Filter Summary Report: TIA,some,parasitic,Z1,Z3,ZL

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Contents

1 Examined $H(z)$ for TIA some parasitic Z1 Z3 ZL: $\frac{Z_1 Z_3 Z_L(g_m r_o+1)}{Z_1 Z_3 g_m r_o+Z_1 Z_3+Z_1 Z_L g_m r_o+Z_1 Z_L+Z_3 Z_L+Z_3 r_o+Z_L r_o}$

$$H(z) = \frac{Z_1 Z_3 Z_L \left(g_m r_o + 1\right)}{Z_1 Z_3 g_m r_o + Z_1 Z_3 + Z_1 Z_L g_m r_o + Z_1 Z_L + Z_3 Z_L + Z_3 r_o + Z_L r_o}$$

2 HP

3 BP

3.1 BP-1 $Z(s) = \left(R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 R_3 s \left(g_m r_o + 1\right)}{C_L L_L R_1 R_3 g_m r_o s^2 + C_L L_L R_1 R_3 s^2 + C_L L_L R_3 r_o s^2 + L_L R_1 g_m r_o s + L_L R_1 s + L_L R_3 s + L_L r_o s + R_1 R_3 g_m r_o + R_1 R_3 + R_3 r_o}$$

Parameters:

Q: $\frac{C_L R_3 \sqrt{\frac{1}{C_L L_L}} (R_1 g_m r_o+R_1+r_o)}{R_1 g_m r_o+R_1+R_3+r_o}$
wo: $\sqrt{\frac{1}{C_L L_L}}$
bandwidth: $\frac{R_1 g_m r_o+R_1+R_3+r_o}{C_L R_3 (R_1 g_m r_o+R_1+r_o)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1 R_3 (g_m r_o+1)}{R_1 g_m r_o+R_1+R_3+r_o}$
Qz: 0
Wz: None

3.2 BP-2 $Z(s) = \left(R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_1 R_3 R_L s \left(g_m r_o + 1\right)}{C_L L_L R_1 R_3 R_L g_m r_o s^2 + C_L L_L R_1 R_3 R_L s^2 + C_L L_L R_3 R_L r_o s^2 + L_L R_1 R_3 g_m r_o s + L_L R_1 R_3 s + L_L R_1 R_L g_m r_o s + L_L R_1 R_L s + L_L R_3 R_L s + L_L R_3 r_o s + L_L R_L r_o s + R_1 R_3 R_L g$$

Parameters:

Q: $\frac{C_L R_3 R_L \sqrt{\frac{1}{C_L L_L}}(R_1 g_m r_o+R_1+r_o)}{R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o}$
wo: $\sqrt{\frac{1}{C_L L_L}}$
bandwidth: $\frac{R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o}{C_L R_3 R_L(R_1 g_m r_o+R_1+r_o)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1 R_3 R_L(g_m r_o+1)}{R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o}$
Qz: 0
Wz: None

3.3 BP-3 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 s\,(g_m r_o + 1)}{C_3 L_L R_1 g_m r_o s^2 + C_3 L_L R_1 s^2 + C_3 L_L r_o s^2 + C_L L_L R_1 g_m r_o s^2 + C_L L_L R_1 s^2 + C_L L_L r_o s^2 + L_L s + R_1 g_m r_o + R_1 + r_o}$$

Parameters:

Q: $\sqrt{\frac{1}{L_L(C_3+C_L)}}\,(C_3 R_1 g_m r_o + C_3 R_1 + C_3 r_o + C_L R_1 g_m r_o + C_L R_1 + C_L r_o)$
wo: $\sqrt{\frac{1}{L_L(C_3+C_L)}}$
bandwidth: $\frac{1}{C_3 R_1 g_m r_o+C_3 R_1+C_3 r_o+C_L R_1 g_m r_o+C_L R_1+C_L r_o}$
K-LP: 0
K-HP: 0
K-BP: $R_1\,(g_m r_o + 1)$
Qz: 0
Wz: None

3.4 BP-4 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_1 R_L s\,(g_m r_o + 1)}{C_3 L_L R_1 R_L g_m r_o s^2 + C_3 L_L R_1 R_L s^2 + C_3 L_L R_L r_o s^2 + C_L L_L R_1 R_L g_m r_o s^2 + C_L L_L R_1 R_L s^2 + C_L L_L R_L r_o s^2 + L_L R_1 g_m r_o s + L_L R_1 s + L_L R_L s + L_L r_o s + R_1 R_L g_m r_o + R_1 R$$

Parameters:

Q: $\frac{R_L\sqrt{\frac{1}{L_L(C_3+C_L)}}(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}{R_1g_mr_o+R_1+R_L+r_o}$
wo: $\sqrt{\frac{1}{L_L(C_3+C_L)}}$
bandwidth: $\frac{R_1g_mr_o+R_1+R_L+r_o}{R_L(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1R_L(g_mr_o+1)}{R_1g_mr_o+R_1+R_L+r_o}$
Qz: 0
Wz: None

