

Filter Summary Report: TIA,full,parasitic,Z3,ZL

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10.53	INVALID-ORDER-53 $Z(s) = (\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \frac{R_L}{C_L R_L s + 1})$		6
10.54	INVALID-ORDER-54 $Z(s) = (\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, R_L + \frac{1}{C_{Ls}})$		6
10.55	INVALID-ORDER-55 $Z(s) = (\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, L_L s + \frac{1}{C_{Ls}})$		6
10.56	INVALID-ORDER-56 $Z(s) = (\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1})$		6
10.57	INVALID-ORDER-57 $Z(s) = (\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, L_L s + R_L + \frac{1}{C_{Ls}})$		6
10.58	INVALID-ORDER-58 $Z(s) = (\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \frac{1}{C_{Ls} + \frac{1}{R_L + \frac{1}{L_L s}}})$		6

10.14 INVALID-ORDER-14 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_{gd}s - g_m)(g_m r_o + 1)(C_L R_L s + 1)}{s \left(C_3 C_L C_{gd} C_{gs} R_L r_o^2 s^3 + C_3 C_L C_{gd} R_L g_m r_o^2 s^2 + 2C_3 C_L C_{gd} R_L g_m r_o r_o s^2 + C_3 C_L C_{gd} R_L r_o s^2 + C_3 C_L C_{gs} R_L g_m r_o s^2 + C_3 C_L C_{gs} R_L g_m r_o s^2 - C_3 C_L R_L g_m^2 r_o s - C_3 C_L R_L g_m s + C_3 C_{gd} C_{gs} r_o^2 s^2 + C_3 C_{gd} g_m r_o^2 s + 2C_3 C_{gd} g_m r_o s + C_3 C_{gd} r_o s + 2C_3 C_{gd} s + C_3 C_{gs} g_m r_o s + C_3 C_{gs} r_o s + C_3 C_{gs} s - C_{3g_m} r_o - C_3 g_m + C_1 C_{gd}^2 C_{gs} R_L r_o^2 s^2 + C_1 C_{gd}^2 R_L g_m r_o^2 s^2 + C_1 C_{gd}^2 R_L r_o s^2 - C_1 C_{gd} C_{gs} R_L g_m r_o^2 s^2 + C_1 C_{gd} C_{gs} R_L r_o s^2 + C_1 C_{gd} C_{gs} r_o^2 s^2 - C_1 C_{gd} R_L g_m^2 r_o s - C_1 C_{gd} R_L g_m r_o s + C_1 C_{gd} g_m r_o s + C_1 C_{gd} g_m r_o s + C_1 C_{gd} r_o s \right)}$$

10.15 INVALID-ORDER-15 $Z(s) = \left(\infty, \infty, \frac{1}{C_3s}, \infty, \infty, L_Ls + \frac{1}{C_Ls} \right)$

$$H(s) = \frac{(C_{gd}s - g_m)(g_m r_o + 1)(C_L L s^2 + 1)}{s \left(C_3 C_L C_{gd} C_{gs} L_L r_o^2 s^4 + C_3 C_L C_{gd} L_L g_m r_o^2 s^3 + 2 C_3 C_L C_{gd} L_L g_m r_o s^3 + C_3 C_L C_{gd} L_L r_o s^3 + 2 C_3 C_L C_{gd} L_L s^3 + C_3 C_L C_{gs} L_L g_m r_o s^3 + C_3 C_L C_{gs} L_L r_o s^3 + C_3 C_L C_{gs} L_L s^3 - C_3 C_L L_L g_m^2 r_o s^2 - C_3 C_L L_L g_m s^2 + C_3 C_{gd} C_{gs} r_o^2 s^2 + C_3 C_{gd} g_m r_o^2 s + 2 C_3 C_{gd} g_m r_o s + C_3 C_{gd} r_o s + 2 C_3 C_{gd} s + C_3 C_{gs} g_m r_o s + C_3 C_{gs} r_o s + C_3 C_{gs} s - C_3 g_m^2 r_o - C_3 g_m + C_L C_{gd}^2 C_{gs} L_L r_o^2 s^4 + C_L C_{gd}^2 L_L g_m r_o^2 s^3 + C_L C_{gd}^2 L_L g_m s^3 + C_L C_{gd}^2 L_L s^3 \right)}$$

