_3L_5L_LR_L\right) + s^2\left(C_3L_3L_5R_L + C_5L_3L_5R_L + C_LL_3L_5R_L + C_LL_3L_5R_L + C_LL_3L_5R_L\right)}$$

10.467 INVALID-ORDER-467 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, R_L\right)$

$$H(s) = \frac{C_5L_3L_5R_Lg_ms^3 + L_3R_Lg_ms + s^2\left(C_5L_3R_5R_Lg_m - C_5L_3R_L\right)}{C_3C_5L_3L_5R_Ls^4 + R_L + s^3\left(C_3C_5L_3R_5R_L + C_5L_3L_5\right) + s^2\left(C_3L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_5R_L\right) + s\left(C_5R_5R_L + L_3\right)}$$

10.468 INVALID-ORDER-468
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_5L_3L_5g_ms^3 + L_3g_ms + s^2\left(C_5L_3R_5g_m - C_5L_3\right)}{C_5R_5s + s^4\left(C_3C_5L_3L_5 + C_5C_LL_3L_5\right) + s^3\left(C_3C_5L_3R_5 + C_5C_LL_3R_5\right) + s^2\left(C_3L_3 + C_5L_3 + C_5L_5 + C_LL_3\right) + 1}$$

10.469 INVALID-ORDER-469
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{C_5L_3L_5R_Lg_ms^3 + L_3R_Lg_ms + s^2\left(C_5L_3R_5R_Lg_m - C_5L_3R_L\right)}{R_L + s^4\left(C_3C_5L_3L_5R_L + C_5C_LL_3L_5R_L\right) + s^3\left(C_3C_5L_3R_5R_L + C_5C_LL_3R_5R_L + C_5L_3R_5\right) + s^2\left(C_3L_3R_5 + C_5L_3R_5 + C_5L_3R_5 + C_5L_3R_5 + C_5L_3R_5\right) + s^2\left(C_5L_3R_5R_L + C_5L_3R_5 + C_5L_3R_5 + C_5L_3R_5 + C_5L_3R_5\right) + s^2\left(C_5L_3R_5R_L + C_5L_3R_5 + C_5L_3R_5 + C_5L_3R_5 + C_5L_3R_5 + C_5L_3R_5\right) + s^2\left(C_5L_3R_5R_L + C_5L_3R_5 + C_5L_3R_5 + C_5L_3R_5 + C_5L_3R_5\right) + s^2\left(C_5L_3R_5R_L + C_5L_3R_5 + C_5L_3R_5 + C_5L_3R_5\right) + s^2\left(C_5L_3R_5R_L + C_5L_3R_5 + C_5L_3R_5 + C_5L_3R_5\right) + s^2\left(C_5L_3R_5R_L + C_5L_3R_5\right) + s^$$

10.470 INVALID-ORDER-470
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_3L_5R_Lg_ms^4 + L_3g_ms + s^3\left(C_5C_LL_3R_5R_Lg_m - C_5C_LL_3R_L + C_5L_3L_5g_m\right) + s^2\left(C_5L_3R_5g_m - C_5L_3 + C_LL_3R_Lg_m\right)}{C_3C_5C_LL_3L_5R_Ls^5 + s^4\left(C_3C_5C_LL_3R_5R_L + C_5C_LL_3L_5\right) + s^3\left(C_3C_5L_3R_5 + C_3C_LL_3R_L + C_5C_LL_3R_L + C_5C_LL_3R_$$

10.471 INVALID-ORDER-471
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_5C_LL_3L_5L_Lg_ms^5 + L_3g_ms + s^4\left(C_5C_LL_3L_LR_5g_m - C_5C_LL_3L_L\right) + s^3\left(C_5L_3L_5g_m + C_LL_3L_Lg_m\right) + s^2\left(C_5L_3R_5g_m - C_5L_3\right)}{C_3C_5C_LL_3L_LR_5s^6 + C_3C_5C_LL_3L_LR_5s^5 + C_5R_5s + s^4\left(C_3C_5L_3L_5 + C_5C_LL_3L_5 + C_5C_LL_3L_5 + C_5C_LL_3L_5 + C_5C_LL_3L_5 + C_5C_LL_3R_5 + C_5C_LL_3R_5$$

10.472 INVALID-ORDER-472
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{C_5L_3L_5L_Lg_ms^3 + L_3L_Lg_ms + s^2\left(C_5L_3L_LR_5g_m - C_5L_3L_L\right)}{L_3 + L_L + s^4\left(C_3C_5L_3L_L + C_5C_LL_3L_5\right) + s^3\left(C_3C_5L_3L_LR_5 + C_5C_LL_3L_LR_5\right) + s^2\left(C_3L_3L_L + C_5L_3L_5 + C_5L_3L_L + C_5L_3L_L + C_5L_3L_L\right) + s\left(C_5L_3R_5 + C_5L_LR_5\right)}$$

10.473 INVALID-ORDER-473
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_5C_LL_3L_5L_Lg_ms^5 + L_3g_ms + s^4\left(C_5C_LL_3L_5R_Lg_m + C_5C_LL_3L_LR_5g_m - C_5C_LL_3L_L\right) + s^3\left(C_5C_LL_3R_5R_Lg_m - C_5C_LL_3R_L + C_5L_3L_5g_m + C_LL_3L_Lg_m\right) + s^2\left(C_5L_3R_5g_m - C_5L_3 + C_LL_3R_Lg_m\right) + s^2\left(C_5L_3R_5g_m - C_5L_4R_Lg_m\right) + s^2\left($$

10.474 INVALID-ORDER-474
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$$

$$H(s) = \frac{C_5L_3L_5L_LR_Lg_ms^3 + L_3L_LR_Lg_ms + s^2\left(C_5L_3L_LR_5R_Lg_m - C_5L_3L_LR_L\right)}{L_3R_L + L_LR_L + s^4\left(C_3C_5L_3L_5L_LR_L + C_5C_LL_3L_5L_LR_L\right) + s^3\left(C_3C_5L_3L_LR_5R_L + C_5L_3L_LR_5R_L + C_5L_3L_LR_5 + C_5L_3L_LR_5$$

10.475 INVALID-ORDER-475
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{C_5C_LL_3L_5L_LR_Lg_ms^5 + L_3R_Lg_ms + s^4\left(C_5C_LL_3L_LR_5R_Lg_m - C_5C_LL_3L_LR_L + C_5L_3L_5L_Lg_m\right) + s^3\left(C_5L_3L_5R_Lg_m + C_5L_3L_LR_5g_m - C_5L_3L_LR_5g_m - C_5L_3L_LR_5g_m - C_5L_3L_LR_5g_m\right) + s^2\left(C_5C_LL_3L_LR_5R_L + c_5C_LL_3L_LR_5R_L + c_5C_LL_3L_LR_5R_L + c_5C_LL_3L_LR_5R_L + c_5C_LL_3L_LR_5R_L + c_5C_LL_3L_LR_5R_L + c_5C_LL_3L_LR_5R_L + c_5C_LL_3L_LR_5 + c_5C_$$

10.476 INVALID-ORDER-476
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$$

$$H(s) = \frac{C_5C_LL_3L_5L_LR_Lg_ms^5 + L_3R_Lg_ms + s^4\left(C_5C_LL_3L_LR_Lg_m - C_5C_LL_3L_LR_L\right) + s^3\left(C_5L_3L_5R_Lg_m + C_LL_3L_LR_Lg_m\right) + s^2\left(C_5L_3R_5R_Lg_m - C_5L_3R_L\right)}{C_3C_5C_LL_3L_5L_LR_Ls^6 + R_L + s^5\left(C_3C_5C_LL_3L_LR_L\right) + s^4\left(C_3C_5L_3L_5R_L + C_5C_LL_3L_LR_L\right) + s^4\left(C_3C_5L_3L_5R_L + C_5C_LL_3L_LR_L\right) + s^3\left(C_5L_3L_5R_Lg_m + C_LL_3L_LR_Lg_m\right) + s^2\left(C_5L_3R_5R_Lg_m - C_5L_3R_L\right) + s^2\left(C_5L_3R_5R_L + C_5C_LL_3L_5R_L\right) + s^2\left(C_5L_3R_5R_L + C_5C_LL_3R_5R_L\right) + s^2\left(C_5L_3R_5R_L\right) + s^2\left($$

10.477 INVALID-ORDER-477 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, R_L + \frac{1}{C_Ls}\right)$ $H(s) = \frac{-C_5C_LL_3L_5R_5R_Ls^3 - L_3R_5 + s^2\left(-C_5L_3L_5R_5 + C_LL_3L_5R_5R_Lg_m - C_LL_3L_5R_L\right) + s\left(-C_LL_3R_5R_L + L_3L_5R_5g_m - L_3L_5\right)}{L_3R_5 + L_5R_5 + s^3\left(C_3C_LL_3L_5R_5R_L + C_5C_LL_3L_5R_5R_L\right) + s^2\left(C_3L_3L_5R_5 + C_5L_3L_5R_5 + C_LL_3L_5R_5 + C_LL_3L_5R_5\right) + s\left(C_LL_3R_5R_L + C_LL_5R_5R_L + L_3L_5\right)}$ 10.478 INVALID-ORDER-478 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, L_Ls + \frac{1}{C_Ls}\right)$ $H(s) = \frac{-C_5C_LL_3L_5L_LR_5s^4 - L_3R_5 + s^3\left(C_LL_3L_5L_LR_5g_m - C_LL_3L_5L_L\right) + s^2\left(-C_5L_3L_5R_5 - C_LL_3L_LR_5\right) + s\left(L_3L_5R_5g_m - L_3L_5\right)}{C_LL_3L_5L_Ls^3 + L_3L_5s + L_3R_5 + L_5R_5 + s^4\left(C_3C_LL_3L_5L_R_5 + C_5C_LL_3L_5L_R_5\right) + s^2\left(C_3L_3L_5R_5 + C_5L_3L_5R_5 + C_LL_3L_5R_5 + C_LL_3L_5R_5\right)}$ 10.479 INVALID-ORDER-479 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, L_Ls + R_L + \frac{1}{C_Ls}\right)$ $H(s) = \frac{-C_5C_LL_3L_5L_LR_5s^4 - L_3R_5 + s^3\left(-C_5C_LL_3L_5R_5R_L + C_LL_3L_5L_LR_5g_m - C_LL_3L_5L_L\right) + s^2\left(-C_5L_3L_5R_5 + C_LL_3L_5R_5R_L - C_LL_3L_5R_5 + s\left(-C_LL_3R_5R_L + L_3L_5R_5g_m - L_3L_5\right)\right)}{L_3R_5 + L_5R_5 + s^4\left(C_3C_LL_3L_5L_LR_5 + C_5C_LL_3L_5R_5 + C_LL_3L_5R_5 + C_LL$ 10.480 INVALID-ORDER-480 $Z(s) = \left(\infty, \infty, \frac{L_{3}s}{C_{3}L_{3}s^{2}+1}, \infty, \frac{L_{5}R_{5}s}{C_{5}L_{5}R_{5}s^{2}+L_{5}s+R_{5}}, \frac{L_{L}s}{C_{L}L_{L}s^{2}+1} + R_{L}\right)$ $H(s) = \frac{-C_5C_LL_3L_5L_LR_5R_Ls^4 - L_3R_5R_L + s^3\left(-C_5L_3L_5L_LR_5 + C_LL_3L_5L_LR_5R_Lg_m - C_LL_3L_5L_LR_5\right) + s^2\left(-C_5L_3L_5R_5R_L - C_LL_3L_LR_5R_L + L_3L_5L_LR_5g_m - L_3L_5L_L\right) + s\left(L_3L_5R_5R_Lg_m - L_3L_5R_L\right) + s\left(L_3L_5R_5R_L - L_3L_5R_L - L_3L_5R_5R_L\right) + s\left(L_3L_5R_5R_L + C_5L_3L_5R_5R_L + C_5L_3L$ 10.481 INVALID-ORDER-481 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$ $H(s) = \frac{-C_5C_LL_3L_5L_LR_5R_Ls^4 - L_3R_5R_L + s^3\left(C_LL_3L_5L_LR_5R_Lg_m - C_LL_3L_5L_LR_L\right) + s^2\left(-C_5L_3L_5R_5R_L - C_LL_3L_LR_5R_L\right) + s\left(L_3L_5R_5R_Lg_m - L_3L_5R_L\right)}{L_3R_5R_L + L_5R_5R_L + s^4\left(C_3C_LL_3L_5L_LR_5R_L + C_5C_LL_3L_5L_LR_5R_L\right) + s^3\left(C_LL_3L_5L_LR_5 + C_LL_3L_5L_LR_1\right) + s^2\left(C_3L_3L_5R_5R_L + C_LL_3L_5R_5R_L + C_LL_3L_5R_5R_L + C_LL_3L_5R_5R_L\right) + s\left(L_3L_5R_5R_L + C_LL_3L_5R_5R_L + C_LL_3L_5R_5R_L + C_LL_3L_5R_5R_L\right) + s\left(L_3L_5R_5R_L + C_LL_3L_5R_L\right) + s\left(L_3L_5R_L + C_LL_3L_5R_L\right) + s\left(L_3L_5R_L\right) + s\left(L_3L_5R_L\right) + s\left(L_3L_5$ 10.482 INVALID-ORDER-482 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{L_{5s}}{C_5L_5s^2+1} + R_5, R_L\right)$ $H(s) = \frac{L_3L_5R_Lg_ms^2 + s^3\left(C_5L_3L_5R_5R_Lg_m - C_5L_3L_5R_L\right) + s\left(L_3R_5R_Lg_m - L_3R_L\right)}{C_3C_5L_3L_5R_5R_Ls^4 + R_5R_L + s^3\left(C_3L_3L_5R_L + C_5L_3L_5R_5 + C_5L_3L_5R_L\right) + s^2\left(C_3L_3R_5R_L + C_5L_5R_5R_L + L_3L_5\right) + s\left(L_3R_5 + L_3R_L + L_5R_L\right)}$ **10.483** INVALID-ORDER-483 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{1}{C_Ls}\right)$ $H(s) = \frac{L_3L_5g_ms^2 + s^3\left(C_5L_3L_5R_5g_m - C_5L_3L_5\right) + s\left(L_3R_5g_m - L_3\right)}{R_5 + s^4\left(C_3C_5L_3L_5R_5 + C_5C_LL_3L_5R_5\right) + s^3\left(C_3L_3L_5 + C_5L_3L_5 + C_LL_3L_5\right) + s^2\left(C_3L_3R_5 + C_5L_5R_5 + C_LL_3R_5\right) + s\left(L_3 + L_5\right)}$ **10.484** INVALID-ORDER-484 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{R_L}{C_LR_Ls+1}\right)$ $H(s) = \frac{L_3L_5R_Lg_ms^2 + s^3\left(C_5L_3L_5R_5R_Lg_m - C_5L_3L_5R_L\right) + s\left(L_3R_5R_Lg_m - L_3R_L\right)}{R_5R_L + s^4\left(C_3C_5L_3L_5R_5R_L + C_5C_LL_3L_5R_5R_L\right) + s^3\left(C_3L_3L_5R_5 + C_5L_3L_5R_L + C_LL_3L_5R_L\right) + s^2\left(C_3L_3R_5R_L + C_5L_3R_5R_L + C_LL_3R_5R_L + L_3L_5\right) + s\left(L_3R_5R_L + L_3L_5R_L\right)}$ 10.485 INVALID-ORDER-485 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, R_L + \frac{1}{C_Ls}\right)$ $H(s) = \frac{s^4 \left(C_5 C_L L_3 L_5 R_5 R_L g_m - C_5 C_L L_3 L_5 R_L \right) + s^3 \left(C_5 L_3 L_5 R_5 g_m - C_5 L_3 L_5 R_L g_m \right) + s^2 \left(C_L L_3 R_5 R_L g_m - C_L L_3 R_L + L_3 L_5 g_m \right) + s \left(L_3 R_5 g_m - L_3 \right)}{C_3 C_5 C_L L_3 L_5 R_5 R_L s^5 + R_5 + s^4 \left(C_3 C_5 L_3 L_5 R_5 + C_5 L_4 L_3 L_5 R_L \right) + s^3 \left(C_3 C_L L_3 R_5 R_L + C_3 L_4 L_5 R_L \right) + s^3 \left(C_3 C_L L_3 R_5 R_L + C_5 L_4 L_5 R_L \right) + s^3 \left(C_3 C_L L_3 R_5 R_L + C_5 L_4 L_5 R_L \right) + s^2 \left(C_4 L_3 R_5 R_L + C_5 L_4 R_5 R_L \right) + s^2 \left(C_4 L_3 R_5 R_L + C_5 L_4 R_5 R_L \right) + s^2 \left(C_4 L_3 R_5 R_L + C_5 L_4 R_5 R_L \right) + s^2 \left(C_4 L_3 R_5 R_L + C_5 L_4 R_5 R_L \right) + s^2 \left(C_4 L_3 R_5 R_L + C_5 L_4 R_5 R_L \right) + s^2 \left(C_4 L_3 R_5 R_L + C_5 L_4 R_5 R_L \right) + s^2 \left(C_4 L_3 R_5 R_L + C_5 L_4 R_5 R_L \right) + s^2 \left(C_4 L_3 R_5 R_L + C_5 L_4 R_5 R_L \right) + s^2 \left(C_4 L_3 R_5 R_L + C_5 L_4 R_5 R_L \right) + s^2 \left(C_4 L_3 R_5 R_L + C_5 L_4 R_5 R_L \right) + s^2 \left(C_4 L_3 R_5 R_L + C_5 L_4 R_5 R_L \right) + s^2 \left(C_4 L_3 R_5 R_L + C_5 L_4 R_5 R_L \right) + s^2 \left(C_4 L_5 R_5 R_L \right) + s^2 \left(C_4 L_5 R_5 R_L \right) + s^2 \left(C_4 L_5 R_5 R_L \right) + s^2 \left(C_5 L_5 R_5 R_L \right) +$

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10.486 INVALID-ORDER-486 Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{L_{5s}}{C_5L_5s^2+1} + R_5, L_Ls + \frac{1}{C_Ls}\right)
H(s) = \frac{C_L L_3 L_5 L_L g_m s^4 + L_3 L_5 g_m s^2 + s^5 \left(C_5 C_L L_3 L_5 L_L R_5 g_m - C_5 C_L L_3 L_5 L_L\right) + s^3 \left(C_5 L_3 L_5 R_5 g_m - C_5 L_3 L_5 + C_L L_3 L_L R_5 g_m - C_L L_3 L_L\right) + s \left(L_3 R_5 g_m - L_3\right)}{C_3 C_5 C_L L_3 L_5 L_L R_5 s^6 + R_5 + s^5 \left(C_3 C_L L_3 L_5 L_L\right) + s^4 \left(C_3 C_5 L_3 L_5 R_5 + C_5 C_L L_3 L_5 R_5 + C_5 C_L L_3 L_5 + C_5 L_4 L_5\right) + s^3 \left(C_3 L_3 L_5 + C_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_L + C_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_L + C_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_3 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_5 L_5 L_5 L_5\right) + s^2 \left(C_3 L_5 L_5 L_5 L_5\right) + s^2 \left(C_5 L_5 L_5 L_5\right) + s^
10.487 INVALID-ORDER-487 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{L_Ls}{C_LL_Ls^2+1}\right)
                                                                                                                                                      H(s) = \frac{L_3L_5L_Lg_ms^2 + s^3\left(C_5L_3L_5L_LR_5g_m - C_5L_3L_5L_L\right) + s\left(L_3L_LR_5g_m - L_3L_L\right)}{L_3R_5 + L_LR_5 + s^4\left(C_3C_5L_3L_5L_LR_5 + C_5C_LL_3L_5L_LR_5\right) + s^3\left(C_3L_3L_5L_L + C_5L_3L_5L_L\right) + s^2\left(C_3L_3L_LR_5 + C_5L_3L_5R_5 + C_5L_5L_LR_5 + C_5L_3L_5L_L\right) + s^2\left(C_3L_3L_5L_LR_5 + C_5L_3L_5R_5 + C_5L_3L_5R_5 + C_5L_3L_5R_5\right) + s\left(L_3L_LR_5 + L_4L_5L_L\right)}
10.488 INVALID-ORDER-488 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, L_Ls + R_L + \frac{1}{C_{Ls}}\right)
H(s) = \frac{s^5 \left( C_5 C_L L_3 L_5 L_L R_5 g_m - C_5 C_L L_3 L_5 L_L \right) + s^4 \left( C_5 C_L L_3 L_5 R_L g_m - C_5 C_L L_3 L_5 R_L g_m + C_L L_3 L_5 R_L g_m - C_5 L_4 L_5 L_L g_m \right) + s^3 \left( C_5 L_3 L_5 R_5 g_m - C_5 L_3 L_5 + C_L L_3 L_5 R_L g_m + C_L L_3 L_L R_5 g_m - C_L L_3 L_L \right) + s^2 \left( C_L L_3 L_5 L_L R_5 g_m - C_5 L_4 L_3 L_5 L_L R_5 g_m - C_5 L_4 L_3 L_5 R_5 R_L + C_5 L_4 L_3 L_5 R_5 R_L + C_5 C_L L_5 R_5 R_L + C_5 C_
10.489 INVALID-ORDER-489 Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_{3s}^2+1}, \infty, \frac{L_{5s}}{C_5L_5s^2+1} + R_5, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)
H(s) = \frac{L_3L_5L_LR_Lg_ms^2 + s^3\left(C_5L_3L_5L_LR_5R_Lg_m - C_5L_3L_5L_LR_L\right) + s\left(L_3L_LR_5R_Lg_m - L_3L_LR_L\right)}{L_3R_5R_L + L_LR_5R_L + s^4\left(C_3C_5L_3L_5L_LR_5R_L + C_5C_LL_3L_5L_LR_5 + C_5L_3L_5L_LR_5 + C_5L_3L_5L_LR_L\right) + s^2\left(C_3L_3L_LR_5R_L + C_5L_3L_5R_L + C_5L_5R_L + C_5L_
10.490 INVALID-ORDER-490 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_2L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{L_Ls}{C_7L_7s^2+1} + R_L\right)
H(s) = \frac{s^5 \left( C_5 C_L L_3 L_5 L_L R_5 g_m - C_5 L_4 L_5 L_L R_5 g_m - C_5 L_3 L_5 L_L R_5 g_m - C_5 L_3 L_5 L_L R_L g_m \right) + s^3 \left( C_5 L_3 L_5 R_L g_m - C_5 L_3 L_5 R_L + C_L L_3 L_5 R_L g_m - C_5 L_3 L_5 R_L + C_L L_3 L_4 R_5 R_L g_m - C_5 L_3 L_5 L_L R_5 R_L + C_5 L_4 L_5 L_4 R_5 R_L + C_5 L_5 L_4 R_5 R_L + C_5 L_5 L_4 R_5 R_L + C_5 L_5 L_5 L_5 R_5 R_L + C_5 L_5 L_5 L_5 R_5 R_L + C_5 L_5 L_5 L_5 R_5 R_L + C_5 L_5 L_5 
10.491 INVALID-ORDER-491 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)
H(s) = \frac{C_L L_3 L_5 L_L R_L g_m s^4 + L_3 L_5 R_L g_m s^2 + s^5 \left(C_5 C_L L_3 L_5 L_L R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_L\right) + s^3 \left(C_5 L_3 L_5 R_5 R_L g_m - C_5 L_3 L_5 R_L + C_L L_3 L_L R_5 R_L g_m - C_L L_3 L_L R_5 R_L + C_L L_3 L_L R_5 R_L + C_L L_3 L_L R_5 R_L + C_5 C_L L_3 L_5 R_L + C_5 C_L L_5 L_5 R_L + C_5 C_L L_5
10.492 INVALID-ORDER-492 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, R_L\right)
                                                                                                                                                                                                                                                                                                                            H(s) = \frac{-C_5L_3R_5R_Ls^2 + s^3\left(C_5L_3L_5R_5R_Lg_m - C_5L_3L_5R_L\right) + s\left(L_3R_5R_Lg_m - L_3R_L\right)}{C_3C_5L_3L_5R_5R_Ls^4 + R_5R_L + s^3\left(C_5L_3L_5R_5 + C_5L_3L_5R_L\right) + s^2\left(C_3L_3R_5R_L + C_5L_3R_5R_L + C_5L_5R_5R_L\right) + s\left(L_3R_5 + L_3R_L\right)}
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$$\begin{aligned} \textbf{10.493} \quad \textbf{INVALID-ORDER-493} \ \ Z(s) &= \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{1}{C_Ls} \right) \\ H(s) &= \frac{-C_5L_3R_5s^2+s^3\left(C_5L_3L_5R_5g_m-C_5L_3L_5\right)+s\left(L_3R_5g_m-L_3\right)}{C_5L_3L_5s^3+L_3s+R_5+s^4\left(C_3C_5L_3L_5R_5+C_5L_3L_5R_5\right)+s^2\left(C_3L_3R_5+C_5L_3R_5+C_5L_3R_5\right)} \end{aligned}$$

$$\begin{aligned} \textbf{10.494} \quad \textbf{INVALID-ORDER-494} \ \ Z(s) &= \left(\infty, \ \infty, \ \frac{L_{3s}}{C_3L_3s^2+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{R_L}{C_LR_Ls+1} \right) \\ & \qquad \qquad \\ H(s) &= \frac{-C_5L_3R_5R_Ls^2 + s^3\left(C_5L_3L_5R_5R_Lg_m - C_5L_3L_5R_L\right) + s\left(L_3R_5R_Lg_m - L_3R_L\right)}{R_5R_L + s^4\left(C_3C_5L_3L_5R_5R_L + C_5C_LL_3L_5R_5R_L\right) + s^3\left(C_5L_3L_5R_5 + C_5L_3L_5R_L\right) + s^2\left(C_3L_3R_5R_L + C_5L_3R_5R_L + C_5L_3R_5R_L\right) + s\left(L_3R_5R_L + C_5L_3R_5R_L + C_5L_3R_5R_L\right) + s\left(L_3R_5R_L + C_5L_3R_5R_L\right) + s\left(L_3R_5R_L + C_5L_3R_5R_L\right) + s\left(L_3R_5R_L\right) + s\left(L$$

10.497 INVALID-ORDER-497
$$Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{-C_5L_3L_LR_5s^2 + s^3\left(C_5L_3L_5L_LR_5g_m - C_5L_3L_5L_L\right) + s\left(L_3L_LR_5g_m - L_3L_L\right)}{C_5L_3L_5L_Ls^3 + L_3L_Ls + L_3R_5 + L_LR_5 + s^4\left(C_3C_5L_3L_5L_LR_5 + C_5C_LL_3L_5L_LR_5\right) + s^2\left(C_3L_3L_LR_5 + C_5L_3L_5R_5 + C_5L_3L_LR_5 + C_5L_3L_LR_5\right)}$$

10.498 INVALID-ORDER-498
$$Z(s) = \left(\infty, \ \infty, \ \frac{L_{3s}}{C_3L_3s^2+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{s^5 \left(C_5 C_L L_3 L_5 L_L R_5 g_m - C_5 C_L L_3 L_5 L_L \right) + s^4 \left(C_5 C_L L_3 L_5 R_5 R_L g_m - C_5 C_L L_3 L_5 R_L - C_5 C_L L_3 L_5 R_5 R_L + C_5 L_3 L_5 R_5 R_L + C_5 L_3 L_5 R_5 R_L + C_5 C_L L_3 L_5 R_5 R_L + C_5 C_L L_3 L_5 R_5 R_L + C_5 C_L L_3 L_5 R_5 R_L + C_5 C_L L_3 R_5 R_L + C_5 C_L L_3 R_5 R_L + C_5 C_L L_3 L_5 R_5 R_L + C_$$

$$H(s) = \frac{-C_5L_3L_LR_5R_Ls^2 + s^3\left(C_5L_3L_5L_LR_5R_Lg_m - C_5L_3L_5L_LR_5\right) + s\left(L_3L_LR_5R_Lg_m - L_3L_LR_L\right)}{L_3R_5R_L + L_LR_5R_L + s^4\left(C_3C_5L_3L_5L_LR_5R_L + C_5C_LL_3L_5L_LR_5R_L\right) + s^3\left(C_5L_3L_5L_LR_5 + C_5L_3L_5L_RR_5\right) + s^2\left(C_3L_3L_LR_5R_L + C_5L_3L_LR_5R_L + C_5L_3L_LR_5R_L + C_5L_3L_LR_5R_L\right) + s^2\left(C_3L_3L_LR_5R_L + C_5L_3L_LR_5R_L + C_5L_3L_LR_5R_L + C_5L_3L_LR_5R_L\right) + s^2\left(C_3L_3L_LR_5R_L + C_5L_3L_LR_5R_L + C_5L_3L_LR_5R_L + C_5L_3L_LR_5R_L\right) + s^2\left(C_3L_3L_LR_5R_L + C_5L_3L_LR_5R_L\right) + s^2\left(C_3L_3L_5L_LR_5R_L\right) + s^2\left(C_3L_3L_$$

10.500 INVALID-ORDER-500
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{s^5 \left(C_5 C_L L_3 L_5 L_L R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_5 R_L + C_5 L_3 L_5 L_L R_5 g_m - C_5 L_3 L_5 L_L R_5 R_L g_m - C_5 L_3 L_5 R_L - C_5 L_3 L_4 R_5 R_L - C_5 L_4 L_4 L_4 R_5 R_L - C_5 L_4 R_5 R_L - C_5 L_4 L_4 R_5 R_L - C$$

10.501 INVALID-ORDER-501
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \frac{R_L\left(C_LL_Ls^2+1\right)}{C_LL_Ls^2+C_LR_Ls+1}\right)$$

$$H(s) = \frac{-C_5C_LL_3L_LR_5R_Ls^4 - C_5L_3R_5R_Ls^2 + s^5\left(C_5C_LL_3L_5L_LR_5R_Lg_m - C_5C_LL_3L_5L_LR_5\right) + s^3\left(C_5L_3L_5R_Lg_m - C_5L_3L_5R_L + C_LL_3L_LR_5R_Lg_m - C_LL_3L_LR_5\right) + s\left(L_3R_5R_Lg_m - C_LL_3L_LR_5\right) + s\left(L_3R_5R_Lg_m - C_LL_3L_LR_5\right) + s\left(C_5C_LL_3L_5L_LR_5R_L + C_5C_LL_3L_5R_LR_5\right) + s^3\left(C_5L_3L_5R_5R_L + C_5C_LL_3L_5R_5R_L + C_5C_LL_3L_5R_L + C_5C_LL_3L_5R_5R_L +$$

10.502 INVALID-ORDER-502
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^2 (C_3 L_3 R_5 g_m - C_3 L_3) + s (C_3 R_3 R_5 g_m - C_3 R_3) - 1}{C_3 C_L L_3 R_5 s^3 + s^2 (C_3 C_L R_3 R_5 + C_3 L_3) + s (C_3 R_3 + C_3 R_5 + C_L R_5) + 1}$$

10.503 INVALID-ORDER-503
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^2 \left(C_3 L_3 R_5 R_L g_m - C_3 L_3 R_L \right) + s \left(C_3 R_3 R_5 R_L g_m - C_3 R_3 R_L \right)}{C_3 C_L L_3 R_5 R_L s^3 + R_5 + R_L + s^2 \left(C_3 C_L R_3 R_5 R_L + C_3 L_3 R_5 \right) + s \left(C_3 R_3 R_5 + C_3 R_3 R_L + C_3 R_5 R_L + C_L R_5 R_L \right)}$$

$$\textbf{10.504} \quad \textbf{INVALID-ORDER-504} \ \ Z(s) = \left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ R_5, \ R_L + \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{R_5g_m + s^3 \left(C_3C_LL_3R_5R_Lg_m - C_3C_LL_3R_L \right) + s^2 \left(C_3C_LR_3R_5R_Lg_m - C_3C_LR_3R_L + C_3L_3R_5g_m - C_3L_3 \right) + s \left(C_3R_3R_5g_m - C_3R_3 + C_LR_5R_Lg_m - C_LR_L \right) - 1}{s^3 \left(C_3C_LL_3R_5 + C_3C_LL_3R_L \right) + s^2 \left(C_3C_LR_3R_5 + C_3C_LR_3R_L + C_3C_LR_5R_L + C_3L_3 \right) + s \left(C_3R_3 + C_3R_5 + C_LR_5 + C_LR_L \right) + 1}$$

10.505 INVALID-ORDER-505
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5g_m + s^4\left(C_3C_LL_3L_LR_5g_m - C_3C_LL_3L_L\right) + s^3\left(C_3C_LL_LR_3R_5g_m - C_3C_LL_LR_3\right) + s^2\left(C_3L_3R_5g_m - C_3L_3 + C_LL_LR_5g_m - C_LL_L\right) + s\left(C_3R_3R_5g_m - C_3R_3\right) - 1}{C_3C_LL_3L_Ls^4 + s^3\left(C_3C_LL_3R_5 + C_3C_LL_LR_3 + C_3C_LL_LR_5\right) + s^2\left(C_3C_LR_3R_5 + C_3L_3 + C_LL_L\right) + s\left(C_3R_3 + C_3R_5 + C_LR_5\right) + 1}$$

10.506 INVALID-ORDER-506
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{s^3 \left(C_3 L_3 L_L R_5 g_m - C_3 L_3 L_L\right) + s^2 \left(C_3 L_L R_3 R_5 g_m - C_3 L_L R_3\right) + s \left(L_L R_5 g_m - L_L\right)}{C_3 C_L L_3 L_L R_5 s^4 + R_5 + s^3 \left(C_3 C_L L_L R_3 R_5 + C_3 L_A\right) + s^2 \left(C_3 L_3 R_5 + C_3 L_L R_3 + C_3 L_L R_5 + C_L L_L R_5\right) + s \left(C_3 R_3 R_5 + L_L\right)}$$

10.507 INVALID-ORDER-507
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^4 \left(C_3 C_L L_3 L_L R_5 g_m - C_3 C_L L_3 L_L\right) + s^3 \left(C_3 C_L L_3 R_5 R_L g_m - C_3 C_L L_3 R_L + C_3 C_L L_L R_3 R_5 g_m - C_3 C_L L_L R_3\right) + s^2 \left(C_3 C_L R_3 R_5 R_L g_m - C_3 L_A R_5 R_L g_m$$

10.508 INVALID-ORDER-508
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{s^3 \left(C_3 L_3 L_L R_5 R_L g_m - C_3 L_3 L_L R_1 \right) + s^2 \left(C_3 L_L R_3 R_5 R_L g_m - C_3 L_L R_3 R_L \right) + s \left(L_L R_5 R_L g_m - L_L R_L \right)}{C_3 C_L L_3 L_L R_5 R_L s^4 + R_5 R_L + s^3 \left(C_3 C_L L_L R_3 R_5 R_L + C_3 L_3 L_L R_1 \right) + s^2 \left(C_3 L_3 R_5 R_L + C_3 L_L R_3 R_5 + C_3 L_L R_3 R_1 + C_3 L_L R_5 R_L + C_L L_L R_5 R_L \right) + s \left(C_3 R_3 R_5 R_L + L_L R_5 + L_L R_1 \right)}$$

10.509 INVALID-ORDER-509
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^4 \left(C_3 C_L L_3 L_L R_5 R_L g_m - C_3 C_L L_2 L_L R_3 R_5 R_L g_m - C_3 L_L L_R R_3 R_L + C_3 L_2 R_3 R_L + C_3 L_2 R_3 R_2 R_L + C_3 L_2 R_3 R_L + C_3 L_2 R_3 R_2 R_L + C_3 L_2 R_3 R_L + C_$$

10.510 INVALID-ORDER-510
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^4 \left(C_3 C_L L_3 L_L R_5 R_L g_m - C_3 C_L L_3 L_L R_1 \right) + s^3 \left(C_3 C_L L_L R_3 R_5 R_L g_m - C_3 C_L L_L R_3 R_L \right) + s^2 \left(C_3 L_3 R_5 R_L g_m - C_3 L_3 R_L + C_L L_L R_5 R_L g_m - C_L L_L R_L \right) + s \left(C_3 R_3 R_5 R_L g_m - C_3 R_3 R_L \right)}{R_5 + R_L + s^4 \left(C_3 C_L L_3 L_L R_5 + C_3 C_L L_2 R_3 R_5 + C_3 C_L L_L R_3 R_L + C_3 C_L L_L R_3 R_L + C_3 C_L L_L R_5 R_L \right) + s^2 \left(C_3 C_L R_3 R_5 R_L + C_3 L_L R_5 + C_L L_L R_5 + C_L L_L R_L \right) + s \left(C_3 R_3 R_5 R_L + C_3 R_5 R_L \right)}$$

10.511 INVALID-ORDER-511 $Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ R_L\right)$

$$H(s) = \frac{-C_3C_5L_3R_Ls^3 + R_Lg_m + s^2\left(-C_3C_5R_3R_L + C_3L_3R_Lg_m\right) + s\left(C_3R_3R_Lg_m - C_5R_L\right)}{C_3C_5L_3R_Ls^3 + s^2\left(C_3C_5R_3R_L + C_3L_3\right) + s\left(C_3R_3 + C_3R_L + C_5R_L\right) + 1}$$

10.512 INVALID-ORDER-512
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{1}{C_5 s}\right)$$

$$H(s) = \frac{-C_3C_5L_3s^3 + g_m + s^2\left(-C_3C_5R_3 + C_3L_3g_m\right) + s\left(C_3R_3g_m - C_5\right)}{s^3\left(C_3C_5L_3 + C_3C_LL_3\right) + s^2\left(C_3C_5R_3 + C_3C_LR_3\right) + s\left(C_3 + C_5 + C_L\right)}$$

10.513 INVALID-ORDER-513
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_3C_5L_3R_Ls^3 + R_Lg_m + s^2\left(-C_3C_5R_3R_L + C_3L_3R_Lg_m\right) + s\left(C_3R_3R_Lg_m - C_5R_L\right)}{s^3\left(C_3C_5L_3R_L + C_3C_LL_3R_L\right) + s^2\left(C_3C_5R_3R_L + C_3C_LR_3R_L + C_3L_3\right) + s\left(C_3R_3 + C_3R_L + C_5R_L + C_LR_L\right) + 1}$$

10.514 INVALID-ORDER-514
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3R_Ls^4 + g_m + s^3\left(-C_3C_5C_LR_3R_L - C_3C_5L_3 + C_3C_LL_3R_Lg_m\right) + s^2\left(-C_3C_5R_3 + C_3C_LR_3R_Lg_m + C_3L_3g_m - C_5C_LR_L\right) + s\left(C_3R_3g_m - C_5 + C_LR_Lg_m\right)}{C_3C_5C_LL_3R_Ls^4 + s^3\left(C_3C_5C_LR_3R_L + C_3C_5L_3 + C_3C_LL_3\right) + s^2\left(C_3C_5R_3 + C_3C_LR_3 + C_3C_LR_3 + C_3C_LR_4\right) + s\left(C_3+C_5C_LR_4\right) + s\left(C_3+C$$

10.515 INVALID-ORDER-515
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_Ls^5 + g_m + s^4\left(-C_3C_5C_LL_LR_3 + C_3C_LL_3L_Lg_m\right) + s^3\left(-C_3C_5L_3 + C_3C_LL_LR_3g_m - C_5C_LL_L\right) + s^2\left(-C_3C_5R_3 + C_3L_3g_m + C_LL_Lg_m\right) + s\left(C_3R_3g_m - C_5C_LL_L\right) + s^2\left(-C_3C_5R_3 + C_3L_3g_m + C_LL_Lg_m\right) + s\left(C_3R_3g_m - C_5C_LL_L\right) + s^2\left(-C_3C_5R_3 + C_3L_3g_m + C_LL_Lg_m\right) + s\left(C_3R_3g_m - C_5C_LL_L\right) + s^2\left(-C_3C_5R_3 + C_3L_2g_m\right) + s\left(C_3R_3g_m - C_5C_LL_L\right) + s^2\left(-C_3C_5R_3 + C_3C_LL_L\right) + s^2\left(-C_3C_5R_3 + C$$

10.516 INVALID-ORDER-516
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_3C_5L_3L_Ls^4 + L_Lg_ms + s^3\left(-C_3C_5L_LR_3 + C_3L_3L_Lg_m\right) + s^2\left(C_3L_LR_3g_m - C_5L_L\right)}{C_3R_3s + s^4\left(C_3C_5L_3L_L + C_3C_LL_3L_L\right) + s^3\left(C_3C_5L_LR_3 + C_3C_LL_LR_3\right) + s^2\left(C_3L_3 + C_3L_L + C_5L_L + C_LL_L\right) + 1}$$

10.517 INVALID-ORDER-517
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

10.518 INVALID-ORDER-518
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{-C_3C_5L_3L_LR_Ls^4 + L_LR_Lg_ms + s^3\left(-C_3C_5L_LR_3R_L + C_3L_3L_LR_Lg_m\right) + s^2\left(C_3L_LR_3R_Lg_m - C_5L_LR_L\right)}{R_L + s^4\left(C_3C_5L_3L_LR_L + C_3C_LL_3L_LR_L\right) + s^3\left(C_3C_5L_LR_3R_L + C_3L_LR_3R_L + C_3L_LR_3 + C_3L_LR_3 + C_3L_LR_L + C_5L_LR_L\right) + s^2\left(C_3L_LR_3R_L + C_3L_LR_L + C_5L_LR_L\right) + s^2\left(C_3R_3R_L + C_3L_LR_L + C_5L_LR_L\right) + s^2\left(C_3R_3R_L + C_3L_LR_L + C_5L_LR_L\right) + s^2\left(C_3R_3R_L + C_3L_LR_L\right) + s^2\left(C_3R_3R_L + C_3R_3R_L\right) + s^2\left(C_3R_3R_L\right) + s^2\left(C_3R_3R$$

10.519 INVALID-ORDER-519
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_LR_Ls^5 + R_Lg_m + s^4\left(-C_3C_5C_LL_LR_3R_L - C_3C_5L_3L_L + C_3C_LL_3L_LR_Lg_m\right) + s^3\left(-C_3C_5L_3R_L - C_3C_5L_3R_L - C_3C_5L_LR_3 + C_3L_LL_Rg_m + C_3L_LR_3R_Lg_m + C_3L_LR_3R_Lg_m + C_3L_LR_3g_m + C_3L$$

10.520 INVALID-ORDER-520
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_LR_Ls^5 + R_Lg_m + s^4\left(-C_3C_5C_LL_LR_3R_L + C_3C_LL_3L_LR_Lg_m\right) + s^3\left(-C_3C_5L_3R_L + C_3C_LL_LR_3R_Lg_m - C_5C_LL_LR_L\right) + s^2\left(-C_3C_5R_3R_L + C_3L_3R_Lg_m + C_LL_LR_Lg_m\right) + s\left(C_3R_3R_Lg_m - C_5R_L\right)}{C_3C_5C_LL_3L_LR_Ls^5 + s^4\left(C_3C_5C_LL_LR_3R_L + C_3C_LL_3L_L\right) + s^3\left(C_3C_5L_3R_L + C_3C_LL_3R_L + C_3C_LL_RR_L\right) + s^2\left(C_3C_5R_3R_L + C_3L_3R_L + C_3L_LR_L\right) + s^2\left(C_3C_5R_3R_L + C_3L_3R_L + C_3L_LR_L\right) + s^2\left(C_3C_5R_3R_L + C_3L_LR_L\right) + s^2\left(C_3C_5R_3R_L\right) + s^2\left(C_3C_5R_3R_L\right$$

