Filter Summary Report: TIA,simple,Z4,Z5

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Contents

1 Examined $H(z)$ for TIA simple Z4 Z5: $\frac{Z_4(Z_5g_m-1)}{2Z_4g_m+2Z_5g_m+2}$

$$H(z) = \frac{Z_4\left(Z_5g_m - 1\right)}{2Z_4g_m + 2Z_5g_m + 2}$$

2 HP

3 BP

4 LP

5 BS

6 GE

7 AP

8 INVALID-NUMER

9 INVALID-WZ

10 INVALID-ORDER

10.1 INVALID-ORDER-1 $Z(s) = (\infty,\ \infty,\ \infty,\ R_4,\ R_5,\ \infty)$

$$H(s) = \frac{Z_4\left(Z_5g_m - 1\right)}{2\left(Z_4g_m + Z_5g_m + 1\right)}$$

10.2 INVALID-ORDER-2 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ \frac{1}{C_5s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5g_m - 1\right)}{2\left(Z_4g_m + Z_5g_m + 1\right)}$$

10.3 INVALID-ORDER-3 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ \frac{R_5}{C_5R_5s+1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5g_m - 1\right)}{2\left(Z_4g_m + Z_5g_m + 1\right)}$$

10.4 INVALID-ORDER-4 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ R_5 + \frac{1}{C_5s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5g_m - 1\right)}{2\left(Z_4g_m + Z_5g_m + 1\right)}$$

10.5 INVALID-ORDER-5 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ L_5 s + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.6 INVALID-ORDER-6 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ \frac{L_5 s}{C_5 L_5 s^2 + 1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.7 INVALID-ORDER-7 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ L_5 s + R_5 + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.8 INVALID-ORDER-8 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.9 INVALID-ORDER-9 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5,\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.10 INVALID-ORDER-10 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ \frac{R_5\left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.11 INVALID-ORDER-11 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ R_5,\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.12 INVALID-ORDER-12 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.13 INVALID-ORDER-13 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \frac{R_5}{C_5 R_5 s + 1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.14 INVALID-ORDER-14 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ R_5 + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.15 INVALID-ORDER-15 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ L_5 s + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.16 INVALID-ORDER-16 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \frac{L_5 s}{C_5 L_5 s^2+1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.17 INVALID-ORDER-17 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ L_5 s + R_5 + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.18 INVALID-ORDER-18 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2+L_5 s+R_5},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.19 INVALID-ORDER-19 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \frac{L_5 s}{C_5 L_5 s^2+1} + R_5,\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.20 INVALID-ORDER-20 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \frac{R_5\left(C_5 L_5 s^2+1\right)}{C_5 L_5 s^2+C_5 R_5 s+1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.21 INVALID-ORDER-21 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s+1},\ R_5,\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.22 INVALID-ORDER-22 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s+1},\ \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.23 INVALID-ORDER-23 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s+1},\ \frac{R_5}{C_5 R_5 s+1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.24 INVALID-ORDER-24 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s+1},\ R_5 + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.25 INVALID-ORDER-25 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4R_4s+1},\ L_5s + \frac{1}{C_5s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5g_m - 1\right)}{2\left(Z_4g_m + Z_5g_m + 1\right)}$$

10.26 INVALID-ORDER-26 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4R_4s+1},\ \frac{L_5s}{C_5L_5s^2+1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5g_m - 1\right)}{2\left(Z_4g_m + Z_5g_m + 1\right)}$$

10.27 INVALID-ORDER-27 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4R_4s+1},\ L_5s + R_5 + \frac{1}{C_5s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5g_m - 1\right)}{2\left(Z_4g_m + Z_5g_m + 1\right)}$$

10.28 INVALID-ORDER-28 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4R_4s+1},\ \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5g_m - 1\right)}{2\left(Z_4g_m + Z_5g_m + 1\right)}$$

10.29 INVALID-ORDER-29 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4R_4s+1},\ \frac{L_5s}{C_5L_5s^2+1} + R_5,\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5g_m - 1\right)}{2\left(Z_4g_m + Z_5g_m + 1\right)}$$

10.30 INVALID-ORDER-30 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4R_4s+1},\ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5g_m - 1\right)}{2\left(Z_4g_m + Z_5g_m + 1\right)}$$

10.31 INVALID-ORDER-31 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4s},\ R_5,\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5g_m - 1\right)}{2\left(Z_4g_m + Z_5g_m + 1\right)}$$

10.32 INVALID-ORDER-32 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4s},\ \frac{1}{C_5s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5g_m - 1\right)}{2\left(Z_4g_m + Z_5g_m + 1\right)}$$

10.33 INVALID-ORDER-33 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4s},\ \frac{R_5}{C_5R_5s+1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5g_m - 1\right)}{2\left(Z_4g_m + Z_5g_m + 1\right)}$$