10.16 INVALID-ORDER-16 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

[illegible]

10.17 INVALID-ORDER-17 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_{gd}s - g_m)}{s \left(C_3C_{L1}C_{gd}C_{g8}L_1r_o^2s^4 + C_3C_{L1}C_{gd}C_{g8}R_1r_o^2s^3 + C_3C_{L1}C_{gd}L_1g_mr_o^2s^3 + 2C_3C_{L1}C_{gd}L_1g_mr_o^3s^3 + C_3C_{L1}C_{gd}L_1r_o^3s^3 + 2C_3C_{L1}C_{gd}R_1r_o^3s^2 + 2C_3C_{L1}C_{gd}R_1g_mr_o^3s^2 + C_3C_{L1}C_{gd}R_1r_o^3s^2 + 2C_3C_{L1}C_{gd}R_1s^2 + C_3C_{L1}C_{g8}L_1g_mr_o^3s^3 + C_3C_{L1}C_{g8}L_1r_o^3s^3 + C_3C_{L1}C_{g8}R_1g_mr_o^3s^2 + C_3C_{L1}C_{g8}R_1r_o^3s^2 + C_3C_{L1}C_{g8}R_1s^2 - C_3C_{L1}L_1g_m^2r_o^3s^2 - C_3C_{L1}L_1g_m^2r_o^3s^2 - C_3C_{L1}L_1g_m^2r_o^3s^2 - C_3C_{L1}L_1g_m^2r_o^3s^2 + 2C_3C_{gd}g_mr_o^2s + C_3C_{gd}g_mr_o^2s + 2C_3C_{gd}g_mr_o^2s + C_3C_{gd}g_mr_o^2s + C_3C_{g8}r_o^3s + C_3C_{g8}r_o^3s - 3C_3g_mr_o^2s - C_3g_mr_o^2s \right)}$$

10.18 INVALID-ORDER-18 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_L R_L s (C_{gd} s - g_m) (g_m r_o + 1)}{C_{gd} C_{gd} C_{gd} L_L R_L r_o^2 s^4 + C_3 C_{gd} L_L R_L g_m r_o^2 s^3 + 2 C_3 C_{gd} L_L R_L g_m r_o s^3 + C_3 C_{gd} L_L R_L r_o s^3 + 2 C_3 C_{gd} L_L R_L s^3 + C_3 C_{gd} L_L R_L g_m r_o s^3 + C_3 C_{gd} L_L R_L r_o s^3 + C_3 C_{gd} L_L R_L s^3 - C_3 L_L R_L g_m^2 r_o s^2 - C_3 L_L R_L g_m s^2 + C_L C_{gs} C_{gd} L_L R_L r_o^2 s^3 + C_L C_{gd} L_L R_L g_m r_o s^3 + C_L C_{gd} L_L R_L r_o s^3 + C_L C_{gd} L_L R_L s^3 + C_L C_{gd} L_L R_L g_m r_o s^3 + C_L C_{gs} L_L R_L g_m r_o s^3 + C_L C_{gs} L_L R_L r_o s^3 + C_L C_{gs} L_L R_L s^3 - C_L L_L R_L g_m^2 r_o s^2 - C_L L_L R_L g_m s^2 + C_{gd}^2 C_{gs} L_L R_L r_o^2 s^4 + C_{gd}^2 C_{gs} L_L R_L g_m r_o s^3 + C_{gd}^2 C_{gs} L_L R_L r_o s^3 - C_{gd} C_{gs} L_L R_L g_m r_o s^3 + C_{gd} C_{gd} L_L R_L r_o s^3 + C_{gd} C_{gd} L_L R_L s^3 + C_{gd} C_{gd} L_L R_L g_m r_o s^3 + C_{gd} C_{gd} L_L R_L r_o s^3 + C_{gd} C_{gd} L_L R_L s^3}$$