10.521 INVALID-ORDER-521
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L\right)$$

$$H(s) = \frac{-C_3C_5L_3R_5R_Ls^3 + R_5R_Lg_m - R_L + s^2\left(-C_3C_5R_3R_5R_L + C_3L_3R_5R_Lg_m - C_3L_3R_L\right) + s\left(C_3R_3R_5R_Lg_m - C_3R_3R_L - C_5R_5R_L\right)}{C_3C_5L_3R_5R_Ls^3 + R_5 + R_L + s^2\left(C_3C_5R_3R_5R_L + C_3L_3R_5 + C_3L_3R_L\right) + s\left(C_3R_3R_5 + C_3R_3R_L + C_3R_5R_L + C_5R_5R_L\right)}$$

10.522 INVALID-ORDER-522
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5L_3R_5s^3 + R_5g_m + s^2\left(-C_3C_5R_3R_5 + C_3L_3R_5g_m - C_3L_3\right) + s\left(C_3R_3R_5g_m - C_3R_3 - C_5R_5\right) - 1}{s^3\left(C_3C_5L_3R_5 + C_3C_LL_3R_5\right) + s^2\left(C_3C_5R_3R_5 + C_3C_LR_3R_5 + C_3L_3\right) + s\left(C_3R_3R_5g_m - C_3R_3 - C_5R_5\right) - 1}$$

10.523 INVALID-ORDER-523
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_3C_5L_3R_5R_Ls^3 + R_5R_Lg_m - R_L + s^2\left(-C_3C_5R_3R_5R_L + C_3L_3R_5R_Lg_m - C_3L_3R_L\right) + s\left(C_3R_3R_5R_Lg_m - C_3R_3R_L - C_5R_5R_L\right)}{R_5 + R_L + s^3\left(C_3C_5L_3R_5R_L + C_3C_LL_3R_5R_L\right) + s^2\left(C_3C_5R_3R_5R_L + C_3L_3R_5R_L + C_3L_3R_5\right) + s\left(C_3R_3R_5 + C_3R_3R_L + C_3R_5R_L + C_5R_5R_L\right)}$$

10.524 INVALID-ORDER-524
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3R_5R_Ls^4 + R_5g_m + s^3\left(-C_3C_5C_LR_3R_5R_L - C_3C_5L_3R_5 + C_3C_LL_3R_5R_Lg_m - C_3C_LL_3R_5\right) + s^2\left(-C_3C_5R_3R_5 + C_3C_LR_3R_5R_Lg_m - C_3C_LR_3R_5 + C_3C$$

10.525 INVALID-ORDER-525
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_LR_5s^5 + R_5g_m + s^4\left(-C_3C_5C_LL_LR_3R_5 + C_3C_LL_2R_1R_5g_m - C_3C_LL_2R_3 + C_3$$

10.526 INVALID-ORDER-526
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{-C_3C_5L_3L_LR_5s^4 + s^3\left(-C_3C_5L_LR_3R_5 + C_3L_3L_LR_5g_m - C_3L_3L_L\right) + s^2\left(C_3L_LR_3R_5g_m - C_3L_LR_3 - C_5L_LR_5\right) + s\left(L_LR_5g_m - L_L\right)}{R_5 + s^4\left(C_3C_5L_3L_LR_5 + C_3C_LL_3L_LR_5\right) + s^3\left(C_3C_5L_LR_3R_5 + C_3L_LL_RR_3R_5 + C_3L_LR_3 + C_3L_LR_3 + C_3L_LR_3 + C_3L_LR_5 + C_5L_LR_5\right) + s\left(C_3R_3R_5 + L_L\right)}$$

10.527 INVALID-ORDER-527
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_LR_5s^5 + R_5g_m + s^4\left(-C_3C_5C_LL_3R_5R_L - C_3C_5C_LL_3R_5R_L - C_3C_5C_LL_3R_5R_L - C_3C_5C_LL_3R_5R_L - C_3C_5C_LL_3R_5R_L - C_3C_5L_3R_5R_L -$$

10.528 INVALID-ORDER-528
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{-C_3C_5L_3L_LR_5R_Ls^4 + s^3\left(-C_3C_5L_LR_3R_5R_L + C_3L_3L_LR_5R_Lg_m - C_3L_3L_LR_5\right) + s^2\left(C_3L_LR_3R_5R_Lg_m - C_3L_LR_3R_L - C_5L_LR_5R_L\right) + s\left(L_LR_5R_Lg_m - L_LR_L\right)}{R_5R_L + s^4\left(C_3C_5L_3L_LR_5R_L + C_3C_LL_2R_3R_5R_L + C_3L_LR_3R_5R_L + C_3L_2R_3R_5R_L + C_3L_LR_3R_5 + C_3L_LR_3R_5$$

10.529 INVALID-ORDER-529
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_LR_5R_Ls^5 + R_5R_Lg_m - R_L + s^4\left(-C_3C_5C_LL_LR_3R_5R_L - C_3C_5L_3L_LR_5 + C_3C_LL_3L_LR_5 + C_3C_LL_3L_LR_5 + C_3C_LL_LR_3R_5 + C_3C_LL_LR_3R_5$$

10.530 INVALID-ORDER-530
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_LR_5R_Ls^5 + R_5R_Lg_m - R_L + s^4\left(-C_3C_5C_LL_LR_3R_5R_L + C_3C_LL_3L_LR_5R_Lg_m - C_3C_LL_LR_3R_5R_L + C_3C_LL_LR_3R_5R_L + C_3C_LL_LR_3R_5R_L + C_3C_LL_LR_3R_5R_L + C_3C_LL_LR_3R_L - C_5C_LL_LR_5R_L\right) + s^2\left(-C_3C_5R_3R_5R_L + C_3L_3R_5R_L + C_3C_LL_3R_5R_L + C_3C_LL_RR_3R_5R_L + C_3C_LL_RR_3R_L + C_3C_LL$$

10.531 INVALID-ORDER-531
$$Z(s) = \left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ R_5 + \frac{1}{C_5s}, \ R_L\right)$$

$$H(s) = \frac{R_L g_m + s^3 \left(C_3 C_5 L_3 R_5 R_L g_m - C_3 C_5 L_3 R_L\right) + s^2 \left(C_3 C_5 R_3 R_5 R_L g_m - C_3 C_5 R_3 R_L + C_3 L_3 R_L g_m\right) + s \left(C_3 R_3 R_L g_m + C_5 R_5 R_L g_m - C_5 R_L\right)}{s^3 \left(C_3 C_5 L_3 R_5 + C_3 C_5 L_3 R_L\right) + s^2 \left(C_3 C_5 R_3 R_5 + C_3 C_5 R_3 R_L + C_3 L_3\right) + s \left(C_3 R_3 + C_3 R_L + C_5 R_5 + C_5 R_L\right) + 1}$$

10.532 INVALID-ORDER-532
$$Z(s) = \left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ R_5 + \frac{1}{C_5s}, \ \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{g_m + s^3 \left(C_3C_5L_3R_5g_m - C_3C_5L_3\right) + s^2 \left(C_3C_5R_3R_5g_m - C_3C_5R_3 + C_3L_3g_m\right) + s \left(C_3R_3g_m + C_5R_5g_m - C_5\right)}{C_3C_5C_LL_3R_5s^4 + s^3 \left(C_3C_5C_LR_3R_5 + C_3C_5L_3\right) + s^2 \left(C_3C_5R_3 + C_3C_5R_3 + C_3C_5R_5 + C_3C_LR_3 + C_5C_LR_5\right) + s \left(C_3 + C_5 + C_L\right)}$$

10.533 INVALID-ORDER-533
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m + s^3 \left(C_3 C_5 L_3 R_5 R_L g_m - C_3 C_5 L_3 R_L \right) + s^2 \left(C_3 C_5 R_3 R_5 R_L g_m - C_3 C_5 R_3 R_L + C_3 L_3 R_L g_m \right) + s \left(C_3 R_3 R_L g_m + C_5 R_5 R_L g_m - C_5 R_L \right)}{C_3 C_5 C_L L_3 R_5 R_L s^4 + s^3 \left(C_3 C_5 L_3 R_5 R_L + C_3 C_5 L_3 R_L + C_3 C_L L_3 R_L \right) + s^2 \left(C_3 C_5 R_3 R_5 + C_3 C_5 R_3 R_L + C_5 C_L R_5 R_L \right) + s \left(C_3 R_3 R_L + C_5 R_5 R_L + C_5 R_5 R_L + C_5 R_5 R_L \right) + s \left(C_3 R_3 R_L + C_5 R_5 R_L + C_5 R_5 R_L + C_5 R_5 R_L \right) + s \left(C_3 R_3 R_L + C_5 R_5 R_L + C_5 R_5 R_L \right) + s \left(C_3 R_3 R_L + C_5 R_5 R_L + C_5 R_5 R_L \right) + s \left(C_3 R_3 R_L + C_5 R_L \right) + s \left(C_3 R_3 R_L + C_5 R_L \right) + s \left(C_3 R_3 R_L + C_5 R_L \right) + s \left(C_3 R_3 R_L + C_5 R_L \right) + s \left(C_3 R_3 R_L + C_5 R_L \right) + s \left(C_3 R_3 R_L + C_5 R_L \right) + s \left(C_3 R_3 R_L + C_5 R_L \right) + s \left(C_3$$

10.534 INVALID-ORDER-534
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m + s^4 \left(C_3 C_5 C_L L_3 R_5 R_L g_m - C_3 C_5 C_L L_3 R_L \right) + s^3 \left(C_3 C_5 C_L R_3 R_5 R_L g_m - C_3 C_5 L_L R_3 R_L + C_3 C_5 L_L R_3 R_L + C_3 C_5 L_L R_3 R_L g_m \right) + s^2 \left(C_3 C_5 R_3 R_5 g_m - C_3 C_5 R_3 + C_3 C_L R_3 R_L g_m + C_5 C_L R_5 R_L g_m - C_5 C_L R_L \right) + s \left(C_3 R_3 g_m + C_5 R_5 g_m - C_5 C_L R_3 R_L \right) + s^2 \left(C_3 C_5 R_3 R_5 g_m - C_5 C_L R_3 R_L g_m + C_5 C_L R_5 R_L g_m - C_5 C_L R_L \right) + s \left(C_3 R_3 g_m + C_5 R_5 g_m - C_5 C_L R_3 R_L \right) + s^2 \left(C_3 C_5 R_3 R_5 g_m - C_3 C_5 R_3 R_5 g_m - C_3 C_5 R_3 R_5 g_m - C_5 C_L R_3 R_L \right) + s \left(C_3 R_3 R_5 g_m - C_5 C_L R_3 R_L \right) + s \left(C_3 R_3 R_5 g_m - C_5 C_L R_3 R_L \right) + s \left(C_3 R_3 R_5 g_m - C_5 C_L R_3 R_L \right) + s \left(C_3 R_5 R_5 R_L g_m - C_5 C_L R_3 R_L \right) + s \left(C_3 R_5 R_5 R_L g_m - C_5 C_L R_3 R_L \right) + s \left(C_3 R_5 R_5 R_L g_m - C_5 C_L R_3 R_L \right) + s \left(C_3 R_5 R_5 R_L g_m - C_5 C_L R_3 R_L \right) + s \left(C_3 R_5 R_5 R_L g_m - C_5 C_L R_3 R_L \right) + s \left(C_3 R_5 R_5 R_L g_m - C_5 C_L R_3 R_L \right) + s \left(C_3 R_5 R_5 R_L g_m - C_5 C_L R_3 R_L \right) + s \left(C_3 R_5 R_L g_m - C_5 C_L R_3 R_L \right) + s \left(C_3 R_5 R_L g_m - C_5 R_5 R_L g_m - C_5 R_5 R_L \right) + s \left(C_3 R_5 R_L g_m - C_5 R_5 R_L g_m - C_5 R_5 R_L \right) + s \left(C_3 R_5 R_L g_m - C_5 R_L g_m - C_5 R_L g_m - C_5 R_L g_m - C_5 R_L g_m - C_5$$

10.535 INVALID-ORDER-535
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m + s^5 \left(C_3 C_5 C_L L_3 L_L R_5 g_m - C_3 C_5 C_L L_2 L_L R_3 g_m - C_3 C_5 C_L L_L R_3 R_5 g_m - C_3 C_5 L_L L_R R_3 g_m - C_3 C_5$$

10.536 INVALID-ORDER-536
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s + s^4 \left(C_3 C_5 L_3 L_L R_5 g_m - C_3 C_5 L_3 L_L\right) + s^3 \left(C_3 C_5 L_L R_3 R_5 g_m - C_3 C_5 L_L R_3 + C_3 L_3 L_L g_m\right) + s^2 \left(C_3 L_L R_3 g_m + C_5 L_L R_5 g_m - C_5 L_L\right)}{C_3 C_5 C_L L_3 L_L R_5 s^5 + s^4 \left(C_3 C_5 L_L L_R R_5 R_5 + C_3 C_5 L_L L_L\right) + s^3 \left(C_3 C_5 L_3 R_5 + C_3 C_5 L_L R_5 + C_3 C_5 L_L R_5 + C_5 C_L L_L R_5\right) + s^2 \left(C_3 C_5 R_3 R_5 + C_3 L_L + C_5 L_L + C_5 L_L\right) + s \left(C_3 R_3 + C_5 R_5\right) + 1}{C_3 C_5 C_L L_3 L_L R_5 s^5 + s^4 \left(C_3 C_5 L_L R_3 R_5 + C_3 C_5 L_L R_5 R_5 + C_3 C_5 L_L R_5\right) + s^2 \left(C_3 C_5 R_3 R_5 + C_3 L_L R_5 R_5 + C_5 L_L R_5\right) + s^2 \left(C_3 C_5 R_3 R_5 + C_3 L_L R_5 R_5 + C_5 L_L R_5\right) + s^2 \left(C_3 C_5 R_5 R_5 R_5 + C_5 L_L R_5\right) + s^2 \left(C_3 C_5 R_5 R_5 R_5 + C_5 L_L R_5\right) + s^2 \left(C_3 C_5 R_5 R_5 R_5 + C_5 L_L R_5\right) + s^2 \left(C_3 C_5 R_5 R_5 R_5 + C_5 L_L R_5\right) + s^2 \left(C_3 C_5 R_5 R_5 R_5 + C_5 L_L R_5\right) + s^2 \left(C_3 C_5 R_5 R_5 R_5 + C_5 L_L R_5\right) + s^2 \left(C_3 C_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_3 C_5 R_5 R_5 R_5\right) + s^2 \left(C_3 C_5 R_5 R_5 R_5\right) + s^2 \left(C_5 R_5 R_5 R_5 R_5\right) + s^2 \left(C_5 R_5 R_5\right) + s^2 \left(C_5 R_5 R_5 R_5\right) + s^2 \left(C_5 R_5 R_5 R_5\right) + s^2 \left(C_5 R$$

10.537 INVALID-ORDER-537
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m + s^5 \left(C_3 C_5 C_L L_3 L_L R_5 g_m - C_3 C_5 C_L L_3 L_L \right) + s^4 \left(C_3 C_5 C_L L_3 R_5 R_L g_m - C_3 C_5 C_L L_2 R_3 R_5 g_m - C_3 C_5 C_L L_2 R_3 R_5 R_L g_m - C_3 C_5 C_L L_3 R_L + C_3 C_5 L_3 R_5 g_m - C_3 C_5 L_4 R_3 R_L + C_3 C_5 L_4 R_3 R_5 g_m - C_3 C_5 C_L L_2 R_3 R_5 R_L g_m - C_3 C_5 C_L R_3 R_L + C_3 C_5 L_3 R_5 g_m - C_3 C_5 L_4 R_3 R_L + C_3 C_5 L_4 R_3 R_5 g_m - C_3 C_5 C_L R_3 R_L + C_3 C_5 C_L R_3 R_L$$

10.538 INVALID-ORDER-538
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{L_L R_L g_m s + s^4 \left(C_3 C_5 L_L R_3 R_L g_m - C_3 C_5 L_L R_3 R_L g_m - C_3 C_5 L_L R_3 R_L + C_3 L_3 L_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m + C_5 L_L R_5 R_L g_m - C_5 L_L R_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m + C_5 L_L R_5 R_L g_m - C_5 L_L R_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m + C_5 L_L R_5 R_L g_m - C_5 L_L R_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m + C_5 L_L R_5 R_L g_m - C_5 L_L R_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m + C_5 L_L R_5 R_L g_m - C_5 L_L R_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m + C_5 L_L R_5 R_L g_m - C_5 L_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m + C_5 L_L R_5 R_L g_m - C_5 L_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m + C_5 L_L R_5 R_L g_m - C_5 L_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m + C_5 L_L R_5 R_L g_m - C_5 L_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m + C_5 L_L R_5 R_L g_m - C_5 L_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m + C_5 L_L R_5 R_L g_m - C_5 L_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m + C_5 L_L R_5 R_L g_m - C_5 L_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m + C_5 L_L R_5 R_L g_m - C_5 L_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m - C_5 L_L R_L g_m - C_5 L_L R_L g_m - C_5 L_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m - C_5 L_L R_L g_m - C_5 L_L R_L g_m - C_5 L_L R_L g_m \right) + s^2 \left(C_3 L_L R_3 R_L g_m - C_5 L_L R_L g_m -$$

10.539 INVALID-ORDER-539
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_L g_m + s^5 \left(C_3 C_5 C_L L_3 L_L R_5 R_L g_m - C_3 C_5 C_L L_3 L_L R_L\right) + s^4 \left(C_3 C_5 C_L L_L R_3 R_5 R_L g_m - C_3 C_5 L_L L_R R_3 R_L + C_3 C_5 L_3 L_L R_5 g_m - C_3 C_5 L_3 L_L R_5 g_m - C_3 C_5 L_3 R_L + C_3 C_5 L_3 R_5 R_L g_m - C_3 C_5 L_L R_3 R_5 g_m - C_3 C_5 L_L R$$

10.540 INVALID-ORDER-540
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m + s^5 \left(C_3 C_5 C_L L_3 L_L R_5 R_L g_m - C_3 C_5 C_L L_L R_3 R_L g_m - C_3 C_5 C_L L_L R_3 R_L g_m - C_3 C_5 L_L R_3 R_L + C_3 C_L L_L R_3 R_L g_m - C_3 C_5 L_L R_3 R_L + C_3 C_L L_L R_3 R_L g_m - C_5 C_L L_L R_3 R_L g_m - C_5 C_L L_L R_3 R_L + C_3 C_L L_L R_3 R_L +$$

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10.541 INVALID-ORDER-541 Z(s) = \left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ L_5s + \frac{1}{C_5s}, \ R_L\right)
H(s) = \frac{C_3C_5L_3L_5R_Lg_ms^4 + R_Lg_m + s^3\left(-C_3C_5L_3R_L + C_3C_5L_5R_3R_Lg_m\right) + s^2\left(-C_3C_5R_3R_L + C_3L_3R_Lg_m + C_5L_5R_Lg_m\right) + s\left(C_3R_3R_Lg_m - C_5R_L\right)}{C_3C_5L_3L_5s^4 + s^3\left(C_3C_5L_3R_L + C_3C_5L_5R_3 + C_3C_5L_5R_L\right) + s^2\left(C_3C_5R_3R_L + C_3L_3 + C_5L_5\right) + s\left(C_3R_3 + C_3R_L + C_5R_L\right) + 1}
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10.542 INVALID-ORDER-542 $Z(s) = \left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ L_5s + \frac{1}{C_5s}, \ \frac{1}{C_Ls}\right)$

 $H(s) = \frac{C_3C_5L_3L_5g_ms^4 + g_m + s^3\left(-C_3C_5L_3 + C_3C_5L_5R_3g_m\right) + s^2\left(-C_3C_5R_3 + C_3L_3g_m + C_5L_5g_m\right) + s\left(C_3R_3g_m - C_5\right)}{C_3C_5C_LL_3L_5s^5 + C_3C_5L_Lt_5R_3s^4 + s^3\left(C_3C_5L_3 + C_3C_5L_5 + C_3C_LL_3 + C_5C_LL_5\right) + s^2\left(C_3C_5R_3 + C_3C_LR_3\right) + s\left(C_3 + C_5 + C_L\right)}$

10.543 INVALID-ORDER-543 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)$

 $H(s) = \frac{C_3C_5L_3L_5R_Lg_ms^4 + R_Lg_m + s^3\left(-C_3C_5L_3R_L + C_3C_5L_5R_3R_Lg_m\right) + s^2\left(-C_3C_5R_3R_L + C_3L_3R_Lg_m + C_5L_5R_Lg_m\right) + s\left(C_3R_3R_Lg_m - C_5R_L\right)}{C_3C_5C_LL_3L_5R_Ls^5 + s^4\left(C_3C_5C_LL_5R_3R_L + C_3C_5L_3R_L + C_3C_5L_5R_3 + C_3C_5L_5R_L + C_3C_LL_3R_L + C_5C_LL_5R_L\right) + s^2\left(C_3C_5R_3R_L + C_3C_LR_3R_L + C_3C_$

10.544 INVALID-ORDER-544 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$

 $H(s) = \frac{C_3C_5C_LL_3L_5R_Lg_ms^5 + g_m + s^4\left(-C_3C_5C_LL_3R_L + C_3C_5C_LL_5R_3R_Lg_m + C_3C_5L_3L_5g_m\right) + s^3\left(-C_3C_5C_LR_3R_L - C_3C_5L_3R_3R_Lg_m + C_3C_LL_3R_Lg_m + C_5C_LL_5R_2g_m\right) + s^2\left(-C_3C_5R_3 + C_3C_LR_3R_Lg_m + C_3L_3g_m - C_5C_LR_L + C_5L_5g_m\right) + s\left(C_3R_3g_m - C_5C_LR_3R_L + C_3C_5C_LR_3R_L + C$

10.545 INVALID-ORDER-545 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$

 $H(s) = \frac{C_3C_5C_LL_3L_5L_Lg_ms^6 + g_m + s^5\left(-C_3C_5C_LL_3L_L + C_3C_5C_LL_5L_LR_3g_m\right) + s^4\left(-C_3C_5C_LL_2R_3 + C_3C_5L_3L_2g_m + C_5C_LL_5L_Lg_m\right) + s^3\left(-C_3C_5L_3 + C_3C_5L_3 + C_3C_5L_3 + C_3C_5L_4R_3g_m + C_5C_LL_L\right) + s^2\left(-C_3C_5R_3 + C_3L_3g_m + C_5L_Lg_m\right) + s^3\left(-C_3C_5L_3L_2R_3g_m + C_3C_LL_2R_3g_m +$

10.546 INVALID-ORDER-546 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

 $H(s) = \frac{C_3C_5L_3L_5L_Lg_ms^5 + L_Lg_ms + s^4\left(-C_3C_5L_3L_L + C_3C_5L_5L_LR_3g_m\right) + s^3\left(-C_3C_5L_LR_3 + C_3L_3L_Lg_m + C_5L_5L_Lg_m\right) + s^2\left(C_3L_LR_3g_m - C_5L_L\right)}{C_3C_5C_LL_3L_5L_Ls^6 + C_3C_5L_LL_Rs^5 + C_3R_3s + s^4\left(C_3C_5L_3L_L + C_3C_5L_3L_L + C_3C_5L_5L_L\right) + s^3\left(C_3C_5L_5R_3 + C_3C_5L_LR_3 + C_3C_LL_Rs\right) + s^2\left(C_3L_LR_3g_m - C_5L_L\right)}$

10.547 INVALID-ORDER-547 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$

 $H(s) = \frac{C_3C_5C_LL_3L_5L_Lg_ms^6 + g_m + s^5\left(C_3C_5C_LL_3L_5R_Lg_m - C_3C_5C_LL_3L_L + C_3C_5C_LL_3R_L + C_3C_5C_LL_$

10.548 INVALID-ORDER-548 $Z(s) = \left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ L_5s + \frac{1}{C_5s}, \ \frac{L_LR_Ls}{C_7L_LR_Ls^2 + L_Ts + R_T}\right)$

 $H(s) = \frac{C_3C_5L_3L_5L_LR_Lg_ms^5 + L_LR_Lg_ms + s^4\left(-C_3C_5L_3L_LR_L + C_3C_5L_5L_LR_3R_L + C_3L_5L_LR_2g_m\right) + s^3\left(-C_3C_5L_LR_3R_L + C_3L_5L_LR_2g_m + C_5L_5L_LR_2g_m\right) + s^2\left(C_3L_LR_3R_Lg_m + C_5L_5L_LR_2g_m\right) + s^2\left(C_3L_LR_3R_L + C_3C_5L_LR_3R_L + C_3C_$

10.549 INVALID-ORDER-549 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

 $H(s) = \frac{C_3C_5C_LL_3L_5L_LR_Lg_ms^6 + R_Lg_m + s^5\left(-C_3C_5C_LL_3L_LR_L + C_3C_5C_LL_5L_LR_3R_Lg_m + C_3C_5L_3L_5L_Lg_m\right) + s^4\left(-C_3C_5C_LL_3L_LR_3R_L + C_3C_5L_3L_5R_Lg_m - C_3C_5L_3L_LR_3g_m + C_3C_LL_3L_LR_2g_m + C_5C_LL_5L_LR_2g_m\right) + s^3\left(-C_3C_5L_3R_L + C_3C_5L_3R_L + C_3C_5L_3L_LR_3g_m + C_3C_LL_3L_LR_2g_m + C_3C_LL_3L_LR_2g_m\right) + s^3\left(-C_3C_5L_3R_L + C_3C_5L_3L_LR_3R_L + C_3C_5L_3L_LR_3g_m + C_3C_LL_3L_LR_2g_m + C_3C_LL_3L_LR_2g_m\right) + s^3\left(-C_3C_5L_3L_LR_3R_L + C_3C_5L_3L_LR_3g_m + C_3C_LL_3L_LR_2g_m + C_3C_LL_3L_LR_2g_m\right) + s^3\left(-C_3C_5L_3R_L + C_3C_5L_3L_LR_3g_m + C_3C_LL_3L_LR_2g_m + C_3C_LL_3L_LR_2g_m\right) + s^3\left(-C_3C_5L_3R_L + C_3C_5L_3L_LR_3g_m + C_3C_LL_3L_LR_2g_m + C_3C_LL_3L_LR_2g_m\right) + s^3\left(-C_3C_5L_3L_LR_3g_m + C_3C_LL_3L_LR_2g_m + C_3C_LL_3L_LR_2g_m\right) + s^3\left(-C_3C_5L_3L_LR_3g_m + C_3C_LL_3L_LR_2g_m + C_3C_LL_3L_LR_2g_m\right) + s^3\left(-C_3C_5L_3L_LR_2g_m + C_3C_LL_3L_LR_2g_m + C_3C_LL_3L_LR_2g_m\right) + s^3\left(-C_3C_5L_3L_LR_2g_m + C_3C_5L_3L_LR_2g_m + C_3C_LL_3L_LR_2g_m\right) + s^3\left(-C_3C_5L_3L_LR_2g_m + C_3C_5L_3L_LR_2g_m + C_3C_5L_3L_LR_2g_m\right) + s^3\left(-C_3C_5L_3L_LR_2g_m + C_3C_5L_3L_LR_2g_m + C_3C_$

10.550 INVALID-ORDER-550 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

 $H(s) = \frac{C_3C_5C_LL_3L_5L_LR_Lg_ms^6 + R_Lg_m + s^5\left(-C_3C_5C_LL_3L_LR_L + C_3C_5C_LL_5L_LR_3R_Lg_m\right) + s^4\left(-C_3C_5C_LL_3L_5R_Lg_m + C_3C_LL_3L_LR_Lg_m + C_5C_LL_5L_LR_2g_m\right) + s^3\left(-C_3C_5L_3R_L + C_3C_5L_3R_L + C_3C_5L_3R_L + C_3C_5L_3R_L + C_3C_5L_4R_3R_L +$

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10.551 INVALID-ORDER-551 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L\right)
                                                                                                                                                                                                                                                   H(s) = \frac{-C_3C_5L_3L_5R_Ls^4 - R_L + s^3\left(-C_3C_5L_5R_3R_L + C_3L_3L_5R_Lg_m\right) + s^2\left(-C_3L_3R_L + C_3L_5R_3R_Lg_m - C_5L_5R_L\right) + s\left(-C_3R_3R_L + L_5R_Lg_m\right)}{C_3C_5L_3L_5R_Ls^4 + R_L + s^3\left(C_3C_5L_5R_3R_L + C_3L_3L_5\right) + s^2\left(C_3L_3R_L + C_3L_5R_3 + C_3L_5R_L\right) + s\left(-C_3R_3R_L + L_5R_Lg_m\right)}
10.552 INVALID-ORDER-552 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{1}{C_{Ls}}\right)
                                                                                                                                                                                                                                                                                                           H(s) = \frac{-C_3C_5L_3L_5s^4 + s^3\left(-C_3C_5L_5R_3 + C_3L_3L_5g_m\right) + s^2\left(-C_3L_3 + C_3L_5R_3g_m - C_5L_5\right) + s\left(-C_3R_3 + L_5g_m\right) - 1}{C_3R_3s + s^4\left(C_3C_5L_3L_5 + C_3C_LL_3L_5\right) + s^3\left(C_3C_5L_5R_3 + C_3C_LL_5R_3\right) + s^2\left(C_3L_3 + C_3L_5 + C_5L_5 + C_5L_5\right) + 1}
10.553 INVALID-ORDER-553 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L}{C_L R_L s + 1}\right)
                                                                                                                                                                           H(s) = \frac{-C_3C_5L_3L_5R_Ls^4 - R_L + s^3\left(-C_3C_5L_5R_3R_L + C_3L_3L_5R_Lg_m\right) + s^2\left(-C_3L_3R_L + C_3L_5R_3R_Lg_m - C_5L_5R_L\right) + s\left(-C_3R_3R_L + L_5R_Lg_m\right)}{R_L + s^4\left(C_3C_5L_3L_5R_L + C_3C_LL_3L_5R_L\right) + s^3\left(C_3C_5L_5R_3R_L + C_3C_LL_5R_3R_L + C_3L_5R_3R_L + C_3L_5R_3 + C_3L_5R_3 + C_3L_5R_L + C_5L_5R_L\right) + s\left(C_3R_3R_L + L_5R_Lg_m\right)}
10.554 INVALID-ORDER-554 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L + \frac{1}{C_L s}\right)
H(s) = \frac{-C_3C_5C_LL_3L_5R_Ls^5 + s^4\left(-C_3C_5C_LL_5R_3R_L - C_3C_5L_3L_5 + C_3C_LL_3L_5R_Lg_m\right) + s^3\left(-C_3C_5L_3R_L + C_3C_LL_3R_L + C_3C_LL_5R_3R_Lg_m + C_3L_3L_5g_m - C_5C_LL_5R_L\right) + s^2\left(-C_3C_LR_3R_L - C_3L_3 + C_3L_5R_3g_m - C_5L_5 + C_LL_5R_Lg_m\right) + s\left(-C_3R_3 - C_LR_L + L_5g_m\right) - C_3C_5C_LL_3L_5R_Ls^5 + s^4\left(C_3C_5C_LL_5R_3R_L + C_3C_5L_3L_5 + C_3C_LL_3R_L + C_3C_LL_5R_3 + C_3C_LL
10.555 INVALID-ORDER-555 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + \frac{1}{C_L s}\right)
H(s) = \frac{-C_3C_5C_LL_3L_5L_Ls^6 + s^5\left(-C_3C_5C_LL_5L_LR_3 + C_3C_LL_5L_LR_3 + C_3
10.556 INVALID-ORDER-556 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                                                                                                                                                                              H(s) = \frac{-C_3C_5L_3L_5L_Ls^4 - L_L + s^3\left(-C_3C_5L_5L_LR_3 + C_3L_3L_5L_Lg_m\right) + s^2\left(-C_3L_3L_L + C_3L_5L_LR_3g_m - C_5L_5L_L\right) + s\left(-C_3L_LR_3 + L_5L_Lg_m\right)}{L_5 + L_L + s^4\left(C_3C_5L_3L_5L_L + C_3C_LL_3L_5L_L\right) + s^3\left(C_3C_5L_5L_LR_3 + C_3C_LL_5L_LR_3\right) + s^2\left(C_3L_3L_5 + C_3L_3L_L + C_3L_5L_L + C_5L_5L_L\right) + s\left(C_3L_5R_3 + C_3L_LR_3\right)}
10.557 INVALID-ORDER-557 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + R_L + \frac{1}{C_L s}\right)
H(s) = \frac{-C_3C_5C_LL_3L_5L_Ls^6 + s^5\left(-C_3C_5C_LL_3L_5R_L - C_3C_5C_LL_3L_5R_L - C_3C_5C_LL_3L_5R_Lg_m + s^4\left(-C_3C_5C_LL_3L_5R_Lg_m - C_3C_LL_3L_L + C_3C_LL_5L_LR_3g_m - C_5C_LL_5L_L\right) + s^3\left(-C_3C_5L_5R_3 - C_3C_LL_3R_L + C_3C_LL_5R_3R_Lg_m - C_3C_LL_2R_3g_m - C_3C_LL_3L_L + C_3C_LL_5L_L\right) + s^3\left(-C_3C_5L_5R_3 - C_3C_LL_3R_L + C_3C_LL_5R_3R_Lg_m - C_3C_LL_3R_L + C_3C_LL_5R_3R_L + C_
10.558 INVALID-ORDER-558 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
           H(s) = \frac{-C_3C_5L_3L_5L_LR_Ls^4 - L_LR_L + s^3\left(-C_3C_5L_5L_LR_3R_L + C_3L_3L_LR_Lg_m\right) + s^2\left(-C_3L_3L_LR_L + C_3L_5L_LR_3R_Lg_m - C_5L_5L_LR_L\right) + s\left(-C_3L_LR_3R_L + L_5L_LR_Lg_m\right)}{L_5R_L + L_LR_L + s^4\left(C_3C_5L_3L_5L_LR_L\right) + s^3\left(C_3C_5L_5L_LR_3R_L + C_3L_5L_LR_3R_L + C_3L_5L_LR_3 + C_3L_5L_LR_3 + C_3L_5L_LR_4 + C_5L_5L_LR_4 + C_5L_5L_LR_4\right) + s\left(C_3L_5R_3R_L + C_3L_5L_RR_3R_L + C_3L_5L_RR_4 + C_3L_5L
10.559 INVALID-ORDER-559 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_Ls^6 - R_L + s^5\left(-C_3C_5C_LL_5L_LR_3R_L - C_3C_5L_3L_5L_L + C_3C_LL_3L_5L_LR_3 - C_3C_5L_3L_5R_L - C_3C_5L_5L_LR_3 - C_3C_LL_5L_LR_3 - C_3C_L
10.560 INVALID-ORDER-560 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
```

 $-C_{3}C_{5}C_{L}L_{3}L_{5}L_{L}R_{L}s^{6}-R_{L}+s^{5}\left(-C_{3}C_{5}C_{L}L_{5}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{3}L_{5}L_{L}R_{2}g_{m}\right)+s^{4}\left(-C_{3}C_{5}L_{3}L_{5}L_{L}R_{2}g_{m}-C_{5}C_{L}L_{5}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{5}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{5}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{5}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{5}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{5}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{5}L_{L}R_{2}g_{m}\right)+s^{2}\left(-C_{3}C_{5}L_{L}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{L}L_{L}R_{L}+C_{3}C_{L}L_{L}R_{L}R_{L}+C_{3}C_{L}L_{L}R_{L}+C_{3}C$

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10.561 INVALID-ORDER-561 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L\right)
                                                                                                                                                     H(s) = \frac{C_3C_5L_3L_5R_Lg_ms^4 + R_Lg_m + s^3\left(C_3C_5L_3R_5R_Lg_m - C_3C_5L_3R_L + C_3C_5L_5R_3R_Lg_m\right) + s^2\left(C_3C_5R_3R_5R_Lg_m - C_3C_5R_3R_L + C_3L_3R_Lg_m + C_5L_5R_Lg_m\right) + s\left(C_3R_3R_Lg_m + C_5R_5R_Lg_m - C_5R_L\right)}{C_3C_5L_3L_5s^4 + s^3\left(C_3C_5L_3R_5 + C_3C_5L_3R_L + C_3C_5L_5R_A\right) + s^2\left(C_3C_5R_3R_5 + C_3C_5R_3R_L + C_3L_3R_Lg_m + C_5L_5R_Lg_m\right) + s\left(C_3R_3R_Lg_m + C_5R_5R_Lg_m - C_5R_L\right)}
10.562 INVALID-ORDER-562 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)
                                                                                                                                                                 H(s) = \frac{C_3C_5L_3L_5g_ms^4 + g_m + s^3\left(C_3C_5L_3R_5g_m - C_3C_5L_3 + C_3C_5L_5R_3g_m\right) + s^2\left(C_3C_5R_3R_5g_m - C_3C_5R_3 + C_3L_3g_m + C_5L_5g_m\right) + s\left(C_3R_3g_m + C_5R_5g_m - C_5\right)}{C_3C_5C_LL_3L_5s^5 + s^4\left(C_3C_5C_LL_3R_5 + C_3C_5L_LL_5R_3\right) + s^3\left(C_3C_5C_LR_3R_5 + C_3C_5L_3 + C_3C_5L_3 + C_3C_5L_3 + C_5C_LL_3\right) + s^2\left(C_3C_5R_3 + C_3C_5R_3 + 
10.563 INVALID-ORDER-563 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)
H(s) = \frac{C_3C_5L_3L_5R_Lg_ms^4 + R_Lg_m + s^3\left(C_3C_5L_3R_5R_Lg_m - C_3C_5L_3R_L + C_3C_5L_5R_3R_Lg_m + C_5L_5R_Lg_m + s^2\left(C_3C_5R_3R_L + C_3L_3R_Lg_m + C_5L_5R_Lg_m + C_5L_5R_Lg_m + s^2\left(C_3C_5R_3R_L + C_3L_5R_Lg_m + C_5L_5R_Lg_m + C_5R_Lg_m + C_5R_Lg_m + s^2\left(C_3C_5R_3R_L + C_3C_5L_3R_L + C_3C_5L_3R_
10.564 INVALID-ORDER-564 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)
H(s) = \frac{C_3C_5C_LL_3L_5R_Lg_ms^5 + g_m + s^4\left(C_3C_5C_LL_3R_5R_Lg_m - C_3C_5C_LL_3R_Lg_m + C_3C_5L_Ls_Rg_m + C_3C_5L_
10.565 INVALID-ORDER-565 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)
H(s) = \frac{C_3C_5C_LL_3L_5L_Lg_ms^6 + g_m + s^5\left(C_3C_5C_LL_3L_LR_5g_m - C_3C_5C_LL_3L_LR_3g_m\right) + s^4\left(C_3C_5C_LL_2R_3R_5g_m - C_3C_5C_LL_2R_3 + C_3C_5L_2L_2g_m\right) + s^3\left(C_3C_5L_LR_3R_5g_m - C_3C_5L_3L_2g_m\right) + s^3\left(C_3C_5L_LR_3R_5g_m - C_3C_5L_2L_2R_3g_m\right) + s^4\left(C_3C_5C_LL_2R_3R_5g_m - C_3C_5L_2L_2R_3 + C_3C_5L_2L_2g_m\right) + s^3\left(C_3C_5L_2R_3R_5g_m - C_3C_5L_3R_5g_m - C_3C_5L_3R_5g_m - C_3C_5L_3R_5g_m - C_3C_5L_3R_5g_m\right) + s^4\left(C_3C_5C_LL_2R_3R_5g_m - C_3C_5L_2L_2R_3 + C_3C_5L_2L_2R_3 + C_3C_5L_2R_3R_5 + C_3C_5L_3R_5g_m\right) + s^4\left(C_3C_5C_LL_2R_3R_5g_m - C_3C_5L_2R_3R_5 + C_3C_5L_3R_5R_5 + C_3C_5L_3R
10.566 INVALID-ORDER-566 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                                           \frac{C_{3}C_{5}L_{3}L_{5}L_{g}ms^{5} + L_{L}gms + s^{4}\left(C_{3}C_{5}L_{3}L_{L}R_{5}gm - C_{3}C_{5}L_{L}R_{3}gm\right) + s^{3}\left(C_{3}C_{5}L_{L}R_{3}R_{5}gm - C_{3}C_{5}L_{L}R_{3} + C_{3}L_{5}L_{L}gm\right) + s^{2}\left(C_{3}L_{L}R_{3}gm + C_{5}L_{L}R_{5}gm - C_{5}L_{L}R_{5}gm - C_{5}L_{L}R_{5}gm\right) + s^{2}\left(C_{3}L_{L}R_{3}gm + C_{5}L_{L}R_{5}gm - C_{5}L_{L}R_{5}
10.567 INVALID-ORDER-567 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)
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 $H(s) = \frac{C_3C_5C_LL_3L_5L_Lg_ms^6 + g_m + s^5\left(C_3C_5C_LL_3L_5R_Lg_m + C_3C_5C_LL_3L_LR_5g_m - C_3C_5C_LL_3L_LR_3g_m\right) + s^4\left(C_3C_5C_LL_3R_5R_Lg_m - C_3C_5C_LL_3R_L + C_3C$

10.568 INVALID-ORDER-568 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

 $\frac{C_3C_5L_3L_5L_LR_Lg_{m^5} + L_LR_Lg_{m^5} + L_LR_Lg_{m^5} + L_LR_Lg_{m^5} + S_1C_3C_5L_3L_LR_5R_Lg_{m^7} - C_3C_5L_3L_LR_5R_Lg_{m^7} + S_1C_3C_5L_3L_LR_5R_Lg_{m^7} + S_1C_3C_5L_3L_Lg_{m^7} + S_1C_3C_5L_3L_Lg_{m^7} + S_1C_3C_5L_2Lg_{m^7} + S_1C_3C_5L_3L_Lg_{m^7} + S_1C_3C_5L_2Lg_{m^7} + S_1C_3C_5L_2Lg_{m^7} + S_1C_3C_5L_2Lg_{m^7} + S_1C$

10.569 INVALID-ORDER-569 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

 $H(s) = \frac{C_3C_5C_LL_3L_5L_LR_2g_ms^6 + R_Lg_m + s^5\left(C_3C_5C_LL_3L_LR_5R_Lg_m - C_3C_5C_LL_3L_LR_5R_Lg_m + C_3C_5L_LL_RR_3R_Lg_m + C_3C_5L_LL_RR_3R_Lg_m + C_3C_5L_LL_RR_3R_L + C_3C_5L_LR_3R_L + C_3C_5L_LL_RR_3R_L + C_3C_5L_LR_3R_L +$

10.570 INVALID-ORDER-570 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

 $\frac{C_{3}C_{5}C_{L}L_{3}L_{5}L_{L}R_{2}g_{m}s^{6}+R_{L}g_{m}+s^{5}\left(C_{3}C_{5}C_{L}L_{3}L_{L}R_{5}R_{L}g_{m}-C_{3}C_{5}C_{L}L_{2}L_{R}R_{3}R_{L}g_{m}\right)+s^{4}\left(C_{3}C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{3}C_{5}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{5}L_{L}L_{R}R_{2}R_{L}+C_{3}C_{5}C_{L}L_{L}R_{3}R_{L}+C_{3}C_{5}C_{L}L_$

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10.571 INVALID-ORDER-571 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L\right)
                                                                                                                                                        H(s) = \frac{-C_3C_5L_3L_5R_5R_Ls^4 - R_5R_L + s^3\left(-C_3C_5L_5R_3R_5R_L + C_3L_3L_5R_5R_Lg_m - C_3L_3L_5R_L\right) + s^2\left(-C_3L_3R_5R_L + C_3L_5R_3R_5R_Lg_m - C_3L_5R_3R_L - C_5L_5R_5R_L\right) + s\left(-C_3R_3R_5R_L + L_5R_5R_Lg_m - L_5R_L\right)}{C_3C_5L_3L_5R_5R_Ls^4 + R_5R_L + s^3\left(C_3C_5L_5R_3R_5R_L + C_3L_3L_5R_5\right) + s^2\left(C_3L_3R_5R_L + C_3L_5R_3R_5 + C_3L_5R_3R_L + C_3L_5R_3R_L + C_5L_5R_5R_L\right) + s\left(-C_3R_3R_5R_L + L_5R_5R_Lg_m - L_5R_L\right)}
10.572 INVALID-ORDER-572 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                       H(s) = \frac{-C_3C_5L_3L_5R_5s^4 - R_5 + s^3\left(-C_3C_5L_5R_3R_5 + C_3L_3L_5R_5g_m - C_3L_3L_5\right) + s^2\left(-C_3L_3R_5 + C_3L_5R_3R_5g_m - C_3L_5R_3 - C_5L_5R_5\right) + s\left(-C_3R_3R_5 + L_5R_5g_m - L_5\right)}{R_5 + s^4\left(C_3C_5L_3L_5R_5 + C_3C_LL_3L_5R_5\right) + s^3\left(C_3C_5L_5R_3R_5 + C_3L_5R_3R_5 + C_3L_5R_5\right) + s^2\left(C_3L_3R_5 + C_3L_5R_3 + C_3L_5R_5 + C_5L_5R_5\right) + s\left(C_3R_3R_5 + L_5R_5R_5 + C_5L_5R_5\right) + s\left(C_3R_3R_5 + L_5R_5R_5 + C_5L_5R_5\right) + s\left(C_3R_3R_5 + C_3L_5R_5 + C_5L_5R_5\right) + s\left(C_3R_3R_5 + C_3L_5R_5\right) + s\left(C_3R_5R_5\right) + s\left(C_3R_5R_5\right) + s\left(C_3R_5R_5\right) + s\left(C_3R_5R_5\right) +
10.573 INVALID-ORDER-573 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L}{C_L R_L s + 1}\right)
                      H(s) = \frac{-C_3C_5L_3L_5R_5R_Ls^4 - R_5R_L + s^3\left(-C_3C_5L_5R_3R_5R_L + C_3L_3L_5R_5R_Lg_m - C_3L_3L_5R_L\right) + s^2\left(-C_3L_3R_5R_L + C_3L_5R_3R_5R_L - C_5L_5R_3R_L\right) + s\left(-C_3R_3R_5R_L + L_5R_5R_Lg_m - L_5R_L\right)}{R_5R_L + s^4\left(C_3C_5L_3L_5R_5R_L + C_3C_LL_3L_5R_5R_L\right) + s^3\left(C_3C_5L_5R_3R_5R_L + C_3L_3L_5R_5R_L\right) + s^2\left(C_3L_3R_5R_L + C_3L_5R_3R_5 + C_3L_5R_3R_5 + C_3L_5R_3R_5 + C_3L_5R_5R_L\right) + s^2\left(C_3L_3R_5R_L + C_3L_5R_3R_5 + C_3L_5R_5R_L\right) + s^2\left(C_3R_3R_5R_L + C_3L_5R_5R_L + C_3L_5R_5R_L\right) + s^2\left(C_3R_3R_5R_L + C_3L_5R_5R_L\right) + s^2\left(C_3R_3R_5R_L\right) + s^2\left(C_3R_3R_5R_L\right) + s^2\left(C_3R_3R_5R_L\right) + s^2\left(C_3R_3R_5R_L\right) + s^2\left(C_3R_3R_5R_L\right) + s^2\left(C_3R_3R_5R_L\right) + s^2\left(C
10.574 INVALID-ORDER-574 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L + \frac{1}{C_L s}\right)
H(s) = \frac{-C_3C_5C_LL_3L_5R_5R_Ls^5 - R_5 + s^4\left(-C_3C_5C_LL_5R_3R_5R_L - C_3C_5L_4L_5R_5R_Lg_m - C_3C_LL_3L_5R_5R_Lg_m - C_3C_LL_3R_5R_L + C_3C_LL_5R_3R_5R_Lg_m - C_3C_LL_5R_3R_5 + C_3C_LL_5R_5R_5 + C_3C_LL_5
10.575 INVALID-ORDER-575 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + \frac{1}{C_L s}\right)
H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_5s^6 - R_5 + s^5\left(-C_3C_5C_LL_5L_LR_3R_5 + C_3C_LL_3L_5L_LR_5g_m - C_3C_LL_3L_5L_LR_5 + C_3C_LL_5L_LR_3 - C_5C_LL_5L_LR_3 - 
10.576 INVALID-ORDER-576 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                           H(s) = \frac{-C_3C_5L_3L_5L_LR_5s^4 - L_LR_5 + s^3\left(-C_3C_5L_5L_LR_3R_5 + C_3L_3L_5L_LR_5g_m - C_3L_3L_LR_5 + C_3L_5L_LR_3R_5g_m - C_3L_5L_LR_3 - C_5L_5L_LR_3 + c_5L_5L_LR_5\right) + s\left(-C_3L_LR_3R_5 + L_5L_LR_5g_m - L_5L_L\right)}{L_5R_5 + L_LR_5 + s^4\left(C_3C_5L_3L_5L_LR_5 + C_3C_LL_5L_LR_3R_5 + C_3L_5L_LR_3R_5 + C_3L_5L_LR_3 + C_3L_5L_LR_3 + C_3L_5L_LR_3 + C_3L_5L_LR_5\right) + s\left(C_3L_5R_3R_5 + L_5L_LR_3R_5 + C_3L_5L_LR_3 + C_3L_5L_LR_3
```