10.34 INVALID-ORDER-34 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4s},\ R_5 + \frac{1}{C_5s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5g_m - 1\right)}{2\left(Z_4g_m + Z_5g_m + 1\right)}$$

10.35 INVALID-ORDER-35 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ L_5 s + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.36 INVALID-ORDER-36 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \frac{L_5 s}{C_5 L_5 s^2 + 1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.37 INVALID-ORDER-37 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ L_5 s + R_5 + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.38 INVALID-ORDER-38 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.39 INVALID-ORDER-39 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5,\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.40 INVALID-ORDER-40 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \frac{R_5\left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.41 INVALID-ORDER-41 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ R_5,\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.42 INVALID-ORDER-42 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.43 INVALID-ORDER-43 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \frac{R_5}{C_5 R_5 s + 1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.44 INVALID-ORDER-44 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ R_5 + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.45 INVALID-ORDER-45 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ L_5 s + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.46 INVALID-ORDER-46 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \frac{L_5 s}{C_5 L_5 s^2+1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.47 INVALID-ORDER-47 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ L_5 s + R_5 + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.48 INVALID-ORDER-48 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2+L_5 s+R_5},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.49 INVALID-ORDER-49 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \frac{L_5 s}{C_5 L_5 s^2+1} + R_5,\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.50 INVALID-ORDER-50 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \frac{R_5\left(C_5 L_5 s^2+1\right)}{C_5 L_5 s^2+C_5 R_5 s+1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.51 INVALID-ORDER-51 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ R_5,\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.52 INVALID-ORDER-52 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.53 INVALID-ORDER-53 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \frac{R_5}{C_5 R_5 s+1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.54 INVALID-ORDER-54 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ R_5 + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.55 INVALID-ORDER-55 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ L_5 s + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.56 INVALID-ORDER-56 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \frac{L_5 s}{C_5 L_5 s^2+1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.57 INVALID-ORDER-57 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ L_5 s + R_5 + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.58 INVALID-ORDER-58 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2+L_5 s+R_5},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.59 INVALID-ORDER-59 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \frac{L_5 s}{C_5 L_5 s^2+1} + R_5,\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.60 INVALID-ORDER-60 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \frac{R_5\left(C_5 L_5 s^2+1\right)}{C_5 L_5 s^2+C_5 R_5 s+1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.61 INVALID-ORDER-61 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ R_5,\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.62 INVALID-ORDER-62 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.63 INVALID-ORDER-63 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \frac{R_5}{C_5 R_5 s+1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.64 INVALID-ORDER-64 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ R_5 + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.65 INVALID-ORDER-65 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ L_5 s + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.66 INVALID-ORDER-66 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \frac{L_5 s}{C_5 L_5 s^2+1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.67 INVALID-ORDER-67 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ L_5 s + R_5 + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.68 INVALID-ORDER-68 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2+L_5 s+R_5},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.69 INVALID-ORDER-69 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \frac{L_5 s}{C_5 L_5 s^2+1} + R_5,\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

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$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.71 INVALID-ORDER-71 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2+L_4 s+R_4},\ R_5,\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.72 INVALID-ORDER-72 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2+L_4 s+R_4},\ \frac{1}{C_5 s},\ \infty\right)$

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10.74 INVALID-ORDER-74 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2+L_4 s+R_4},\ R_5 + \frac{1}{C_5 s},\ \infty\right)$

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10.76 INVALID-ORDER-76 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4},\ \frac{L_5 s}{C_5 L_5 s^2 + 1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

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$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

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$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

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$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

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10.83 INVALID-ORDER-83 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4,\ \frac{R_5}{C_5 R_5 s + 1},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.84 INVALID-ORDER-84 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4,\ R_5 + \frac{1}{C_5 s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

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$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

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$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

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$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.91 INVALID-ORDER-91 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4\left(C_4 L_4 s^2+1\right)}{C_4 L_4 s^2+C_4 R_4 s+1},\ R_5,\ \infty\right)$

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$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

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$$H(s) = \frac{Z_4\left(Z_5 g_m - 1\right)}{2\left(Z_4 g_m + Z_5 g_m + 1\right)}$$

10.94 INVALID-ORDER-94 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4\left(C_4L_4s^2+1\right)}{C_4L_4s^2+C_4R_4s+1},\ R_5+\frac{1}{C_5s},\ \infty\right)$

$$H(s) = \frac{Z_4\left(Z_5g_m-1\right)}{2\left(Z_4g_m+Z_5g_m+1\right)}$$

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$$H(s) = \frac{Z_4\left(Z_5g_m-1\right)}{2\left(Z_4g_m+Z_5g_m+1\right)}$$

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$$H(s) = \frac{Z_4\left(Z_5g_m-1\right)}{2\left(Z_4g_m+Z_5g_m+1\right)}$$

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$$H(s) = \frac{Z_4\left(Z_5g_m-1\right)}{2\left(Z_4g_m+Z_5g_m+1\right)}$$