10.19 INVALID-ORDER-19 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -C_3 C_L C_{g_d} C_{g_s} L_L R_L \tau_o^2 s^5 + C_3 C_L C_{g_d} L_L R_L g_m \tau_o^2 s^4 + 2C_3 C_L C_{g_d} L_L R_L g_m \tau_o^2 s^4 + C_3 C_L C_{g_d} L_L R_L \tau_o s^4 + C_3 C_L C_{g_s} L_L R_L g_m \tau_o s^4 + C_3 C_L C_{g_s} L_L R_L \tau_o s^4 + C_3 C_L C_{g_s} L_L R_L s^4 - C_3 C_L L_L R_L g_m^2 \tau_o s^3 - C_3 C_L L_L R_L g_m s^3 + C_3 C_{g_d} C_{g_s} L_L \tau_o^2 s^3 + C_3 C_{g_d} L_L g_m \tau_o^2 s^3 + 2C_3 C_{g_d} L_L g_m \tau_o s^3 + C_3 C_{g_d} L_L \tau_o s^3 + 2C_3 C_{g_d} L_L s^3 + C_3 C_{g_s} L_L g_m \tau_o s^3 + C_3 C_{g_s} L_L \tau_o s^3 + C_3 C_{g_s} L_L s^3 + C_3 C_{g_s} R_L g_m \tau_o s^2 + C_3 C_{g_s} R_L \tau_o s^2 + C_3 C_{g_s} R_L s^2 - C_3 L_L g_m^2 \tau_o s^2$$

10.20 INVALID-ORDER-20 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{R_L(L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_3 C_l C_{gd} C_{gs} L_L R_L r_o^2 s^8 + C_3 C_l C_{gd} L_L R_L g_m r_o^2 s^4 + 2 C_3 C_l C_{gd} L_L R_L g_m r_o^2 s^4 + C_3 C_l C_{gd} L_L R_L r_o^2 s^4 + C_3 C_l C_{gd} L_L R_L r_o^2 s^4 + C_3 C_l C_{gs} L_L R_L r_o^2 s^4 + C_3 C_l C_{gs} L_L R_L r_o^2 s^4 - C_3 C_l L_L R_L g_m^2 r_o s^3 - C_3 C_l L_L R_L g_m s^3 + C_3 C_{gs} C_{gd} R_L r_o^2 s^3 + C_3 C_{gd} L_L g_m r_o^2 s^2 + 2 C_3 C_{gd} R_L g_m r_o^2 s^2 + C_3 C_{gd} R_L r_o^2 s^2 + 2 C_3 C_{gd} L_L r_o^2 s^2 + C_3 C_{gs} L_L g_m r_o^2 s^2 + C_3 C_{gs} R_L r_o^2 s^2 + C_3 C_{gs} L_L r_o^2 s^2 - C_3 R_L g_m^2 r_o s - C_3 R_L g_m s + C_L C_{gd}^2 C_{gs} L_L R_L r_o^2 s^5 + C_L C_{gd}^2 L_L R_L g_m r_o^2 s^4 + C_L C_{gd}^2 L_L R_L r_o^2 s^4 - C_L C_{gd} C_{gs} L_L R_L g_m r_o^2 s^4 + C_L C_{gd} C_{gs} L_L R_L r_o^2 s^4 + C_L C_{gd} C_{gs} L_L R_L r_o^2 s^4}{}$$

10.21 INVALID-ORDER-21 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_3 R_L (C_{g8}s - g_{m1}(g_{m1}r_o + 1))}{C_3 C_{g4} C_{g8} R_3 R_L r_o^2 s^3 + C_3 C_{g4} R_3 R_L g_{m1} r_o^2 s^2 + 2C_3 C_{g4} R_3 R_L g_{m1} r_o s^2 + 2C_3 C_{g4} R_3 R_L r_o s^2 + 2C_3 C_{g4} R_3 R_L s^2 + C_3 C_{g8} R_3 R_L g_{m1} r_o s^2 + C_3 C_{g8} R_3 R_L r_o s^2 + C_3 C_{g8} R_3 R_L s^2 - C_3 R_3 R_L g_{m1}^2 r_o s - C_3 R_3 R_L g_{m1} s + C_{g4}^2 C_{g8} R_3 R_L r_o^2 s^3 + C_{g4}^2 R_3 R_L g_{m1} r_o^2 s^2 + C_{g4}^2 R_3 R_L r_o s^2 - C_{g4} C_{g8} R_3 R_L g_{m1} r_o^2 s^2 + C_{g4} C_{g8} R_3 R_L r_o s^2 + C_{g4} C_{g8} R_3 R_L s^2 - C_{g4} C_{g8} R_3 R_L g_{m1}^2 r_o s - C_{g4} C_{g8} R_3 R_L g_{m1} s + C_{g4} R_3 g_{m1} r_o^2 s + 2C_{g4} R_3 g_{m1} r_o s + C_{g4} R_3 r_o s + 2C_{g4} R_3 s + C_{g4} R_L g_{m1} r_o^2 s + 2C_{g4} R_L g_{m1} r_o s + C_{g4} R_L r_o s + 2C_{g4} R_L s - C_{g8} R_3 R_L g_{m1} r_o s + C_{g8} R_3 g_{m1} r_o s + C_{g8} R_3 r_o s + C_{g8} R_3 s}$$