$$\textbf{10.577} \quad \textbf{INVALID-ORDER-577} \quad Z(s) = \left(\infty, \ \infty, \ L_{3}s + R_{3} + \frac{1}{C_{3}s}, \ \infty, \ \frac{L_{5}R_{5}s}{C_{5}L_{5}R_{5}s^{2} + L_{5}s + R_{5}}, \ L_{L}s + R_{L} + \frac{1}{C_{L}s} \right)$$

$$H(s) = \frac{-C_{3}C_{5}C_{L}L_{3}L_{5}L_{L}R_{5}s^{6} - R_{5} + s^{5}\left(-C_{3}C_{5}C_{L}L_{3}L_{5}R_{L} - C_{3}C_{5}L_{L}L_{R}R_{5}s - C_{3}C_{L}L_{3}L_{5}L_{L}R_{5}s - C_{3}C_{L}L_{3}L_{5}L_{L}R_{5}s - C_{3}C_{L}L_{3}L_{5}L_{L}R_{5}s - C_{3}C_{L}L_{3}L_{5}R_{L} - C_{3}C_{5}L_{L}L_{5}L_{L}R_{3}R_{5}s - C_{3}C_{L}L_{3}L_{5}L_{L}R_{5}s - C_{3}C_{L}L_{3}L_{5}R_{L} - C_{3}C_{L}L_{3}L_{L}R_{5} + C_{3}C_{L$$

10.579 INVALID-ORDER-579
$$Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_5R_Ls^6 - R_5R_L + s^5\left(-C_3C_5C_LL_5L_LR_3R_5R_L - C_3C_5L_3L_5L_LR_5 + C_3C_LL_3L_5L_LR_5 + C_3C_LL_3L_5L_RR_5 + C_3C_LL_3$$

10.580 INVALID-ORDER-580
$$Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \frac{R_L(C_LL_Ls^2 + 1)}{C_LL_Ls^2 + C_LR_Ls + 1}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_5R_Ls^6 - R_5R_L + s^5\left(-C_3C_5C_LL_5L_LR_3R_5R_L + C_3C_LL_3L_5L_LR_5R_Lg_m - C_3C_LL_3L_5L_LR_5R_L + C_3C_LL_3L_5L_LR_5R_L + C_3C_LL_3L_5L_LR_5R_L + C_3C_LL_5L_LR_3R_5R_L - C_3C_LL_5L_LR_3R_5R_L - C_3C_LL_5L_LR_3R_5R_L - C_3C_LL_5L_LR_3R_5R_L + C_3C_LL_5L_LR_3R_5R_L + C_3C_LL_5L_LR_3R_5R_L + C_3C_LL_5L_LR_3R_5R_L + C_3C_LL_5L_LR_3R_5 + C_3C_LL_5L_LR_3R_5 + C_3C_LL_5L_LR_3R_5 + C_3C_LL_5L_LR_3R_5 + C_3C_LL_5L_LR_3R_5 + C_3C_LL_5L_LR_5R_L + C_3C_LL_5L_LR_5$$