10.22 INVALID-ORDER-22 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = C_3 C_{gd} C_g R_3 r_o^2 s^3 + C_3 C_{gd} R_3 g_{m r_o} s^2 + 2 C_3 C_{gd} R_3 g_{m r_o} s^2 + C_3 C_{gd} R_3 r_o s^2 + 2 C_3 C_{gd} R_3 s^2 + C_3 C_g R_3 g_{m r_o} s^2 + C_3 C_{gd} R_3 s^2 - C_3 R_3 g_{m r_o} s - C_3 R_3 g_{m s} + C_L C_{gd} R_3 r_o^2 s^2 + C_L C_{gd} R_3 g_{m r_o} s^2 + 2 C_L C_{gd} R_3 g_{m r_o} s^2 + C_L C_{gd} R_3 r_o s^2 + 2 C_L C_{gd} R_3 s^2 + C_L C_g R_3 g_{m r_o} s^2 + C_L C_{gd} R_3 r_o s^2 - C_L R_3 g_{m r_o} s - C_L R_3 g_{m s} + C_{gd}^2 C_g R_3 r_o^2 s^3 + C_{gd}^2 R_3 g_{m r_o} s^2 + C_{gd}^2 R_3 r_o s^2 - C_{gd} C_g R_3 g_{m r_o} s^2 + C_{gd} C_g R_3 r_o s^2 + C_{gd} C_g R_3 s^2 - C_{gd} R_3 g_{m r_o} s + C_{gd} g_{m r_o} s + 2 C_{gd} g_{m r_o} s + 2 C_{gd} s - C_g R_3 g_{m r_o} s + C_g$$

$$(-, -) \quad (-, -) \quad (C_3 R_{3s+1}, -) \quad (-, -) \quad (C_L R_{Ls+1}, -)$$

$$H_{11}^{(2)} = -C_3 C_{g d} C_{g s} R_3 R_3 R_{L l} r_o^2 s^3 + C_3 C_{g d} R_3 R_{L l} g_m r_o^2 s^2 + 2 C_3 C_{g d} R_3 R_{L l} g_m r_o s^2 + C_3 C_{g d} R_3 R_{L l} r_o s^2 + 2 C_3 C_{g d} R_3 R_{L l} s^2 - C_3 R_3 R_{L l} g_m^2 r_o s - C_3 R_3 R_{L l} g_m s + C_1 C_{g d} C_{g s} R_3 R_{L l} r_o^2 s^3 + C_1 C_{g d} R_3 R_{L l} g_m r_o^2 s^2 + 2 C_1 C_{g d} R_3 R_{L l} g_m r_o s^2 + C_1 C_{g d} R_3 R_{L l} r_o s^2 + 2 C_1 C_{g d} R_3 R_{L l} s^2 + C_1 C_{g s} R_3 R_{L l} g_m^2 r_o s^2 + C_1 C_{g s} R_3 R_{L l} r_o s^2 + C_1 C_{g s} R_3 R_{L l} s^2 - C_1 R_3 R_{L l} g_m^2 r_o s - C_1 R_3 R_{L l} g_m s + C_{g d}^2 C_{g s} R_3 R_{L l} r_o^2 s^3 + C_{g d}^2 R_3 R_{L l} g_m^2 r_o^2 s^2 + C_{g d}^2 R_3 R_{L l} r_o s^2 - C_{g d} C_{g s} R_3 R_{L l} g_m r_o^2 s^2 + C_{g d} C_{g s} R_3 R_{L l} r_o s^2 + C_{g d} C_{g s} R_3 r_o^2 s^2 + C_{g d} C_{g s} R_3 R_{L l} s^2 + C_{g d} C_{g s} R_{L l} r_o^2 s^2 + C_{g d} C_{g s} R_{L l} g_m r_o^2 s^2 + C_{g d} C_{g s} R_{L l} g_m r_o s^2 + C_{g d} C_{g s} R_{L l} s^2$$