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10.581 INVALID-ORDER-581 Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L\right)
```

$$H(s) = \frac{R_5 R_L g_m - R_L + s^4 \left(C_3 C_5 L_3 L_5 R_5 R_L g_m - C_3 C_5 L_3 L_5 R_L \right) + s^3 \left(C_3 C_5 L_5 R_3 R_L g_m - C_3 C_5 L_5 R_3 R_L + C_3 L_3 L_5 R_L g_m - C_3 L_3 R_L g_m + C_5 L_5 R_3 R_L g_m - C_5 L_5 R_L \right) + s \left(C_3 R_3 R_5 R_L g_m - C_3 R_3 R_L + L_5 R_L g_m \right)}{R_5 + R_L + s^4 \left(C_3 C_5 L_3 L_5 R_5 + C_3 C_5 L_5 R_3 R_5 + C_3 C_5 L_5 R_3 R_L + C_3 L_5 R_L + C_5 L_5 R_5 R_L + C_5 L_5 R_L +$$

10.582 INVALID-ORDER-582
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^4 \left(C_3 C_5 L_3 L_5 R_5 g_m - C_3 C_5 L_3 L_5\right) + s^3 \left(C_3 C_5 L_5 R_3 R_5 g_m - C_3 C_5 L_5 R_3 + C_3 L_3 L_5 g_m\right) + s^2 \left(C_3 L_3 R_5 g_m - C_3 L_3 + C_3 L_5 R_3 g_m + C_5 L_5 R_5 g_m - C_5 L_5\right) + s \left(C_3 R_3 R_5 g_m - C_3 R_3 + L_5 g_m\right) - 1}{C_3 C_5 C_L L_3 L_5 R_5 s^5 + s^4 \left(C_3 C_5 C_L L_5 R_3 R_5 + C_3 C_L L_3 L_5\right) + s^3 \left(C_3 C_5 L_5 R_3 + C_3 C_L L_3 R_5 + C_3 C_L L_5 R_3 + C_5 C_L L_5 R_5\right) + s^2 \left(C_3 C_L R_3 R_5 + C_3 L_5 + C_5 L_5 + C_5 L_5\right) + s \left(C_3 R_3 R_5 g_m - C_3 R_3 + L_5 g_m\right) - 1}{C_3 C_5 C_L L_3 L_5 R_5 s^5 + s^4 \left(C_3 C_5 C_L L_5 R_3 R_5 + C_3 C_L L_3 L_5\right) + s^3 \left(C_3 C_5 L_5 R_3 + C_3 C_L L_5 R_5\right) + s^2 \left(C_3 C_L R_3 R_5 + C_3 C_L L_5 R_5\right) + s \left(C_3 R_3 R_5 g_m - C_3 R_3 + L_5 g_m\right) - 1}{C_3 C_5 C_L L_5 R_5 s^5 + s^4 \left(C_3 C_5 C_L L_5 R_3 R_5 + C_3 C_L L_3 L_5\right) + s^3 \left(C_3 C_5 L_5 R_3 + C_3 C_L L_5 R_5\right) + s^2 \left(C_3 C_L R_3 R_5 + C_3 C_L L_5 R_5\right) + s^2 \left(C_3 C_L R_5 R_5 + C_3 C_L L_5 R_5\right) + s^2 \left(C_3 C_L R_5 R_5 + C_3 C_L L_5 R_5\right) + s^2 \left(C_3 C_L R_5 R_5 + C_3 C_L R_5\right) + s^2 \left(C_3 C_L R_5 R_5 + C_3 C_L R_5\right) + s^2 \left(C_3 C_L R_5 R_5 R_5 + C_3 C_$$

10.583 INVALID-ORDER-583
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_5 R_L g_m - R_L + s^4 \left(C_3 C_5 L_3 L_5 R_L g_m - C_3 C_5 L_3 L_5 R_L g_m - C_3 C_5 L_5 R_3 R_L + C_3 L_3 L_5 R_L g_m - C_3 L_5 R_L g_m - C_5 L_5 R_3 R_L + C_3 L_5 R_L g_m - C_5 L_5 R_3 R_L + C_3 L_5 R_5 R_L g_m - C_5 L_5 R_3 R_L + C_3 L_5 R_5 R_L g_m - C_5 L_5 R_3 R_L + C_5 L_5 R_5 R_L g_m - C_5 L_5 R_5 R_L g_m$$

10.584 INVALID-ORDER-584
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5g_m + s^5\left(C_3C_5C_LL_3L_5R_5R_Lg_m - C_3C_5C_LL_3L_5R_Lg_m - C_3C_5C_LL_3R_5R_Lg_m - C_3C_5L_LL_5R_3R_L + C_3C_5L_LL_5R_L + C_3C_5L_LL_5R_$$

10.585 INVALID-ORDER-585
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 g_m - C_3 C_5 C_L L_3 L_5 L_L R_3 g_m - C_3 C_5 C_L L_5 L_L R_3 R_5 g_m - C_3 C_5 L_L L_5 L_L R_3 + C_3 C_L L_5 L_L R_3 + C_3 C_L L_5 L_L R_5 g_m - C_3 C_5 L_L L_5 L_L R_5 g_m - C_5 C_L L_5 L_L R_5$$

10.586 INVALID-ORDER-586
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

10.587 INVALID-ORDER-587
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_5 g_m + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 g_m - C_3 C_5 C_L L_3 L_5 L_L\right) + s^5 \left(C_3 C_5 C_L L_3 L_5 R_5 g_m - C_3 C_5 C_L L_3 L_5 R_L g_m - C_3 C_5 C_L L_5 L_L R_3 R_5 g_m - C_3 C_5 C_L L_5 L_L R_3 + C_3 C_5 L_L L_5 L_L R_3 + C_3 C_5 C_L L_5 L_L R_3 + C_5 C_L L_5 L_L R_5 + C_5 C_L L_5$$

10.588 INVALID-ORDER-588
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{s^5 \left(C_3 C_5 L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 L_3 L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 L_5 L_L R_3 R_5 R_L + C_3 C_5 L_5 L_L R_5 R_L + C_5 C_5 L_5 L_L R$$

10.589 INVALID-ORDER-589
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.590 INVALID-ORDER-590
$$Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{L_5s}{C_5L_5s^2 + 1} + R_5, \frac{R_L(C_LL_Ls^2 + 1)}{C_LL_Ls^2 + C_LR_Ls + 1}\right)$$

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 \begin{aligned} \textbf{10.591} \quad & \textbf{INVALID-ORDER-591} \ Z(s) = \left( \infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \ R_L \right) \\ & H(s) = \frac{R_5R_Lg_m - R_L + s^4\left(C_3C_5L_3L_5R_5R_Lg_m - C_3C_5L_3L_5R_L\right) + s^3\left(-C_3C_5L_3R_5R_L + C_3C_5L_5R_3R_5R_L + C_3C_5L_5R_3R_5R_L + C_3L_3R_5R_Lg_m - C_3L_3R_L + C_5L_5R_5R_Lg_m - C_5L_5R_L\right) + s\left(C_3R_3R_5R_Lg_m - C_3R_3R_L - C_5R_5R_L\right)}{R_5 + R_L + s^4\left(C_3C_5L_3L_5R_5 + C_3C_5L_3L_5R_L\right) + s^3\left(C_3C_5L_3R_5R_L + C_3C_5L_5R_3R_5 + C_3C_5L_5R_3R_5 + C_3C_5L_5R_5R_L\right) + s^2\left(C_3C_5R_3R_5R_L + C_3L_3R_5 + C_3L_3R_5 + C_5L_5R_5\right) + s\left(C_3R_3R_5 + C_3R_3R_L + C_5R_5R_L\right) + s\left(C_3R_3R_5 + C_3R_3R_L + C_3R_5R_L\right) + s\left(C_3R_3R_5 + C_3R
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10.593 INVALID-ORDER-593
$$Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \frac{R_L}{C_LR_Ls + 1}\right)$$

 $H(s) = \frac{R_5 R_L g_m - R_L + s^4 \left(C_3 C_5 L_3 L_5 R_5 R_L g_m - C_3 C_5 L_3 R_5 R_L + C_3 C_5 L_5 R_3 R_5 R_L + C_3 C_5 L_5 R_3 R_5 R_L + C_3 L_5 R_5 R_L g_m - C_3 L_5 R_5 R_L + C_3 L_5 R_5$

10.594 INVALID-ORDER-594
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)$$

 $H(s) = \frac{R_5 g_m + s^5 \left(C_3 C_5 C_L L_3 L_5 R_5 R_L g_m - C_3 C_5 C_L L_3 L_5 R_L\right) + s^4 \left(-C_3 C_5 C_L L_3 R_5 R_L + C_3 C_5 C_L L_5 R_3 R_5 R_L g_m - C_3 C_5 L_4 R_5 R_L + C_3 C_5 L_4 R_5 R_L$

10.595 INVALID-ORDER-595
$$Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, L_Ls + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{R_5 g_m + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 g_m - C_3 C_5 C_L L_3 L_5 L_L \right) + s^5 \left(-C_3 C_5 C_L L_3 L_L R_5 + C_3 C_5 C_L L_5 L_L R_3 R_5 g_m - C_3 C_5 C_L L_5 L_L R_3 \right) + s^4 \left(-C_3 C_5 C_L L_4 L_4 R_5 g_m - C_3 C_5 L_4 L_4 L_5 G_m - C_3 C_4 L_5 L_4 R_5 g_m - C_3 C_5 L_4 L_5 L_4 R_5 g_m - C_3 C_5 L_4 L_5 L_4 R_5 g_m - C_5 C_L L_5 L_4 R_5 g$

10.596 INVALID-ORDER-596
$$Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

 $H(s) = \frac{s^5 \left(C_3 C_5 L_3 L_5 L_L R_5 g_m - C_3 C_5 L_3 L_L R_5 + C_3 C_5 L_L R_3 R_5 g_m - C_3 C_5 L_L R_3 R_5 g_m - C_3 L_5 L_L R_5 g_m - C_5 L_5 L_$

10.597 INVALID-ORDER-597
$$Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{R_5 g_m + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 g_m - C_3 C_5 C_L L_3 L_5 L_L\right) + s^5 \left(C_3 C_5 C_L L_3 L_5 R_5 R_L g_m - C_3 C_5 C_L L_3 L_5 R_L - C_3 C_5 C_L L_3 L_4 R_5 + C_3 C_5 C_L L_5 L_4 R_3 R_5 g_m - C_3 C_5 C_L L_5 R_3 R_5 R_L + C_3 C_5 C_L L_5 R_3 R_5 R_L g_m - C_3 C_5 C_L L_5 R_3 R_5 R_L - C_3 C_5 C_L L_5 R_5 R_L - C_5 C_L L_5 R_5 R_L$

10.598 INVALID-ORDER-598
$$Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \frac{L_LR_Ls}{C_LL_LR_Ls^2 + L_Ls + R_L}\right)$$

 $H(s) = \frac{s^5 \left(C_3 C_5 L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 L_3 L_L R_5 R_L + C_3 C_5 L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 L_L R_3 R_5 R_L + C_3 C_5 L_L R_5 R_L + C_3 C_5 L_5 L_L R_3 R_5 R_L + C_3 C_5 L_5 L_L R_5 R_L + C_5 C_L L_5 L_L$

10.599 INVALID-ORDER-599
$$Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

 $H(s) = \frac{R_5 R_L g_m - R_L + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 C_L L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 C_L L_3 L_5 L_L R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 L_4 L_5 L_L R_3 R_5 - C_3 C_5 L_4 L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_5 R_L + C_5$

10.600 INVALID-ORDER-600 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$ $H(s) = \frac{R_5 R_L g_m - R_L + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 R_L g_m - C_3 C_5 C_L L_3 L_5 L_L R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_3 R_5 R_L + C_3 C_5 L_L L_R R_3 R_5 R_L + C_3 C_5 L_L R_3 R_5 R_L + C_3 C_5 C_L L_5 L_L R_5 R_L + C_5 C_L L_5 L_L R_5 R_L +$ 10.601 INVALID-ORDER-601 $Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_3 s + R_3}, \infty, R_5, R_L + \frac{1}{C_L s}\right)$ $H(s) = \frac{s^2 \left(C_L L_3 R_3 R_5 R_L g_m - C_L L_3 R_3 R_L \right) + s \left(L_3 R_3 R_5 g_m - L_3 R_3 \right)}{C_3 C_L L_3 R_3 R_5 R_L s^3 + R_3 R_5 + s^2 \left(C_3 L_3 R_3 R_5 + C_L L_3 R_3 R_5 + C_L L_3 R_3 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + L_3 R_3 + L_3 R_5 \right)}$ 10.602 INVALID-ORDER-602 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5, L_L s + \frac{1}{C_L s}\right)$ $H(s) = \frac{s^3 \left(C_L L_3 L_L R_3 R_5 g_m - C_L L_3 L_L R_3 \right) + s \left(L_3 R_3 R_5 g_m - L_3 R_3 \right)}{C_3 C_L L_3 L_L R_3 R_5 s^4 + R_3 R_5 + s^3 \left(C_L L_3 L_L R_3 + C_L L_3 L_L R_5 \right) + s^2 \left(C_3 L_3 R_3 R_5 + C_L L_3 R_3 R_5 + C_L L_L R_3 R_5 \right) + s \left(L_3 R_3 + L_3 R_5 \right)}$ **10.603** INVALID-ORDER-603 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5, L_L s + R_L + \frac{1}{C_L s}\right)$ $H(s) = \frac{s^3 \left(C_L L_3 L_L R_3 R_5 g_m - C_L L_3 L_L R_3 \right) + s^2 \left(C_L L_3 R_3 R_5 R_L g_m - C_L L_3 R_3 R_L \right) + s \left(L_3 R_3 R_5 g_m - L_3 R_3 \right)}{C_3 C_L L_3 L_L R_3 R_5 s^4 + R_3 R_5 + s^3 \left(C_3 C_L L_3 R_3 R_5 R_L + C_L L_3 L_L R_3 + C_L L_3 L_L R_5 \right) + s^2 \left(C_3 L_3 R_3 R_5 + C_L L_3 R_3 R_5 + C_L L_3 R_3 R_L + C_L L_3 R_5 R_L + C_L L_L R_3 R_5 \right) + s \left(C_L R_3 R_5 R_L + L_3 R_5 + L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L + C_L L_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L + C_L L_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L + C_L L_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L L_3 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L R_5 R_5 R_L \right) + s \left(C_L R_3 R_5 R_L + C_L R_5 R_5 R_L \right) + s \left(C_L R_5 R_5 R_L + C_L R_5 R_5 R_L \right) + s \left(C_L R_5 R_5 R_L + C_L R_5 R_5 R_L \right) + s \left(C_L R_5 R_5 R_L + C_L R_5 R_5 R_L \right) + s \left(C_L R_5 R_5 R_L + C_L R_5 R_5 R_L \right) + s \left(C_L R_5 R$ **10.604** INVALID-ORDER-604 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$ $H(s) = \frac{s^3 \left(C_L L_3 L_L R_3 R_5 R_L g_m - C_L L_3 L_L R_3 R_L \right) + s^2 \left(L_3 L_L R_3 R_5 g_m - L_3 L_L R_3 \right) + s \left(L_3 R_3 R_5 R_L g_m - L_3 R_3 R_L \right)}{C_3 C_L L_3 L_L R_3 R_5 R_L s^4 + R_3 R_5 R_L + s^3 \left(C_3 L_3 L_L R_3 R_5 + C_L L_3 L_L R_3 R_L + C_L L_3 L_L R_5 R_L \right) + s^2 \left(C_3 L_3 R_3 R_5 R_L + C_L L_L R_3 R_5 R_L + L_3 L_L R_3 + L_3 L_L R_5 \right) + s \left(L_3 R_3 R_5 + L_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + L_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + L_3 R_5 R_L$ 10.605 INVALID-ORDER-605 $Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_3 s + R_3}, \infty, R_5, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$ $H(s) = \frac{s^3 \left(C_L L_3 L_L R_3 R_5 R_L g_m - C_L L_3 L_L R_3 R_L \right) + s \left(L_3 R_3 R_5 R_L g_m - L_3 R_3 R_L \right)}{C_3 C_L L_3 L_L R_3 R_5 R_L s^4 + R_3 R_5 R_L + s^3 \left(C_L L_3 L_L R_3 R_5 + C_L L_3 L_L R_3 R_L + C_L L_3 L_L R_5 R_L \right) + s^2 \left(C_3 L_3 R_3 R_5 R_L + C_L L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_3 R_5 R_L \right) + s \left(L_3 R_3 R_5 R_L + C_L L_4 R_4 R_5 R_L \right) + s \left(L_3 R_4 R_5 R_L \right) + s \left(L_4 R_4$ **10.606** INVALID-ORDER-606 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$ $H(s) = \frac{-C_5C_LL_3R_3R_Ls^3 + L_3R_3g_ms + s^2\left(-C_5L_3R_3 + C_LL_3R_3R_Lg_m\right)}{R_3 + s^3\left(C_3C_LL_3R_3R_L + C_5C_LL_3R_3R_L\right) + s^2\left(C_3L_3R_3 + C_5L_3R_3 + C_LL_3R_3 + C_LL_3R_3 + C_LL_3R_L\right) + s\left(C_LR_3R_L + L_3\right)}$ 10.607 INVALID-ORDER-607 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$ $H(s) = \frac{-C_5C_LL_3L_LR_3s^4 - C_5L_3R_3s^2 + C_LL_3L_LR_3g_ms^3 + L_3R_3g_ms}{C_LL_3L_Ls^3 + L_3s + R_3 + s^4\left(C_3C_LL_3L_LR_3 + C_5C_LL_3L_LR_3\right) + s^2\left(C_3L_3R_3 + C_5L_3R_3 + C_LL_3R_3 + C_LL_LR_3\right)}$ 10.608 INVALID-ORDER-608 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{-C_5C_LL_3L_LR_3s^4 + L_3R_3g_ms + s^3\left(-C_5C_LL_3R_3R_L + C_LL_3L_LR_3g_m\right) + s^2\left(-C_5L_3R_3 + C_LL_3R_3R_Lg_m\right)}{R_3 + s^4\left(C_3C_LL_3L_LR_3 + C_5C_LL_3L_LR_3\right) + s^3\left(C_3C_LL_3R_3R_L + C_5C_LL_3R_3R_L + C_LL_3L_L\right) + s^2\left(C_3L_3R_3 + C_5L_3R_3 + C_LL_3R_3 + C_LL_3R_3$$

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10.609 INVALID-ORDER-609 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
                                                                                                                                                    H(s) = \frac{-C_5C_LL_3L_LR_3R_Ls^4 + L_3R_3R_Lg_ms + s^3\left(-C_5L_3L_LR_3 + C_LL_3L_LR_3R_Lg_m\right) + s^2\left(-C_5L_3R_3R_L + L_3L_LR_3g_m\right)}{R_3R_L + s^4\left(C_3C_LL_3L_LR_3R_L + C_5C_LL_3L_LR_3R_L\right) + s^3\left(C_3L_3L_LR_3 + C_LL_3L_LR_3 + C_LL_3L_LR_3 + C_LL_3L_LR_3\right) + s^2\left(C_3L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_3R_L + L_3L_L\right) + s\left(L_3R_3 + L_3R_L + L_3R_3R_L + L_3R_3R_L + C_5R_3R_3R_L + C_
10.610 INVALID-ORDER-610 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
                                                                                                                                                                                                                                    H(s) = \frac{-C_5C_LL_3L_LR_3R_Ls^4 - C_5L_3R_3R_Ls^2 + C_LL_3L_LR_3R_Lg_ms^3 + L_3R_3R_Lg_ms}{R_3R_L + s^4\left(C_3C_LL_3L_LR_3R_L + C_5C_LL_3L_LR_3R_L\right) + s^3\left(C_LL_3L_LR_3 + C_LL_3L_LR_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_3R_3R_L + C_LL_3R_3R_L + C_LL_RR_3R_L\right) + s\left(L_3R_3 + L_3R_L\right)}
10.611 INVALID-ORDER-611 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                      H(s) = \frac{-C_5C_LL_3R_3R_5R_Ls^3 + s^2\left(-C_5L_3R_3R_5 + C_LL_3R_3R_5R_Lg_m - C_LL_3R_3R_L\right) + s\left(L_3R_3R_5g_m - L_3R_3\right)}{R_3R_5 + s^3\left(C_3C_LL_3R_3R_5R_L + C_5C_LL_3R_3R_5R_L\right) + s^2\left(C_3L_3R_3R_5 + C_LL_3R_3R_5 + C_LL_3R_3R_5 + C_LL_3R_3R_L + C_LL_3R_5R_L\right) + s\left(C_LR_3R_5R_L + L_3R_3 + L_3R_5\right)}
10.612 INVALID-ORDER-612 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                             H(s) = \frac{-C_5C_LL_3L_LR_3R_5s^4 - C_5L_3R_3R_5s^2 + s^3\left(C_LL_3L_LR_3R_5g_m - C_LL_3L_LR_3\right) + s\left(L_3R_3R_5g_m - L_3R_3\right)}{R_3R_5 + s^4\left(C_3C_LL_3L_LR_3R_5 + C_5C_LL_3L_LR_3R_5\right) + s^3\left(C_LL_3L_LR_3 + C_LL_3L_LR_5\right) + s^2\left(C_3L_3R_3R_5 + C_5L_3R_3R_5 + C_LL_3R_3R_5 + C_LL_3R_3R_5\right) + s\left(L_3R_3R_5 + C_5L_3R_3R_5 + C_5L_3R_3R_5 + C_5L_3R_3R_5\right) + s\left(L_3R_3R_5 + C_5L_3R_3R_5 + C_5L_3R_3R_5 + C_5L_3R_3R_5\right) + s\left(L_3R_3R_5 + C_5L_3R_3R_5 + C_5L_3R_3R_5\right) + s\left(L_3R_3R_5 + C_5L_3R_5\right) + s\left(L_3R_3R_5 + C_5L_3R_5\right) + s\left(L_3R_3R_5 + C_5L_3R_5\right) + s\left(L_3R_3R_5 + C_5L_3R_5\right) + s\left(L_3R_3R_5\right) + s\left(L_3R_5\right) + s\left(L_3R_5\right) + s\left(L_3R_5\right) + s\left(L_3R_5\right) + s\left(L_3R_5\right) +
10.613 INVALID-ORDER-613 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)
                                                          -C_5C_LL_3L_LR_3R_5s^4 + s^3\left(-C_5C_LL_3R_3R_5R_L + C_LL_3L_LR_3R_5g_m - C_LL_3L_LR_3\right) + s^2\left(-C_5L_3R_3R_5 + C_LL_3R_3R_5R_Lg_m - C_LL_3R_3R_5\right) + s\left(L_3R_3R_5g_m - L_3R_3\right) \\ -R_3R_5 + s^4\left(C_3C_LL_3L_LR_3R_5 + C_5C_LL_3L_LR_3R_5\right) + s^3\left(C_3C_LL_3R_3R_5R_L + C_5C_LL_3R_3R_5R_L + C_LL_3L_LR_3 + C_LL_3L_LR_3\right) + s^2\left(C_3L_3R_3R_5 + C_5L_3R_3R_5 
10.614 INVALID-ORDER-614 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
H(s) = \frac{-C_5C_LL_3L_LR_3R_5R_Ls^4 + s^3\left(-C_5L_3L_LR_3R_5 + C_LL_3L_LR_3R_5R_Lg_m - C_LL_3L_LR_3R_5R_L + L_3L_LR_3R_5g_m - L_3L_LR_3\right) + s\left(L_3R_3R_5R_Lg_m - L_3R_3R_L\right)}{R_3R_5R_L + s^4\left(C_3C_LL_3L_LR_3R_5R_L + C_5C_LL_3L_LR_3R_5 + C_LL_3L_RR_3R_5 + C_LL_3L_RR
10.615 INVALID-ORDER-615 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
                                                                      H(s) = \frac{-C_5C_LL_3L_LR_3R_5R_Ls^4 - C_5L_3R_3R_5R_Ls^2 + s^3\left(C_LL_3L_LR_3R_5R_Lg_m - C_LL_3L_LR_3R_L\right) + s\left(L_3R_3R_5R_Lg_m - L_3R_3R_L\right)}{R_3R_5R_L + s^4\left(C_3C_LL_3L_LR_3R_5R_L + C_5C_LL_3L_LR_3R_5 + C_LL_3L_LR_3R_5 + C_LL_3L_LR_3R_L\right) + s^2\left(C_3L_3L_LR_3R_5R_L + C_5L_3R_3R_5R_L + C_LL_3R_3R_5R_L\right) + s\left(L_3R_3R_5R_L + C_LL_3R_3R_5R_L\right) + s\left(L_3R_3R_5R_L\right) + s\left(L_3R_3
10.616 INVALID-ORDER-616 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, R_L\right)
                                                                                                                                                                                                                                                                                                                                                      H(s) = \frac{L_3 R_3 R_L g_m s + s^2 \left(C_5 L_3 R_3 R_5 R_L g_m - C_5 L_3 R_3 R_L\right)}{C_3 C_5 L_3 R_3 R_5 R_L s^3 + R_3 R_L + s^2 \left(C_3 L_3 R_3 R_L + C_5 L_3 R_3 R_5 + C_5 L_3 R_3 R_L + C_5 L_3 R_5 R_L\right) + s \left(C_5 R_3 R_5 R_L + L_3 R_3 + L_3 R_L\right)}
10.617 INVALID-ORDER-617 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_{5s}}, \frac{1}{C_{Ls}}\right)
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 $H(s) = \frac{L_3 R_3 g_m s + s^2 \left(C_5 L_3 R_3 R_5 g_m - C_5 L_3 R_3\right)}{R_3 + s^3 \left(C_3 C_5 L_3 R_3 R_5 + C_5 C_L L_3 R_3 R_5\right) + s^2 \left(C_3 L_3 R_3 + C_5 L_3 R_3 + C_5 L_3 R_5 + C_L L_3 R_3\right) + s \left(C_5 R_3 R_5 + L_3\right)}$

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10.618 INVALID-ORDER-618 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)
                                                                                                                                                                                                                                              H(s) = \frac{L_3 R_3 R_L g_m s + s^2 \left(C_5 L_3 R_3 R_5 R_L g_m - C_5 L_3 R_3 R_L\right)}{R_3 R_L + s^3 \left(C_3 C_5 L_3 R_3 R_5 R_L + C_5 C_L L_3 R_3 R_5 R_L\right) + s^2 \left(C_3 L_3 R_3 R_L + C_5 L_3 R_3 R_L + C_5 L_3 R_3 R_L + C_5 L_3 R_5 R_L + C_L L_3 R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + L_3 R_3 + L_3 R_L\right)}
10.619 INVALID-ORDER-619 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)
                                                                    H(s) = \frac{L_3 R_3 g_m s + s^3 \left(C_5 C_L L_3 R_3 R_5 R_L g_m - C_5 C_L L_3 R_3 R_L\right) + s^2 \left(C_5 L_3 R_3 R_5 g_m - C_5 L_3 R_3 + C_L L_3 R_3 R_L g_m\right)}{C_3 C_5 C_L L_3 R_3 R_5 R_L s^4 + R_3 + s^3 \left(C_3 C_5 L_3 R_3 R_5 + C_5 C_L L_3 R_3 R_5 + C_5 C_L L_3 R_3 R_L + C_5 C_L L_3 R_3 R_L + C_5 C_L L_3 R_3 R_5 R_L\right) + s^2 \left(C_3 L_3 R_3 R_5 R_L + C_5 L_3 R_3 + C_L L_3 R_
10.620 INVALID-ORDER-620 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)
                                                           H(s) = \frac{C_L L_3 L_L R_3 g_m s^3 + L_3 R_3 g_m s + s^4 \left(C_5 C_L L_3 L_L R_3 R_5 g_m - C_5 C_L L_3 L_L R_3\right) + s^2 \left(C_5 L_3 R_3 R_5 g_m - C_5 L_3 R_3\right)}{C_3 C_5 C_L L_3 L_L R_3 R_5 s^5 + R_3 + s^4 \left(C_3 C_L L_3 L_L R_3 + C_5 C_L L_3 L_L R_3\right) + s^3 \left(C_3 C_5 L_3 R_3 R_5 + C_5 C_L L_3 R_3 R_5 + C_5 C_L L_3 R_3 R_5 + C_5 C_L L_3 R_3 + C_5 L_3 R_3 + 
10.621 INVALID-ORDER-621 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                                                                                                                                                                                                                                                   H(s) = \frac{L_3L_LR_3g_ms + s^2\left(C_5L_3L_LR_3R_5g_m - C_5L_3L_LR_3\right)}{L_3R_3 + L_LR_3 + s^3\left(C_3C_5L_3L_LR_3R_5 + C_5C_LL_3L_LR_3R_5\right) + s^2\left(C_3L_3L_LR_3 + C_5L_3L_LR_3 + C_5L_3L_LR_3\right) + s\left(C_5L_3R_3R_5 + C_5L_LR_3R_5 + L_3L_L\right)}
10.622 INVALID-ORDER-622 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)
H(s) = \frac{L_3 R_3 g_m s + s^4 \left(C_5 C_L L_3 L_L R_3 R_5 g_m - C_5 C_L L_3 R_L R_3 - C_5 C_L L_3 R_3 R_L + C_L L_3 L_L R_3 g_m\right) + s^2 \left(C_5 L_3 R_3 R_5 g_m - C_5 L_3 R_3 R_5 g_m - C_5 L_3 R_3 R_L + C_L L_3 L_L R_3 g_m\right) + s^2 \left(C_5 L_3 R_3 R_5 g_m - C_5 L_3 R_3 R_5 - C_5 L_3 R_3 R_5 + C_5 C_L L_3 R_5 R_5 + C_5 C_L L_5 R_5 R_5 +
10.623 INVALID-ORDER-623 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
                                                                                  H(s) = \frac{L_3L_LR_3R_Lg_ms + s^2\left(C_5L_3L_LR_3R_5R_Lg_m - C_5L_3L_LR_3R_L\right)}{L_3R_3R_L + L_LR_3R_L + s^3\left(C_3C_5L_3L_LR_3R_5R_L + C_5C_LL_3L_LR_3R_5R_L\right) + s^2\left(C_3L_3L_LR_3R_5 + C_5L_3L_LR_3R_L + C_5L_3L_LR_3R_L\right) + s\left(C_5L_3R_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L\right) + s\left(C_5L_3R_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L\right) + s\left(C_5L_3R_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L\right) + s\left(C_5L_3R_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L\right) + s\left(C_5L_3R_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_L\right) + s\left(C_5L_3R_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L\right) + s\left(C_5L_3R_3R_5R_L + C_5L_3R_5R_L\right) + s\left(C_5L_3R_5R_L\right) + s\left(C_5L_3R_5R_L\right)
10.624 INVALID-ORDER-624 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
                                           \frac{L_{3}R_{3}R_{L}g_{m}s+s^{4}\left(C_{5}C_{L}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}C_{L}L_{3}L_{L}R_{3}R_{5}g_{m}-C_{5}L_{3}L_{L}R_{3}+C_{L}L_{3}L_{L}R_{3}R_{L}g_{m}\right)+s^{2}\left(C_{5}L_{3}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}\right)+s^{2}\left(C_{5}L_{3}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{L}g_{m}-C_{5}L_{3}L_{L}R_{3}R_{L}g_{m}-C_{5}L_{L}R_{3}R_{L}g_{m}-C_{5}L_{L}R_{3}R_{L}g_{m}-C_{5}L_{L}R_{3}R_{L}g_{m}-C_{5}L_{L}R_{3}R_{L}g_{m}-C_{5}L_{L}R_{3}R_{L}g_{m}-C_{5}L_{L}R_{3}R_{L}g_{m}-C_{5}L_{L}R_{3}R_{L}g_{m}-C_{5}L_{L}R_{3}R_
10.625 INVALID-ORDER-625 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_L L_3 L_L R_3 R_L g_m s^3 + L_3 R_3 R_L g_m s + s^4 \left(C_5 C_L L_3 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_L R_3 R_L\right) + s^2 \left(C_5 L_3 R_3 R_5 R_L g_m - C_5 L_3 R_3 R_L\right)}{C_3 C_5 C_L L_3 L_L R_3 R_5 R_L + s^4 \left(C_3 C_L L_3 L_L R_3 R_L + C_5 C_L L_3 L_L R_3 R_L + C_5 C_L L_3 L_L R_3 R_5 R_L + C_5 
10.626 INVALID-ORDER-626 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, R_L\right)
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 $H(s) = \frac{C_5L_3L_5R_3R_Lg_ms^3 - C_5L_3R_3R_Ls^2 + L_3R_3R_Lg_ms}{C_3C_5L_3L_5R_3R_Ls^4 + R_3R_L + s^3\left(C_5L_3L_5R_3 + C_5L_3L_5R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_3R_3R_L + C_5L_5R_3R_L\right) + s\left(L_3R_3 + L_3R_L\right)}$

10.627 INVALID-ORDER-627
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5L_3L_5R_3g_ms^3 - C_5L_3R_3s^2 + L_3R_3g_ms}{C_5L_3L_5s^3 + L_3s + R_3 + s^4\left(C_3C_5L_3L_5R_3 + C_5C_LL_3L_5R_3\right) + s^2\left(C_3L_3R_3 + C_5L_3R_3 + C_5L_5R_3 + C_LL_3R_3\right)}$$

10.628 INVALID-ORDER-628
$$Z(s) = \left(\infty, \ \infty, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_5L_3L_5R_3R_Lg_ms^3 - C_5L_3R_3R_Ls^2 + L_3R_3R_Lg_ms}{R_3R_L + s^4\left(C_3C_5L_3L_5R_3R_L + C_5C_LL_3L_5R_3R_L\right) + s^3\left(C_5L_3L_5R_3 + C_5L_3L_5R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_3R_3R_L + C_5L_5R_3R_L + C_5L_3R_3R_L\right) + s\left(L_3R_3 + L_3R_L\right)}$$

10.629 INVALID-ORDER-629
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_3L_5R_3R_Lg_ms^4 + L_3R_3g_ms + s^3\left(-C_5C_LL_3R_3R_L + C_5L_3L_5R_3g_m\right) + s^2\left(-C_5L_3R_3 + C_LL_3R_3R_Lg_m\right)}{C_3C_5C_LL_3L_5R_3R_Ls^5 + R_3 + s^4\left(C_3C_5L_3L_5R_3 + C_5C_LL_3L_5R_3 + C_5C_LL_3R_3R_L + C_5C_LL_3R_3R_L + C_5C_LL_3R_3R_L + C_5C_LL_3R_3R_L + C_5C_LL_3R_3R_L + C_5C_LL_3R_3R_L + C_5C_LL_3R_3 + C_5C_LL$$

10.630 INVALID-ORDER-630
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_3L_5L_LR_3g_ms^5 - C_5C_LL_3L_LR_3s^4 - C_5L_3R_3s^2 + L_3R_3g_ms + s^3\left(C_5L_3L_5R_3g_m + C_LL_3L_LR_3g_m\right)}{C_3C_5C_LL_3L_5L_LR_3s^6 + C_5C_LL_3L_5L_Ls^5 + L_3s + R_3 + s^4\left(C_3C_5L_3L_5R_3 + C_5C_LL_3L_LR_3 + C_5C_LL_3L_LR_3$$

10.631 INVALID-ORDER-631
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_5L_3L_5L_LR_3g_ms^3 - C_5L_3L_LR_3s^2 + L_3L_LR_3g_ms}{C_5L_3L_5L_Ls^3 + L_3L_Ls + L_3R_3 + L_LR_3 + s^4\left(C_3C_5L_3L_5L_R_3 + C_5C_LL_3L_5L_R_3\right) + s^2\left(C_3L_3L_LR_3 + C_5L_3L_5R_3 + C_5L_3L_LR_3 + C_5L_3L_LR_3 + C_5L_3L_LR_3\right)}$$

10.632 INVALID-ORDER-632
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_5C_LL_3L_5L_LR_3g_ms^5 + L_3R_3g_ms + s^4\left(C_5C_LL_3L_5R_3R_Lg_m - C_5C_LL_3L_LR_3\right) + s^3\left(-C_5C_LL_3R_3R_L + C_5L_3L_5R_3g_m + C_LL_3L_LR_3g_m\right) + s^2\left(-C_5L_3R_3 + C_LL_3R_3R_Lg_m\right)}{C_3C_5C_LL_3L_5L_LR_3s^6 + R_3 + s^5\left(C_3C_5L_LL_3L_5R_3R_L + C_5C_LL_3L_5R_3 + C_5$$

10.633 INVALID-ORDER-633
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_5L_3L_5L_LR_3R_Lg_ms^3 - C_5L_3L_LR_3R_Ls^2 + L_3L_LR_3R_Lg_ms}{L_3R_3R_L + L_LR_3R_L + s^4\left(C_3C_5L_3L_5L_LR_3R_L + C_5C_LL_3L_5L_LR_3R_L\right) + s^3\left(C_5L_3L_5L_LR_3 + C_5L_3L_5L_LR_3 + C_5L_3L_LR_3R_L + C_5L_3L_LR_3R$$

10.634 INVALID-ORDER-634
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{C_5C_LL_3L_5L_LR_3R_Lg_ms^5 + L_3R_3R_Lg_ms + s^4\left(-C_5C_LL_3L_LR_3R_L + C_5L_3L_5L_LR_3g_m\right) + s^3\left(C_5L_3L_5R_3R_Lg_m - C_5L_3L_LR_3 + C_LL_3L_LR_3R_Lg_m\right) + s^2\left(-C_5C_LL_3L_LR_3R_Ls^6 + R_3R_L + s^5\left(C_3C_5L_3L_5L_Rs + C_5C_LL_3L_5L_Rs + C_5C_LL_3L_LR_3R_L + C_5C_LL_$$

10.635 INVALID-ORDER-635
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_5C_LL_3L_5L_LR_3R_Lg_ms^5 - C_5C_LL_3L_LR_3R_Ls^4 - C_5L_3R_3R_Ls^2 + L_3R_3R_Lg_ms + s^3\left(C_5L_3L_5R_3R_Lg_m + C_LL_3L_LR_3R_Lg_m\right)}{C_3C_5C_LL_3L_5L_LR_3R_Ls^6 + R_3R_L + s^5\left(C_5C_LL_3L_5L_LR_3 + C_5C_LL_3L_5R_3R_L + C_5C_LL_3L_5R_3R_L + C_5C_LL_3L_5R_3R_L + C_5C_LL_3L_5R_3R_L + C_5C_LL_3L_5R_3R_L\right) + s^3\left(C_5L_3L_5R_3R_Lg_m + C_LL_3L_LR_3R_Lg_m\right)}$$

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10.636 INVALID-ORDER-636 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, R_L + \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                      H(s) = \frac{-C_5C_LL_3L_5R_3R_Ls^3 - L_3R_3 + s^2\left(-C_5L_3L_5R_3 + C_LL_3L_5R_3R_Lg_m\right) + s\left(-C_LL_3R_3R_L + L_3L_5R_3g_m\right)}{L_3R_3 + L_5R_3 + s^3\left(C_3C_LL_3L_5R_3R_L + C_5C_LL_3L_5R_3R_L\right) + s^2\left(C_3L_3L_5R_3 + C_5L_3L_5R_3 + C_LL_3L_5R_3 + C_LL_3L_5R_3 + C_LL_3L_5R_3R_L + C_LL_5R_3R_L + L_3L_5\right)}
10.637 INVALID-ORDER-637 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                        H(s) = \frac{-C_5C_LL_3L_5L_LR_3s^4 + C_LL_3L_5L_LR_3g_ms^3 + L_3L_5R_3g_ms - L_3R_3 + s^2\left(-C_5L_3L_5R_3 - C_LL_3L_LR_3\right)}{C_7L_3L_5L_7s^3 + L_3L_5s + L_3R_3 + L_5R_3 + s^4\left(C_3C_7L_3L_5L_7R_3 + C_5C_7L_3L_5L_7R_3\right) + s^2\left(C_3L_3L_5R_3 + C_5L_3L_5R_3 + C_LL_3L_5R_3 + C_LL_3L_5R_3 + C_LL_3L_5R_3\right)}
10.638 INVALID-ORDER-638 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, L_L s + R_L + \frac{1}{C_L s}\right)
                   H(s) = \frac{-C_5C_LL_3L_5L_LR_3s^4 - L_3R_3 + s^3\left(-C_5C_LL_3L_5R_3R_L + C_LL_3L_5L_LR_3g_m\right) + s^2\left(-C_5L_3L_5R_3 + C_LL_3L_5R_3R_Lg_m - C_LL_3L_LR_3\right) + s\left(-C_LL_3R_3R_L + L_3L_5R_3g_m\right)}{L_3R_3 + L_5R_3 + s^4\left(C_3C_LL_3L_5L_LR_3\right) + s^3\left(C_3C_LL_3L_5R_3R_L + C_LL_3L_5R_3R_L + C_LL_3L_5R_3 + C_LL_3L_5R_3
10.639 INVALID-ORDER-639 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
H(s) = \frac{-C_5C_LL_3L_5L_LR_3R_Ls^4 - L_3R_3R_L + s^3\left(-C_5L_3L_5L_LR_3 + C_LL_3L_5L_LR_3R_Lg_m\right) + s^2\left(-C_5L_3L_5R_3R_L - C_LL_3L_LR_3R_L + L_3L_5L_LR_3g_m\right) + s\left(L_3L_5R_3R_Lg_m - L_3L_LR_3\right)}{L_3R_3R_L + L_5R_3R_L + s^4\left(C_3C_LL_3L_5L_LR_3R_L\right) + s^3\left(C_3L_3L_5L_LR_3 + C_LL_3L_5L_LR_3 + C_LL_3L
10.640 INVALID-ORDER-640 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
                                                                     H(s) = \frac{-C_5C_LL_3L_5L_LR_3R_Ls^4 + C_LL_3L_5L_LR_3R_Lg_ms^3 + L_3L_5R_3R_Lg_ms - L_3R_3R_L + s^2\left(-C_5L_3L_5R_3R_L - C_LL_3L_LR_3R_L\right)}{L_3R_3R_L + L_5R_3R_L + s^4\left(C_3C_LL_3L_5L_LR_3R_L + c_5C_LL_3L_5L_LR_3R_L\right) + s^3\left(C_LL_3L_5L_LR_3 + C_LL_3L_5L_LR_3 + C_LL_3L_5R_3R_L + C_5L_3L_5R_3R_L + C_LL_3L_5R_3R_L + C_LL
10.641 INVALID-ORDER-641 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L\right)
                                                                                                                                                            H(s) = \frac{C_5L_3L_5R_3R_Lg_ms^3 + L_3R_3R_Lg_ms + s^2\left(C_5L_3R_3R_5R_Lg_m - C_5L_3R_3R_L\right)}{C_3C_5L_3L_5R_3R_Ls^4 + R_3R_L + s^3\left(C_3C_5L_3R_3R_5R_L + C_5L_3L_5R_3 + C_5L_3L_5R_A\right) + s^2\left(C_3L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_5R_L + C_5L_5R_3R_L\right) + s\left(C_5R_3R_5R_L + L_3R_3 + L_3R_L\right)}
10.642 INVALID-ORDER-642 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{1}{C_L s}\right)
                                                                                                                                                                                                             H(s) = \frac{C_5L_3L_5R_3g_ms^3 + L_3R_3g_ms + s^2\left(C_5L_3R_3R_5g_m - C_5L_3R_3\right)}{R_3 + s^4\left(C_3C_5L_3L_5R_3 + C_5C_LL_3L_5R_3\right) + s^3\left(C_3C_5L_3R_3R_5 + C_5C_LL_3R_3R_5 + C_5L_3R_3 + C_5L_3R_3 + C_5L_3R_5 + C_5L_5R_3 + C_LL_3R_3\right) + s\left(C_5R_3R_5 + L_3R_3R_5 + C_5L_3R_3 + C_5L_3R_3 + C_5L_3R_5 + C_5L_3R_3 
10.643 INVALID-ORDER-643 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L}{C_L R_L s + 1}\right)
                  H(s) = \frac{C_5L_3L_5R_3R_Lg_ms^3 + L_3R_3R_Lg_ms + s^2\left(C_5L_3R_3R_5R_Lg_m - C_5L_3R_3R_L\right)}{R_3R_L + s^4\left(C_3C_5L_3L_5R_3R_L + C_5C_LL_3L_5R_3R_L\right) + s^3\left(C_3C_5L_3R_3R_5R_L + C_5L_3R_3R_5R_L + C_5L_3R_3R_L\right) + s^2\left(C_3L_3R_3R_5R_L + C_5L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_3R_L\right) + s^2\left(C_3L_3R_3R_5R_L + C_5L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_3R_L\right) + s^2\left(C_3L_3R_3R_5R_L + C_5L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_3R_L\right) + s^2\left(C_3L_3R_3R_5R_L + C_5L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_3R_L\right) + s^2\left(C_3L_3R_3R_5R_L + C_5L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_3R_L\right) + s^2\left(C_3L_3R_3R_5R_L + C_5L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_3R_L + C_5L_3R_3R_L\right) + s^2\left(C_3L_3R_3R_5R_L + C_5L_3R_3R_L + C_5L_3R_3R_
10.644 INVALID-ORDER-644 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, R_L + \frac{1}{C_L s}\right)
H(s) = \frac{C_5C_LL_3L_5R_3R_Lg_ms^4 + L_3R_3g_ms + s^3\left(C_5C_LL_3R_3R_5R_Lg_m - C_5C_LL_3R_3R_L + C_5L_3L_5R_3g_m\right) + s^2\left(C_5L_3R_3R_5g_m - C_5L_3R_3 + C_LL_3R_3R_Lg_m\right)}{C_3C_5C_LL_3L_5R_3R_Ls^5 + R_3 + s^4\left(C_3C_5C_LL_3R_3R_5R_L + C_5C_LL_3L_5R_3 + C_5C_LL_3L_5R_3 + C_5C_LL_3R_3R_5 + C_5C_LL_3R_3R_L + C_5C_LL_3R_3
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10.645 INVALID-ORDER-645 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)
H(s) = \frac{C_5C_LL_3L_5L_LR_3g_ms^5 + L_3R_3g_ms + s^4\left(C_5C_LL_3L_LR_3s_g - C_5C_LL_3L_LR_3\right) + s^3\left(C_5L_3L_5R_3g_m + C_LL_3L_LR_3g_m\right) + s^2\left(C_5L_3R_3R_5g_m - C_5L_3R_3\right)}{C_3C_5C_LL_3L_5L_Rs^6 + R_3 + s^5\left(C_3C_5C_LL_3L_LR_3s_f + C_5C_LL_3L_5R_3 + C_5C_LL_3R_3R_5 + C_5C_LL_3R_3R_5 + C_5C_LL_3R_3R_5 + C_5C_LL_3R_3R_5 + C_5C_LL_3L_5R_3 + C_5C_LL_3R_3R_5 + C_5C_LL_3R_3R_5 + C_5C_LL_3L_5R_3 + C_5C_LL_3R_3R_5 + C_5C_LL_3R_3R_5 + C_5C_LL_3R_3R_5 + C_5C_LL_3R_3R_5 + C_5C_LL_3R_3R_5 + C_5C_LL_3R_3R_5 + C_5C_LL_3L_5R_3 + C_5C_LL_3L_
10.646 INVALID-ORDER-646 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                           H(s) = \frac{C_5L_3L_5L_LR_3g_ms^3 + L_3L_LR_3g_ms + s^2\left(C_5L_3L_LR_3R_5g_m - C_5L_3L_LR_3\right)}{L_3R_3 + L_LR_3 + s^4\left(C_3C_5L_3L_LR_3 + C_5C_LL_3L_LR_3\right) + s^3\left(C_3C_5L_3L_LR_3R_5 + C_5L_3L_LR_3 + C_5L_3
10.647 INVALID-ORDER-647 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, L_L s + R_L + \frac{1}{C_L s}\right)
H(s) = \frac{C_5C_LL_3L_5L_LR_3g_ms^5 + L_3R_3g_ms + s^4\left(C_5C_LL_3L_5R_3R_Lg_m + C_5C_LL_3L_LR_3R_5g_m - C_5C_LL_3L_LR_3\right) + s^3\left(C_5C_LL_3L_5R_3R_5R_L + C_5C_LL_3L_5R_3R_5R_L + C_5C_LL_3L_5R_3R_5R_L + C_5C_LL_3L_5R_3R_5R_L + C_5C_LL_3L_5R_3 + C_5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10.648 INVALID-ORDER-648 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
H(s) = \frac{C_5L_3L_5L_LR_3R_Lg_ms^3 + L_3L_LR_3R_Lg_ms + s^2\left(C_5L_3L_LR_3R_5R_Lg_m - C_5L_3L_LR_3R_L\right)}{L_3R_3R_L + L_LR_3R_L + s^4\left(C_3C_5L_3L_LR_3R_L + C_5C_LL_3L_LR_3R_L\right) + s^3\left(C_3C_5L_3L_LR_3R_5R_L + C_5L_3L_LR_3R_L + C_5
10.649 INVALID-ORDER-649 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         H(s) = \frac{C_5 C_L L_3 L_5 L_L R_3 R_L s^6 + R_3 R_L + s^5 \left(C_3 C_5 C_L L_3 L_L R_3 R_5 R_L + C_5 C_L L_3 L_L R_3 R_L + C_5 C_L L_3 L
10.650 INVALID-ORDER-650 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C_5C_LL_3L_5L_LR_3R_Lg_ms^5 + L_3R_3R_Lg_ms + s^4\left(C_5C_LL_3L_LR_3R_5R_Lg_m - C_5C_LL_3L_LR_3R_L\right) + s^4\left(C_5C_LL_3L_LR_3R_Lg_ms^5 + L_3R_3R_Lg_ms^5 + L_3
H(s) = \frac{C_5C_LL_3L_5L_LR_3R_Lg_ms^s + L_3R_3R_Lg_ms^s + L_3R_3R_Lg_ms + s^4\left(C_5C_LL_3L_LR_3R_5R_Lg_m - C_5C_LL_3L_LR_3R_L\right) + s^4\left(C_5C_LL_3L_LR_3R_L + s^5\left(C_5C_LL_3L_LR_3R_L + c_5C_LL_3L_LR_3R_L + c_5C_LL_3L_LR_3R
10.651 INVALID-ORDER-651 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, R_L + \frac{1}{C_L s}\right)
                                                                                                       H(s) = \frac{-C_5C_LL_3L_5R_3R_5R_Ls^3 - L_3R_3R_5 + s^2\left(-C_5L_3L_5R_3R_5 + C_LL_3L_5R_3R_5R_Lg_m - C_LL_3L_5R_3R_L\right) + s\left(-C_LL_3R_3R_5R_L + L_3L_5R_3R_5g_m - L_3L_5R_3\right)}{L_3R_3R_5 + L_5R_3R_5 + s^3\left(C_3C_LL_3L_5R_3R_5R_L + C_5C_LL_3L_5R_3R_5R_L\right) + s^2\left(C_3L_3L_5R_3R_5 + C_LL_3L_5R_3R_5 + C_LL_3L_5R_5 + C_LL_3L_5R_5 + C_LL_3L_5R_5 + C_LL_3L_5R_5 + C_
10.652 INVALID-ORDER-652 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + \frac{1}{C_L s}\right)
                                                                                              H(s) = \frac{-C_5C_LL_3L_5L_LR_3R_5s^4 - L_3R_3R_5 + s^3\left(C_LL_3L_5L_LR_3R_5g_m - C_LL_3L_5L_LR_3\right) + s^2\left(-C_5L_3L_5R_3R_5 - C_LL_3L_LR_3R_5\right) + s\left(L_3L_5R_3R_5g_m - L_3L_5R_3\right)}{L_3R_3R_5 + L_5R_3R_5 + s^4\left(C_3C_LL_3L_5L_LR_3R_5 + C_5C_LL_3L_5L_LR_3R_5\right) + s^3\left(C_LL_3L_5L_LR_3 + C_LL_3L_5L_LR_3\right) + s^2\left(C_3L_3L_5R_3R_5 + C_LL_3L_5R_3R_5 + C_LL_3L_5R_3R_5 + C_LL_3L_5R_3R_5\right) + s\left(L_3L_5R_3R_5 + C_LL_3L_5R_3R_5 + C_LL_3L_5R_3R_5 + C_LL_3L_5R_3R_5 + C_LL_3L_5R_3R_5\right) + s\left(L_3L_5R_3R_5 + C_LL_3L_5R_3R_5 + C_LL_3L_5R_3R_5 + C_LL_3L_5R_3R_5\right) + s\left(L_3L_5R_3R_5 + C_LL_3L_5R_3R_5 + C_LL_3L_5R_3R_5 + C_LL_3L_5R_3R_5\right) + s\left(L_3L_5R_3R_5 + C_LL_3L_5R_5\right) + s\left(L_3L_5R_5R_5\right) + s\left(L_3L_5R_5R_5 + C_LL_3L_5R_5\right) + s\left(L_3L_5R_5R_5 + C_LL_3L_5R_5\right) + s\left(L_3L_5R_5R_5 + C_LL_3L_5R_5\right) + s\left(L_3L_5R_5R_5 + C_LL_3L_5R_5\right) + s\left
10.653 INVALID-ORDER-653 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, L_L s + R_L + \frac{1}{C_L s}\right)
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 $H(s) = \frac{-C_5C_LL_3L_5L_LR_3R_5s^4 - L_3R_3R_5s^4 - L_3R_3R_5 + s^3\left(-C_5C_LL_3L_5R_3R_5R_L + C_LL_3L_5L_LR_3R_5g_m - C_LL_3L_5R_3R_5 + C_LL_3L_5R_3R_5R_L + C_LL_3L_5R_3R_5 + C_LL_3L_5R_3R_5$

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H(s) = \frac{-C_5C_LL_3L_5L_LR_3R_5R_Ls^4 - L_3R_3R_5R_L + s^3\left(-C_5L_3L_5L_LR_3R_5 + C_LL_3L_5L_LR_3R_5R_L - C_LL_3L_5L_LR_3R_5R_L - C_LL_3L_LR_3R_5R_L + L_3L_5L_LR_3R_5R_L + L_3L_5L_LR_3R_5R_L + L_3L_5L_LR_3R_5R_L + L_3L_5L_LR_3R_5R_L + L_3L_5L_LR_3R_5R_L + L_3L_5L_LR_3R_5R_L + C_5L_3L_5L_LR_3R_5R_L + C_5L_3L_5L_RR_3R_5R_L + C_5L_5L_5L_RR_3R_5R_L + C_5L_5L_5L_RR_3R_5R_L + C_5L_5L_5L_RR_3R_5R_L + C_5L_5L_5L_RR_3R_5R_L + C_5L_5L_5L_RR_3R_5R_L + C_5L_5L_5L_RR_3
10.655 INVALID-ORDER-655 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{-C_5C_LL_3L_5L_LR_3R_5R_Ls^4 - L_3R_3R_5R_L + s^3\left(C_LL_3L_5L_LR_3R_5R_Lg_m - C_LL_3L_5L_LR_3R_L\right) + s^2\left(-C_5L_3L_5R_3R_5R_L - C_LL_3L_LR_3R_5R_L\right) + s\left(L_3L_5R_3R_5R_L - L_3L_5R_3R_5R_L\right) + s\left(L_3L_5R_3R_5R_L - C_LL_3L_5R_3R_5R_L\right) + s\left(L_3L_5R_3R_5R_L + c_5L_3L_5R_3R_5R_L\right) + s\left(L_3L_5R_3R_5R_L + c_5L_3L_5R_3R_5R_L\right) + s\left(L_3L_5R_3R_5R_L + c_5L_3L_5R_3R_5R_L\right) + s\left(L_3L_5R_3R_5R_L + c_5L_3L_5R_3R_5R_L + c_5L_3L_5R_3R_5R_L\right) + s\left(L_3L_5R_3R_5R_L + c_5L_3L_5R_5R_L\right) + s\left(L_3L_5R_5R_5R_L\right) + s\left(L_3L_5R_5R_5R_L\right) + s\left(L_3L_5R_5R_5R_L\right) + s\left(L_3L_5R_5R_5R_L\right) + s\left(L_3L_5R_5R_5R_L\right) + s\left(L_3L_5R_5R_5R_L\right) + s\left(L_3L_5R_5R_L
10.656 INVALID-ORDER-656 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L\right)
                                                                                                               H(s) = \frac{L_3L_5R_3R_Lg_ms^2 + s^3\left(C_5L_3L_5R_3R_5R_Lg_m - C_5L_3L_5R_3R_L\right) + s\left(L_3R_3R_5R_Lg_m - L_3R_3R_L\right)}{C_3C_5L_3L_5R_3R_5R_Ls^4 + R_3R_5R_L + s^3\left(C_3L_3L_5R_3R_L + C_5L_3L_5R_3R_L + C_5L_3L_5R_3R_L\right) + s\left(C_3L_3R_3R_5R_L + C_5L_3R_3R_5R_L + L_3L_5R_3 + L_3L_5R_L\right) + s\left(L_3R_3R_5R_L + L_3R_5R_L + L_3R_5R_L\right) + s\left(L_3R_3R_5R_L + L_3R_5R_L\right) + s\left(L_3R_3R_5R_L\right) + s\left(L_3R_3R_L\right) + s\left(L_3R_3R_L\right) + s\left(L_3R_3R_L\right) +
10.657 INVALID-ORDER-657 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{1}{C_{L_5} s}\right)
                                                                                                                                                                              H(s) = \frac{L_3L_5R_3g_ms^2 + s^3\left(C_5L_3L_5R_3R_5g_m - C_5L_3L_5R_3\right) + s\left(L_3R_3R_5g_m - L_3R_3\right)}{R_3R_5 + s^4\left(C_3C_5L_3L_5R_3R_5 + C_5L_4L_5R_3R_5\right) + s^3\left(C_3L_3L_5R_3 + C_5L_3L_5R_3 + C_5L_3L_5R_3\right) + s^2\left(C_3L_3R_3R_5 + C_5L_3R_3R_5 + C_5R_3R_5 + C_5R_5R_5 + C_5R
10.658 INVALID-ORDER-658 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L}{C_L R_L s + 1}\right)
                                              10.659 INVALID-ORDER-659 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, R_L + \frac{1}{C_L s}\right)
H(s) = \frac{s^4 \left( C_5 C_L L_3 L_5 R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 R_3 R_L \right) + s^3 \left( C_5 L_3 L_5 R_3 R_L g_m - C_5 L_3 L_5 R_3 R_L g_m - C_5 L_3 L_5 R_3 R_L g_m - C_L L_3 R_3 R_L + L_3 L_5 R_3 g_m \right)}{C_3 C_5 C_L L_3 L_5 R_3 R_5 R_L s^5 + R_3 R_5 + s^4 \left( C_3 C_5 L_3 L_5 R_3 R_5 + C_5 C_L L_3 L_5 R_3 R_5 + C_5 C_L L_3 L_5 R_3 R_5 + C_5 C_L L_3 L_5 R_3 R_5 R_L \right) + s^3 \left( C_3 C_L L_3 L_5 R_3 R_5 R_L + C_5 C_L L_3 L_5 R_3 R_5 R_L + C_5 C_L L_3 L_5 R_3 R_5 R_L + C_5 C_L L_3 L_5 R_3 R_5 R_L \right) + s^3 \left( C_3 C_L L_3 L_5 R_3 R_5 R_L + C_5 C_L L_3 L_5 R_3 R_5 R_L + C_5 C_L L_3 L_5 R_3 R_5 R_L \right) + s^3 \left( C_5 L_3 L_5 R_3 R_5 R_L + C_5 L_4 L_5 R_3 R_5 R_L + C_5 C_L L_3 L_5 R_3 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_3 R_5 R_L + C_5 L_4 L_5 R_3 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_3 R_5 R_L + C_5 L_4 L_5 R_3 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_3 R_5 R_L + C_5 L_4 L_5 R_3 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_3 R_5 R_L + C_5 L_4 L_5 R_3 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_3 R_5 R_L + C_5 L_4 L_5 R_3 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_3 R_5 R_L + C_5 L_4 L_5 R_3 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_3 R_5 R_L + C_5 L_4 L_5 R_3 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_3 R_5 R_L + C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_5 R_5 R_L + C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_4 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_5 R_5 R_5 R_L \right) + s^3 \left( C_5 L_5 R_5 R_5 R_L \right) + s^3 
10.660 INVALID-ORDER-660 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + \frac{1}{C_L s}\right)
H(s) = \frac{C_L L_3 L_5 L_L R_3 g_m s^4 + L_3 L_5 R_3 g_m s^2 + s^5 \left(C_5 C_L L_3 L_5 L_L R_3 R_5 g_m - C_5 L_4 L_5 L_L R_3\right) + s^3 \left(C_5 L_3 L_5 R_3 R_5 g_m - C_5 L_3 L_5 L_4 R_3 R_5 g_m - C_5 L_4 L_4 L_5 R_4 R_5 g_m - C_5 L_4 L_4 L_4 R_4 R_5 g_m - C_5 L_4 L
10.661 INVALID-ORDER-661 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_{3s} + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)