[illegible]

$$H(s) = \underline{\hspace{10cm}}$$

$$H(s) = \frac{C_0 C_1}{C_0 C_1 + C_1 L_1 R_1 s^2 s^4} + \frac{C_0 C_1}{C_0 C_1 + C_1 L_1 R_1 s^2 s^3} + \frac{2 C_0 C_1}{C_0 C_1 + C_1 L_1 R_1 s^2 s^3} + \frac{C_0 C_1}{C_0 C_1 + C_1 L_1 R_1 s^2 s^3} +$$

10.27 INVALID-ORDER-27 $Z(s) = \left(\infty, \infty, \frac{R_9}{C \cdot R_{9(s+1)}}, \infty, \infty, L_L s + R_L + \frac{1}{C \cdot s} \right)$

$$H(s) = -C_3 C_L C_{gd} C_{gd} L_L R_3 r_o^2 s^5 + C_3 C_L C_{gd} C_{gs} R_3 R_L r_o^2 s^4 + C_3 C_L C_{gd} L_L R_3 g_m r_o^2 s^4 + 2 C_3 C_L C_{gd} L_L R_3 g_m r_o^2 s^4 + C_3 C_L C_{gd} L_L R_3 r_o^4 + 2 C_3 C_L C_{gd} R_3 L_L R_3 s^4 + C_3 C_L C_{gd} R_3 L_L R_3 g_m r_o^2 s^3 + 2 C_3 C_L C_{gd} R_3 L_L R_3 g_m r_o^2 s^3 + C_3 C_L C_{gd} R_3 L_L R_3 r_o^2 s^3 + 2 C_3 C_L C_{gd} R_3 L_L R_3 s^3 + C_3 C_L C_{gs} R_3 L_L R_3 g_m r_o^2 s^4 + C_3 C_L C_{gs} R_3 L_L R_3 g_m r_o^2 s^3 + C_3 C_L C_{gs} R_3 L_L R_3 r_o^2 s^3 + C_3 C_L C_{gs} R_3 L_L R_3 s^3 - C_3 C_L L_L R_3 g_m^2 r_o^2 s^2 - C_3 C_L L_L R_3 g_m s^3 - C_3 C_L R_3 L_L R_3 g_m^2 r_o^2 s^2 - C_3 C_L R_3 L_L R_3 g_m r_o^2 s^2 + C_3 C_L C_{gd} C_{gs} R_3 r_o^2 s^3 + C_3 C_{gd} R_3 g_m^2 r_o^2 s^2 + 2 C_3 C_{gd} R_3 g_m r_o^2 s^2 + C_3 C_{gd} R_3 r_o^2 s^2$$

10.28 INVALID-ORDER-28 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(8) = \bar{C}_3 C_{g4} C_{g8} L_L R_3 R_L \tau_o^2 s^4 + C_3 C_{g4} L_L R_3 R_L g_m \tau_o^2 s^3 + 2 C_3 C_{g4} L_L R_3 R_L g_m \tau_o s^3 + C_3 C_{g4} L_L R_3 R_L \tau_o s^3 + 2 C_3 C_{g4} L_L R_3 R_L s^3 + C_3 C_{g8} L_L R_3 R_L g_m \tau_o s^3 + C_3 C_{g8} L_L R_3 R_L \tau_o s^3 + C_3 C_{g8} L_L R_3 R_L s^3 - C_3 L_L R_3 R_L g_m^2 \tau_o s^2 - C_3 L_L R_3 R_L g_m s^2 + C_L C_{g4} C_{g8} L_L R_3 R_L \tau_o^2 s^4 + C_L C_{g4} L_L R_3 R_L g_m \tau_o^2 s^3 + 2 C_L C_{g4} L_L R_3 R_L g_m \tau_o s^3 + C_L C_{g4} L_L R_3 R_L \tau_o s^3 + C_L C_{g8} L_L R_3 R_L g_m \tau_o s^3 + C_L C_{g8} L_L R_3 R_L \tau_o s^3 + C_L C_{g8} L_L R_3 R_L s^3 - C_L L_L R_3 R_L g_m^2 \tau_o s^2 - C_L L_L R_3 R_L g_m s^2 + C_{g4}^2 C_{g8} L_L R_3 R_L \tau_o^2 s^4 + C_{g4}^2 L_L R_3 R_L g_m \tau_o^2 s^3 + C_{g4}^2 L_L R_3 R_L \tau_o s^3 -$$