H(s) = \frac{L_3L_5L_LR_3g_ms^2 + s^3\left(C_5L_3L_5L_LR_3R_5g_m - C_5L_3L_5L_LR_3\right) + s\left(L_3L_LR_3R_5g_m - L_3L_LR_3\right)}{L_3R_3R_5 + L_LR_3R_5 + s^4\left(C_3C_5L_3L_5L_LR_3R_5 + C_5C_LL_3L_5L_LR_3\right) + s^3\left(C_3L_3L_5L_LR_3 + C_5L_3L_5L_LR_3\right) + s^2\left(C_3L_3L_LR_3R_5 + C_5L_3L_5R_3R_5 + C_5L_3L_5R_5 + C_5L_3L_5R_5 + C_5L_3L_5R_5 + C_5L_3L_5R_5 + C_5L_3L_5R_5 + C_5L_5L_5R_5 + C_5L
10.662 INVALID-ORDER-662 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, L_L s + R_L + \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         s^{5}\left(C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}\right)+s^{4}\left(C_{5}C_{L}L_{3}L_{5}R_{3}R_{5}R_{L}g_{m}-C_{5}C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}L_{L}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{3}R_{L}+C_{L}L_{3}L_{5}R_{2}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}L_{5}R_{L}+C_{L}L_{3}R_{L}+C_{L}L_{3}R_{L}+C_{L}L_{3}R_{L}+C_{L}L_{3}R_{L}+C_{L}L_{3}R_{L}+C_{L}L_{3}R_{L}+C_{L}L_{3}R_{L}+C_{L}L_{3}R_{L}+C_{L}L_{3}R_{L}+C_{L}
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10.654 INVALID-ORDER-654 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

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10.664 INVALID-ORDER-664 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         s^{5}\left(C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{L}\right)+s^{4}\left(C_{5}L_{3}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{L}\right)+s^{4}\left(C_{5}L_{3}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{L}\right)+s^{4}\left(C_{5}L_{3}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{L}\right)+s^{4}\left(C_{5}L_{3}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{L}\right)+s^{4}\left(C_{5}L_{3}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{L}\right)+s^{4}\left(C_{5}L_{3}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{L}\right)+s^{4}\left(C_{5}L_{3}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{L}\right)+s^{4}\left(C_{5}L_{3}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{L}\right)+s^{4}\left(C_{5}L_{3}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{L}\right)+s^{4}\left(C_{5}L_{3}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{L}\right)+s^{4}\left(C_{5}L_{3}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{L}\right)+s^{4}\left(C_{5}L_{3}L_{5}L_{L}R_{3}R_{5}g_{m}-C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{L}\right)+s^{4}\left(C_{5}L_{3}L_{5}L_{L}R_{3}R_{5}R_{L}\right)+s^{4}\left(C_{5}L_{5}L_{L}R_{3}R_{5}R_{L}\right)+s^{4}\left(C_{5}L_{5}L_{L}R_{5}R_{L}R_{5}R_{L}\right)+s^{4}\left(C_{5}L_{5}L_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L}R_{5}R_{L
 H(s) = \frac{s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_L \right) + s^{\circ} \left( C_5 L_L L_3 L_5 L_L R_3 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_5 L_L R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_5 L_L R_5 R_L \right) + s^{\circ} \left( C_5 C_L L_5 L_L R_5 R_L \right) + s^{\circ} \left(
10.665 INVALID-ORDER-665 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       H(s) = \frac{C_L L_3 L_5 L_L R_3 R_L g_m s + L_3 L_5 R_3 R_L g_m s + s + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L - C_5 C_L L_3}{C_3 C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + S^5 \left(C_3 C_L L_3 L_5 L_L R_3 R_5 + C_5 C_L L_3 L_5 L_L R_3 R_5 + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_5 L_L R_3 R_5 R_L + C_5 C_L L_5 L_L R_5 R_L + C_5 C_L L_
 10.666 INVALID-ORDER-666 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, R_L\right)
                                                                                                                                                                                                                                                                                      H(s) = \frac{-C_5L_3R_3R_5R_Ls^2 + s^3\left(C_5L_3L_5R_3R_5R_Lg_m - C_5L_3L_5R_3R_L\right) + s\left(L_3R_3R_5R_Lg_m - L_3R_3R_L\right)}{C_3C_5L_3L_5R_3R_5R_Ls^4 + R_3R_5R_L + s^3\left(C_5L_3L_5R_3R_5 + C_5L_3L_5R_3R_L + C_5L_3L_5R_3R_L\right) + s\left(C_3L_3R_3R_5R_L + C_5L_3R_3R_5R_L + C_5L_3R_3R_5R_L\right) + s\left(L_3R_3R_5R_L + C_5L_3R_3R_5R_L\right) + s\left(L_3R_3R_5R_L\right) + s\left(L_3R_3R_5R
 10.667 INVALID-ORDER-667 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                                                                                                                                   H(s) = \frac{-C_5L_3R_3R_5s^2 + s^3\left(C_5L_3L_5R_3R_5g_m - C_5L_3L_5R_3\right) + s\left(L_3R_3R_5g_m - L_3R_3\right)}{R_3R_5 + s^4\left(C_3C_5L_3L_5R_3R_5 + C_5C_LL_3L_5R_3R_5\right) + s^3\left(C_5L_3L_5R_3 + C_5L_3L_5R_5\right) + s^2\left(C_3L_3R_3R_5 + C_5L_3R_3R_5 + C_5L_5R_3R_5 + C_5L_3R_3R_5\right) + s\left(L_3R_3R_5 + C_5L_3R_3R_5 + C_5L_3R_3R_5\right) + s\left(L_3R_3R_5 + C_5L_3R_5\right) + s\left(L_3R_3R_5\right) + s\left(L_3R_5\right) + s\left(L_3R_5\right) + s\left(L_3R_5\right) + s\left(L_3R_5\right) + s\left(L_3R_5\right) + s\left(L_3R_
 10.668 INVALID-ORDER-668 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_3 s + R_3}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)
                                                                                                                     H(s) = \frac{-C_5L_3R_3R_5R_Ls^2 + s^3\left(C_5L_3L_5R_3R_5R_Lg_m - C_5L_3L_5R_3R_L\right) + s\left(L_3R_3R_5R_Lg_m - L_3R_3R_L\right)}{R_3R_5R_L + s^4\left(C_3C_5L_3L_5R_3R_5R_L + C_5C_LL_3L_5R_3R_5R_L\right) + s^3\left(C_5L_3L_5R_3R_5 + C_5L_3L_5R_3R_L + C_5L_3L_5R_3R_L\right) + s^2\left(C_3L_3R_3R_5R_L + C_5L_3R_3R_5R_L + C_5L_3R_5R_5R_L + C_5L_3R_5R_5R_L + C_5L_3R_5R_5R_L
 10.669 INVALID-ORDER-669 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, R_L + \frac{1}{C_L s}\right)
 H(s) = \frac{s^4 \left( C_5 C_L L_3 L_5 R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 R_3 R_5 R_L + C_5 L_4 L_5 R_3 R_5 g_m - C_5 L_4 L_5 R_3 R_5 + C_L L_3 R_3 R_5 R_L g_m - C_L L_3 R_3 R_5 + C_L L_3 R_3 R_5 R_L + C_5 L_4 L_5 R_3 R_5 R_L + C_5 C_L L_3 L_5 R_3 R_5 R_L + C_5 C_L L_5 R_5 R_5 R_L + C_5 C_L L_5 R_
 10.670 INVALID-ORDER-670 Z(s) = \left(\infty, \infty, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_3 s + R_3}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, L_L s + \frac{1}{C_L s}\right)
 H(s) = \frac{-C_5C_LL_3L_LR_3R_5s^4 - C_5L_3R_3R_5s^2 + s^5\left(C_5C_LL_3L_5L_LR_3R_5g_m - C_5C_LL_3L_5L_LR_3\right) + s^3\left(C_5L_3L_5R_3R_5g_m - C_5L_3L_5R_3 + C_LL_3L_LR_3R_5g_m - C_LL_3L_LR_3\right) + s\left(L_3R_3R_5g_m - C_LL_3L_LR_3\right) + s\left(L_3R_3R_5g_m - C_LL_3L_LR_3\right) + s\left(L_3R_3R_5g_m - C_5L_3L_5R_3R_5g_m - C_5L_3L_5R_3R_5g_m - C_5L_3L_5R_3\right) + s\left(L_3R_3R_5g_m - C_5L_3L_5R_3R_5 + C_5C_5L_3L_5R_3R_5 + C_5C_5L_3L_5R_3R_5\right) + s\left(L_3R_3R_5g_m - C_5L_3L_5R_3R_5 + C_5C_5L_3L_5R_3R_5\right) + s\left(L_3R_3R_5g_m - C_5L_3L_5R_3R_5 + C_5C_5L_3L_5R_3R_5\right) + s\left(L_3R_3R_5g_m - C_5L_3L_5R_3R_5\right) + s\left(L_3R_3R_5g_m - C_5L_3L_5R_5\right) + s\left(L_3R_3R_5g_m - C_5L
 10.671 INVALID-ORDER-671 Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                                                                                                                            H(s) = \frac{-C_5L_3L_LR_3R_5s^2 + s^3\left(C_5L_3L_5L_LR_3R_5g_m - C_5L_3L_5L_LR_3\right) + s\left(L_3L_LR_3R_5g_m - L_3L_LR_3\right)}{L_3R_3R_5 + L_LR_3R_5 + s^4\left(C_3C_5L_3L_5L_LR_3R_5 + C_5C_LL_3L_5L_LR_3R_5\right) + s^3\left(C_5L_3L_5L_LR_3 + C_5L_3L_5L_RR_3\right) + s\left(L_3L_LR_3R_5 + C_5L_3L_LR_3R_5 + C_5L_3L_LR_3R_5 + C_5L_3L_LR_3R_5 + C_5L_3L_LR_3R_5\right) + s\left(L_3L_LR_3R_5 + C_5L_3L_LR_3R_5 + C_5L_3L_LR_3R_5 + C_5L_3L_LR_3R_5\right) + s\left(L_3L_LR_3R_5 + C_5L_3L_LR_3R_5 + C_5L_3L_LR_3R_5 + C_5L_3L_LR_3R_5\right) + s\left(L_3L_LR_3R_5 + C_5L_3L_LR_3R_5\right) + s\left(L_3L_LR_3R_5 + C_5L_3L_LR_3R_5\right) + s\left(L_3L_LR_3R_5 + C_5L_3L_LR_3R_5\right) + s\left(L_3L_LR_3R_5 + C_5L_3L_LR_3R_5\right) + s\left(L_3L_LR_3R_5\right) +
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 $H(s) = \frac{L_3L_5L_LR_3R_Lg_ms^2 + s^3\left(C_5L_3L_5L_LR_3R_5R_Lg_m - C_5L_3L_5L_LR_3R_5\right) + s\left(L_3L_LR_3R_5R_Lg_m - L_3L_LR_3R_L\right)}{L_3R_3R_5R_L + L_LR_3R_5R_L + s^4\left(C_3C_5L_3L_5L_LR_3R_5R_L + C_5C_LL_3L_5L_LR_3R_5\right) + s^3\left(C_3L_3L_5L_LR_3R_5 + C_5L_3L_5L_LR_3R_5 + C_5L_3L_5L_RR_3R_5 + C_5L_5L_5L_RR_3R_5 + C_5L_5L_5L_RR_3R_5 + C_5L_5L_5L_RR_3R_5 + C_5L_5L_5L_RR_3R_5 + C_5L_5L_5L_RR_3R_$

10.663 INVALID-ORDER-663 $Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

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 10.672 \quad \text{INVALID-ORDER-672} \quad Z(s) = \left( \infty, \ \infty, \ \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \ \infty, \ \frac{R_6(C_5L_3s^2 + C_5R_5s^2 + 1)}{C_5L_5s^2 + C_5R_5s^2 + 1}, \ L_Ls + R_L + \frac{1}{C_Ls} \right) 
 8^5 \left( C_5C_LL_3L_5L_R_3R_5g_m - C_5C_LL_3L_5L_R_3R_5R_5R_L - C_5C_LL_3L_5R_3R_5 - C_5C_LL_3L_5R_3R_5R_L + C_5C_LL_3L_5R_3R_5R_L + C_5C_LL_3R_5R_5R_L + C_5C_LL_3R_5R_5R_L + C_5C_LL_3R_5R_5R_L + C_5C_LL_3R_5R_5R_5R_L + C_5C_LL_3R_5R_5R_L + C_5C_LL_3
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10.675 INVALID-ORDER-675
$$Z(s) = \left(\infty, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{-C_5C_LL_3L_LR_3R_5R_Ls^4 - C_5L_3R_3R_5R_Ls^4 - C_5L_3L_5L_LR_3R_5R_Lg_m - C_5C_LL_3L_5L_LR_3R_L) + s^3\left(C_5L_3L_5R_3R_5R_Lg_m - C_5L_3L_5R_3R_5R_Lg_m - C_5L_3L_5$$

10.676 INVALID-ORDER-676
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_3 s^2 + 1} + R_3, \infty, R_5, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s^2 \left(C_3 L_3 R_3 R_5 g_m - C_3 L_3 R_3 \right) + s \left(L_3 R_5 g_m - L_3 \right)}{C_3 C_L L_3 R_3 R_5 s^3 + R_3 + R_5 + s^2 \left(C_3 L_3 R_3 + C_3 L_3 R_5 + C_L L_3 R_5 \right) + s \left(C_L R_3 R_5 + L_3 \right)}$$

10.677 INVALID-ORDER-677
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_{3}L_{3}s^{2}+1} + R_{3}, \infty, R_{5}, \frac{R_{L}}{C_{L}R_{L}s+1}\right)$$

$$H(s) = \frac{R_3R_5R_Lg_m - R_3R_L + s^2\left(C_3L_3R_3R_5R_Lg_m - C_3L_3R_3R_L\right) + s\left(L_3R_5R_Lg_m - L_3R_L\right)}{C_3C_LL_3R_3R_5R_Ls^3 + R_3R_5 + R_3R_L + R_5R_L + s^2\left(C_3L_3R_3R_5 + C_3L_3R_3R_L + C_3L_3R_5R_L + C_LL_3R_5R_L\right) + s\left(C_LR_3R_5R_L + L_3R_5 + L_3R_L\right)}$$

10.678 INVALID-ORDER-678
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, R_5, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s^3 \left(C_3 C_L L_3 R_3 R_5 R_L g_m - C_3 C_L L_3 R_3 R_L\right) + s^2 \left(C_3 L_3 R_3 R_5 g_m - C_3 L_3 R_3 + C_L L_3 R_5 R_L g_m - C_L L_3 R_L\right) + s \left(C_L R_3 R_5 R_L g_m - C_L R_3 R_L + L_3 R_5 g_m - L_3\right)}{R_3 + R_5 + s^3 \left(C_3 C_L L_3 R_3 R_5 + C_3 C_L L_3 R_3 R_L + C_3 C_L L_3 R_5 R_L\right) + s^2 \left(C_3 L_3 R_3 + C_3 L_3 R_5 + C_L L_3 R_5 +$$

10.679 INVALID-ORDER-679
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, R_5, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s^4 \left(C_3 C_L L_3 L_L R_3 R_5 g_m - C_3 C_L L_3 L_L R_3\right) + s^3 \left(C_L L_3 L_L R_5 g_m - C_L L_3 L_L\right) + s^2 \left(C_3 L_3 R_3 R_5 g_m - C_3 L_3 R_3 + C_L L_L R_3 R_5 g_m - C_L L_L R_3\right) + s \left(L_3 R_5 g_m - L_3\right)}{R_3 + R_5 + s^4 \left(C_3 C_L L_3 L_L R_3 + C_3 C_L L_3 L_L R_5\right) + s^3 \left(C_3 C_L L_3 R_3 R_5 + C_L L_3 L_L\right) + s^2 \left(C_3 L_3 R_3 + C_3 L_3 R_5 + C_L L_3 R_5$$

10.680 INVALID-ORDER-680
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, R_5, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{s^3 \left(C_3 L_3 L_L R_3 R_5 g_m - C_3 L_3 L_L R_3 \right) + s^2 \left(L_3 L_L R_5 g_m - L_3 L_L \right) + s \left(L_L R_3 R_5 g_m - L_L R_3 \right)}{C_3 C_L L_3 L_L R_3 R_5 s^4 + R_3 R_5 + s^3 \left(C_3 L_3 L_L R_3 + C_3 L_3 L_L R_5 + C_L L_3 L_L R_5 \right) + s^2 \left(C_3 L_3 R_3 R_5 + C_L L_L R_3 R_5 + L_3 L_L \right) + s \left(L_3 R_5 + L_L R_3 + L_L R_5 \right)}$$

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10.681 INVALID-ORDER-681 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, R_5, L_Ls + R_L + \frac{1}{C_Ls}\right)
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$$H(s) = \frac{R_3 R_5 g_m - R_3 + s^4 \left(C_3 C_L L_3 L_L R_3 R_5 g_m - C_3 C_L L_3 L_L R_3\right) + s^3 \left(C_3 C_L L_3 R_3 R_5 R_L g_m - C_3 L_L R_3\right) + s^3 \left(C_3 C_L L_3 R_3 R_5 R_L g_m - C_L L_3 L_L\right) + s^2 \left(C_3 L_3 R_3 R_5 g_m - C_3 L_3 R_3 + C_L L_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L R_3 R_L + C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L R_3 R_L + C_L L_4 R_3\right) + s \left(C_L R_3 R_5 R_L g_m - C_L R_3 R_L + C_L R_3 R$$

10.682 INVALID-ORDER-682
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, R_5, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$$

$$H(s) = \frac{s^3 \left(C_3 L_3 L_L R_3 R_5 R_L g_m - C_3 L_3 L_L R_3 R_L \right) + s^2 \left(L_3 L_L R_5 R_L g_m - L_3 L_L R_L \right) + s \left(L_L R_3 R_5 R_L g_m - L_L R_3 R_L \right)}{C_3 C_L L_3 L_L R_3 R_5 R_L + s^3 \left(C_3 L_3 L_L R_3 R_5 + C_3 L_3 L_L R_3 R_L + C_L L_3 L_L R_5 R_L \right) + s^2 \left(C_3 L_3 R_3 R_5 R_L + C_L L_L R_3 R_5 R_L + L_3 L_L R_5 \right) + s \left(L_3 R_5 R_L + L_4 R_3 R_5 R_L + L_4 R_3 R_5 R_L + L_4 R_5 R_L \right)}$$

10.683 INVALID-ORDER-683
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, R_5, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{R_3R_5R_Lg_m - R_3R_L + s^4\left(C_3C_LL_3L_LR_3R_5R_Lg_m - C_3C_LL_3L_LR_3R_5\right) + s^3\left(C_3L_3L_LR_3R_5g_m - C_3L_3L_LR_3 + C_LL_3L_LR_5R_Lg_m - C_LL_3L_LR_1\right) + s^2\left(C_3L_3R_3R_5R_Lg_m - C_3L_3R_3R_L + C_LL_LR_3R_5R_Lg_m - C_LL_LR_3R_L + L_3L_LR_5g_m - L_3L_L\right) + s\left(L_3R_5R_Lg_m - C_3L_3L_LR_3R_5 + C_3L_3R_3R_5 + C_3L_3R_3R$$

10.684 INVALID-ORDER-684
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, R_5, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$$

$$H(s) = \frac{R_3R_5R_Lg_m - R_3R_L + s^4\left(C_3C_LL_3L_LR_3R_5R_Lg_m - C_3C_LL_3L_LR_3R_L\right) + s^3\left(C_LL_3L_LR_5R_Lg_m - C_LL_3L_LR_L\right) + s^2\left(C_3L_3R_3R_5R_Lg_m - C_3L_3R_3R_L + C_LL_LR_3R_5R_Lg_m - C_LL_LR_3R_L\right) + s\left(L_3R_5R_Lg_m - L_3R_L\right)}{R_3R_5 + R_3R_L + R_5R_L + s^4\left(C_3C_LL_3L_LR_3R_5 + C_3C_LL_3L_LR_3R_L + C_LL_3L_LR_5 + C_LL_3L_LR_5 + C_LL_3L_LR_5 + C_LL_3L_LR_5 + C_LL_3L_LR_5 + C_LL_3R_3R_5 + C_3L_3R_3R_5 + C_3L_3R$$

10.685 INVALID-ORDER-685
$$Z(s) = \left(\infty, \infty, \frac{L_{3}s}{C_{3}L_{3}s^{2}+1} + R_{3}, \infty, \frac{1}{C_{5}s}, R_{L}\right)$$

$$H(s) = \frac{-C_3C_5L_3R_3R_Ls^3 + R_3R_Lg_m + s^2\left(C_3L_3R_3R_Lg_m - C_5L_3R_L\right) + s\left(-C_5R_3R_L + L_3R_Lg_m\right)}{C_3C_5L_3R_3R_Ls^3 + R_3 + R_L + s^2\left(C_3L_3R_3 + C_3L_3R_L + C_5L_3R_L\right) + s\left(C_5R_3R_L + L_3R_Lg_m\right)}$$

10.686 INVALID-ORDER-686
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, \frac{1}{C_5s}, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{-C_3C_5L_3R_3s^3 + R_3g_m + s^2\left(C_3L_3R_3g_m - C_5L_3\right) + s\left(-C_5R_3 + L_3g_m\right)}{s^3\left(C_3C_5L_3R_3 + C_3C_LL_3R_3\right) + s^2\left(C_3L_3 + C_5L_3 + C_LL_3\right) + s\left(C_5R_3 + C_LR_3\right) + 1}$$

10.687 INVALID-ORDER-687
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_{3s}^2+1} + R_3, \infty, \frac{1}{C_5s}, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{-C_3C_5L_3R_3R_Ls^3 + R_3R_Lg_m + s^2\left(C_3L_3R_3R_Lg_m - C_5L_3R_L\right) + s\left(-C_5R_3R_L + L_3R_Lg_m\right)}{R_3 + R_L + s^3\left(C_3C_5L_3R_3R_L + C_3C_LL_3R_3R_L\right) + s^2\left(C_3L_3R_3 + C_3L_3R_L + C_5L_3R_L + C_LL_3R_L\right) + s\left(C_5R_3R_L + C_LR_3R_L + L_3R_L\right)}$$

10.688 INVALID-ORDER-688
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, \frac{1}{C_5s}, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3R_3R_Ls^4 + R_3g_m + s^3\left(-C_3C_5L_3R_3 + C_3C_LL_3R_3R_Lg_m - C_5C_LL_3R_L\right) + s^2\left(C_3L_3R_3g_m - C_5C_LR_3R_L - C_5L_3 + C_LL_3R_Lg_m\right) + s\left(-C_5R_3 + C_LR_3R_Lg_m + L_3g_m\right)}{C_3C_5C_LL_3R_3R_Ls^4 + s^3\left(C_3C_5L_3R_3 + C_3C_LL_3R_3 + C_3C_LL_3R_L + C_5C_LL_3R_L\right) + s^2\left(C_3L_3R_3g_m - C_5C_LR_3R_L - C_5L_3 + C_LL_3R_Lg_m\right) + s\left(-C_5R_3 + C_LR_3R_Lg_m + L_3g_m\right)}$$

10.689 INVALID-ORDER-689
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{1}{C_5s}, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{-C_3C_5C_LL_3L_LR_3s^5 + R_3g_m + s^4\left(C_3C_LL_3L_LR_3g_m - C_5C_LL_3L_L\right) + s^3\left(-C_3C_5L_3R_3 - C_5C_LL_LR_3 + C_LL_3L_Lg_m\right) + s^2\left(C_3L_3R_3g_m - C_5L_3 + C_LL_LR_3g_m\right) + s\left(-C_5R_3 + L_3g_m\right)}{C_3C_5C_LL_3L_LR_3s^5 + s^4\left(C_3C_LL_3L_L + C_5C_LL_3L_L\right) + s^3\left(C_3C_5L_3R_3 + C_3C_LL_3R_3 + C_5C_LL_LR_3\right) + s^2\left(C_3L_3 + C_5L_3 + C_LL_3 + C_LL_1\right) + s\left(C_5R_3 + C_LR_3\right) + s^2\left(C_3L_3 + C_5L_3 + C_5L_3 + C_5L_3 + C_5L_3\right) + s^2\left(C_3L_3 + C_5L_3$$

 $\begin{aligned} \textbf{10.690} \quad \textbf{INVALID-ORDER-690} \ \ Z(s) &= \left(\infty, \ \ \infty, \ \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \ \infty, \ \ \frac{1}{C_5s}, \ \ \frac{L_Ls}{C_LL_Ls^2+1} \right) \\ & H(s) &= \frac{-C_3C_5L_3L_LR_3s^4 + L_LR_3g_ms + s^3\left(C_3L_3L_LR_3g_m - C_5L_3L_L\right) + s^2\left(-C_5L_LR_3 + L_3L_Lg_m\right)}{R_3 + s^4\left(C_3C_5L_3L_LR_3 + C_3C_LL_3L_LR_3\right) + s^3\left(C_3L_3L_L + C_5L_3L_L + C_LL_3L_L\right) + s^2\left(C_3L_3R_3 + C_5L_LR_3 + C_LL_LR_3\right) + s\left(L_3 + L_L\right)} \end{aligned}$

10.691 INVALID-ORDER-691 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)$

 $H(s) = \frac{-C_3C_5C_LL_3L_LR_3s^5 + R_3g_m + s^4\left(-C_3C_5C_LL_3R_3R_L + C_3C_LL_3L_LR_3g_m - C_5C_LL_3L_L\right) + s^3\left(-C_3C_5L_3R_3 + C_3C_LL_3R_3R_Lg_m - C_5C_LL_3R_3 + C_4L_3L_Lg_m\right) + s^2\left(C_3L_3R_3g_m - C_5C_LR_3R_L - C_5L_3R_3R_L + C_5C_LL_3R_3R_L + C_5C_LL_3R_3$

10.692 INVALID-ORDER-692 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{1}{C_5s}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$

 $H(s) = \frac{-C_3C_5L_3L_LR_3R_Ls^4 + L_LR_3R_Lg_ms + s^3\left(C_3L_3L_LR_3R_Lg_m - C_5L_3L_LR_L\right) + s^2\left(-C_5L_LR_3R_L + L_3L_LR_Lg_m\right)}{R_3R_L + s^4\left(C_3C_5L_3L_LR_3R_L + C_3C_LL_3L_LR_3R_L\right) + s^3\left(C_3L_3L_LR_3 + C_3L_3L_LR_L + C_5L_3L_LR_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_LR_3R_L + L_3L_LR_3R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_LR_3R_L + L_3L_LR_3R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_3R_3R_L + C_5L_4R_3R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_4R_3R_L + L_3L_LR_3R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_4R_3R_L + L_3L_LR_3R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_4R_3R_L + C_5L_4R_3R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_3R_3R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_3R_3R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_3R_3R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_3R_3R_L\right) + s^2\left(C_3L_3R_3R_L\right) +$

10.693 INVALID-ORDER-693 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$

 $H(s) = \frac{-C_3C_5C_LL_3L_LR_3R_Ls^5 + R_3R_Lg_m + s^4\left(-C_3C_5L_3L_LR_3 + C_3C_LL_3L_LR_3R_Lg_m - C_5C_LL_3L_LR_3 + C_3L_3L_LR_3g_m - C_5C_LL_3L_LR_3g_m - C_5C_LL_2R_3R_L - C_5L_3L_LR_3g_m - C_5C_LL_2R_3R_L - C_5L_3R_3R_Lg_m - C_5L_3R_3R_Lg_m - C_5L_3R_3R_L + C_3L_3L_LR_3g_m - C_5C_LL_2R_3R_L - C_5L_3R_3R_Lg_m - C_5L_3R_3R_Lg_m - C_5L_3R_3R_Lg_m - C_5L_3R_3R_Lg_m - C_5L_3R_3R_L - C_5L_3R_3R_Lg_m - C_5L_3$

10.694 INVALID-ORDER-694 $Z(s) = \left(\infty, \infty, \frac{L_{3}s}{C_{3}L_{3}s^{2}+1} + R_{3}, \infty, \frac{1}{C_{5}s}, \frac{R_{L}\left(C_{L}L_{L}s^{2}+1\right)}{C_{L}L_{L}s^{2}+C_{L}R_{L}s+1}\right)$

 $H(s) = \frac{-C_3C_5C_LL_3L_LR_3R_Ls^5 + R_3R_Lg_m + s^4\left(C_3C_LL_3L_LR_3R_Lg_m - C_5C_LL_3L_LR_L\right) + s^3\left(-C_3C_5L_3R_3R_L - C_5C_LL_LR_3R_L + C_LL_3L_LR_2g_m\right) + s^2\left(C_3L_3R_3R_Lg_m - C_5L_3R_L + C_LL_LR_3R_Lg_m\right) + s\left(-C_5R_3R_L + L_3R_Lg_m\right) + s\left(-C_5R_3R_L + L_3R_Lg_m\right) + s\left(-C_5R_3R_L + C_LL_2R_3R_L + C_LL_2R_3R_L$

10.695 INVALID-ORDER-695 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5}{C_5R_5s+1}, R_L\right)$

 $H(s) = \frac{-C_3C_5L_3R_3R_5R_Ls^3 + R_3R_5R_Lg_m - R_3R_L + s^2\left(C_3L_3R_3R_5R_Lg_m - C_3L_3R_3R_L - C_5L_3R_5R_L\right) + s\left(-C_5R_3R_5R_L + L_3R_5R_Lg_m - L_3R_L\right)}{C_3C_5L_3R_3R_5R_Ls^3 + R_3R_5 + R_3R_L + R_5R_L + s^2\left(C_3L_3R_3R_5 + C_3L_3R_3R_L + C_5L_3R_5R_L\right) + s\left(-C_5R_3R_5R_L + L_3R_5R_Lg_m - L_3R_L\right)}$

10.696 INVALID-ORDER-696 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5}{C_5R_5s+1}, \frac{1}{C_Ls}\right)$

 $H(s) = \frac{-C_3C_5L_3R_3R_5s^3 + R_3R_5g_m - R_3 + s^2\left(C_3L_3R_3R_5g_m - C_3L_3R_3 - C_5L_3R_5\right) + s\left(-C_5R_3R_5 + L_3R_5g_m - L_3\right)}{R_3 + R_5 + s^3\left(C_3C_5L_3R_3R_5 + C_3L_L3R_3R_5\right) + s^2\left(C_3L_3R_3R_5 + C_5L_3R_5 + C_5L_3R_5\right) + s\left(C_5R_3R_5 + C_LR_3R_5 + L_3R_5\right)}$

10.697 INVALID-ORDER-697 $Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)$

 $H(s) = \frac{-C_3C_5L_3R_3R_5R_Ls^3 + R_3R_5R_Lg_m - R_3R_L + s^2\left(C_3L_3R_3R_5R_Lg_m - C_3L_3R_3R_L - C_5L_3R_5R_L\right) + s\left(-C_5R_3R_5R_L + L_3R_5R_Lg_m - L_3R_L\right)}{R_3R_5 + R_3R_L + R_5R_L + s^3\left(C_3C_5L_3R_3R_5R_L + C_3C_LL_3R_3R_5R_L\right) + s^2\left(C_3L_3R_3R_5 + C_3L_3R_3R_5 + C_3L_3R_5R_L + C_5L_3R_5R_L + C_5L_3R_5R_L\right) + s\left(C_5R_3R_5R_L + L_3R_5R_L + L_3R$

10.698 INVALID-ORDER-698 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5}{C_5R_5s+1}, R_L + \frac{1}{C_Ls}\right)$

 $H(s) = \frac{-C_3C_5C_LL_3R_3R_5R_Ls^4 + R_3R_5g_m - R_3 + s^3\left(-C_3C_5L_3R_3R_5 + C_3C_LL_3R_3R_5R_Lg_m - C_3L_4R_3R_5R_L\right) + s^2\left(C_3L_3R_3R_5g_m - C_3L_3R_3 - C_5C_LR_3R_5R_L - C_5L_3R_5 + C_LL_3R_5R_Lg_m - C_LL_3R_L\right) + s\left(-C_5R_3R_5 + C_LR_3R_5R_Lg_m - C_LR_3R_L + L_3R_5R_Lg_m - C_LR_3R_L\right) + s\left(-C_5R_3R_5 + C_LR_3R_5R_Lg_m - C_LR_3R_L + L_3R_5R_Lg_m - C_LR_3R_L\right) + s\left(-C_5R_3R_5 + C_LR_3R_5R_Lg_m - C_LR_3R_L + L_3R_5R_Lg_m - C_LR_3R_L\right) + s\left(-C_5R_3R_5 + C_LR_3R_5R_Lg_m - C_LR_3R_L\right) + s\left(-C_5R_3R_5 +$

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10.699 INVALID-ORDER-699 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5}{C_5R_5s+1}, L_Ls + \frac{1}{C_Ls}\right)
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 $H(s) = \frac{-C_3C_5C_LL_3L_LR_3R_5s^5 + R_3R_5g_m - R_3 + s^4\left(C_3C_LL_3L_LR_3R_5g_m - C_3C_LL_3L_LR_3 - C_5C_LL_3L_LR_3 + s^2\left(C_3L_3R_3R_5 - C_5C_LL_3L_LR_3 + C_LL_3L_LR_5g_m - C_LL_3L_L\right) + s^2\left(C_3L_3R_3R_5g_m - C_3L_3R_3 - C_5L_3R_5 + C_LL_LR_3R_5g_m - C_LL_LR_3\right) + s\left(-C_5R_3R_5 + C_5C_LL_3L_LR_3R_5s^5 + R_3R_5s^5 + R_3R_5s$

10.700 INVALID-ORDER-700
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5}{C_5R_5s+1}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

 $H(s) = \frac{-C_3C_5L_3L_LR_3R_5s^4 + s^3\left(C_3L_3L_LR_3R_5g_m - C_3L_3L_LR_3 - C_5L_3L_LR_5\right) + s^2\left(-C_5L_LR_3R_5 + L_3L_LR_5g_m - L_3L_L\right) + s\left(L_LR_3R_5g_m - L_LR_3\right)}{R_3R_5 + s^4\left(C_3C_5L_3L_LR_3R_5 + C_3C_LL_3L_LR_3R_5\right) + s^3\left(C_3L_3L_LR_3 + C_3L_3L_LR_5 + C_5L_3L_LR_5\right) + s^2\left(C_3L_3R_3R_5 + C_5L_LR_3R_5 + C_5L_LR_3R_5 + L_3L_L\right) + s\left(L_3R_5R_5 + L_3L_LR_3 + L_3R_5 + L_3L_RR_5\right)}$

10.701 INVALID-ORDER-701
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5}{C_5R_5s+1}, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{-C_3C_5C_LL_3L_LR_3R_5s^5 + R_3R_5g_m - R_3 + s^4\left(-C_3C_5C_LL_3R_3R_5R_L + C_3C_LL_3L_LR_3R_5g_m - C_3C_LL_3L_LR_3 - C_5C_LL_3R_3R_5 + C_3C_LL_3R_3R_5 + C_3C_LL_3R_3R_5 + C_3C_LL_3R_3R_5 - C_5C_LL_3R_3R_5 - C_5C_LL_3R_3R_5 + C_5C_LL_3R_5 + C_5C_L$

10.702 INVALID-ORDER-702
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5}{C_5R_5s+1}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$$

 $H(s) = \frac{-C_3C_5L_3L_LR_3R_5R_Ls^4 + s^3\left(C_3L_3L_LR_3R_5R_Lg_m - C_3L_3L_LR_3R_L - C_5L_3L_LR_5R_L\right) + s^2\left(-C_5L_LR_3R_5R_L + L_3L_LR_5R_Lg_m - L_3L_LR_1\right) + s\left(L_LR_3R_5R_Lg_m - L_LR_3R_L\right)}{R_3R_5R_L + s^4\left(C_3C_5L_3L_LR_3R_5R_L + C_3L_3L_LR_3R_5R_L + C_5L_3L_LR_5R_L\right) + s^2\left(C_3L_3R_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L + L_3L_LR_5R_L\right) + s\left(L_LR_3R_5R_L + L_3L_LR_5R_L + C_5L_LR_3R_5R_L + C_5$

10.703 INVALID-ORDER-703
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5}{C_5R_5s+1}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

 $H(s) = \frac{-C_3C_5C_LL_3L_LR_3R_5R_Ls^5 + R_3R_5R_Lg_m - R_3R_L + s^4\left(-C_3C_5L_3L_LR_3R_5 + C_3C_LL_3L_LR_3R_5R_Lg_m - C_3C_LL_3L_LR_3R_5R_L + C_3L_3L_LR_3R_5R_L + C_3L_3L_LR_3R_5R_L + C_3L_3L_LR_3R_5R_L + C_3L_3L_LR_3R_5R_L - C_5L_3L_LR_3R_5R_L - C_5L_3L_LR_3$

10.704 INVALID-ORDER-704
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5}{C_5R_5s+1}, \frac{R_L(C_LL_s^2+1)}{C_LL_s^2+C_LR_Ls+1}\right)$$

 $H(s) = \frac{-C_3C_5C_LL_3L_LR_3R_5R_Ls^5 + R_3R_5R_Lg_m - R_3R_L + s^4\left(C_3C_LL_3L_LR_3R_5R_Lg_m - C_3C_LL_3L_LR_3R_L - C_5C_LL_3L_LR_3R_5R_L - C_5C_LL_3R_3R_5R_L - C_5C_LL_3R_3R_5R_L + C_LL_3L_LR_5R_Lg_m - C_LL_3L_LR_1\right) + s^2\left(C_3L_3R_3R_5R_Lg_m - C_3C_5L_3L_RR_3R_5R_L + C_5C_LL_3L_RR_3R_5R_L + C_5C_LL_3R_3R_5R_L + C_5C_LL_3R_3R_5R_L + C_5C_LL_3L_RR_3R_5R_L + C_5$

10.705 INVALID-ORDER-705
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, R_5 + \frac{1}{C_5s}, R_L\right)$$

$$H(s) = \frac{R_3 R_L g_m + s^3 \left(C_3 C_5 L_3 R_3 R_5 R_L g_m - C_3 C_5 L_3 R_3 R_L\right) + s^2 \left(C_3 L_3 R_3 R_L g_m + C_5 L_3 R_5 R_L g_m - C_5 L_3 R_L\right) + s \left(C_5 R_3 R_5 R_L g_m - C_5 R_3 R_L + L_3 R_L g_m\right)}{R_3 + R_L + s^3 \left(C_3 C_5 L_3 R_3 R_5 + C_3 C_5 L_3 R_3 R_L + C_3 C_5 L_3 R_5 R_L\right) + s^2 \left(C_3 L_3 R_3 R_5 + C_5 L_3 R_L\right) + s \left(C_5 R_3 R_5 R_L g_m - C_5 R_3 R_L + L_3 R_L g_m\right)}$$

10.706 INVALID-ORDER-706
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, R_5 + \frac{1}{C_5s}, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_3g_m + s^3\left(C_3C_5L_3R_3R_5g_m - C_3C_5L_3R_3\right) + s^2\left(C_3L_3R_3g_m + C_5L_3R_5g_m - C_5L_3\right) + s\left(C_5R_3R_5g_m - C_5R_3 + L_3g_m\right)}{C_3C_5C_LL_3R_3R_5s^4 + s^3\left(C_3C_5L_3R_3 + C_3C_5L_3R_5 + C_5C_LL_3R_5\right) + s^2\left(C_3L_3R_5 + C_5C_LR_3R_5 + C_5L_3 + C_LL_3\right) + s\left(C_5R_3 + C_5R_5 + C_LR_3\right) + 1}$$

10.707 INVALID-ORDER-707
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, R_5 + \frac{1}{C_5s}, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{R_3 R_L g_m + s^3 \left(C_3 C_5 L_3 R_3 R_5 R_L g_m - C_3 C_5 L_3 R_3 R_L\right) + s^2 \left(C_3 L_3 R_3 R_L g_m + C_5 L_3 R_5 R_L g_m - C_5 R_3 R_L + L_3 R_L g_m\right)}{C_3 C_5 C_L L_3 R_3 R_5 R_L s^4 + R_3 + R_L + s^3 \left(C_3 C_5 L_3 R_3 R_5 + C_3 C_5 L_3 R_3 R_L + C_3 C_5 L_3 R_5 R_L + C_5 C_L L_3 R_5 R_L\right) + s^2 \left(C_3 L_3 R_3 R_5 R_L + C_5 L_3 R_5 R_L + C_5 L_5 R_5 R_L + C_$$

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10.708 INVALID-ORDER-708 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, R_5 + \frac{1}{C_5s}, R_L + \frac{1}{C_Ls}\right)
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$$H(s) = \frac{R_3 g_m + s^4 \left(C_3 C_5 C_L L_3 R_3 R_5 R_L g_m - C_3 C_5 C_L L_3 R_3 R_L\right) + s^3 \left(C_3 C_5 L_3 R_3 R_5 g_m - C_3 C_5 L_3 R_3 R_5 g_m - C_3 C_5 L_3 R_3 R_5 g_m - C_5 C_L L_3 R_5 R_L g_m - C_5 C_L R_3 R_5 R_L g_m - C_5 C_L R_5 R_L$$

10.709 INVALID-ORDER-709
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, R_5 + \frac{1}{C_5 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_3 g_m + s^5 \left(C_3 C_5 C_L L_3 L_L R_3 R_5 g_m - C_3 C_5 C_L L_3 L_L R_3\right) + s^4 \left(C_3 C_L L_3 L_L R_3 g_m + C_5 C_L L_3 L_L R_5 g_m - C_5 C_L L_3 L_L\right) + s^3 \left(C_3 C_5 L_3 R_3 R_5 g_m - C_3 C_5 L_L L_R R_3 R_5 g_m - C_5 C_L L_L R_3 + C_L L_L L_R R_3 g_m + C_5 L_3 R_5 g_m - C_5 L_L L_R R_3 g_m + C_5 L_3 R_5 g_m - C_5 L_L L_R R_3 g_m + C_5 L_3 R_5 g_m - C_5 L_L L_R R_3 g_m + C_5 L_3 R_5 g_m - C_5 L_L R_3 R_5 g_m - C_5 L_L R_5 R_5 g_m - C_5 L_L R_5$$

10.710 INVALID-ORDER-710
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, R_5 + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{L_L R_3 g_m s + s^4 \left(C_3 C_5 L_3 L_L R_3 R_5 g_m - C_3 C_5 L_3 L_L R_3 \right) + s^3 \left(C_3 L_3 L_L R_3 g_m + C_5 L_3 L_L R_5 g_m - C_5 L_3 L_L\right) + s^2 \left(C_5 L_L R_3 R_5 g_m - C_5 L_L R_3 + L_3 L_L g_m\right)}{C_3 C_5 C_L L_3 L_L R_3 R_5 s^5 + R_3 + s^4 \left(C_3 C_5 L_3 L_L R_3 + C_5 C_L L_3 L_L R_3 + C_5 C_L L_3 L_L R_3 + C_5 L_L R_3 + C$$

10.711 INVALID-ORDER-711
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, R_5 + \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_3 g_m + s^5 \left(C_3 C_5 C_L L_3 L_L R_3 R_5 g_m - C_3 C_5 C_L L_3 L_L R_3\right) + s^4 \left(C_3 C_5 C_L L_3 R_3 R_5 R_L g_m - C_3 C_5 C_L L_3 R_3 R_L + C_3 C_L L_3 L_L R_3 g_m + C_5 C_L L_3 L_L R_5 g_m - C_5 C_L L_3 R_3 R_5 g_m - C_3 C_5 L_3 R_3 R_5 g_m - C_5 C_L L_3 R_5 R_L g_m - C_5 C_L L_5 R_5 R_L$$

10.712 INVALID-ORDER-712
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, R_5 + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{L_L R_3 R_L g_m s + s^4 \left(C_3 C_5 L_3 L_L R_3 R_L g_m - C_3 C_5 L_3 L_L R_3 R_L g_m + C_5 L_3 L_L R_5 R_L g_m - C_5 L_3 L_L R_3 R_L g_m$$

10.713 INVALID-ORDER-713
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, R_5 + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{R_3 R_L g_m + s^5 \left(C_3 C_5 C_L L_3 L_L R_3 R_5 R_L g_m - C_3 C_5 C_L L_3 L_L R_3 R_L \right) + s^4 \left(C_3 C_5 L_3 L_L R_3 R_5 g_m - C_3 C_5 L_3 L_L R_3 R_L g_m + C_5 C_L L_3 L_L R_3 R_L g_m - C_5 C_L L_3 L_L R_3 R_L g_m - C_3 C_5 L_3 R_3 R_L + C_3 L_L R_3 R_L g_m - C_5 C_L L_3 L_L R_3 R_L g_m - C_5$$

10.714 INVALID-ORDER-714
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, R_5 + \frac{1}{C_5s}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$$

$$H(s) = \frac{R_3R_Lg_m + s^5\left(C_3C_5C_LL_3L_LR_3R_5R_Lg_m - C_3C_5C_LL_3L_LR_3R_Lg_m + C_5C_LL_3L_LR_5R_Lg_m - C_5C_LL_3L_LR_L\right) + s^3\left(C_3C_5L_3R_3R_5R_Lg_m - C_3C_5L_3R_3R_5R_Lg_m - C_3C_5L_3R_3R_L + C_5C_LL_3L_RR_3R_L + C_5C_LL_3R_3R_L + C_5C_LL$$

10.715 INVALID-ORDER-715
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, L_5s + \frac{1}{C_5s}, R_L\right)$$

$$H(s) = \frac{C_3C_5L_3L_5R_3R_Lg_ms^4 + R_3R_Lg_m + s^3\left(-C_3C_5L_3R_3R_L + C_5L_3L_5R_Lg_m\right) + s^2\left(C_3L_3R_3R_Lg_m - C_5L_3R_L + C_5L_5R_3R_Lg_m\right) + s\left(-C_5R_3R_L + L_3R_Lg_m\right)}{R_3 + R_L + s^4\left(C_3C_5L_3L_5R_3 + C_3C_5L_3L_5R_L\right) + s^3\left(C_3C_5L_3R_3R_L + C_5L_3L_5\right) + s^2\left(C_3L_3R_3 + C_3L_3R_L + C_5L_3R_L + C_5L_3R_L + C_5L_5R_3 + C_5L_5R_L\right) + s\left(C_5R_3R_L + L_3R_Lg_m\right)}$$

10.716 INVALID-ORDER-716
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, L_5s + \frac{1}{C_5s}, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_3C_5L_3L_5R_3g_ms^4 + R_3g_m + s^3\left(-C_3C_5L_3R_3 + C_5L_3L_5g_m\right) + s^2\left(C_3L_3R_3g_m - C_5L_3 + C_5L_5R_3g_m\right) + s\left(-C_5R_3 + L_3g_m\right)}{C_3C_5C_LL_3L_5R_3s^5 + s^4\left(C_3C_5L_3L_5 + C_5C_LL_3L_5\right) + s^3\left(C_3C_5L_3R_3 + C_5C_LL_3R_3 + C_5C_LL_5R_3\right) + s^2\left(C_3L_3 + C_5L_3 + C_5L_5 + C_LL_3\right) + s\left(C_5R_3 + C_LR_3\right) + 1}$$

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10.717 INVALID-ORDER-717 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + \frac{1}{C_5s}, \frac{R_L}{C_LR_Ls+1}\right)
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 $H(s) = \frac{C_3C_5L_3L_5R_3R_Lg_ms^4 + R_3R_Lg_m + s^3\left(-C_3C_5L_3R_3R_L + C_5L_3L_5R_Lg_m\right) + s^2\left(C_3L_3R_3R_Lg_m - C_5L_3R_L + C_5L_5R_3R_Lg_m\right) + s\left(-C_5R_3R_L + L_3R_Lg_m\right)}{C_3C_5C_LL_3L_5R_3R_Ls^5 + R_3 + R_L + s^4\left(C_3C_5L_3L_5R_3 + C_5C_LL_3L_5R_L\right) + s^3\left(C_3C_5L_3R_3R_L + C_5C_LL_3R_3R_L + C_5L_3R_3R_L + C_5L_$

10.718 INVALID-ORDER-718
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + \frac{1}{C_5s}, R_L + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{C_3C_5C_LL_3L_5R_3R_Lg_ms^5 + R_3g_m + s^4\left(-C_3C_5C_LL_3R_3R_L + C_3C_5L_3L_5R_3g_m + C_5C_LL_3L_5R_Lg_m\right) + s^3\left(-C_3C_5L_3R_3 + C_3C_LL_3R_3R_Lg_m - C_5C_LL_3R_3R_Lg_m + C_5L_3L_5g_m\right) + s^2\left(C_3L_3R_3g_m - C_5C_LR_3R_L - C_5L_3 + C_5L_3R_3g_m + C_LL_3R_Lg_m\right) + s^2\left(C_3L_3R_3R_L + C_5C_LL_3R_3R_L + C_5$

10.719 INVALID-ORDER-719
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + \frac{1}{C_5s}, L_Ls + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{C_3C_5C_LL_3L_5L_LR_3g_ms^6 + R_3g_m + s^5\left(-C_3C_5C_LL_3L_LR_3 + C_5C_LL_3L_5L_Lg_m\right) + s^4\left(C_3C_5L_3L_5R_3g_m + C_3C_LL_3L_LR_3g_m - C_5C_LL_3L_LR_3g_m\right) + s^3\left(-C_3C_5L_3R_3 - C_5C_LL_LR_3 + C_5L_3L_5g_m + C_LL_3L_Lg_m\right) + s^2\left(C_3L_3R_3g_m - C_5L_3+C_5L_5R_3g_m + C_5C_LL_3L_LR_3g_m\right) + s^2\left(C_3L_3L_5R_3 + C_5C_LL_3L_5R_3 + C_5C_LL_3L_4R_3g_m\right) + s^2\left(C_3L_3R_3G_m - C_5L_3L_5R_3g_m + C_5L_3L_5R_3g_m\right) + s^2\left(C_3L_3R_3G_m - C_5L_3L_4R_3 + C_5C_LL_3L_4R_3g_m\right) + s^2\left(C_3L_3R_3G_m - C_5L_3L_4R_3g_m\right) + s^2\left(C_3L_3R_3G_m - C_5L_3L_4R_3g_m\right) + s^2\left(C_3L_3R_3G_m - C_5L_4R_3g_m\right) + s^2\left(C$

10.720 INVALID-ORDER-720
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

 $H(s) = \frac{C_3C_5L_3L_5L_LR_3g_ms^5 + L_LR_3g_ms + s^4\left(-C_3C_5L_3L_LR_3 + C_5L_3L_LR_3 + C_5L_3L_LR_3g_m - C_5L_3L_L + C_5L_5L_LR_3g_m\right) + s^2\left(-C_5L_LR_3 + L_3L_Lg_m\right)}{C_3C_5C_LL_3L_5L_LR_3s^6 + R_3 + s^5\left(C_3C_5L_3L_5L_L\right) + s^4\left(C_3C_5L_3L_5R_3 + C_3C_5L_3L_LR_3 + C_5C_LL_5L_LR_3\right) + s^3\left(C_3L_3L_L + C_5L_3L_L + C_5L_3L_L + C_5L_3L_L\right) + s^2\left(C_3L_3R_3 + C_5L_LR_3 + C_5L_LR_3\right) + s^3\left(C_3L_3L_LR_3 + C_5L_LR_3\right) + s^3\left(C_3L_3L_L + C_5L_3L_L + C_5L_3L_L + C_5L_3L_L\right) + s^2\left(C_3L_3R_3 + C_5L_2R_3 + C_5L_LR_3\right) + s^2\left(C_3L_3R_3 + C_5L_3R_3 + C_5L_2R_3\right) + s^2\left(C_3L_3R_3 + C_5L_3R_3 + C_5L_2R_3\right) + s^2\left(C_3L_3R_3 + C_5L_3R_3 + C_5L_3R_3\right) + s^2\left(C_3L_3R_3 + C_5L_3$

10.721 INVALID-ORDER-721
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{C_3C_5C_LL_3L_5L_LR_3g_ms^6 + R_3g_m + s^5\left(C_3C_5C_LL_3L_5R_3R_Lg_m - C_3C_5C_LL_3L_5R_3R_Lg_m - C_3C_5L_LL_3L_5R_3g_m + C_3C_LL_3L_5R_3g_m + C_3C_LL_3L_5R_3g_m + C_3C_LL_3L_5R_2g_m - C_5C_LL_3L_5R_3g_m + C_$

10.722 INVALID-ORDER-722
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, L_5 s + \frac{1}{C_5 s}, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

 $H(s) = \frac{C_3C_5L_3L_5L_LR_3R_Lg_ms^5 + L_LR_3R_Lg_ms + s^4\left(-C_3C_5L_3L_LR_3R_L + C_5L_3L_5L_LR_3g_m\right) + s^3\left(C_3L_3L_LR_3R_Lg_m - C_5L_3L_LR_4 + C_5L_5L_LR_3R_Lg_m\right) + s^2\left(-C_3C_5L_3L_5L_LR_3R_Ls^6 + R_3R_L + s^5\left(C_3C_5L_3L_5L_LR_3 + C_3C_5L_3L_5L_LR_4 + C_5L_3L_5L_LR_4\right) + s^4\left(C_3C_5L_3L_5R_3R_L + C_3C_5L_3L_LR_3R_L + C_5L_3L_5L_LR_3R_L + C_5L_5L_5L_2R_3R_L + C_5L_5L_3L_5R_2 + C_5L_5L_5L_3R_3R_L + C_5L_5L_5L_3R_3R_L + C_5L_5L_5L_3R_3R_L +$

10.723 INVALID-ORDER-723
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

 $H(s) = \frac{C_3C_5C_LL_3L_5L_LR_3R_Lg_ms^6 + R_3R_Lg_m + s^5\left(-C_3C_5C_LL_3L_LR_3R_L + C_3C_5L_3L_LR_3g_m + C_5C_LL_3L_LR_3g_m + C_5C_LL$

10.724 INVALID-ORDER-724
$$Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ L_5s + \frac{1}{C_5s}, \ \frac{R_L\left(C_LL_Ls^2+1\right)}{C_LL_Ls^2+C_LR_Ls+1}\right)$$

 $H(s) = \frac{C_3C_5C_LL_3L_5L_LR_3R_Lg_m + s^5\left(-C_3C_5C_LL_3L_5L_LR_3g_m + s^5\left(-C_3C_5C_LL_3L_5L_LR_2g_m\right) + s^4\left(C_3C_5L_3L_5R_3R_Lg_m + C_3C_LL_3L_LR_3R_Lg_m - C_5C_LL_3L_LR_3R_Lg_m - C_5C_LL_3L_LR_3R_Lg_m\right) + s^3\left(-C_3C_5C_LL_3L_5L_LR_3 + c_3C_5C_LL_3L_5L_LR_3 + c_3C_5C_LL_3L_5L_LR_3 + c_3C_5C_LL_3L_5L_LR_3 + c_3C_5C_LL_3L_5L_LR_3 + c_3C_5C_LL_3L_5R_2 + c_5C_LL_3L_5R_3 + c_3C_5C_LL_3L_5R_3 + c_3C_5C_LL$

10.725 INVALID-ORDER-725
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1}, R_L\right)$$

 $H(s) = \frac{-C_3C_5L_3L_5R_3R_Ls^4 - R_3R_L + s^3\left(C_3L_3L_5R_3R_Lg_m - C_5L_3L_5R_L\right) + s^2\left(-C_3L_3R_3R_L - C_5L_5R_3R_L + L_3L_5R_Lg_m\right) + s\left(-L_3R_L + L_5R_3R_Lg_m\right)}{C_3C_5L_3L_5R_3R_Ls^4 + R_3R_L + s^3\left(C_3L_3L_5R_3 + C_3L_3L_5R_L + C_5L_3L_5R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_5R_3R_L + L_3L_5\right) + s\left(L_3R_L + L_5R_3 + L_5R_L\right)}$

$$\textbf{10.726} \quad \textbf{INVALID-ORDER-726} \ \ Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1}, \ \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{-C_3C_5L_3L_5R_3s^4 - R_3 + s^3\left(C_3L_3L_5R_3g_m - C_5L_3L_5\right) + s^2\left(-C_3L_3R_3 - C_5L_5R_3 + L_3L_5g_m\right) + s\left(-L_3 + L_5R_3g_m\right)}{R_3 + s^4\left(C_3C_5L_3L_5R_3 + C_3C_LL_3L_5R_3\right) + s^3\left(C_3L_3L_5 + C_5L_3L_5 + C_5L_3L_5\right) + s^2\left(C_3L_3R_3 + C_5L_5R_3 + C_LL_5R_3\right) + s\left(L_3 + L_5\right)}$$

10.727 INVALID-ORDER-727 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{R_L}{C_LR_Ls+1}\right)$

 $H(s) = \frac{-C_3C_5L_3L_5R_3R_Ls^4 - R_3R_L + s^3\left(C_3L_3L_5R_3R_Lg_m - C_5L_3L_5R_L\right) + s^2\left(-C_3L_3R_3R_L - C_5L_5R_3R_L + L_3L_5R_Lg_m\right) + s\left(-L_3R_L + L_5R_3R_Lg_m\right)}{R_3R_L + s^4\left(C_3C_5L_3L_5R_3R_L + C_3L_4L_5R_3R_L\right) + s^3\left(C_3L_3L_5R_3 + C_3L_3L_5R_L + C_5L_3L_5R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_5R_3R_L + L_5L_5R_3R_L + L_5L_5R_3R_L + L_5R_3R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_5R_3R_L + C_5L_5R_3R_L + L_5R_3R_L + L_5R_3R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_5R_3R_L + C_5L_5R_3R_L + C_5L_5R_3R_L + L_5R_3R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_5R_3R_L + C_5$

10.728 INVALID-ORDER-728 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1}, R_L + \frac{1}{C_Ls}\right)$

 $H(s) = \frac{-C_3C_5C_LL_3L_5R_3R_Ls^5 - R_3 + s^4\left(-C_3C_5L_3L_5R_3 + C_3C_LL_3L_5R_3R_Lg_m - C_5C_LL_3L_5R_L\right) + s^3\left(-C_3C_LL_3R_3R_L + C_3L_3L_5R_3g_m - C_5C_LL_3L_5R_Lg_m\right) + s^2\left(-C_3L_3R_3 - C_5L_3R_3 - C_5L_3R_3 - C_5L_3R_4 + C_$

10.729 INVALID-ORDER-729 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1}, L_Ls + \frac{1}{C_Ls}\right)$

 $H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_3s^6 - R_3 + s^5\left(C_3C_LL_3L_5L_LR_3g_m - C_5C_LL_3L_5L_L\right) + s^4\left(-C_3C_5L_3L_5R_3 - C_3C_LL_3L_LR_3 - C_5C_LL_5L_LR_3 + C_LL_3L_5L_Lg_m\right) + s^3\left(C_3L_3L_5R_3g_m - C_5L_3L_5 - C_LL_3L_L + C_LL_5L_LR_3g_m\right) + s^2\left(-C_3L_3R_3 - C_5L_5R_3 - C_LL_2R_3 + L_3L_5g_m\right) + s^2\left(-C_3L_3R_3 - C_5L_3L_5R_3 - C_5L_4R_3 + L_3L_5g_m\right) + s^2\left(-C_3L_3R_3 - C_5L_3L_5R_3 - C_5L_4R_3 + L_4R_3 + C_5R_3R_3 - C_5R$

10.730 INVALID-ORDER-730 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$

 $H(s) = \frac{-C_3C_5L_3L_5L_LR_3s^4 - L_LR_3 + s^3\left(C_3L_3L_5L_LR_3g_m - C_5L_3L_5L_L\right) + s^2\left(-C_3L_3L_LR_3 - C_5L_5L_LR_3 + L_3L_5L_Lg_m\right) + s\left(-L_3L_L + L_5L_LR_3g_m\right)}{L_5R_3 + L_LR_3 + s^4\left(C_3C_5L_3L_5L_LR_3 + C_3C_LL_3L_5L_LR_3\right) + s^3\left(C_3L_3L_5L_L + C_5L_3L_5L_L + C_LL_3L_5L_L\right) + s^2\left(C_3L_3L_5R_3 + C_3L_3L_LR_3 + C_5L_5L_LR_3 + C_5L_5L_LR_3\right) + s\left(L_3L_5 + L_3L_L + L_5L_LR_3\right)}$

10.731 INVALID-ORDER-731 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1}, L_Ls + R_L + \frac{1}{C_{Ls}}\right)$

 $H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_3s^6 - R_3 + s^5\left(-C_3C_5C_LL_3L_5R_3R_L + C_3C_LL_3L_5L_LR_3g_m - C_5C_LL_3L_5L_L\right) + s^4\left(-C_3C_5L_3L_5R_3 + C_3C_LL_3L_5R_3 + C_3C_LL_3L_5R_L - C_5C_LL_3L_5R_L - C_5C_LL_3L_5L_LR_3 + C_LL_3L_5L_Lg_m\right) + s^3\left(-C_3C_LL_3R_3R_L + C_3L_3L_5R_3g_m - C_5C_LL_3L_5R_3 + C_3C_LL_3L_5R_3 + C_$

10.732 INVALID-ORDER-732 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$

 $H(s) = \frac{-C_3C_5L_3L_5L_LR_3R_Ls^4 - L_LR_3R_L + s^3\left(C_3L_3L_5L_LR_3R_Lg_m - C_5L_3L_5L_LR_3\right) + s^2\left(-C_3L_3L_LR_3R_L + L_3L_5L_LR_2g_m\right) + s\left(-L_3L_LR_L + L_5L_LR_3R_Lg_m\right) + s\left(-L_3L_LR_L + L_5L_LR_3R_L + L_5L_$

10.733 INVALID-ORDER-733 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$

 $H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_3R_Ls^6 - R_3R_L + s^5\left(-C_3C_5L_3L_5L_LR_3 + C_3C_LL_3L_5L_LR_3R_Lg_m - C_5C_LL_3L_5L_LR_3R_L - C_3C_5L_3L_5L_LR_3g_m - C_5C_LL_3L_5L_LR_3g_m - C_5C_LL_3L_5L_LR_3g_m - C_5C_LL_5L_LR_3R_L - C_5L_3L_5L_LR_3R_L - C_5L_5L_3L_5L_LR_3R_L - C_5L_5L_5L_LR_3R_L - C_5L_5L_5L_RR_3R_L - C_5L_5L_5L_RR_3$

10.734 INVALID-ORDER-734 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$

 $H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_3R_Ls^6 - R_3R_L + s^5\left(C_3C_LL_3L_5L_LR_3R_Lg_m - C_5C_LL_3L_5L_LR_L\right) + s^4\left(-C_3C_5L_3L_5R_3R_L - C_3C_LL_3L_LR_3R_L - C_5C_LL_3L_5L_LR_3R_L + C_LL_3L_5L_LR_2g_m\right) + s^3\left(C_3L_3L_5R_3R_Lg_m - C_5L_3L_5R_L - C_LL_3L_LR_L + C_LL_3L_5L_LR_L\right) + s^4\left(C_3C_5L_3L_5L_RR_3R_L + C_3C_LL_3L_5R_3R_L + C_3C_LL_3L_5R_3R_L$

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10.735 INVALID-ORDER-735 Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, L_5s + R_5 + \frac{1}{C_5s}, R_L\right)
```