10.29 INVALID-ORDER-29 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = C_3C_LC_{gd}C_{gs}L_1R_3R_Lr_o^2s^5 + C_3C_LC_{gd}L_LR_3R_Lg_mr_o^2s^4 + 2C_3C_LC_{gd}L_LR_3R_Lg_mr_o^2s^4 + 2C_3C_LC_{gd}L_LR_3R_Lr_o^2s^4 + 2C_3C_LC_{gd}L_LR_3R_Lr_o^2s^4 + C_3C_LC_{gs}L_LR_3R_Lg_mr_o^2s^4 + C_3C_LC_{gs}L_LR_3R_Lr_o^2s^4 + C_3C_LC_{gs}L_LR_3R_Lr_o^2s^4 + C_3C_LC_{gs}L_LR_3R_Lr_o^2s^4 - C_3C_LC_{gd}C_{gs}L_LR_3R_Lg_m^2r_o^2s^3 - C_3C_{gd}C_{gs}L_LR_3r_o^2s^4 + C_3C_{gd}C_{gs}R_3R_Lr_o^2s^3 + C_3C_{gd}L_LR_3g_m^2r_o^2s^3 + 2C_3C_{gd}L_LR_3g_mr_o^2s^3 + C_3C_{gd}L_LR_3r_o^2s^3 + 2C_3C_{gd}L_LR_3s^3 + C_3C_{gd}R_3R_Lg_m^2r_o^2s^2 + 2C_3C_{gd}R_3R_Lg_mr_o^2s^2 + C_3C_{gd}R_3R_Lr_o^2s^2 + 2C_3C_{gd}R_3R_Ls^2 + C_3C_{gs}L_LR_3g_mr_o^2s^3 + C_3C_{gs}L_LR_3r_o^2s^3 + C_3C_{gs}L_LR_3s^3$$

10.30 INVALID-ORDER-30 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \frac{C_L}{L_L s + R_L + \frac{C_L s}{C_L s + 1}} \right)$

$$H(s) = C_3 C_L C_{gd} C_g L_L R_3 R_L r_o^2 s^5 + C_3 C_L C_{gd} L_L R_3 R_L g_m r_o^2 s^4 + 2 C_3 C_L C_{gd} L_L R_3 R_L g_m r_o s^3 + C_3 C_L C_{gd} L_L R_3 R_L r_o s^4 + 2 C_3 C_L C_{gd} L_L R_3 R_L s^4 + C_3 C_L C_g L_L R_3 R_L g_m r_o s^4 + C_3 C_L C_g L_L R_3 R_L r_o s^4 + C_3 C_L C_g L_L R_3 R_L s^4 - C_3 C_L L_L R_3 R_L g_m^2 r_o s^3 - C_3 C_L L_L R_3 R_L g_m s^3 + C_3 C_{gd} C_g R_3 R_L r_o^2 s^3 + C_3 C_{gd} R_3 R_L g_m r_o^2 s^2 + 2 C_3 C_{gd} R_3 R_L g_m r_o s^2 + C_3 C_{gd} R_3 R_L r_o s^2 + 2 C_3 C_{gd} R_3 R_L s^2 + C_3 C_g R_3 R_L g_m r_o s^2 + C_3 C_g R_3 R_L s^2 - C_3 R_3 R_L g_m^2 r_o s - C_3 R_3 R_L g_m s + C_L C_{gd}^2 C_g L_L R_3 R_L r_o^2 s^5 + C_L C_{gd}^2 L_L R_3 R_L g_m r_o^2 s^4 + C_L C_{gd}^2 L_L R_3 R_L r_o s^4$$