$$H(s) = \frac{C_3C_5L_3L_5R_3R_Lg_ms^4 + R_3R_Lg_m + s^3\left(C_3C_5L_3R_3R_5R_Lg_m - C_3C_5L_3R_3R_L + C_5L_3L_5R_Lg_m\right) + s^2\left(C_3L_3R_3R_Lg_m + C_5L_3R_5R_Lg_m - C_5L_3R_L + C_5L_5R_3R_Lg_m\right) + s\left(C_5R_3R_5R_Lg_m - C_5R_3R_L + L_3R_Lg_m\right)}{R_3 + R_L + s^4\left(C_3C_5L_3L_5R_3 + C_3C_5L_3R_3R_5 + C_5L_3R_3R_L + C_5L_3R_5R_L + C_5L_3R_5 + C_5L_3R_5 + C_5L_3R_5 + C_5L_3R_5 + C_5L_3R_5 + C_5R_3R_5 + C_5R_5R_5 +$$

10.736 INVALID-ORDER-736
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_3C_5L_3L_5R_3g_ms^4 + R_3g_m + s^3\left(C_3C_5L_3R_3R_5g_m - C_3C_5L_3R_3 + C_5L_3L_5g_m\right) + s^2\left(C_3L_3R_3g_m + C_5L_3R_5g_m - C_5L_3 + C_5L_5R_3g_m\right) + s\left(C_5R_3R_5g_m - C_5R_3 + L_3g_m\right)}{C_3C_5C_LL_3L_5R_3s^5 + s^4\left(C_3C_5C_LL_3R_3R_5 + C_3C_5L_3L_5\right) + s^3\left(C_3C_5L_3R_3 + C_3C_5L_3R_5 + C_3C_LL_3R_5 + C_5C_LL_3R_5\right) + s^2\left(C_3L_3R_5 + C_5C_LL_3R_5 + C_5C_LL_3R_5\right) + s^2\left(C_3L_3R_5 + C_5C_LL$$

10.737 INVALID-ORDER-737
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{C_3C_5L_3L_5R_3R_Lg_m + s^3\left(C_3C_5L_3R_3R_Lg_m + c_5L_3L_5R_Lg_m - C_3C_5L_3R_3R_L + C_5L_3L_5R_Lg_m + s^2\left(C_3L_3R_3R_Lg_m + C_5L_3R_5R_Lg_m - C_5L_3R_L + C_5L_5R_3R_Lg_m + s^2\left(C_3L_3R_3R_Lg_m + C_5L_3R_5R_Lg_m - C_5L_3R_L + C_5L_3R_5R_Lg_m + s^2\left(C_3L_3R_3R_Lg_m + C_5L_3R_5R_Lg_m - C_5L_3R_Lg_m + c_5L_3R_Lg_m + c_5L_3R_Lg_m + s^2\left(C_3L_3R_3R_Lg_m + C_5L_3R_5R_Lg_m - C_5L_3R_Lg_m + c_5L_3R_L$$

10.738 INVALID-ORDER-738
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + R_5 + \frac{1}{C_5s}, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_3C_5C_LL_3L_5R_3R_Lg_ms^5 + R_3g_m + s^4\left(C_3C_5C_LL_3R_3R_5R_Lg_m - C_3C_5L_Ls_Rs_RLg_m + C_5C_LL_3R_3R_Lg_m + C_5C_LL_3R_Lg_m + C_5C_LL_3R$$

10.739 INVALID-ORDER-739
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + R_5 + \frac{1}{C_5s}, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_3C_5C_LL_3L_5L_LR_3g_ms^6 + R_3g_m + s^5\left(C_3C_5C_LL_3L_LR_3R_5g_m - C_3C_5L_LL_3L_LR_3 + C_5C_LL_3L_LR_3 + C_5C_LL_3L_LR_3g_m + C_5C_LL_3L_LR_$$

10.740 INVALID-ORDER-740
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{C_3C_5L_3L_LR_3g_ms^5 + L_LR_3g_ms + s^4\left(C_3C_5L_3L_LR_3 + C_5L_3L_LR_3 + C_5L_3L_LR_3g_m + C_5L_3L_LR_3g_m$$

10.741 INVALID-ORDER-741
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + R_5 + \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_3C_5C_LL_3L_5L_LR_3g_ms^6 + R_3g_m + s^5\left(C_3C_5C_LL_3L_5R_3R_Lg_m + C_3C_5C_LL_3L_LR_3R_5g_m - C_3C_5C_LL_3L_LR_3 + C_5C_LL_3L_LR_3 + C_5C_LL_3L_LR_3 + C_5C_LL_3L_LR_3 + C_3C_5C_LL_3R_3R_L + C_3C_5C_LL_3R_3R_L + C_3C_5L_LL_3L_RR_3g_m + C_5C_LL_3L_LR_3g_m + C_5C_LL_3L_$$

10.742 INVALID-ORDER-742
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$$

$$H(s) = \frac{C_3C_5L_3L_5L_RR_3R_Lg_ms^5 + L_LR_3R_Lg_ms + s^4\left(C_3C_5L_3L_LR_3R_5R_Lg_m - C_3C_5L_3L_LR_3R_5R_Lg_m - C_3C_5L_3L_LR_3R_Lg_ms^5 + L_LR_3R_Lg_ms + s^4\left(C_3C_5L_3L_LR_3R_5R_L + C_3C_5L_3L_LR_3R_Lg_ms^5 + L_LR_3R_Lg_ms + s^4\left(C_3C_5L_3L_LR_3R_Lg_ms + s^4c_3C_5L_3L_LR_3R_Lg_ms + s^4c_3C_5L_$$

10.743 INVALID-ORDER-743
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{C_3C_5C_LL_3L_5L_LR_3R_Lg_ms^6 + R_3R_Lg_m + s^5\left(C_3C_5C_LL_3L_LR_3R_5R_Lg_m - C_3C_5L_LL_3L_LR_3R_Lg_m + C_5C_LL_3L_LR_3R_Lg_m + C_5C_LL_$$

10.744 INVALID-ORDER-744
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{R_L\left(C_LL_Ls^2+1\right)}{C_LL_Ls^2+C_LR_Ls+1}\right)$$

$$H(s) = \frac{C_3C_5C_LL_3L_5L_RR_3R_Lg_ms^6 + R_3R_Lg_m + s^5\left(C_3C_5C_LL_3L_LR_3R_L + C_5C_LL_3L_5L_LR_2g_m\right) + s^4\left(C_3C_5L_3L_5R_3R_Lg_m - C_3C_5C_LL_3L_5L_RR_3R_L + C_5C_LL_3L_5L_RR_3R_L + C_5C_LL_3L_5L_RR_3R_L + C_5C_LL_3L_5L_RR_3R_L + C_5C_LL_3L_5L_RR_3R_L + C_5C_LL_3L_5R_3R_L + C_5C_LL_3L_5R_3R_L$$

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10.745 INVALID-ORDER-745 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, R_L\right)
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 $H(s) = \frac{-C_3C_5L_3L_5R_3R_5R_Ls^4 - R_3R_5R_Ls^4 - R_3R_5R_L + s^3\left(C_3L_3L_5R_3R_5R_Lg_m - C_3L_3L_5R_3R_L - C_5L_3L_5R_5R_L\right) + s^2\left(-C_3L_3R_3R_5R_L - C_5L_5R_3R_5R_L + L_3L_5R_5R_Lg_m - L_3L_5R_L\right) + s\left(-L_3R_5R_L + L_5R_3R_5R_Lg_m - L_5R_3R_L\right) + s\left(-L_3R_5R_L + L_5R_3R_5R_L + L_5R_3R_5R_L + L_5R_3R_5R_L\right) + s\left(-L_3R_5R_L + L_5R_5R_L\right) + s\left(-L_3R_5R_$

10.746 INVALID-ORDER-746 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{1}{C_Ls}\right)$

 $H(s) = \frac{-C_3C_5L_3L_5R_3R_5s^4 - R_3R_5 + s^3\left(C_3L_3L_5R_3R_5g_m - C_3L_3L_5R_3 - C_5L_3L_5R_5\right) + s^2\left(-C_3L_3R_3R_5 - C_5L_5R_3R_5 + L_3L_5R_5g_m - L_3L_5\right) + s\left(-L_3R_5 + L_5R_3R_5g_m - L_5R_3\right)}{R_3R_5 + s^4\left(C_3C_5L_3L_5R_3R_5 + C_3L_4L_5R_3R_5\right) + s^3\left(C_3L_3L_5R_3 + C_3L_3L_5R_5 + C_5L_3L_5R_5\right) + s^2\left(C_3L_3R_3R_5 + C_5L_5R_3R_5 + L_5L_5R_3R_5 + L_5R_3R_5 + L_5R_3R_5\right) + s\left(-L_3R_5 + L_5R_3R_5 + L_5R_3R_5 + L_5R_3R_5 + L_5R_3R_5\right) + s\left(-L_3R_5 + L_5R_5\right) + s\left(-$

10.747 INVALID-ORDER-747 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{R_L}{C_LR_Ls+1}\right)$

 $H(s) = \frac{-C_3C_5L_3L_5R_3R_5R_Ls^4 - R_3R_5R_Ls^4 - R_3R_5R_Ls^4$

10.748 INVALID-ORDER-748 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, R_L + \frac{1}{C_Ls}\right)$

 $H(s) = \frac{-C_3C_5C_LL_3L_5R_3R_5R_Ls^5 - R_3R_5 + s^4\left(-C_3C_5L_3L_5R_3R_5 + C_3C_LL_3L_5R_3R_5R_L - C_5C_LL_3L_5R_3R_5R_L - C_5C_LL_3L_5R_3R_5R_L - C_5C_LL_3L_5R_3R_5R_L - C_5C_LL_3L_5R_3R_5R_L - C_5L_3L_5R_3R_5R_L - C_5L_3L_5R_5R_L - C_5L_3L_5$

10.749 INVALID-ORDER-749 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_{3s}^2+1} + R_3, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, L_Ls + \frac{1}{C_{Ls}}\right)$

 $H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_3R_5s^6 - R_3R_5 + s^5\left(C_3C_LL_3L_5L_LR_3R_5g_m - C_3C_LL_3L_5L_LR_3 - C_5C_LL_3L_5L_LR_3 - C_5C_LL_3L$

10.750 INVALID-ORDER-750 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$

 $H(s) = \frac{-C_3C_5L_3L_5L_LR_3R_5s^4 - L_LR_3R_5s^4 - L_LR_3R_5s^4$

10.751 INVALID-ORDER-751 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, L_Ls + R_L + \frac{1}{C_Ls}\right)$

10.752 INVALID-ORDER-752 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$

 $H(s) = \frac{-C_3C_5L_3L_5L_LR_3R_5R_L + s^3\left(C_3L_3L_5L_LR_3R_5R_L + s^3\left(C_3L_3L_5L_LR_3R_5R_L - C_5L_3L_LR_3R_5R_L - C_5L_5L_LR_3R_5R_L + L_3L_5L_LR_5R_L\right) + s^2\left(-C_3L_3L_LR_3R_5R_L - C_5L_5L_LR_3R_5R_L + L_3L_5L_LR_5R_L + L_3L_5L_LR_5R_L\right) + s^2\left(-C_3L_3L_LR_3R_5R_L + C_5L_5L_LR_3R_5R_L + C_5L_5L_LR$

10.753 INVALID-ORDER-753 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$

 $H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_3R_5R_Ls^6 - R_3R_5R_L + s^5\left(-C_3C_5L_3L_5L_LR_3R_5 + C_3C_LL_3L_5L_LR_3R_5R_L - C_5C_LL_3L_5L_LR_3R_5R_L - C_3C_LL_3L_5L_LR_3R_5R_L - C_3C_LL_3L_5L_LR_3R_5R_L - C_3C_LL_3L_5L_RR_3R_5R_L - C_3C_LL_3L_5L_R$

10.754 INVALID-ORDER-754 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$

 $H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_3R_5R_Ls^6 - R_3R_5R_L + s^5\left(C_3C_LL_3L_5L_LR_3R_5R_Lg_m - C_3C_LL_3L_5L_LR_3R_L - C_5C_LL_3L_5L_LR_3R_5R_L - C_3C_LL_3L_LR_3R_5R_L - C_5C_LL_3L_5L_RR_3R_5R_L - C_5C_LL_3L_5L_RR$

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10.755 INVALID-ORDER-755 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, R_L\right)
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$$H(s) = \frac{R_3R_5R_Lg_m - R_3R_L + s^4\left(C_3C_5L_3L_5R_3R_5R_Lg_m - C_3C_5L_3L_5R_3R_L\right) + s^3\left(C_3L_3L_5R_3R_Lg_m + C_5L_3L_5R_Lg_m - C_5L_3L_5R_L\right) + s^2\left(C_3L_3R_3R_5R_Lg_m - C_3L_3R_3R_L + C_5L_5R_3R_L + L_3L_5R_Lg_m + C_5L_5R_3R_L + L_3L_5R_Lg_m\right) + s\left(L_3R_5R_Lg_m - L_3R_L + L_5R_3R_L + L_5R_2R_Lg_m - C_5L_5R_3R_L + L_5R_2R_Lg_m - C_5L_5R_3R_Lg_m - C_5L_5R_2R_Lg_m - C_5L_5R_3R_Lg_m - C_5L_5R_3R_Lg_m$$

10.756 INVALID-ORDER-756
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_3R_5g_m - R_3 + s^4\left(C_3C_5L_3L_5R_3R_5g_m - C_3C_5L_3L_5R_3\right) + s^3\left(C_3L_3L_5R_3g_m + C_5L_3L_5R_5g_m - C_5L_3L_5\right) + s^2\left(C_3L_3R_3R_5g_m - C_3L_3R_3 + C_5L_5R_3R_5g_m - C_5L_5R_3 + L_3L_5g_m\right) + s\left(L_3R_5g_m - L_3 + L_5R_3g_m\right)}{C_3C_5C_LL_3L_5R_3R_5s^5 + R_3 + R_5 + s^4\left(C_3C_5L_3L_5R_3 + C_3C_LL_3L_5R_3 + C_5C_LL_3L_5R_3 + C_5C_LL_3R_3R_5 + C_5C_LL_3R_3R_5 + C_5C_LL_3R_3 + C$$

10.757 INVALID-ORDER-757
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{R_3R_5R_Lg_m - R_3R_L + s^4\left(C_3C_5L_3L_5R_3R_Lg_m - C_3C_5L_3L_5R_3R_Lg_m + C_5L_3L_5R_3R_Lg_m - C_5L_3L_5R_Lg_m - C_5L_3L_5R_$$

10.758 INVALID-ORDER-758
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s^5 \left(C_3 C_5 C_L L_3 L_5 R_3 R_5 R_L g_m - C_3 C_5 L_L L_3 L_5 R_3 R_L g_m - C_3 C_5 L_L L_3 L_5 R_3 R_L g_m - C_3 C_5 L_L L_3 L_5 R_3 R_L g_m - C_3 C_L L_3 L_5 R_3 R_L g_m - C_5 C_L L_3 L_5 R_L g_m -$$

10.759 INVALID-ORDER-759
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, L_Ls + \frac{1}{C_Ls}\right)$$

10.760 INVALID-ORDER-760
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{s^5 \left(C_3 C_5 L_3 L_5 L_L R_3 R_5 g_m - C_3 C_5 L_3 L_5 L_L R_3 g_m + C_5 L_3 L_5 L_L R_3 g_m + C_5 L_3 L_5 L_L R_3 g_m - C_5 L_3 L_5 L_L R_3 R_5 g_m - C_3 L_3 L_L R_3 R_5 g_m - C_3 L_3 L_L R_3 R_5 g_m - C_5 L_3 L_5 L_L R_3 R_5 g_m - C_5 L_5 L_4 R_3 R_5 g_m - C_5 L_5 L_5 R_3 R_5 + C_5 L_5 L_4 R_3 R_5 g_m - C_5 L_5 L_4 R_3 R_5 g_m - C_5 L_5 L_5 R_3 R_5 + C_5 L_5 L_4 R_3 R_5 g_m - C_5 L_5 L_5 R_3 R_5 g_m - C_5 L_5 L_5 R_5 R_5 g_m - C_5 L_5 R_5 R_5 R_5 g_m - C_5 L_5 R_5 R_5 g_m - C_5 L_$$

10.761 INVALID-ORDER-761
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_3 R_5 g_m - C_3 C_5 C_L L_3 L_5 L_L R_3\right) + s^5 \left(C_3 C_5 C_L L_3 L_5 R_3 R_5 R_L g_m - C_3 C_5 C_L L_3 L_5 L_L R_3 g_m + C_5 C_L L_3 L_5 L_L R_5 g_m - C_5 C_L L_3 L_5 L_L\right) + s^4 \left(C_3 C_5 L_3 L_5 R_3 R_5 g_m - C_3 C_5 L_3 L_5 R_5 g_m - C_3 C_5 L_5 L_5 R_5 g_m - C_5 L_5 L_5 L_5 R_5 g_m - C_5 L$$

10.762 INVALID-ORDER-762
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$$

$$H(s) = \frac{s^5 \left(C_3 C_5 L_3 L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 L_3 L_5 L_L R_3 R_L \right) + s^4 \left(C_3 L_3 L_5 L_L R_3 R_L \right) + s^4 \left(C_3 L_3 L_5 L_L R_3 R_L \right) + s^4 \left(C_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^4 \left(C_3 C_5 L_3 L_5 L_L R_3 R_5 R_L + C_5 C_L L_3 L_5 L_L R_3 R_5 R_L \right) + s^4 \left(C_3 C_5 L_5 L_L R_3 R_5 R_L \right) + s^4 \left(C_3 C_5 L_5 L_L R_3 R_5 R_L \right) + s^4 \left(C_3 C_5 L_5 L_L R_3 R_5 R_L \right) + s^4 \left(C_3 C_5 L_5 L_L R_3 R_5 R_L \right) + s^4 \left(C_3 C_5 L_5 L_L R_3 R_5 R_L \right) + s^4 \left(C_3 C_5 L_5 L_L R_5 R_L \right) + s^4 \left(C_3 C_5 L_5 L_L R_5 R_L \right) + s^4 \left(C_5 L_5 L_L R_5 R_L \right) + s^4 \left(C_5 L_5 L_L R_5 R_L \right) + s^4 \left(C_5 L_5 L_L R_5 R_L \right) + s^4 \left(C_5 L_5 L_L R_5 R_L \right) + s^4 \left(C_5 L_L R_5 R_L \right) + s^4 \left(C_5 L_L R_5 R_L \right) + s^4 \left$$

10.763 INVALID-ORDER-763
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{R_3 R_5 R_L g_m - R_3 R_L + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 L_L L_2 L_2 R_3 R_5 R_L g_m - C_3 C_5 L_3 L_5 L_L R_3 R_5 g_m - C_3 C_5 L_3 L_5 L_L R_3 R_5 g_m - C_3 C_5 L_3 L_5 L_L R_3 R_2 g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 g_m - C_3 C_5 L_3 L_5 L_L R_3 R_5 g_m - C_3 C_5 L_3 L_5 L_L R_3 R_5 g_m - C_3 C_5 L_3 L_5 L_L R_3 R_5 g_m - C_3 C_5 L_3 L_5 L_L R_3 R_5 g_m - C_3 C_5 L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_5 C_L L_3 L_5 L_L R_5 R_L g_m - C_5 C_L L_5 L_L R_5 R_L g_m - C_5 C_L$$

10.764 INVALID-ORDER-764
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{R_L\left(C_LL_Ls^2+1\right)}{C_LL_Ls^2+C_LR_Ls+1}\right)$$

$$H(s) = \frac{R_3 R_5 R_L g_m - R_3 R_L + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 C_L L_3 L_5 L_L R_3 R_L \right) + s^5 \left(C_3 C_L L_3 L_5 L_L R_3 R_L g_m + C_5 C_L L_3 L_5 L_L R_5 R_L g_m + C_5 C_L L_3 L_5 L_L R_5 R_L g_m + C_5 C_L L_3 L_5 L_L R_5 R_L \right) + s^5 \left(C_3 C_5 C_L L_3 L_5 L_L R_3 R_5 + C_3 C_5 C_L L_3 L_5 L_L R_5 R_L \right) + s^5 \left(C_3 C_5 C_L L_3 L_5 L_L R_3 R_5 + C_5 C_L L_3 L_5 L_L R_5 R_L \right) + s^5 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 R_L + C_5 C_L L_3 L_5 L_L R_5 R_L \right) + s^5 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 R_L + C_5 C_L L_3 L_5 L_L R_5 R_L \right) + s^5 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 R_L + C_5 C_L L_3 L_5 L_L R_5 R_L \right) + s^5 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 R_L + C_5 C_L L_3 L_5 L_L R_5 R_L \right) + s^5 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 R_L + C_5 C_L L_3 L_5 L_L R_5 R_L \right) + s^5 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 R_L + C_5 C_L L_3 L_5 L_L R_5 R_L \right) + s^5 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 R_L + C_5 C_L L_3 L_5 L_L R_5 R_L \right) + s^5 \left(C_3 C_5 C_L L_3 L_5 L_L R_5 R_L + C_5 C_L L_3 L_5 L_L R_5 R_L \right) + s^5 \left(C_3 C_5 C$$

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10.765 INVALID-ORDER-765 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, R_L\right)
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 $H(s) = \frac{R_3R_5R_Lg_m - R_3R_L + s^4\left(C_3C_5L_3L_5R_3R_5R_Lg_m - C_3C_5L_3L_5R_3R_L\right) + s^3\left(-C_3C_5L_3R_3R_5R_L + C_5L_3L_5R_5R_Lg_m - C_5L_3R_5R_L + C_5L_3R_5R_L + C_5L_3R_5R_L + C_5L_3R_5R_L + C_5L_5R_3R_5R_L + C_5L_5R_5R_L + C_5L_5R_5R_L$

10.766 INVALID-ORDER-766
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{R_3R_5g_m - R_3 + s^4\left(C_3C_5L_3L_5R_3R_5g_m - C_3C_5L_3L_5R_3\right) + s^3\left(-C_3C_5L_3R_3R_5 + C_5L_3L_5R_5g_m - C_5L_3L_5\right) + s^2\left(C_3L_3R_3R_5g_m - C_5L_3R_5 + C_5L_5R_3R_5g_m - C_5L_5R_3\right) + s\left(-C_5R_3R_5 + L_3R_5g_m - L_3\right)}{C_3C_5C_LL_3L_5R_3R_5s^5 + R_3 + R_5 + s^4\left(C_3C_5L_3L_5R_3 + C_3C_5L_3L_5R_5\right) + s^3\left(C_3C_5L_3R_3R_5 + C_5L_4R_3R_5 + C_5L_4R_5\right) + s^2\left(C_3L_3R_3R_5 + C_5L_3R_5 + C_5L_3R_5 + C_5L_5R_3 + C_5L_5R_3 + C_5L_5R_5 + C_5L_4R_5\right) + s^2\left(C_3L_3R_3R_5 + C_5L_4R_5 + C_5L_4R_5\right) + s^2\left(C_3L_3R_3R_5 + C_5L_4R_5 + C_5L_4R_5\right) + s^2\left(C_3L_3R_3R_5 + C_5L_4R_5 + C_5L_4R_5\right) + s^2\left(C_3L_3R_3R_5 + C_5L_4R_5\right) + s^2\left(C_3L_3R_5\right) + s^2\left(C_3L_3R_5\right$

10.767 INVALID-ORDER-767
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \frac{R_L}{C_LR_Ls+1}\right)$$

 $H(s) = \frac{R_3R_5R_Lg_m - R_3R_L + s^4\left(C_3C_5L_3L_5R_3R_5R_Lg_m - C_3C_5L_3L_5R_3R_L\right) + s^3\left(-C_3C_5L_3R_3R_5R_L + C_5L_3L_5R_5R_Lg_m - C_5L_3L_5R_L\right) + s^2\left(C_3L_3R_3R_5R_Lg_m - C_3L_3R_3R_L - C_5L_3R_5R_L + C_5L_5R_3R_5R_L\right) + s^2\left(C_3L_3R_3R_5R_L + C_5L_3L_5R_5R_L\right) + s^2\left(C_3L_3R_3R_5R_L + C_5L_3R_5R_L\right) + s^2\left(C_3L_3R_3R_5R_L\right) + s^2\left(C_3L_3R_$

10.768 INVALID-ORDER-768
$$Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ R_L + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{R_3 R_5 g_m - R_3 + s^5 \left(C_3 C_5 C_L L_3 L_5 R_3 R_5 R_L g_m - C_3 C_5 C_L L_3 L_5 R_3 R_L \right) + s^4 \left(-C_3 C_5 C_L L_3 R_3 R_5 R_L + C_3 C_5 L_4 R_3 R_5 g_m - C_3 C_5 L_3 L_5 R_3 R_5 + C_5 C_L L_3 L_5 R_3 R_5 + C_3 C_L L_3 R_3 R_5 R_L \right) + s^4 \left(-C_3 C_5 C_L L_3 R_3 R_5 R_L + C_3 C_5 L_4 R_3 R_5 R_L + C_3 C_5 L_4 R_3 R_5 R_L \right) + s^4 \left(C_3 C_5 C_L L_3 L_5 R_3 R_5 + C_5 C_L L_3 L_5 R_3 R_5 \right) + s^4 \left(C_3 C_5 C_L L_3 L_5 R_3 R_5 + C_5 C_L L_3 L_5 R_3 R_5 \right) + s^4 \left(C_3 C_5 C_L L_3 L_5 R_3 R_5 + C_5 C_L L_3 L_5 R_5 R_L \right) + s^4 \left(C_3 C_5 C_L L_3 L_5 R_3 R_5 + C_5 C_L L_3 L_5 R_5 R_L \right) + s^4 \left(C_3 C_5 C_L L_3 L_5 R_3 R_5 + C_5 C_L L_3 L_5 R_5 R_L \right) + s^4 \left(C_3 C_5 C_L L_3 L_5$

10.769 INVALID-ORDER-769
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, L_Ls + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{R_3 R_5 g_m - R_3 + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_3 R_5 g_m - C_3 C_5 L_L L_3 L_L R_3 + c_5 C_L L_3 L_L R_3 R_5 g_m - C_3 C_5 L_L L_2 L_L R_3 R_5 g_m - C_3 C_5 L_L L_3 L_L R_3 R_5 g_m - C_3 C_5 L_L L_3 L_L R_3 R_5 g_m - C_3 C_5 L_L L_3 L_L R_3 R_5 g_m - C_3 C_5 L_L L_3 L_L R_3 R_5 g_m - C_3 C_5 L_L L_3 L_L R_3 R_5 g_m - C_3 C_5 L_L L_3 L_L R_3 R_5 g_m - C_3 C_5 L_L L_3 L_L R_3 R_5 g_m - C_3 C_5 L_L L_3 L_L R_3 R_5 g_m - C_3 C_5 L_L L_3 L_L R_3 R_5 g_m - C_3 C_5 L_L L_3 L_L R_3 R_5 g_m - C_3 C_5 L_L L_3 L_L R_3 R_5 g_m - C_3 C_5 L_L L_3 L_L R_3 R_5 g_m - C_3 C_5 L_L L_3 L_L R_3 R_5 g_m - C_3 C_5 L_L R_3 R_5 g_m - C_3 C_5 L_L R_3 R_5 g_m - C_3 C_5 L_L R_3 L_L R_3 R_5 g_m - C_3 C_5 L_L R_3 L_L R_3 R_5$

10.770 INVALID-ORDER-770
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

 $H(s) = \frac{s^5 \left(C_3 C_5 L_3 L_5 L_L R_3 R_5 g_m - C_3 C_5 L_3 L_5 L_L R_3 \right) + s^4 \left(-C_3 C_5 L_3 L_L R_3 R_5 g_m - C_5 L_3 L_L L_R R_5 g_m - C_5 L_5 L_L R_3 R_5 g_m - C_5 L_5 L_L R_5 g_m - C_5 L$

10.771 INVALID-ORDER-771
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{R_3 R_5 g_m - R_3 + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_3 R_5 g_m - C_3 C_5 C_L L_3 L_5 L_L R_3\right) + s^5 \left(C_3 C_5 C_L L_3 L_5 R_3 R_5 R_L g_m - C_3 C_5 C_L L_3 L_5 R_3 R_L - C_3 C_5 C_L L_3 L_5 L_L R_5 g_m - C_5 C_L L_3 L_5 L_L\right) + s^4 \left(-C_3 C_5 C_L L_3 R_3 R_5 R_L + C_3 C_5 L_3 L_5 R_3 R_5 g_m - C_3 C_5 L_3 L_5 R_3 R_5 R_L + C_3 C_5 L_4 L_5 L_L R_5 R_5 R_L + C_3 C_5 C_L L_3 L_5 R_3 R_5 R_L + C_3 C_5 C_L L_3 L_5 R_5 R_L + C_3 C_5 C_L L_3 L_5 R_3 R_5 R_L + C_3 C_5 C_L L_3 L_5 R_5 R_L + C_5 C_L L_5 R_5 R_$

10.772 INVALID-ORDER-772
$$Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$$

 $H(s) = \frac{s^5 \left(C_3 C_5 L_3 L_5 L_L R_3 R_5 R_L g_m - C_3 C_5 L_3 L_5 L_L R_3 R_5 R_L + C_5 L_3 L_5 L_L R_5 R_L g_m - C_5 L_3 L_5 L_L R_5 R_L g_m - C_5 L_3 L_5 L_L R_5 R_L + S^3 \left(C_3 C_5 L_3 L_5 L_L R_3 R_5 R_L + C_5 C_4 L_3 L_5 L_L R_3 R_5 R_L + C_5 C_4 L_3 L_5 L_L R_3 R_5 R_L + C_5 C_4 L_3 L_5 L_L R_3 R_5 R_L + C_5 C_4 L_5 L_L R_5$

10.773 INVALID-ORDER-773
$$Z(s) = \left(\infty, \infty, \frac{L_{3}s}{C_{3}L_{3}s^{2}+1} + R_{3}, \infty, \frac{R_{5}\left(C_{5}L_{5}s^{2}+1\right)}{C_{5}L_{5}s^{2}+C_{5}R_{5}s+1}, \frac{L_{L}s}{C_{L}L_{L}s^{2}+1} + R_{L}\right)$$