10.31 INVALID-ORDER-31 $Z(s) = (\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, R_L)$

[illegible]

[illegible]

$$s \left(C_3 C_L C_{gd} C_{gs} R_3 r_o^2 s^3 + C_3 C_L C_{gd} R_3 g_{m r_o} s^2 + 2 C_3 C_L C_{gd} R_3 g_{m r_o} s + C_3 C_L C_{gd} R_3 r_o s^2 + 2 C_3 C_L C_{gd} R_3 s^2 - C_3 C_L R_3 g_{m r_o}^2 s - C_3 C_L R_3 g_{m r_o} s + C_3 C_{gd} C_{gs} R_3 r_o^2 s^3 + C_3 C_{gd} C_{gs} R_3 r_o^2 s^2 + C_3 C_{gd} C_{gs} R_3 r_o s^2 + C_3 C_{gd} C_{gs} R_3 s^2 - C_3 C_{gd} R_3 g_{m r_o}^2 s - C_3 C_{gd} R_3 g_{m r_o} s + C_3 C_{gd} R_3 r_o s^2 + 2 C_3 C_{gd} R_3 s^2 + C_3 C_{gd} R_3 g_{m r_o} s + C_3 C_{gs} R_3 g_{m r_o} s + C_3 C_{gs} r_o s + C_3 C_{gs} s - C_3 g_{m r_o}^2 - C_3 g_{m r_o} + C_L C_{gd} C_{gs} r_o^2 s^2 + C_L C_{gd} g_{m r_o}^2 s + 2 C_L C_{gd} g_{m r_o} s + 2 C_L C_{gd} r_o s + 2 C_3 C_{gd} s - C_3 C_{gs} R_3 g_{m r_o} s + C_3 C_{gs} R_3 r_o s + C_3 C_{gs} r_o s + C_3 C_{gs} s - C_3 g_{m r_o}^2 - C_3 g_{m r_o} + C_L C_{gd} C_{gs} r_o^2 s^2 + C_L C_{gd} g_{m r_o}^2 s + 2 C_L C_{gd} g_{m r_o} s + 2 C_L C_{gd} r_o s + 2 C_3 C_{gd} s \right)$$

10.70 INVALID-ORDER-70 $Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \frac{R_L(L_Ls + \frac{1}{C_Ls})}{L_Ls + R_L + \frac{1}{C_Ls}} \right)$

[illegible]

10.71 INVALID-ORDER-71 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3 + \frac{1}{L_3 s}}}, \infty, \infty, R_L \right)$

[illegible]

10.72 INVALID-ORDER-72 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \infty, \infty, \frac{1}{C_L s} \right)$

[illegible]

10.73 INVALID-ORDER-73 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3 + \frac{1}{L_3 s}}}, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

[illegible]

10.74 INVALID-ORDER-74 $Z(s) = \left(\infty, \infty, \frac{1}{C_{3s} + \frac{1}{R_3} + \frac{1}{L_3 s}}, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

[illegible]

10.75 INVALID-ORDER-75 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

[illegible]

10.76 INVALID-ORDER-76 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3 + \frac{1}{L_3 s}}}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

[illegible]

10.77 INVALID-ORDER-77 $Z(s) = \left(\infty, \infty, \frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls} \right)$

[illegible]

10.78 INVALID-ORDER-78 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

[illegible]

10.79 INVALID-ORDER-79 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

10.80 INVALID-ORDER-80 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \infty, \infty, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$

[illegible]

10.81 INVALID-ORDER-81 $Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, R_L \right)$

[illegible]

10.82 INVALID-ORDER-82 $Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \frac{1}{C_L s} \right)$

10.83 INVALID-ORDER-83 $Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

[illegible]

10.84 INVALID-ORDER-84 $Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

10.85 INVALID-ORDER-85 $Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

10.86 INVALID-ORDER-86 $Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

10.87 INVALID-ORDER-87 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_{3s^2+1}} + R_3, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