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10.774 INVALID-ORDER-774 Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \frac{R_L\left(C_LL_Ls^2+1\right)}{C_LL_Ls^2+C_LR_Ls+1}\right)
H(s) = \frac{R_3R_5R_Lg_m - R_3R_L + s^6\left(C_3C_5C_LL_3L_5L_LR_3R_5R_Lg_m - C_3C_5C_LL_3L_5L_LR_3R_5R_L + C_5C_LL_3L_5L_LR_5R_Lg_m - C_5C_LL_3L_5L_LR_5\right) + s^4\left(C_3C_5L_3L_5L_LR_3R_5R_L + C_5C_LL_3L_5L_LR_3R_5 + C_5C_LL_3L_5L_RR_5R_L + C_5C_LL_3L_5L
10.775 INVALID-ORDER-775 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5, \frac{1}{C_Ls}\right)
                                                                                                                                                                                                                                                                                                                                                                                              H(s) = \frac{R_3 R_5 g_m - R_3 + s^2 \left( C_3 L_3 R_3 R_5 g_m - C_3 L_3 R_3 \right)}{C_3 C_L L_3 R_3 R_5 s^3 + R_3 + R_5 + s^2 \left( C_3 L_3 R_3 + C_3 L_3 R_5 \right) + s \left( C_3 R_3 R_5 + C_L R_3 R_5 \right)}
10.776 INVALID-ORDER-776 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5, \frac{R_L}{C_LR_Ls+1}\right)
                                                                                                                                                                                                                                                                                            H(s) = \frac{R_3 R_5 R_L g_m - R_3 R_L + s^2 \left(C_3 L_3 R_3 R_5 R_L g_m - C_3 L_3 R_3 R_L\right)}{C_3 C_L L_3 R_3 R_5 R_L s^3 + R_3 R_5 + R_3 R_L + R_5 R_L + s^2 \left(C_3 L_3 R_3 R_5 + C_3 L_3 R_3 R_L + C_3 L_3 R_5 R_L\right) + s \left(C_3 R_3 R_5 R_L + C_L R_3 R_5 R_L\right)}
10.777 INVALID-ORDER-777 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5, R_L + \frac{1}{C_Ls}\right)
                                                                                                                                                                                                                 H(s) = \frac{R_3R_5g_m - R_3 + s^3\left(C_3C_LL_3R_3R_5R_Lg_m - C_3C_LL_3R_3R_L\right) + s^2\left(C_3L_3R_3R_5g_m - C_3L_3R_3\right) + s\left(C_LR_3R_5R_Lg_m - C_LR_3R_L\right)}{R_3 + R_5 + s^3\left(C_3C_LL_3R_3R_5 + C_3C_LL_3R_3R_L + C_3C_LL_3R_5R_L\right) + s^2\left(C_3C_LR_3R_5R_L + C_3L_3R_3\right) + s\left(C_3R_3R_5 + C_LR_3R_5 + C_LR_3R_L + C_LR_5R_L\right)}
10.778 INVALID-ORDER-778 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5, L_Ls + \frac{1}{C_Ls}\right)
                                                                                                                                                                                                          H(s) = \frac{R_3 R_5 g_m - R_3 + s^4 \left(C_3 C_L L_3 L_L R_3 R_5 g_m - C_3 C_L L_3 L_L R_3\right) + s^2 \left(C_3 L_3 R_3 R_5 g_m - C_3 L_3 R_3 + C_L L_L R_3 R_5 g_m - C_L L_L R_3\right)}{R_3 + R_5 + s^4 \left(C_3 C_L L_3 L_L R_3 + C_3 C_L L_3 L_L R_5\right) + s^3 \left(C_3 C_L L_3 R_3 R_5 + C_3 C_L L_L R_3 R_5\right) + s^2 \left(C_3 L_3 R_3 + C_3 L_3 R_5 + C_L L_L R_3 + C_L L_L R_5\right) + s \left(C_3 R_3 R_5 + C_L R_3 R_5\right)}
10.779 INVALID-ORDER-779 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5, \frac{L_Ls}{C_LL_Ls^2+1}\right)
                                                                                                                                                                                                                                                                                    H(s) = \frac{s^3 \left( C_3 L_3 L_L R_3 R_5 g_m - C_3 L_3 L_L R_3 \right) + s \left( L_L R_3 R_5 g_m - L_L R_3 \right)}{C_3 C_L L_3 L_L R_3 R_5 s^4 + R_3 R_5 + s^3 \left( C_3 L_3 L_L R_3 + C_3 L_3 L_L R_5 \right) + s^2 \left( C_3 L_3 R_3 R_5 + C_3 L_L R_3 R_5 + C_4 L_L R_3 R_5 \right) + s \left( L_L R_3 + L_L R_5 \right)}
10.780 INVALID-ORDER-780 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5, L_Ls + R_L + \frac{1}{C_Ls}\right)
                                  H(s) = \frac{R_3R_5g_m - R_3 + s^4\left(C_3C_LL_3L_LR_3R_5g_m - C_3C_LL_3L_LR_3\right) + s^3\left(C_3C_LL_3R_3R_5R_Lg_m - C_3C_LL_3R_3R_L\right) + s^2\left(C_3L_3R_3R_5g_m - C_3L_3R_3 + C_LL_LR_3R_5g_m - C_LL_LR_3\right) + s\left(C_LR_3R_5R_Lg_m - C_LR_3R_L\right)}{R_3 + R_5 + s^4\left(C_3C_LL_3L_LR_3 + C_3C_LL_3R_3R_5 + C_3C_LL_3R_3R_L + C_3C_LL_3R_3R_5 + C_2C_LR_3R_5R_L + C_3C_LL_3R_3R_5 + C_2C_LR_3R_5 
10.781 INVALID-ORDER-781 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)
                                                                                                                                                       H(s) = \frac{s^3 \left( C_3 L_3 L_L R_3 R_5 R_L g_m - C_3 L_3 L_L R_3 R_L \right) + s \left( L_L R_3 R_5 R_L g_m - L_L R_3 R_L \right)}{C_3 C_L L_3 L_L R_3 R_5 R_L s^4 + R_3 R_5 R_L + s^3 \left( C_3 L_3 L_L R_3 R_5 + C_3 L_3 L_L R_3 R_L \right) + s^2 \left( C_3 L_3 R_3 R_5 R_L + C_3 L_L R_3 R_5 R_L \right) + s \left( L
10.782 INVALID-ORDER-782 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)
H(s) = \frac{R_3R_5R_Lg_m - R_3R_L + s^4\left(C_3C_LL_3L_LR_3R_5R_Lg_m - C_3C_LL_3L_LR_3R_5\right) + s^3\left(C_3L_3L_LR_3R_5g_m - C_3L_3L_LR_3\right) + s^2\left(C_3L_3R_3R_5R_Lg_m - C_3L_3R_3R_L + C_LL_LR_3R_5R_Lg_m - C_LL_LR_3R_L\right) + s\left(L_LR_3R_5g_m - L_LR_3\right)}{R_3R_5 + R_3R_L + R_5R_L + s^4\left(C_3C_LL_3L_LR_3R_5 + C_3L_3L_LR_3R_L + C_3L_3L_LR_3 + C_3L_3L_RR_3 + C_3L_3L_RR_3 + C_3L_3L_RR_3 + C_3L_3R_3R_L + C_3L_3R_3R_L + C_3L_3R_3R_L + C_3L_3R_3R_5 + C_3L_3R_3R
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10.783 INVALID-ORDER-783 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)
H(s) = \frac{R_3R_5R_Lg_m - R_3R_L + s^4\left(C_3C_LL_3L_LR_3R_5R_Lg_m - C_3C_LL_3L_LR_3R_L\right) + s^2\left(C_3L_3R_3R_5R_Lg_m - C_3L_3R_3R_L + C_LL_LR_3R_5R_Lg_m - C_LL_LR_3R_L\right)}{R_3R_5 + R_3R_L + R_5R_L + s^4\left(C_3C_LL_3L_LR_3R_5 + C_3C_LL_3L_LR_3R_L + C_3C_LL_3L_LR_3R_5 + C_3C_LL_3L_LR_3R_5 + C_3C_LL_3L_LR_3R_5 + C_3C_LL_3L_LR_3R_5 + C_3C_LL_3L_RR_3R_5 + C_3C_LL_3L_RR_3R_5 + C_3C_LL_3L_RR_3R_5 + C_3C_LL_3R_3R_5 + C_3C_LL_3R_5 
10.784 INVALID-ORDER-784 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{1}{C_5s}, R_L\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                   H(s) = \frac{-C_3C_5L_3R_3R_Ls^3 + C_3L_3R_3R_Lg_ms^2 - C_5R_3R_Ls + R_3R_Lg_m}{C_3C_5L_3R_3R_Ls^3 + R_3 + R_L + s^2\left(C_3L_3R_3 + C_3L_3R_L\right) + s\left(C_3R_3R_L + C_5R_3R_L\right)}
10.785 INVALID-ORDER-785 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{1}{C_5s}, \frac{1}{C_Ls}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          H(s) = \frac{-C_3C_5L_3R_3s^3 + C_3L_3R_3g_ms^2 - C_5R_3s + R_3g_m}{C_3L_3s^2 + s^3\left(C_3C_5L_3R_3 + C_3C_LL_3R_3\right) + s\left(C_3R_3 + C_5R_3 + C_LR_3\right) + 1}
10.786 INVALID-ORDER-786 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{1}{C_5s}, \frac{R_L}{C_LR_Ls+1}\right)
                                                                                                                                                                                                                                                                                                                                                                    H(s) = \frac{-C_3C_5L_3R_3R_Ls^3 + C_3L_3R_3R_Lg_ms^2 - C_5R_3R_Ls + R_3R_Lg_m}{R_2 + R_L + s^3\left(C_3C_5L_3R_3R_L + C_3C_LL_3R_3R_L\right) + s^2\left(C_3L_3R_3 + C_3L_3R_L\right) + s\left(C_3R_3R_L + C_5R_3R_L + C_LR_3R_L\right)}
10.787 INVALID-ORDER-787 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{1}{C_5s}, R_L + \frac{1}{C_Ls}\right)
                                                                                                                                                                                                                                                                     H(s) = \frac{-C_3C_5C_LL_3R_3R_Ls^4 + R_3g_m + s^3\left(-C_3C_5L_3R_3 + C_3C_LL_3R_3R_Lg_m\right) + s^2\left(C_3L_3R_3g_m - C_5C_LR_3R_L\right) + s\left(-C_5R_3 + C_LR_3R_Lg_m\right)}{C_3C_5C_LL_3R_3R_Ls^4 + s^3\left(C_3C_5L_3R_3 + C_3C_LL_3R_3 + C_3C_LL_3R_L\right) + s^2\left(C_3C_LR_3R_L + C_3L_3R_3R_L\right) + s\left(C_3R_3R_L + C_5R_3 + C_LR_3R_L\right) + s\left(C_3R_3R_L + C_5R_3R_L\right) + s\left(C_3R_3R_L\right) + s\left(C_3R_L\right) + s\left(C_3R_L\right) + s\left(C_3R_L\right) + s\left(C_3R_L\right) + s\left(C_3R_L\right) + s\left(C_3R_L\right) + s\left(
10.788 INVALID-ORDER-788 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{1}{C_5s}, L_Ls + \frac{1}{C_Ls}\right)
                                                                                                                                                                                                                                                                   H(s) = \frac{-C_3C_5C_LL_3L_LR_3s^5 + C_3C_LL_3L_LR_3g_ms^4 - C_5R_3s + R_3g_m + s^3\left(-C_3C_5L_3R_3 - C_5C_LL_LR_3\right) + s^2\left(C_3L_3R_3g_m + C_LL_LR_3g_m\right)}{C_3C_5C_LL_3L_LR_3s^5 + C_3C_LL_3L_Ls^4 + s^3\left(C_3C_5L_3R_3 + C_3C_LL_3R_3 + C_5C_LL_LR_3\right) + s^2\left(C_3L_3R_3g_m + C_LL_LR_3g_m\right)} + s^2\left(C_3L_3L_3R_3s^5 + C_3C_LL_3L_LR_3s^4 + s^3\left(C_3C_5L_3R_3 + C_3C_LL_3R_3 + C_5C_LL_RR_3\right) + s^2\left(C_3L_3R_3g_m + C_LL_LR_3g_m\right)}
10.789 INVALID-ORDER-789 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1}\right)
                                                                                                                                                                                                                                                                                                                                                                        H(s) = \frac{-C_3C_5L_3L_LR_3s^4 + C_3L_3L_LR_3g_ms^3 - C_5L_LR_3s^2 + L_LR_3g_ms}{C_3L_3L_Ls^3 + L_Ls + R_3 + s^4\left(C_3C_5L_3L_LR_3 + C_3C_LL_3L_LR_3\right) + s^2\left(C_3L_3R_3 + C_3L_LR_3 + C_5L_LR_3 + C_LL_LR_3\right)}
10.790 INVALID-ORDER-790 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)
                                                                      H(s) = \frac{-C_3C_5C_LL_3L_LR_3s^5 + R_3g_m + s^4\left(-C_3C_5C_LL_3R_3R_L + C_3C_LL_3L_LR_3g_m\right) + s^3\left(-C_3C_5L_3R_3 + C_3C_LL_3R_3R_Lg_m - C_5C_LL_LR_3\right) + s^2\left(C_3L_3R_3g_m - C_5C_LR_3R_L + C_LL_LR_3g_m\right) + s\left(-C_5R_3 + C_LR_3R_Lg_m\right)}{C_3C_5C_LL_3L_LR_3s^5 + s^4\left(C_3C_5C_LL_3R_3R_L + C_3C_LL_3L_L\right) + s^3\left(C_3C_LL_3R_3 + C_3C_LL_3R_3 +
10.791 INVALID-ORDER-791 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{1}{C_5s}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)
                                                                                                                                                                                                                          H(s) = \frac{-C_3C_5L_3L_LR_3R_Ls^4 + C_3L_3L_LR_3R_Lg_ms^3 - C_5L_LR_3R_Ls^2 + L_LR_3R_Lg_ms}{R_3R_L + s^4\left(C_3C_5L_3L_LR_3R_L + C_3C_LL_3L_LR_3R_L\right) + s^3\left(C_3L_3L_LR_3 + C_3L_3L_LR_3\right) + s^2\left(C_3L_3R_LR_3 + C_3L_LR_3R_L + C_3L_LR_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L\right) + s^2\left(C_3L_3R_LR_3R_L + C_3L_LR_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L\right) + s^2\left(C_3L_3R_LR_3R_L + C_3L_LR_3R_L + C_5L_LR_3R_L + C_5L_LR_3R_L\right) + s^2\left(C_3L_3R_LR_3R_L + C_3L_LR_3R_L\right) + s^2\left(C_3L_3R_LR_3R_LR_3R_L + C_3L_LR_3R_L\right) + s^2\left(C_3L_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_L\right) + s^2\left(C_3L_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_LR_3R_
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10.792 INVALID-ORDER-792 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)
H(s) = \frac{-C_3C_5C_LL_3L_LR_3R_Ls^5 + R_3R_Lg_m + s^4\left(-C_3C_5L_3L_LR_3 + C_3C_LL_3L_LR_3R_Lg_m\right) + s^3\left(-C_3C_5L_3R_3R_L + C_3L_3L_LR_3g_m - C_5C_LL_LR_3R_L\right) + s^2\left(C_3L_3R_3R_Lg_m - C_5L_LR_3 + C_LL_LR_3R_Lg_m\right) + s\left(-C_5R_3R_L + L_LR_3g_m\right)}{C_3C_5C_LL_3L_LR_3R_Ls^5 + R_3 + R_L + s^4\left(C_3C_5L_3L_LR_3 + C_3C_LL_3L_LR_3 + C_3C_LL_LR_3R_L\right) + s^2\left(C_3L_3R_3R_L + C_3L_LR_3R_L\right) + s^2\left(C_3L_3R_3R_L + C_3L_LR_3 + C_LL_LR_3 
10.793 INVALID-ORDER-793 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{1}{C_5s}, \frac{R_L\left(C_LL_Ls^2+1\right)}{C_LL_Ls^2+C_LR_Ls+1}\right)
                                     H(s) = \frac{-C_3C_5C_LL_3L_LR_3R_Ls^5 + C_3C_LL_3L_LR_3R_Lg_ms^4 - C_5R_3R_Ls + R_3R_Lg_m + s^3\left(-C_3C_5L_3R_3R_L - C_5C_LL_LR_3R_L\right) + s^2\left(C_3L_3R_3R_Lg_m + C_LL_LR_3R_Lg_m\right)}{C_3C_5C_LL_3L_LR_3R_Ls^5 + R_3 + R_L + s^4\left(C_3C_LL_3L_LR_3 + C_3C_LL_3L_LR_1\right) + s^3\left(C_3C_5L_3R_3R_L + C_3C_LL_3R_3R_L + C_5C_LL_LR_3R_L\right) + s^2\left(C_3L_3R_3R_Lg_m + C_LL_LR_3R_Lg_m\right)}
10.794 INVALID-ORDER-794 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5}{C_5R_5s+1}, R_L\right)
                                                                                                                                                                                                                                                                                                  H(s) = \frac{-C_3C_5L_3R_3R_5R_Ls^3 - C_5R_3R_5R_Ls + R_3R_5R_Lg_m - R_3R_L + s^2\left(C_3L_3R_3R_5R_Lg_m - C_3L_3R_3R_L\right)}{C_3C_5L_3R_3R_5R_Ls^3 + R_3R_5 + R_3R_L + R_5R_L + s^2\left(C_3L_3R_3R_5 + C_3L_3R_3R_L + C_3L_3R_5R_L\right) + s\left(C_3R_3R_5R_L + C_5R_3R_5R_L\right)}
10.795 INVALID-ORDER-795 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5}{C_5R_5s+1}, \frac{1}{C_Ls}\right)
                                                                                                                                                                                                                                                                                                                                H(s) = \frac{-C_3C_5L_3R_3R_5s^3 - C_5R_3R_5s + R_3R_5g_m - R_3 + s^2\left(C_3L_3R_3R_5g_m - C_3L_3R_3\right)}{R_3 + R_5 + s^3\left(C_3C_5L_3R_3R_5 + C_3C_LL_3R_3R_5\right) + s^2\left(C_3L_3R_3 + C_3L_3R_5\right) + s\left(C_3R_3R_5 + C_5R_3R_5 + C_4R_3R_5\right)}
10.796 INVALID-ORDER-796 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5}{C_5R_5s+1}, \frac{R_L}{C_LR_Ls+1}\right)
                                                                                                                                                                                                              H(s) = \frac{-C_3C_5L_3R_3R_5R_Ls^3 - C_5R_3R_5R_Ls + R_3R_5R_Lg_m - R_3R_L + s^2\left(C_3L_3R_3R_5R_Lg_m - C_3L_3R_3R_L\right)}{R_3R_5 + R_3R_L + R_5R_L + s^3\left(C_3C_5L_3R_3R_5R_L + C_3C_LL_3R_3R_5R_L\right) + s^2\left(C_3L_3R_3R_5 + C_3L_3R_3R_L + C_3L_3R_5R_L\right) + s\left(C_3R_3R_5R_L + C_5R_3R_5R_L + C_5R_3R_5R_L\right) + s\left(C_3R_3R_5R_L + C_5R_3R_5R_L + C_5R_3R_5R_L\right) + s\left(C_3R_3R_5R_L + C_5R_3R_5R_L\right) + s\left(C_3R_3R_5R_L + C_5R_3R_5R_L\right) + s\left(C_3R_3R_5R_L\right) + s\left(C_3R_3R
10.797 INVALID-ORDER-797 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5}{C_5R_5s+1}, R_L + \frac{1}{C_Ls}\right)
                                                        H(s) = \frac{-C_3C_5C_LL_3R_3R_5R_Ls^4 + R_3R_5g_m - R_3 + s^3\left(-C_3C_5L_3R_3R_5 + C_3C_LL_3R_3R_5R_Lg_m - C_3C_LL_3R_3R_5\right) + s^2\left(C_3L_3R_3R_5g_m - C_3L_3R_3 - C_5C_LR_3R_5R_L\right) + s\left(-C_5R_3R_5 + C_LR_3R_5R_Lg_m - C_LR_3R_L\right)}{C_3C_5C_LL_3R_3R_5R_Ls^4 + R_3 + R_5 + s^3\left(C_3C_5L_3R_3R_5 + C_3C_LL_3R_3R_5 + C_3C_LL_3R_3R_L\right) + s^2\left(C_3C_LR_3R_5R_L + C_3L_3R_3 + C_5C_LR_3R_5R_L\right) + s\left(-C_5R_3R_5 + C_LR_3R_5R_Lg_m - C_LR_3R_L\right)}
10.798 INVALID-ORDER-798 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5}{C_5R_5s+1}, L_Ls + \frac{1}{C_Ls}\right)
                                                  H(s) = \frac{-C_3C_5C_LL_3L_LR_3R_5s^5 - C_5R_3R_5s + R_3R_5g_m - R_3 + s^4\left(C_3C_LL_3L_LR_3R_5g_m - C_3C_LL_3L_LR_3\right) + s^3\left(-C_3C_5L_3R_3R_5 - C_5C_LL_LR_3R_5\right) + s^2\left(C_3L_3R_3R_5g_m - C_3L_3R_3 + C_LL_LR_3R_5g_m - C_LL_LR_3\right)}{C_3C_5C_LL_3L_LR_3R_5s^5 + R_3 + R_5 + s^4\left(C_3C_LL_3L_LR_3 + C_3C_LL_3L_LR_3\right) + s^3\left(C_3C_5L_3R_3R_5 + C_5C_LL_LR_3R_5\right) + s^2\left(C_3L_3R_3R_5g_m - C_3L_3R_3 + C_LL_LR_3R_5g_m - C_LL_LR_3\right)}
10.799 INVALID-ORDER-799 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5}{C_5R_5s+1}, \frac{L_Ls}{C_LL_Ls^2+1}\right)
                                                                                                                                                                                                        H(s) = \frac{-C_3C_5L_3L_LR_3R_5s^4 - C_5L_LR_3R_5s^2 + s^3\left(C_3L_3L_LR_3R_5g_m - C_3L_3L_LR_3\right) + s\left(L_LR_3R_5g_m - L_LR_3\right)}{R_3R_5 + s^4\left(C_3C_5L_3L_LR_3R_5 + C_3L_LL_3L_LR_3R_5\right) + s^3\left(C_3L_3L_LR_3 + C_3L_3L_LR_3\right) + s^2\left(C_3L_3R_3R_5 + C_3L_LR_3R_5 + C_5L_LR_3R_5\right) + s\left(L_LR_3R_5\right) + s\left(L_L
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 $H(s) = \frac{-C_3C_5C_LL_3L_LR_3R_5s^5 + R_3R_5g_m - R_3 + s^4\left(-C_3C_5C_LL_3R_3R_5R_L + C_3C_LL_3L_LR_3R_5g_m - C_3C_LL_3R_3R_5 + C_3C_LL_3$

10.800 INVALID-ORDER-800 $Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5}{C_5R_5s+1}, L_Ls + R_L + \frac{1}{C_Ls}\right)$

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10.801 INVALID-ORDER-801 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5}{C_5R_5s+1}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)
                                                                                  H(s) = \frac{-C_3C_5L_3L_LR_3R_5R_Ls^4 - C_5L_LR_3R_5R_Ls^2 + s^3\left(C_3L_3L_LR_3R_5R_Lg_m - C_3L_3L_LR_3R_L\right) + s\left(L_LR_3R_5R_Lg_m - L_LR_3R_L\right)}{R_3R_5R_L + s^4\left(C_3C_5L_3L_LR_3R_5R_L + C_3C_LL_3L_LR_3R_5R_L\right) + s^3\left(C_3L_3L_LR_3R_5 + C_3L_3L_LR_3R_5 + C_3L_3L_LR_3R_5R_L\right) + s^2\left(C_3L_3R_3R_5R_L + C_3L_LR_3R_5R_L + C_5L_LR_3R_5R_L\right) + s\left(L_LR_3R_5R_L + C_5L_LR_3R_5R_L\right) + s\left(L_LR_3R_5R_L\right) + s\left(L_LR
10.802 INVALID-ORDER-802 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5}{C_5R_5s+1}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)
H(s) = \frac{-C_3C_5C_LL_3L_LR_3R_5R_Ls^5 + R_3R_5R_Lg_m - R_3R_L + s^4\left(-C_3C_5L_3L_LR_3R_5 + C_3C_LL_3L_LR_3R_5R_Lg_m - C_3C_LL_3L_LR_3R_5R_L + C_3L_3L_LR_3R_5R_L + C_3L_3L_LR_3R_5g_m - C_3L_3L_LR_3 - C_5C_LL_LR_3R_5R_L\right) + s^2\left(C_3L_3R_3R_5R_Lg_m - C_3C_5L_3L_LR_3R_5R_L + C_3C_LL_3L_LR_3R_5R_L + C_3C_LL_3L_LR_3R_5R_L + C_3L_3L_LR_3R_5R_L + C_
10.803 INVALID-ORDER-803 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5}{C_5R_5s+1}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)
H(s) = \frac{-C_3C_5C_LL_3L_LR_3R_5R_Ls^5 - C_5R_3R_5R_Ls + R_3R_5R_Lg_m - R_3R_L + s^4\left(C_3C_LL_3L_LR_3R_5R_Lg_m - C_3C_LL_3L_LR_3R_5\right) + s^3\left(-C_3C_5L_3R_3R_5R_L - C_5C_LL_LR_3R_5R_L\right) + s^2\left(C_3L_3R_3R_5R_L - C_5C_LL_LR_3R_5R_L\right) + s^2\left(C_3L_3R_3R_5R_L - C_5C_LL_LR_3R_5R_L\right) + s^2\left(C_3L_3R_3R_5R_L + C_3C_LL_LR_3R_5R_L\right) + s^2\left(C_3L_3R_3R_5R_
10.804 INVALID-ORDER-804 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5 + \frac{1}{C_5s}, R_L\right)
                                                                                                                                                                                                                                                                                                        H(s) = \frac{C_3L_3R_3R_Lg_ms^2 + R_3R_Lg_m + s^3\left(C_3C_5L_3R_3R_5R_Lg_m - C_3C_5L_3R_3R_L\right) + s\left(C_5R_3R_5R_Lg_m - C_5R_3R_L\right)}{R_3 + R_L + s^3\left(C_3C_5L_3R_3R_5 + C_3C_5L_3R_3R_L + C_3C_5L_3R_5R_L\right) + s^2\left(C_3C_5R_3R_5R_L + C_3L_3R_3 + C_3L_3R_L\right) + s\left(C_3R_3R_L + C_5R_3R_L + C_5R_3R_L + C_5R_5R_L\right)}
10.805 INVALID-ORDER-805 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5 + \frac{1}{C_5s}, \frac{1}{C_Ls}\right)
                                                                                                                                                                                                                                                                                                                                        H(s) = \frac{C_3L_3R_3g_ms^2 + R_3g_m + s^3\left(C_3C_5L_3R_3R_5g_m - C_3C_5L_3R_3\right) + s\left(C_5R_3R_5g_m - C_5R_3\right)}{C_3C_5C_LL_3R_3R_5s^4 + s^3\left(C_3C_5L_3R_3 + C_3C_5L_3R_5 + C_3C_LL_3R_3\right) + s^2\left(C_3C_5R_3R_5 + C_3L_3 + C_5C_LR_3R_5\right) + s\left(C_3R_3 + C_5R_3 + C_5R_3 + C_5R_5 + C_LR_3\right) + 1}
10.806 INVALID-ORDER-806 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5 + \frac{1}{C_5s}, \frac{R_L}{C_LR_Ls+1}\right)
                                                                             H(s) = \frac{C_3L_3R_3R_Lg_ms^2 + R_3R_Lg_m + s^3\left(C_3C_5L_3R_3R_5R_Lg_m - C_3C_5L_3R_3R_L\right) + s\left(C_5R_3R_5R_Lg_m - C_5R_3R_L\right)}{C_3C_5C_LL_3R_3R_5R_Ls^4 + R_3 + R_L + s^3\left(C_3C_5L_3R_3R_5 + C_3C_5L_3R_3R_L + C_3C_5L_3R_3R_L\right) + s^2\left(C_3C_5R_3R_5R_L + C_3L_3R_3R_L + C_5C_LR_3R_5R_L\right) + s\left(C_3R_3R_5R_Ls^4 + R_3 + R_L + s^3\left(C_3C_5L_3R_3R_5 + C_3C_5L_3R_3R_L + C_3C_5L_3R_3R_L\right) + s^2\left(C_3C_5R_3R_5R_L + C_3L_3R_3R_L + C_5C_LR_3R_5R_L\right) + s\left(C_3R_3R_5R_L + C_5R_3R_5 + C_5R_3R_L + C_5R_3R_L\right) + s\left(C_3R_3R_5R_Ls^4 + R_3 + R_L + s^3\left(C_3C_5L_3R_3R_5 + C_3C_5L_3R_3R_L + C_3C_5L_3R_3R_L\right) + s^2\left(C_3C_5R_3R_5R_L + C_3L_3R_3R_L + C_5R_3R_5R_L\right) + s\left(C_3R_3R_5R_Ls^4 + R_3 + R_L + s^3\left(C_3C_5L_3R_3R_L + C_3C_5L_3R_3R_L + C_3C_5L_3R_3R_L\right) + s^2\left(C_3C_5R_3R_5R_L + C_3C_5L_3R_3R_L + C_5R_3R_L\right) + s^2\left(C_3C_5R_3R_5R_L + C_5R_3R_5R_L + C_5R_3R_5R_L\right) + s^2\left(C_3C_5R_3R_5R_L + C_5R_3R_5R_L\right) + s^2\left(C_3C_5R_3R_5R_L\right) + s^2\left(C_3C_5R_5R_5R_L\right) + s^2\left(C_3C_5R_5R_5R_L\right) + s^2\left(C_3C_5R_5R_5R_L\right) + 
10.807 INVALID-ORDER-807 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5 + \frac{1}{C_5s}, R_L + \frac{1}{C_Ls}\right)
H(s) = \frac{R_3 g_m + s^4 \left(C_3 C_5 C_L L_3 R_3 R_5 R_L g_m - C_3 C_5 C_L L_3 R_3 R_L \right) + s^3 \left(C_3 C_5 L_4 R_3 R_5 g_m - C_3 C_5 L_4 R_3 R_L g_m\right) + s^2 \left(C_3 L_3 R_3 g_m + C_5 C_L R_3 R_5 R_L g_m - C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 g_m - C_5 R_3 + C_L R_3 R_L g_m\right)}{s^4 \left(C_3 C_5 C_L L_3 R_3 R_5 + C_3 C_5 L_4 R_3 R_L\right) + s^3 \left(C_3 C_5 C_L R_3 R_5 R_L + C_3 C_5 L_4 R_3 R_5 + C_3 C_L L_3 R_3 + C_3 C_L L_3 R_3\right) + s^2 \left(C_3 C_5 R_3 R_5 + C_3 C_L R_3 R_L + C_3 C_5 L_4 R_3 R_L\right) + s^2 \left(C_3 C_5 R_3 R_5 + C_5 C_L R_3 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_3 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_5 R_L + C_5 C_L R_3 R_L\right) + s \left(C_5 R_5 R_L\right) + s
10.808 INVALID-ORDER-808 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5 + \frac{1}{C_5s}, L_Ls + \frac{1}{C_Ls}\right)
H(s) = \frac{C_3C_LL_3L_LR_3g_ms^4 + R_3g_m + s^5\left(C_3C_5C_LL_3L_LR_3R_5g_m - C_3C_5L_LL_RR_3\right) + s^3\left(C_3C_5L_3R_3R_5g_m - C_3C_5L_LR_3\right) + s^2\left(C_3L_3R_3g_m + C_LL_LR_3g_m\right) + s\left(C_5R_3R_5g_m - C_5R_3\right)}{s^5\left(C_3C_5C_LL_3L_LR_3 + C_3C_5C_LL_2R_3\right) + s^4\left(C_3C_5C_LL_3R_3R_5 + C_3C_5C_LL_2R_3\right) + s^3\left(C_3C_5L_3R_3 + C_5C_LL_2R_3\right) + s^3\left(C_3C_5L_3R_3 + C_5C_LL_3R_3 + C_5C_LL_3R_3\right) + s^3\left(C_3C_5L_3R_3 + C_5C_LL_3R_3 + C_5C_LL_3R_3\right) + s^3\left(C_3C_5L_3R_3 
10.809 INVALID-ORDER-809 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5 + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1}\right)
                                                                      H(s) = \frac{C_3L_3L_LR_3g_ms^3 + L_LR_3g_ms + s^4\left(C_3C_5L_3L_LR_3R_5g_m - C_3C_5L_3L_LR_3\right) + s^2\left(C_5L_LR_3R_5g_m - C_5L_LR_3\right)}{C_3C_5C_LL_3L_LR_3R_5s^5 + R_3 + s^4\left(C_3C_5L_3L_LR_3 + C_3C_5L_3L_LR_3\right) + s^3\left(C_3C_5L_3R_3R_5 + C_3C_5L_LR_3R_5\right) + s^2\left(C_5L_LR_3R_5g_m - C_5L_LR_3\right) + s^2\left(C_5L_LR_3R_5g_m
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10.810 INVALID-ORDER-810 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5 + \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)
H(s) = \frac{R_3 g_m + s^5 \left(C_3 C_5 C_L L_3 L_L R_3 R_5 g_m - C_3 C_5 C_L L_3 L_L R_3\right) + s^4 \left(C_3 C_5 C_L L_3 R_3 R_5 R_L g_m - C_3 C_5 C_L L_3 R_3 R_5 R_L g_m - C_3 C_5 L_L R_3 R_5 g_m - C_3 C_5 L_L R_3 R_5 g_m - C_3 C_5 L_L R_3 R_5 g_m - C_5 C_L L_L R_5
10.811 INVALID-ORDER-811 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5 + \frac{1}{C_5s}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)
H(s) = \frac{C_3L_3L_LR_3R_Lg_ms^3 + L_LR_3R_Lg_ms + s^4\left(C_3C_5L_3L_LR_3R_5R_Lg_m - C_3C_5L_3L_LR_3R_L\right) + s^2\left(C_5L_LR_3R_5R_Lg_m - C_5L_LR_3R_L\right)}{C_3C_5C_LL_3L_LR_3R_5R_Ls^5 + R_3R_L + s^4\left(C_3C_5L_3L_LR_3R_5 + C_3C_5L_3L_LR_3R_L\right) + s^3\left(C_3C_5L_3L_LR_3R_5R_L + C_3C_5L_LR_3R_5R_L + C_3C_5L_LR_3R_5R_L + C_5C_LL_RR_3R_5R_L\right) + s^2\left(C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L\right) + s^2\left(C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L\right) + s^2\left(C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L\right) + s^2\left(C_5L_LR_3R_5R_L + C_5L_LR_3R_5R_L\right) + s^2\left(C_5L_LR_3R_5R_L\right) + s^2
10.812 INVALID-ORDER-812 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5 + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)
H(s) = \frac{R_3 R_L g_m + s^5 \left(C_3 C_5 C_L L_3 L_L R_3 R_5 R_L g_m - C_3 C_5 C_L L_3 L_L R_3 R_5 g_m - C_3 C_5 L_3 L_L R_3 + C_3 C_L L_3 L_L R_3 R_L g_m \right) + s^3 \left(C_3 C_5 L_3 R_3 R_5 R_L g_m - C_3 C_5 L_3 R_3 R_L + C_3 L_3 L_L R_3 g_m - C_3 C_5 L_3 L_L R_3 R_5 R_L + C_3 C_5 L_3 L_L R_3 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 L_L R_3 R_5 R_L + C_3 C_5 L_4 L_L R_3 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 L_4 L_4 R_3 R_5 R_L + C_3 C_5 L_4 L_4 R_3 R_5 R_L + C_3 C_5 L_4 L_4 R_3 R_5 R_L + C_3 C_5 L_4 L_4 R_3 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 L_4 R_3 R_5 R_L + C_3 C_5 L_4 L_4 R_3 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 L_4 R_3 R_5 R_L + C_3 C_5 L_4 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 L_4 R_3 R_5 R_L + C_3 C_5 L_4 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 L_4 R_3 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 L_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_4 R_5 R_L + C_3 C_5 L_4 R_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_5 R_L + C_3 C_5 L_4 R_5 R_L \right) + s^4 \left(C_3 C_5 L_4 R_5 R_L + C_3 C_5 L_4 R_5 R_L \right) + s^4 \left(C_
10.813 INVALID-ORDER-813 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5 + \frac{1}{C_5s}, \frac{R_L\left(C_LL_Ls^2+1\right)}{C_LL_Ls^2+C_LR_Ls+1}\right)
                                                   \frac{C_{3}C_{L}L_{3}L_{L}R_{3}R_{L}g_{m}s^{4}+R_{3}R_{L}g_{m}+s^{5}\left(C_{3}C_{5}C_{L}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{3}C_{5}L_{L}L_{3}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{3}C_{5}L_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{5}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{3}R_{L}+C_{5}C_{L}L_{L}R_{L}+C_{5}C_{L}L_{L}R_{L}+C_{5}C_{L}L_{L}R_{L}+C_{5}C_{L}L_{L}R_{L}+C_{5}C_{L}L_{L}R_{L}+C_{5}C_{L}L_{L}R_{L}+C_{5}C_{L}L_{L}R_{L}+C_{5}C_{L}L_{L}R_{L}+C_{5}C_{L}L_{L}R_{L}+C_{5}C_{L}L_{L}R_{L}+C
10.814 INVALID-ORDER-814 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s + \frac{1}{C_5s}, R_L\right)
                                                                                                                                                                                                                                                                                              H(s) = \frac{C_3C_5L_3L_5R_3R_Lg_ms^4 - C_3C_5L_3R_3R_Ls^3 - C_5R_3R_Ls + R_3R_Lg_m + s^2\left(C_3L_3R_3R_Lg_m + C_5L_5R_3R_Lg_m\right)}{R_3 + R_L + s^4\left(C_3C_5L_3L_5R_3 + C_3C_5L_3L_5R_L\right) + s^3\left(C_3C_5L_3R_3R_L + C_5C_5L_5R_3R_L\right) + s^2\left(C_3L_3R_3 + C_5L_5R_3 + C_5L_5R_3 + C_5L_5R_3\right) + s^2\left(C_3L_3R_3R_L + C_5L_5R_3 + C_5L_5R_3 + C_5L_5R_3\right) + s^2\left(C_3L_3R_3R_L + C_5L_5R_3 + C_5L_5R_3 + C_5L_5R_3\right) + s^2\left(C_3L_3R_3R_L + C_5L_5R_3\right) + s^2\left(C_3L_3R_3R_L
10.815 INVALID-ORDER-815 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s+\frac{1}{C_5s}, \frac{1}{C_Ls}\right)
                                                                                                                                                                                                                                                                                                                                  H(s) = \frac{C_3C_5L_3L_5R_3g_ms^4 - C_3C_5L_3R_3s^3 - C_5R_3s + R_3g_m + s^2\left(C_3L_3R_3g_m + C_5L_5R_3g_m\right)}{C_3C_5C_LL_3L_5R_3s^5 + C_3C_5L_3L_5s^4 + s^3\left(C_3C_5L_3R_3 + C_3C_5L_5R_3 + C_3C_LL_3R_3 + C_5C_LL_5R_3\right) + s^2\left(C_3L_3 + C_5L_5\right) + s\left(C_3R_3 + C_5R_3 + C_LR_3\right) + 1}
10.816 INVALID-ORDER-816 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s + \frac{1}{C_5s}, \frac{R_L}{C_LR_Ls+1}\right)
                                                                    H(s) = \frac{C_3C_5L_3L_5R_3R_Lg_ms^4 - C_3C_5L_3R_3R_Ls^3 - C_5R_3R_Ls + R_3R_Lg_m + s^2\left(C_3L_3R_3R_Lg_m + C_5L_5R_3R_Lg_m\right)}{C_3C_5C_LL_3L_5R_3R_Ls^5 + R_3 + R_L + s^4\left(C_3C_5L_3L_5R_3 + C_3C_5L_3L_5R_3\right) + s^3\left(C_3C_5L_3R_3R_L + C_3C_5L_3R_3R_L + C_5C_LL_3R_3R_L\right) + s^2\left(C_3L_3R_3R_L + C_5L_5R_3R_L\right) + s^2\left(C_3L_3R_3R_L\right) + s^2\left(C_3L_3R_3R_L\right) + s^2\left(C_3L_3R_3R_L\right) + s^2\left(C_3L
10.817 INVALID-ORDER-817 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s+\frac{1}{C_5s}, R_L+\frac{1}{C_Ls}\right)
                                                   \frac{C_3C_5C_LL_3L_5R_3R_Lg_ms^5 + R_3g_m + s^4\left(-C_3C_5C_LL_3R_3R_L + C_3C_5L_3L_5R_3g_m\right) + s^3\left(-C_3C_5L_3R_3R_Lg_m + C_5C_LL_5R_3R_Lg_m\right) + s^2\left(C_3L_3R_3g_m - C_5C_LR_3R_L + C_5L_5R_3g_m\right) + s\left(-C_5R_3 + C_LR_3R_Lg_m\right)}{s^5\left(C_3C_5C_LL_3L_5R_3 + C_3C_5C_LL_3R_3R_L + C_3C_5L_4R_3R_L + C_3C_5L_4R_3R_L + C_3C_5L_4R_3R_L + C_5C_LL_5R_3 + C_3C_LL_3R_3 + C_3C_LL_3R_3 + C_3C_LL_3R_3 + C_3C_LL_3R_3 + C_5C_LL_5R_3 + C_5C_LL_5R_
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 $H(s) = \frac{C_3C_5C_LL_3L_5L_LR_3g_ms^6 - C_3C_5C_LL_3L_LR_3s^5 - C_5R_3s + R_3g_m + s^4\left(C_3C_5L_3L_5R_3g_m + C_5C_LL_5L_LR_3g_m\right) + s^3\left(-C_3C_5L_3R_3 - C_5C_LL_LR_3\right) + s^2\left(C_3L_3R_3g_m + C_5L_5R_3g_m + C_5L_LR_3g_m\right)}{C_3C_5C_LL_3L_5L_Ls^6 + s^5\left(C_3C_5C_LL_3L_5R_3 + C_3C_5C_LL_3L_LR_3\right) + s^4\left(C_3C_5L_3L_5R_3 + C_5C_LL_5L_L\right) + s^3\left(C_3C_5L_3R_3 + C_3C_5L_3R_3 + C_5C_LL_3R_3 + C_5C_LL_3R_3\right) + s^2\left(C_3L_3R_3g_m + C_5L_4R_3g_m\right) + s^3\left(C_3C_5L_3L_5R_3 + C_5C_LL_3R_3 + C_5C_LL_3R_3\right) + s^2\left(C_3L_3R_3g_m + C_5L_4R_3g_m\right) + s^3\left(C_3C_5L_3L_5R_3 + C_5C_LL_3R_3 + C_5C_LL_3R_3\right) + s^2\left(C_3L_3R_3g_m + C_5L_4R_3g_m\right) + s^3\left(C_3C_5L_3R_3 + C_5C_LL_3R_3 + C_5C_LL_3R_3\right) + s^2\left(C_3L_3R_3g_m + C_5L_4R_3g_m\right) + s^3\left(C_3C_5L_3L_5R_3 + C_5C_LL_3R_3\right) + s^2\left(C_3L_3R_3g_m + C_5L_4R_3g_m\right) + s^3\left(C_3C_5L_3L_5R_3 + C_5C_LL_3R_3\right) + s^2\left(C_3L_3R_3g_m + C_5L_4R_3\right) + s^2\left(C_3L_3R_3 + C_5C_4L_3R_3\right) + s^2\left(C_3L_3R_3g_m + C_5L_4R_3\right) + s^2\left(C_3L_3R_3g_m + C_5C_4L_3R_3\right) + s^2\left(C_3L_3R_3g_m + C_5C_4L_3$

10.818 INVALID-ORDER-818 $Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s+\frac{1}{C_5s}, L_Ls+\frac{1}{C_Ls}\right)$

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10.819 INVALID-ORDER-819 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s+\frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1}\right)
                                               H(s) = \frac{C_3C_5L_3L_5L_LR_3g_ms^5 - C_3C_5L_3L_LR_3s^4 - C_5L_LR_3s^2 + L_LR_3g_ms + s^3\left(C_3L_3L_LR_3g_m + C_5L_5L_LR_3g_m\right)}{C_3C_5C_LL_3L_5L_LR_3s^6 + C_3C_5L_3L_Ls^5 + L_Ls + R_3 + s^4\left(C_3C_5L_3L_5R_3 + C_3C_5L_3L_LR_3 + C_3C_5L_3L_LR_3 + C_5C_LL_5L_LR_3\right) + s^3\left(C_3L_3L_LR_3s^6 + C_3C_5L_3L_LS^5 + L_Ls + R_3 + s^4\left(C_3C_5L_3L_5R_3 + C_3C_5L_3L_LR_3 + C_3C_5L_3L_LR_3 + C_5C_LL_5L_LR_3\right) + s^3\left(C_3L_3L_LR_3s^6 + C_3C_5L_3L_LS^5 + L_Ls + R_3 + s^4\left(C_3C_5L_3L_5R_3 + C_3C_5L_3L_LR_3 + C_3C_5L_3L_LR_3 + C_5C_LL_5L_LR_3\right) + s^3\left(C_3L_3L_LR_3s^6 + C_3C_5L_3L_LS^5 + L_Ls + R_3 + s^4\left(C_3C_5L_3L_5R_3 + C_3C_5L_3L_LR_3 + C_3C_5L_5L_LR_3\right) + s^3\left(C_3L_3L_LR_3s^6 + C_3C_5L_3L_LR_3 + C_5L_5R_3 + C_5C_LL_5L_RR_3\right) + s^3\left(C_3L_3L_LR_3s^6 + C_3C_5L_3L_LR_3 + C_5L_5R_3 + C_5C_LL_5L_RR_3\right) + s^3\left(C_3L_3L_LR_3 + C_5L_5R_3 + C_5L_5R_3 + C_5L_5R_3 + C_5L_5R_3\right) + s^3\left(C_3L_3L_LR_3 + C_5L_3L_3L_LR_3\right) + s^3\left(C_3L_3L_LR_3 + C_5L_3L_3L_LR_3\right) + s^3\left(C_3L_3L_LR_3 + C_5L_3L_3L_LR_3\right) + s^3\left(C_3L_3L_LR_3 + C_5L_3L_LR_3\right) + s^3\left(C_3L_3L_LR_3 + C_5L_3L_LR_3\right) + s^3\left(C_
10.820 INVALID-ORDER-820 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s + \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)
H(s) = \frac{C_3C_5C_LL_3L_5L_R3g_ms^6 + R_3g_m + s^5\left(C_3C_5C_LL_3L_5R_3R_Lg_m - C_3C_5C_LL_3L_LR_3\right) + s^4\left(-C_3C_5C_LL_3R_3R_L + C_3C_5L_3L_5R_3g_m + C_5C_LL_5L_LR_3g_m\right) + s^3\left(-C_3C_5L_3R_3 + C_3C_LL_3R_3R_Lg_m + C_5C_LL_5R_3R_L\right)}{C_3C_5C_LL_3L_5L_Ls^6 + s^5\left(C_3C_5C_LL_3L_5R_3 + C_3C_5C_LL_3L_5R_3 + C_3C_5C_LL_3R_3R_L + C_3C_5C_LL_3R_3R_L + C_3C_5C_LL_3L_5R_3 + C_3C_5C_LL_3L_5R_3 + C_3C_5C_LL_3R_3R_L + C_3C_5C_LL_3R_3R_L + C_3C_5C_LL_3L_5R_3 + C_3C_5C_LL_3R_3R_L + C_3C_5C_LL_3R_3R_L + C_3C_5C_LL_3L_5R_3 + C_3C_5C_LL_3R_3R_L + C_3C_5C_LL_3R_3R_L + C_3C_5C_LL_3R_3R_L + C_3C_5C_LL_3L_5R_3 + C_3C_5C_LL_3R_3R_L + C_3C_5C_LL_3R_3R_L
10.821 INVALID-ORDER-821 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s + \frac{1}{C_5s}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)
H(s) = \frac{C_3C_5L_3L_5L_R_3R_Lg_ms^5 - C_3C_5L_3L_LR_3R_Ls^4 - C_5L_LR_3R_Lg_ms + s^3\left(C_3L_3L_LR_3R_Lg_m + C_5L_5L_LR_3R_Lg_m\right)}{C_3C_5C_LL_3L_5L_LR_3R_Ls^6 + R_3R_L + s^5\left(C_3C_5L_3L_5L_LR_3 + C_3C_5L_3L_LR_3R_L + C_3C_5L_3L_LR_3R_L + C_5C_LL_5L_LR_3R_L\right) + s^3\left(C_3L_3L_LR_3R_L + C_3C_LL_3L_LR_3R_L\right) + s^3\left(C_3L_3L_LR_3R_L + C_3C_LL_3L_LR_3R_L\right) + s^3\left(C_3L_3L_LR_3R_L + C_3C_LL_3L_LR_3R_L\right) + s^3\left(C_3L_3L_3L_LR_3R_L\right) + s^3\left(C_3L_3L_3L_LR_3R_L\right) + s^3\left(C_3L_3L_3L_LR_3R_L\right) + s^3\left(C_3L_3L_3L_LR_3R_L\right) + s^3\left(C_3L_3L_3L_LR_3R_L\right) + s^3\left(C_3L_3L_3L_LR_3R_L\right) + s^3\left(C_
10.822 INVALID-ORDER-822 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)
                                10.823 INVALID-ORDER-823 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s + \frac{1}{C_5s}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)
H(s) = \frac{C_3C_5C_LL_3L_LR_3R_Lg_ms^6 - C_3C_5C_LL_3L_LR_3R_Lg_m + s^4\left(C_3C_5L_3L_5R_3R_Lg_m + C_3C_LL_3L_LR_3R_Lg_m + C_5C_LL_5L_LR_3R_Lg_m + s^4\left(C_3C_5L_3L_5R_3R_Lg_m + s^4\left(C_3C_5L_3L_5R_3R_Lg_m + C_3C_LL_3L_LR_3R_Lg_m + C_5C_LL_5L_LR_3R_Lg_m + s^4\left(C_3C_5L_3L_5R_3R_Lg_m + s^4\left(C_3C_5L_3L_5R_3R_Lg_m + C_3C_LL_3L_LR_3R_Lg_m + C_5C_LL_5L_Rg_m + s^4\left(C_3C_5L_3L_5R_3R_Lg_m + C_5C_LL_5L_Rg_m + s^4\left(C_3C_5L_3L_5R_3R_Lg_m + C_5C_LL_5L_Rg_m +
10.824 INVALID-ORDER-824 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, R_L\right)
                                                                                                                                                                                                                                                     H(s) = \frac{-C_3C_5L_3L_5R_3R_Ls^4 + C_3L_3L_5R_3R_Lg_ms^3 + L_5R_3R_Lg_ms - R_3R_L + s^2\left(-C_3L_3R_3R_L - C_5L_5R_3R_L\right)}{C_3C_5L_3L_5R_3R_Ls^4 + R_3R_L + s^3\left(C_3L_3L_5R_3 + C_3L_3L_5R_L\right) + s^2\left(C_3L_3R_3R_L + C_3L_5R_3R_L + C_5L_5R_3R_L\right) + s\left(L_5R_3 + L_5R_L\right)}
10.825 INVALID-ORDER-825 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{1}{C_Ls}\right)
                                                                                                                                                                                                                                                                                        H(s) = \frac{-C_3C_5L_3L_5R_3s^4 + C_3L_3L_5R_3g_ms^3 + L_5R_3g_ms - R_3 + s^2\left(-C_3L_3R_3 - C_5L_5R_3\right)}{C_3L_3L_5s^3 + L_5s + R_3 + s^4\left(C_3C_5L_3L_5R_3 + C_3L_4L_5R_3\right) + s^2\left(C_3L_3R_3 + C_3L_5R_3 + C_5L_5R_3 + C_4L_5R_3\right)}
10.826 INVALID-ORDER-826 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{R_L}{C_LR_Ls+1}\right)
                                                                                                                                                                             H(s) = \frac{-C_3C_5L_3L_5R_3R_Ls^4 + C_3L_3L_5R_3R_Lg_ms^3 + L_5R_3R_Lg_ms - R_3R_L + s^2\left(-C_3L_3R_3R_L - C_5L_5R_3R_L\right)}{R_3R_L + s^4\left(C_3C_5L_3L_5R_3R_L + C_3C_LL_3L_5R_3R_L\right) + s^3\left(C_3L_3L_5R_3 + C_3L_3L_5R_L\right) + s^2\left(C_3L_3R_3R_L + C_3L_5R_3R_L + C_5L_5R_3R_L\right) + s\left(L_5R_3 + L_5R_L\right)}
10.827 INVALID-ORDER-827 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, R_L + \frac{1}{C_Ls}\right)
                                            H(s) = \frac{-C_3C_5C_LL_3L_5R_3R_Ls^5 - R_3 + s^4\left(-C_3C_5L_3L_5R_3 + C_3C_LL_3L_5R_3R_Lg_m\right) + s^3\left(-C_3C_LL_3R_3R_L + C_3L_3L_5R_3g_m - C_5C_LL_5R_3R_L\right) + s^2\left(-C_3L_3R_3 - C_5L_5R_3 + C_LL_5R_3R_Lg_m\right) + s\left(-C_LR_3R_L + L_5R_3g_m\right)}{C_3C_5C_LL_3L_5R_3R_Ls^5 + R_3 + s^4\left(C_3C_5L_3L_5R_3 + C_3C_LL_3L_5R_3 + C_3C_LL_3R_3R_L + C_3C_LL_5R_3R_L\right) + s^2\left(C_3L_3R_3 - C_5L_5R_3 + C_LL_5R_3R_Lg_m\right) + s\left(-C_LR_3R_L + L_5R_3g_m\right)}
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10.828 INVALID-ORDER-828 Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1}, \ L_Ls + \frac{1}{C_Ls}\right)
                                                         H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_3s^6 + C_3C_LL_3L_5L_LR_3g_ms^5 + L_5R_3g_ms - R_3 + s^4\left(-C_3C_5L_3L_5R_3 - C_3C_LL_3L_LR_3 - C_5C_LL_5L_LR_3\right) + s^3\left(C_3L_3L_5R_3g_m + C_LL_5L_LR_3g_m\right) + s^2\left(-C_3L_3R_3 - C_5L_5R_3 - C_LL_LR_3\right)}{C_3C_5C_LL_3L_5L_LR_3s^6 + C_3C_LL_3L_5L_Ls^5 + L_5s + R_3 + s^4\left(C_3C_5L_3L_5R_3 + C_3C_LL_3L_5R_3 + C_3C_LL_5L_LR_3\right) + s^3\left(C_3L_3L_5R_3g_m + C_LL_5L_LR_3g_m\right) + s^2\left(-C_3L_3R_3 - C_5L_5R_3 - C_LL_LR_3\right)}
10.829 INVALID-ORDER-829 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{L_Ls}{C_LL_Ls^2+1}\right)
                                                                                                                                                                                                                                  H(s) = \frac{-C_3C_5L_3L_5L_LR_3s^4 + C_3L_3L_5L_LR_3g_ms^3 + L_5L_LR_3g_ms - L_LR_3 + s^2\left(-C_3L_3L_LR_3 - C_5L_5L_LR_3\right)}{C_3L_3L_5L_Ls^3 + L_5L_Ls + L_5R_3 + L_LR_3 + s^4\left(C_3C_5L_3L_5L_R_3 + C_3C_LL_3L_5L_R_3\right) + s^2\left(C_3L_3L_5R_3 + C_3L_3L_LR_3 + C_3L_5L_LR_3 + C_5L_5L_LR_3 + C_5L_5L_LR_3\right)}
10.830 INVALID-ORDER-830 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, L_Ls + R_L + \frac{1}{C_Ls}\right)
H(s) = \frac{-C_3C_5C_LL_3L_5L_R3s^6 - R_3 + s^5\left(-C_3C_5C_LL_3L_5R_3R_L + C_3C_LL_3L_5R_3R_L +
10.831 INVALID-ORDER-831 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)
                                                                   H(s) = \frac{-C_3C_5L_3L_5L_LR_3R_Ls^4 + C_3L_3L_5L_LR_3R_Lg_ms^3 + L_5L_LR_3R_Lg_ms - L_LR_3R_L + s^2\left(-C_3L_3L_LR_3R_L - C_5L_5L_LR_3R_L\right)}{L_5R_3R_L + L_LR_3R_L + s^4\left(C_3C_5L_3L_5L_LR_3R_L + C_3C_LL_3L_5L_LR_3R_L\right) + s^3\left(C_3L_3L_5L_LR_3 + C_3L_3L_5L_RR_3R_L + C_3L_3L_LR_3R_L + C_3L_5L_LR_3R_L + C_5L_5L_LR_3R_L\right) + s^2\left(C_3L_3L_5L_RR_3R_L + C_3L_5L_RR_3R_L + C_5L_5L_RR_3R_L + C_5L_5L_RR_3R_L\right) + s^2\left(C_3L_3L_5L_RR_3R_L + C_3L_5L_RR_3R_L + C_5L_5L_RR_3R_L + C_5L_5L_RR_3R_L\right) + s^2\left(C_3L_3L_5L_RR_3R_L + C_3L_5L_RR_3R_L + C_5L_5L_RR_3R_L\right) + s^2\left(C_3L_3L_5L_RR_3R_L + C_3L_5L_RR_3R_L + C_5L_5L_RR_3R_L + C_5L_5L_RR_3R_L\right) + s^2\left(C_3L_3L_5L_RR_3R_L + C_3L_5L_RR_3R_L + C_5L_5L_RR_3R_L\right) + s^2\left(C_3L_3L_5L_RR_3R_L + C_3L_5L_RR_3R_L + C_5L_5L_RR_3R_L\right) + s^2\left(C_3L_3L_5L_RR_3R_L + C_3L_5L_RR_3R_L\right) + s^2\left(C_3L_3L_5L_RR_3R_L\right) + s^2\left(C_3L_3L_5L_RR_
10.832 INVALID-ORDER-832 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)
H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_3R_Ls^6 - R_3R_L + s^5\left(-C_3C_5L_3L_5L_LR_3 + C_3C_LL_3L_5L_LR_3R_L - C_3C_LL_3L_LR_3R_L - C_3C_LL_3L_LR_3R_L + C_3L_3L_LR_3R_L - C_3C_LL_3L_LR_3R_L + C_3L_3L_LR_3R_L + C_3L_3L_LR_3R_L + s^3\left(C_3L_3L_5R_3R_Lg_m - C_3L_3L_LR_3 - C_5L_5L_LR_3 + C_3L_3L_LR_3 - C_5L_5L_LR_3R_L + c_3L_3L_LR_3R_L + c_3L_3L_LR
10.833 INVALID-ORDER-833 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)
H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_3R_Ls^6 + C_3C_LL_3L_5L_LR_3R_Lg_ms^5 + L_5R_3R_Lg_ms^5 + L_5R_3R_Lg_ms - R_3R_L + s^4\left(-C_3C_5L_3L_5R_3R_L - C_3C_LL_3L_LR_3R_L - C_5C_LL_5L_LR_3R_L\right) + s^3\left(C_3L_3L_5R_3R_Lg_m + C_LL_5L_LR_3R_Lg_m\right) + s^2\left(-C_3L_3R_3R_L - C_3C_LL_3L_5R_3R_L + C_3C_LL_3L_5R_3R_L + C_3C_LL_5L_RR_3R_L\right) + s^3\left(C_3L_3L_5R_3R_L + 
10.834 INVALID-ORDER-834 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s+R_5+\frac{1}{C_5s}, R_L\right)
                                              H(s) = \frac{C_3C_5L_3L_5R_3R_Lg_ms^4 + R_3R_Lg_m + s^3\left(C_3C_5L_3R_3R_5R_Lg_m - C_3C_5L_3R_3R_L\right) + s^2\left(C_3L_3R_3R_Lg_m + C_5L_5R_3R_Lg_m\right) + s\left(C_5R_3R_5R_Lg_m - C_5R_3R_L\right)}{R_3 + R_L + s^4\left(C_3C_5L_3L_5R_3 + C_3C_5L_3R_3R_L\right) + s^3\left(C_3C_5L_3R_3R_L + C_3C_5L_3R_5R_L + C_3C_5L_3R_3R_L\right) + s^2\left(C_3C_5R_3R_5R_Lg_m + C_5L_5R_3R_Lg_m\right) + s\left(C_5R_3R_5R_Lg_m - C_5R_3R_L\right)}
10.835 INVALID-ORDER-835 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{1}{C_Ls}\right)
                                                                             H(s) = \frac{C_3C_5L_3L_5R_3g_ms^4 + R_3g_m + s^3\left(C_3C_5L_3R_3R_5g_m - C_3C_5L_3R_3\right) + s^2\left(C_3L_3R_3g_m + C_5L_5R_3g_m\right) + s\left(C_5R_3R_5g_m - C_5R_3\right)}{C_3C_5C_LL_3L_5R_3s^5 + s^4\left(C_3C_5C_LL_3R_3R_5 + C_3C_5L_3R_3 + C_3C_5L_3R_5 + C_3C_5L_3R_3 + C_5C_LL_3R_3 + C_5C_LR_3R_5 +
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 $\textbf{10.836} \quad \textbf{INVALID-ORDER-836} \ \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2 + 1 \right)}{C_3L_3s^2 + C_3R_3s + 1}, \ \infty, \ L_5s + R_5 + \frac{1}{C_5s}, \ \frac{R_L}{C_LR_Ls + 1} \right) \\ H(s) = \frac{C_3C_5L_3L_5R_3R_Lg_m s^4 + R_3R_Lg_m + s^3\left(C_3C_5L_3R_3R_5R_Lg_m - C_3C_5L_3R_3R_L\right) + s^2\left(C_3L_3R_3R_Lg_m + C_5L_5R_3R_Lg_m \right) + s\left(C_5R_3R_5R_Lg_m - C_5R_3R_L\right)}{C_3C_5C_LL_3L_5R_3R_Ls^5 + R_3 + R_L + s^4\left(C_3C_5C_LL_3R_3R_5R_L + C_3C_5L_3L_5R_3 + C_3C_5L_3R_3R_L + C_3C_5L_3R_3R_L + C_3C_5L_3R_3R_L + C_3C_5L_3R_3R_L + C_5C_LL_5R_3R_L \right) + s^2\left(C_3C_5R_3R_5R_L + C_3C_5L_3R_3R_L + C_3C_5L_3R_3R_L + C_3C_5L_3R_3R_L + C_3C_5L_3R_3R_L + C_5C_LL_5R_3R_L \right) + s^2\left(C_3C_5R_3R_5R_L + C_3C_5L_3R_3R_L + C_3C_5L_3R_3R_L + C_3C_5L_3R_3R_L + C_5C_LL_5R_3R_L \right) + s^2\left(C_3C_5R_3R_5R_L + C_3C_5L_3R_3R_L + C_3C_5L_3R_3R_L$

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10.837 INVALID-ORDER-837 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s+R_5+\frac{1}{C_5s}, R_L+\frac{1}{C_Ls}\right)
H(s) = \frac{C_3C_5C_LL_3L_5R_3R_Lg_ms^5 + R_3g_m + s^4\left(C_3C_5C_LL_3R_3R_Lg_m - C_3C_5C_LL_3R_3R_Lg_m + s^4\left(C_3C_5C_LL_3R_3R_Lg_m - C_3C_5L_4R_3R_Lg_m - C_3C_5L_4R_3R_Lg_m + s^4\left(C_3C_5L_LL_3R_3R_Lg_m + c_5C_LL_5R_3R_Lg_m + s^4\left(C_3C_5C_LL_3R_3R_L + C_3C_5L_LL_3R_3R_L + C_3C_5L_LL_
10.838 INVALID-ORDER-838 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s+R_5+\frac{1}{C_5s}, L_Ls+\frac{1}{C_Ls}\right)
H(s) = \frac{C_3C_5C_LL_3L_5L_LR_3g_ms^6 + R_3g_m + s^5\left(C_3C_5C_LL_3L_LR_3g_m + C_3C_5L_LL_LR_3g_m + C_3C_LL_5L_LR_3g_m + s^4\left(C_3C_5L_3L_LR_3g_m + C_5C_LL_5L_LR_3g_m + C_5C_LL_5L_LR_3g_m + s^4\left(C_3C_5L_LL_2R_3g_m + C_5C_LL_5L_LR_3g_m + C_5C_LL_5L_LR_3g_m + s^4\left(C_3C_5L_3L_5R_3g_m + C_5C_LL_5L_LR_3g_m + c_5C_LL_5L_LR_3g_m + s^4\left(C_3C_5L_3L_5R_3g_m + C_5C_LL_5L_LR_3g_m + c_5C_LL_5L_LR_3g_m + c_5C_LL_5L_LR_3g_m + c_5C_LL_5L_LR_3g_m + s^4\left(C_3C_5L_3L_5R_3g_m + c_5C_LL_5L_LR_3g_m + c_5C_LL_5L_LR_3g
10.839 INVALID-ORDER-839 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1}\right)
H(s) = \frac{C_3C_5L_3L_5L_R3g_ms^5 + L_LR_3g_ms + s^4\left(C_3C_5L_3L_LR_3\right) + s^3\left(C_3L_3L_LR_3g_m + C_5L_5L_LR_3g_m\right) + s^2\left(C_5L_LR_3R_5g_m - C_5L_LR_3\right)}{C_3C_5C_LL_3L_5L_LR_3s^6 + R_3 + s^5\left(C_3C_5L_LL_3L_LR_3s + C_3C_5L_3L_LR_3 + C_3C_5L_3L_LR_3
10.840 INVALID-ORDER-840 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, L_Ls + R_L + \frac{1}{C_Ls}\right)
                                                 \frac{C_{3}C_{5}C_{L}L_{3}L_{5}R_{3}g_{m}s^{6}+R_{3}g_{m}+s^{5}\left(C_{3}C_{5}C_{L}L_{3}L_{5}R_{3}R_{L}g_{m}+C_{3}C_{5}C_{L}L_{3}L_{L}R_{3}\right)+s^{4}\left(C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}R_{L}g_{m}-C_{3}C_{5}C_{L}L_{3}R_{3}R_{L}+C_{3}C_{5}L_{3}L_{5}R_{3}g_{m}+C_{3}C_{L}L_{3}L_{L}R_{3}g_{m}+C_{3}C_{L}L_{3}L_{L}R_{3}\right)+s^{4}\left(C_{3}C_{5}C_{L}L_{3}L_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}L_{5}R_{3}+C_{3}C_{5}C_{L}L_{3}L_{5}R_{3}+C_{3}C_{5}C_{L}L_{3}L_{5}R_{3}+C_{3}C_{5}C_{L}L_{3}L_{5}R_{3}+C_{3}C_{5}C_{L}L_{3}L_{5}R_{3}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{5}+C_{3}C_{5}C_{L}L_{3}R_{3}R_{
10.841 INVALID-ORDER-841 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C_{3}C_{5}L_{3}L_{5}L_{L}R_{3}R_{L}g_{m}s^{5} + L_{L}R_{3}R_{L}g_{m}s + s^{4}\left(C_{3}C_{5}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m} - C_{3}C_{5}L_{3}L_{L}R_{3}R_{L}\right) + s^{4}\left(C_{3}C_{5}L_{3}L_{L}R_{3}R_{L}g_{m} - C_{3}C_{5}L_{3}L_{L}R_{3}R_{L}g_{m}\right) + s^{4}\left(C_{3}C_{5}L_{3}L_{L}R_{3}R_{L}g_{m} - C_{3}C_{5}L_{3}L_{L}R_{3}R_{L}g_{m}\right) + s^{4}\left(C_{3}C_{5}L_{3}L_{L}R_{3}R_{L}g_{m} - C_{3}C_{5}L_{L}R_{3}R_{L}g_{m}\right) + s^{4}\left(C_{3}C_{5}L_{L}R_{3}R_{L}g_{m} - C_{3}C_{5}L_{L}R_{3}R_{L}g_{m}\right) + s^{4}\left(C_{3}C_{5}L_{L}R_{3}R_{L}g_{m}\right) + s^{4}\left(C_{3}C_{5}L_{L}R_{3}R_{L}g_{m}\right) + s^{4}\left(C_{3}C_{5}L_{L}R_{3}R_{L}g_{m}\right) + s^{4}\left(C_{3}C_{5}L_{L}R_{3}R_{L}g_{m}\right) + s^{4}\left(C_{3}C_{5}L_{L}R_{3}R_{L}g_
H(s) = \frac{C_3C_5L_3L_5L_RR_3R_Lg_ms^5 + L_LR_3R_Lg_ms^5 + L_LR_3R_Lg_ms + s^4\left(C_3C_5L_3L_LR_3R_5R_Lg_m - C_3C_5L_3L_LR_3R_L\right) + s^4\left(C_3C_5L_3L_LR_3R_L + C_3C_5L_3L_LR_3R_L + 
10.842 INVALID-ORDER-842 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)
H(s) = \frac{C_3C_5C_LL_3L_5L_LR_3R_Lg_ms^6 + R_3R_Lg_m + s^5\left(C_3C_5C_LL_3L_LR_3R_5R_Lg_m - C_3C_5C_LL_3L_LR_3R_L + C_3C_5L_3L_5L_RR_3g_m\right) + s^4\left(C_3C_5L_3L_5R_3R_Lg_m - C_3C_5C_LL_3L_LR_3R_L + C_3C_5L_3L_LR_3R_L + C_3C
10.843 INVALID-ORDER-843 Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C_{3}C_{5}C_{L}L_{3}L_{5}L_{L}R_{3}R_{L}g_{m}s^{6}+R_{3}R_{L}g_{m}+s^{5}\left(C_{3}C_{5}C_{L}L_{3}L_{L}R_{3}R_{5}R_{L}g_{m}-C_{3}C_{5}C_{L}L_{3}L_{L}R_{3}R_{L}\right)
H(s) = \frac{C_3C_5C_LL_3L_5L_LR_3R_Lg_ms^\circ + R_3R_Lg_m + s^\circ (C_3C_5C_LL_3L_LR_3R_5R_Lg_m - C_3C_5C_LL_3L_LR_3R_L}{R_3 + R_L + s^6 (C_3C_5C_LL_3L_5L_LR_3 + C_3C_5C_LL_3L_LR_3R_L + C_3C_5C_LL_3L_LR_3R_L + C_3C_5C_LL_3L_LR_3R_L) + s^4 (C_3C_5C_LL_3R_3R_5R_L + C_3C_5C_LL_3L_5R_3R_L + C_3C_5C_LL_3L_LR_3R_L + C_3C_5C_LL_3L_LR_3R_L) + s^4 (C_3C_5C_LL_3R_3R_5R_L + C_3C_5C_LL_3L_5R_3R_L + C_3C_5C_LL_3L_LR_3R_L + C_3C_5C
10.844 INVALID-ORDER-844 Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, R_L\right)
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$$\textbf{10.845} \quad \textbf{INVALID-ORDER-845} \ \ Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \ \frac{1}{C_Ls} \right) \\ H(s) = \frac{-C_3C_5L_3L_5R_3R_5s^4-R_3R_5+s^3\left(C_3L_3L_5R_3R_5g_m-C_3L_3L_5R_3\right)+s^2\left(-C_3L_3R_3R_5-C_5L_5R_3R_5\right)+s\left(L_5R_3R_5g_m-L_5R_3\right)}{R_3R_5+s^4\left(C_3C_5L_3L_5R_3R_5+C_3C_LL_3L_5R_3R_5\right)+s^3\left(C_3L_3L_5R_3+C_3L_3L_5R_3\right)+s^2\left(C_3L_3R_3R_5+C_5L_5R_3R_5\right)+s\left(L_5R_3R_5+C_5L_5R_3R_5\right)+s\left(L_5R_3R_5+C_5L_5R_3R_5\right)+s\left(L_5R_5R_5\right)+s\left(L_5R_5R_5\right)+s\left(L_5R_5R_5\right)+s\left(L_5R_5R_5\right)+s\left(L_5R_5R$$

 $H(s) = \frac{-C_3C_5L_3L_5R_3R_5R_Ls^4 - R_3R_5R_L + s^3\left(C_3L_3L_5R_3R_5R_Lg_m - C_3L_3L_5R_3R_L\right) + s^2\left(-C_3L_3R_3R_5R_L - C_5L_5R_3R_5R_L\right) + s\left(L_5R_3R_5R_Lg_m - L_5R_3R_L\right)}{C_3C_5L_3L_5R_3R_5R_Ls^4 + R_3R_5R_L + s^3\left(C_3L_3L_5R_3R_5 + C_3L_3L_5R_3R_L + C_3L_3L_5R_3R_L\right) + s^2\left(C_3L_3R_3R_5R_L + C_3L_5R_3R_5R_L\right) + s\left(L_5R_3R_5R_Lg_m - L_5R_3R_L\right)}$

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 \begin{aligned} \textbf{10.846} \quad & \textbf{INVALID-ORDER-846} \ \ Z(s) = \left( \infty, \ \infty, \ \frac{R_3\left( C_3L_3s^2 + 1 \right)}{C_3L_3s^2 + C_3R_3s + 1}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \ \frac{R_L}{C_LR_Ls + 1} \right) \\ & \quad H(s) = \frac{-C_3C_5L_3L_5R_3R_5R_Ls^4 - R_3R_5R_L + s^3\left( C_3L_3L_5R_3R_5R_Lg_m - C_3L_3L_5R_3R_L \right) + s^2\left( -C_3L_3R_3R_5R_L - C_5L_5R_3R_5R_L \right) + s\left( L_5R_3R_5R_Lg_m - L_5R_3R_L \right)}{R_3R_5R_L + s^4\left( C_3C_5L_3L_5R_3R_5R_L \right) + s^3\left( C_3L_3L_5R_3R_5 + C_3L_3L_5R_3R_L \right) + s^2\left( C_3L_3R_3R_5R_L + C_3L_5R_3R_5R_L + C_5L_5R_3R_5R_L \right) + s\left( L_5R_3R_5R_L + C_5L_5R_5R_L \right) + s\left( L_5R_3R_5R_L + C_5L_5R_5R_L \right) + s\left(
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10.847 INVALID-ORDER-847
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, R_L + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{-C_3C_5C_LL_3L_5R_3R_5R_Ls^5 - R_3R_5 + s^4\left(-C_3C_5L_3L_5R_3R_5R_Lg_m - C_3C_LL_3L_5R_3R_5R_Lg_m - C_3C_LL_3R_3R_5R_L + C_3L_3L_5R_3R_5R_L + C_3L_3L_5R_3R_5R_L + C_3L_3L_5R_3R_5R_L + C_3L_3L_5R_3R_5R_L + C_3L_4L_5R_3R_5R_L \right) + s^2\left(-C_3L_3R_3R_5 - C_5L_5R_3R_5 + C_4L_5R_3R_5R_L + C_4L_5R_3R_5R_L + C_3L_4L_5R_3R_5R_L + C_3L_4R_5R_5R_L + C_3L_4L_5R_3R_5R_L + C_3L_4L_5R_5R_4R_5R_L + C_3L_4L_5R_5R_5R_L + C_3L_4L_5R_5R_L + C_3L_4L_5R_5R_5R_L + C_3L_4L_5R_5R_5R_L + C_3L_4L_5R_5R_L$

10.848 INVALID-ORDER-848
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, L_Ls + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_3R_5s^6 - R_3R_5 + s^5\left(C_3C_LL_3L_5L_LR_3R_5g_m - C_3C_LL_3L_5L_LR_3\right) + s^4\left(-C_3C_5L_3L_5R_3R_5 - C_3C_LL_3L_LR_3R_5 - C_5C_LL_5L_LR_3R_5\right) + s^3\left(C_3L_3L_5R_3R_5g_m - C_3L_3L_5R_3 + C_LL_5L_LR_3R_5g_m - C_LL_5L_LR_3\right) + s^2\left(-C_3L_3R_3R_5 - C_3C_LL_3L_5R_3R_5 - C_3C_LL_3L_5R_3R_5\right) + s^3\left(C_3L_3L_5R_3R_5 - C_3L_3L_5R_3R_5 - C_3C_LL_3L_5R_3R_5\right) + s^3\left(C_3L_3L_5R_3R_5 - C_3L_4L_5L_RR_3R_5\right) + s^3\left(C_3L_3L_5R_3R_5 - C_3L_4L_5L_4R_5\right) + s^3\left(C_3L_3L_5R_3R_5 - C_3L_4L_5L_4R_5\right) + s^3\left(C_3L_3$

10.849 INVALID-ORDER-849
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

 $H(s) = \frac{-C_3C_5L_3L_5L_LR_3R_5s^4 - L_LR_3R_5 + s^3\left(C_3L_3L_5L_LR_3R_5g_m - C_3L_3L_5L_LR_3\right) + s^2\left(-C_3L_3L_LR_3R_5 - C_5L_5L_LR_3R_5\right) + s\left(L_5L_LR_3R_5g_m - L_5L_LR_3\right)}{L_5R_3R_5 + L_LR_3R_5 + s^4\left(C_3C_5L_3L_5L_LR_3R_5 + C_3L_LL_3L_5L_LR_3R_5\right) + s^3\left(C_3L_3L_5L_LR_3 + C_3L_3L_5L_RR_3\right) + s^2\left(C_3L_3L_5R_3R_5 + C_3L_5L_RR_3R_5 + C_5L_5L_RR_3R_5\right) + s\left(L_5L_LR_3R_5 + C_5L_5L_RR_3R_5\right) + s\left(L_5L_RR_3R_5 + C_5L_5L_RR_3R_5\right) + s\left(L_5L_RR_3R$

10.850 INVALID-ORDER-850
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_3R_5s^6 - R_3R_5 + s^5\left(-C_3C_5C_LL_3L_5R_3R_5R_L + C_3C_LL_3L_5L_RR_3R_5g_m - C_3C_LL_3L_5R_3R_5 + C_3$

10.851 INVALID-ORDER-851
$$Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$$

 $H(s) = \frac{-C_3C_5L_3L_5L_LR_3R_5R_Ls^4 - L_LR_3R_5R_Ls^4 - L_LR_3$

10.852 INVALID-ORDER-852
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

 $H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_3R_5R_Ls^6 - R_3R_5R_L + s^5\left(-C_3C_5L_3L_5L_LR_3R_5 + C_3C_LL_3L_5L_LR_3R_5R_Lg_m - C_3C_LL_3L_5L_LR_3R_5R_L - C_3C_LL_3L_5L_RR_3R_5R_L + C_3L_3L_5L_LR_3R_5g_m - C_3L_3L_5L_RR_3R_5R_L - C_3C_LL_3L_5L_RR_3R_5R_L + C_3C_LL_3L_5L_RR_3$

10.853 INVALID-ORDER-853
$$Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$$

 $H(s) = \frac{-C_3C_5C_LL_3L_5L_LR_3R_5R_Ls^6 - R_3R_5R_L + s^5\left(C_3C_LL_3L_5L_LR_3R_5R_Lg_m - C_3C_LL_3L_5L_RR_3R_5R_L - C_3C_LL_3L_LR_3R_5R_L - C_5C_LL_5L_LR_3R_5R_L\right) + s^4\left(C_3C_5L_3L_5L_RR_3R_5R_L - C_3C_LL_3L_5L_RR_3R_5R_L - C_5C_LL_5L_LR_3R_5R_L\right) + s^4\left(C_3C_5L_3L_5L_RR_3R_5R_L + C_3C_LL_3L_5R_3R_5R_L + C_3C_LL_$

10.854 INVALID-ORDER-854
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, R_L\right)$$

 $H(s) = \frac{C_3L_3L_5R_3R_Lg_ms^3 + L_5R_3R_Lg_ms + R_3R_5R_Lg_m - R_3R_L + s^4\left(C_3C_5L_3L_5R_3R_5R_Lg_m - C_3C_5L_3L_5R_3R_L\right) + s^2\left(C_3L_3R_3R_5R_Lg_m - C_3L_3R_3R_L + C_5L_5R_3R_5R_Lg_m - C_5L_5R_3R_L\right)}{R_3R_5 + R_3R_L + R_5R_L + s^4\left(C_3C_5L_3L_5R_3R_5 + C_3C_5L_3L_5R_3R_5 + C_3L_3L_5R_3 + C_3L_3L_5R_3 + C_3L_3R_3R_L + C_5L_5R_3R_5 + C_5L_5R_3R_5 + C_5L_5R_3R_L\right) + s^2\left(C_3L_3R_3R_5 + C_3L_3R_3R_5 + C_3L_3R_3R_5 + C_3L_5R_3R_5 + C_5L_5R_3R_5 + C_5L_5R_5R_5 + C_$

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 10.855 \quad \text{INVALID-ORDER-855} \quad Z(s) = \left( \infty, \ \infty, \ \frac{R_b(C_bL_bS^2+1)}{C_bL_bS^2+1}, \ \infty, \ \frac{I_{ab}}{C_bL_bS^2+1} + R_5, \ \frac{1}{C_bs} \right) 
 10.855 \quad \text{INVALID-ORDER-855} \quad Z(s) = \left( \infty, \ \infty, \ \frac{R_b(C_bL_bS^2+1)}{C_bL_bS^2+2} + R_5R_{B_{B_{0m}}} - R_5 + \frac{1}{C_bC_b} \right) 
 10.856 \quad \text{INVALID-ORDER-856} \quad Z(s) = \left( \infty, \ \infty, \ \frac{R_b(C_bL_bS^2+1)}{C_bL_bS^2+2} + R_5R_{B_{b_{0m}}} - R_5 + \frac{1}{C_bC_bL_b}R_{B_{0m}} + R_5R_{B_{0m}} - R_5R_{B_{0m}} - R_5R_{B_{0m}}R_{B_{0m}} - R_5R_{B_{0m}} - R_5R_{B_{0m}}R_{B_{0m}} - R_5R_{B_{0m}}R_{B_{0m}} - R_5R_{B_{0m}}R_{B_{0m}} - R_5R_{B_{0m}}R_{B_{0m}} - R_5R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{B_{0m}}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{0m}R_{
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 $H(s) = \frac{C_3C_LL_3L_5L_LR_3g_ms^5 + L_5R_3g_ms + R_3R_5g_m - R_3 + s^6\left(C_3C_5C_LL_3L_5L_LR_3\right) + s^4\left(C_3C_5L_LL_3L_5R_3R_5g_m - C_3C_5L_3L_5R_3 + C_3C_LL_3L_LR_3 + C_3C_L$

10.859 INVALID-ORDER-859 $Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1} + R_5, \ \frac{L_Ls}{C_LL_Ls^2+1}\right)$

 $H(s) = \frac{C_3L_3L_5L_LR_3g_ms^4 + L_5L_LR_3g_ms^2 + s^5\left(C_3C_5L_3L_5L_LR_3\right) + s^3\left(C_3L_3L_LR_3R_5g_m - C_3L_3L_LR_3 + C_5L_5L_LR_3R_5g_m - C_5L_5L_LR_3\right)}{C_3C_5C_LL_3L_5L_LR_3R_5s^6 + R_3R_5 + s^5\left(C_3C_5L_3L_5L_LR_3 + C_3C_5L_3L_5L_LR_3 + C_3C_5L_3L_5L_LR_3\right) + s^4\left(C_3C_5L_3L_5L_LR_3R_5 + C_3C_5L_3L_5L_LR_3R_5 + C_3C_5L_5L_LR_3R_5\right) + s^3\left(C_3L_3L_LR_3R_5s^6 + R_3R_5 + s^5\left(C_3C_5L_3L_5L_LR_3 + C_3L_5L_LR_3 + C_3L_5L_LR_3\right) + s^4\left(C_3C_5L_3L_5L_LR_3R_5 + C_3C_5L_5L_LR_3R_5\right) + s^3\left(C_3L_3L_5R_3R_5 + C_3L_5L_LR_3 + C_3L_5L_LR_3 + C_3L_5L_LR_3 + C_3L_5L_LR_3\right) + s^4\left(C_3C_5L_3L_5L_RR_3R_5 + C_3C_5L_5L_RR_3R_5 + C_3C_5L_5L_RR_3R_5\right) + s^4\left(C_3C_5L_3L_5L_RR_3 + C_3C_5L_3L_5L_RR_3 + C_3C_5L_5L_RR_3\right) + s^4\left(C_3C_5L_3L_5L_RR_3 + C_3C_5L_5L_RR_3 + C_3C_5L_5L_RR_3\right) + s^4\left(C_3C_5L_3L_5L_RR_3 + C_3C_5L_5L_RR_3 + C_3C_5L_5L_RR_3\right) + s^4\left(C_3C_5L_3L_5L_RR_3 + C_3C_5L_5L_RR_3\right) + s^4\left(C_3C_5L_5L_4L_4L_5L_4L_5L_5L_5L_5L_5L_5L_5L_5L_5L$

10.860 INVALID-ORDER-860 $Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, L_Ls + R_L + \frac{1}{C_Ls}\right)$

 $H(s) = \frac{R_3 R_5 g_m - R_3 + s^6 \left(C_3 C_5 C_L L_3 L_5 L_L R_3 R_5 g_m - C_3 C_5 C_L L_3 L_5 L_L R_3 \right) + s^5 \left(C_3 C_5 C_L L_3 L_5 R_3 R_5 R_L g_m - C_3 C_5 C_L L_3 L_5 R_3 R_L + C_3 C_L L_3 L_5 L_L R_3 g_m\right) + s^4 \left(C_3 C_5 L_3 L_5 R_3 R_5 g_m - C_3 C_5 L_3 L_5 R_3 R_5 R_L + C_3 C_5 C_L L_3 L_5 R_3 R_5 R_L + C_3 C_5 C_L L_3 L_5 R_3 R_5 R_L + C_3 C_5 C_L L_3 L_5 R_3 R_5 R_L + C_3 C_5 C_L L_3 L_5 R_3 R_5 R_L + C_3 C_5 C_L L_3 L_5 R_3 R_5 R_L + C_3 C_5 C_L L_3 L_5 R_3 R_5 R_L + C_3 C_5 L_4 L_3 L_5 R_3 R_5 R_L + C_3 C_5 L_4 L_3 L_5 R_3 R_5 R_L + C_3 C_5 L_4 L_3 L_5 R_3 R_5 R_L + C_3 C_5 L_4 L_3 L_5 R_3 R_5 R_L + C_3 C_5 L_4 L_3 L_5 R_3 R_5 R_L + C_3 C_5 L_4 L_3 L_5 R_3 R_5 R_L + C_3 C_5 L_4 L_3 L_5 R_3 R_5 R_L + C_3 C_5 L_4 L_5 L_4 R_3 R_5 R_L + C_3 C_5 L_4 L_5 L_4 R_3 R_5 R_L + C_3 C_5 L_4 L_5 L_4 R_3 R_5 R_L + C_3 C_5 L_4 L_5 L_4 R_3 R_5 R_L + C_3 C_5 L_4 L_5 L_4 R_3 R_5 R_L + C_3 C_5 L_4 L_5 L_4 R_3 R_5 R_L + C_3 C_5 L_4 L_5 L_5 R_3 R_5 R_L + C_3 C_5 L_4 L_5 L_5 R_3 R_5 R_L + C_3 C_5 L_4 L_5 L_5 R_3 R_5 R_L + C_3 C_5 L_4 L_5 L_5 R_3 R_5 R_L + C_3 C_5 L_4 L_5 L_5 R_3 R_5 R_L + C_3 C_5 L_4 L_5 L_5 R_5 R_L + C_3 C_5 L_5 L_5 R_5 R_L + C_5 L_5 L_5$

10.861 INVALID-ORDER-861 $Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$

 $H(s) = \frac{C_3L_3L_5L_R_3R_Lg_ms^4 + L_5L_LR_3R_Lg_ms^2 + s^5\left(C_3C_5L_3L_5L_LR_3R_5R_Lg_m - C_3C_5L_3L_5L_Rg_m -$

10.862 INVALID-ORDER-862 $Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$

10.863 INVALID-ORDER-863 $Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1} + R_5, \frac{R_L\left(C_LL_Ls^2+1\right)}{C_LL_Ls^2+C_LR_Ls+1}\right)$

 $H(s) = \frac{C_3C_LL_3L_5L_LR_3R_Lg_ms^5 + L_5R_3R_Lg_ms + R_3R_5R_Lg_m - R_3R_L + s^6\left(C_3C_5C_LL_3L_5L_Rg_ms + R_3R_5R_Lg_m - R_3R_L + s^6\left(C_3C_5C_LL_3L_5L_Rg_ms + R_3R_5R_L + C_3C_5C_LL_3L_5L_Rg_ms + R_3R_5R_L + C_3C_5C_LL_3L_5L_Rg_ms + R_3R_5R_L + C_3C_5C_LL_3L_5L_Rg_ms + R_3R_5R_L + S^6\left(C_3C_5C_LL_3L_5L_Rg_ms + R_3R_5R_Lg_m - R_3R_L + s^6\left(C_3C_5C_LL_3L_5L_Rg_ms + R_3R_5R_L + C_3C_5C_LL_3L_5L_Rg_ms + R_3R_5R_L + S^6\left(C_3C_5C_LL_3L_5L_Rg_ms + R_3R_5R_L + C_3C_5C_LL_3L_5L_Rg_ms + R_3R_5R_L + S^6\left(C_3C_5C_LL_3L_5L_Rg_ms + R_3R$

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10.864 INVALID-ORDER-864 Z(s) = \left( \infty, \ \infty, \ \frac{R_3(C_3I_3s^2+1)}{C_5I_3s^2+C_5R_3s+1}, \ \infty, \ \frac{R_5(C_5I_3s^2+1)}{C_5I_3s^2+C_5R_3s+1}, \ R_L \right)
H(s) = \frac{-C_3C_5I_3R_3R_5R_Ls^3 - C_5R_3R_6R_Ls^3 - C_5R_3R_6R_Ls^3 - R_3R_5R_Lg_m - R_3R_L + s^4(C_3C_5I_3I_5R_3R_5R_Lg_m - C_3C_5I_3I_5R_3R_5R_Lg_m - C_3I_3R_3R_5R_Lg_m - C_5I_5R_3R_5R_Lg_m - C_
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10.867 INVALID-ORDER-867 $Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, R_L + \frac{1}{C_Ls}\right)$

 $H(s) = \frac{R_3R_5g_m - R_3 + s^5\left(C_3C_5C_LL_3L_5R_3R_5R_Lg_m - C_3C_5C_LL_3L_5R_3R_5R_L + C_3C_5L_4R_3R_5R_L + C_$

10.868 INVALID-ORDER-868 $Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, L_Ls + \frac{1}{C_Ls}\right)$

 $H(s) = \frac{-C_3C_5C_LL_3L_LR_3R_5s^5 - C_5R_3R_5s + R_3R_5g_m - R_3 + s^6\left(C_3C_5C_LL_3L_5L_LR_3R_5g_m - C_3C_5L_LL_3L_LR_3 + S_5g_m - C_3C_5L_LL_3L_LR_3 + C_5C_LL_3L_LR_3 + S_5g_m - C_3C_5L_LL_3L_LR_3 + S_5g_m - S_5g_m$

10.869 INVALID-ORDER-869 $Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$

 $H(s) = \frac{-C_3C_5L_3L_LR_3R_5s^4 - C_5L_LR_3R_5s^4 - C_5L_LR_3R_5g_m - C_3C_5L_3L_5L_LR_3 + s^3\left(C_3L_3L_LR_3R_5g_m - C_3L_3L_LR_3 + C_5L_5L_LR_3R_5g_m - C_5L_5L_LR_3\right) + s\left(L_LR_3R_5g_m - C_5L_5L_RR_3\right) + s\left(L_LR_3R_5g_m - C$

10.870 INVALID-ORDER-870 $Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, L_Ls + R_L + \frac{1}{C_Ls}\right)$

 $H(s) = \frac{R_3R_5g_m - R_3 + s^6\left(C_3C_5C_LL_3L_5L_LR_3R_5g_m - C_3C_5C_LL_3L_5L_LR_3\right) + s^5\left(C_3C_5C_LL_3L_5R_3R_5R_Lg_m - C_3C_5C_LL_3L_5R_3R_5 - C_3C_5C_LL_3L_5R_3R_5 + s^4\left(-C_3C_5C_LL_3R_3R_5R_L + C_3C_5L_LR_3R_5R_L + C_3C_5L_LR_3R_5R_L + C_3C_5L_LR_3R_5\right) + s^4\left(-C_3C_5C_LL_3R_3R_5R_L + C_3C_5C_LL_3R_3R_5R_L + C_3C_5L_LR_3R_5R_L + C_3C_5C_LL_3R_3R_5R_L + C_3C_5C_LL_3R_3R_5 + c_3C_5C_LL_3R_5 + c_3C_5C_LL_$

10.871 INVALID-ORDER-871 $Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$

 $H(s) = \frac{-C_3C_5L_3L_LR_3R_5R_Ls^4 - C_5L_LR_3R_5R_Ls^4 - C_5L_LR_3R_5R_Lg_m - C_3C_5L_3L_5L_LR_3R_5R_Lg_m - C_3C_5L_3L_5L_RR_3R_5R_Lg_m - C_3L_3L_LR_3R_5R_Lg_m - C_3L_3L_L$

10.872 INVALID-ORDER-872 $Z(s) = \left(\infty, \infty, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$

 $H(s) = \frac{R_3R_5R_Lg_m - R_3R_L + s^6\left(C_3C_5C_LL_3L_5L_LR_3R_5R_Lg_m - C_3C_5C_LL_3L_5L_LR_3R_5R_L + C_3C_5L_3L_5L_LR_3R_5g_m - C_3C_5L_3L_5L_RR_3\right) + s^4\left(C_3C_5L_3L_5L_RR_3R_5R_L + C_3C_5L_3L_5L_RR_3R_5R_L + C_3C_5L_3L_5L_RR_3R_5R_L$

10.873 INVALID-ORDER-873 $Z(s) = \left(\infty, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$

 $H(s) = \frac{-C_3C_5C_LL_3L_LR_3R_5R_Ls^5 - C_5R_3R_5R_Ls + R_3R_5R_Lg_m - R_3R_L + s^6\left(C_3C_5C_LL_3L_5L_LR_3R_5R_Lg_m - C_3C_5C_LL_3L_5L_LR_3R_L\right) + s^4\left(C_3C_5C_LL_3L_5L_LR_3R_5R_L + C_3C_5C_LL_3L_5L_LR_3R_5R_L + C_3C_5C_LL_3L_5L_LR_3R_5R_L\right) + s^4\left(C_3C_5C_LL_3L_5L_RR_3R_5 + C_3C_5C_LL_3L_5L_RR_3R_5 + C_3C_5C_LL_3L$

11 PolynomialError