3.5 BP-5 $Z(s)=\left(R_1,\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ \frac{L_Ls}{C_LL_Ls^2+1}\right)$

$$H(s)=\frac{L_LR_1R_3s\left(g_mr_o+1\right)}{C_3L_LR_1R_3g_mr_os^2+C_3L_LR_1R_3s^2+C_3L_LR_3r_os^2+C_LL_LR_1R_3g_mr_os^2+C_LL_LR_1R_3s^2+C_LL_LR_3r_os^2+L_LR_1g_mr_os+L_LR_1s+L_LR_3s+L_Lr_os+R_1R_3g_mr_o+R_1R_3+}$$

Parameters:

Q: $\frac{R_3\sqrt{\frac{1}{L_L(C_3+C_L)}}(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}{R_1g_mr_o+R_1+R_3+r_o}$
wo: $\sqrt{\frac{1}{L_L(C_3+C_L)}}$
bandwidth: $\frac{R_1g_mr_o+R_1+R_3+r_o}{R_3(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1R_3(g_mr_o+1)}{R_1g_mr_o+R_1+R_3+r_o}$
Qz: 0
Wz: None

3.6 BP-6 $Z(s)=\left(R_1,\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$

$$H(s)=\frac{L_LR_1R_3R_Ls\left(g_mr_o+1\right)}{C_3L_LR_1R_3R_Lg_mr_os^2+C_3L_LR_1R_3R_Ls^2+C_3L_LR_3R_Lr_os^2+C_LL_LR_1R_3R_Lg_mr_os^2+C_LL_LR_1R_3R_Ls^2+C_LL_LR_3R_Lr_os^2+L_LR_1R_3g_mr_os+L_LR_1R_3s+L_LR_1R_Lg_mr_os}$$

Parameters:

Q: $\frac{R_3R_L\sqrt{\frac{1}{L_L(C_3+C_L)}}(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}$
wo: $\sqrt{\frac{1}{L_L(C_3+C_L)}}$
bandwidth: $\frac{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}{R_3R_L(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1R_3R_L(g_mr_o+1)}{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}$
Qz: 0
Wz: None

3.7 BP-7 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3s}{C_3L_3s^2+1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_3R_1R_Ls\left(g_mr_o+1\right)}{C_3L_3R_1R_Lg_mr_os^2+C_3L_3R_1R_Ls^2+C_3L_3R_Lr_os^2+L_3R_1g_mr_os+L_3R_1s+L_3R_Ls+L_3r_os+R_1R_Lg_mr_o+R_1R_L+R_Lr_o}$$

Parameters:

Q: $\frac{C_3R_L\sqrt{\frac{1}{C_3L_3}}(R_1g_mr_o+R_1+r_o)}{R_1g_mr_o+R_1+R_L+r_o}$
wo: $\sqrt{\frac{1}{C_3L_3}}$
bandwidth: $\frac{R_1g_mr_o+R_1+R_L+r_o}{C_3R_L(R_1g_mr_o+R_1+r_o)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1R_L(g_mr_o+1)}{R_1g_mr_o+R_1+R_L+r_o}$
Qz: 0
Wz: None

3.8 BP-8 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3s}{C_3L_3s^2+1},\ \infty,\ \infty,\ \frac{1}{C_Ls}\right)$

$$H(s) = \frac{L_3R_1s\left(g_mr_o+1\right)}{C_3L_3R_1g_mr_os^2+C_3L_3R_1s^2+C_3L_3r_os^2+C_LL_3R_1g_mr_os^2+C_LL_3R_1s^2+C_LL_3r_os^2+L_3s+R_1g_mr_o+R_1+r_o}$$

Parameters:

Q: $\sqrt{\frac{1}{L_3(C_3+C_L)}}\left(C_3R_1g_mr_o + C_3R_1 + C_3r_o + C_LR_1g_mr_o + C_LR_1 + C_Lr_o\right)$
wo: $\sqrt{\frac{1}{L_3(C_3+C_L)}}$
bandwidth: $\frac{1}{C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o}$
K-LP: 0
K-HP: 0
K-BP: $R_1\left(g_mr_o+1\right)$
Qz: 0
Wz: None

3.9 BP-9 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3s}{C_3L_3s^2+1},\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{L_3R_1R_Ls\left(g_mr_o+1\right)}{C_3L_3R_1R_Lg_mr_os^2 + C_3L_3R_1R_Ls^2 + C_3L_3R_Lr_os^2 + C_LL_3R_1R_Lg_mr_os^2 + C_LL_3R_1R_Ls^2 + C_LL_3R_Lr_os^2 + L_3R_1g_mr_os + L_3R_1s + L_3R_Ls + L_3r_os + R_1R_Lg_mr_o + R_1R_L +$$

Parameters:

Q: $\frac{R_L\sqrt{\frac{1}{L_3(C_3+C_L)}}(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}{R_1g_mr_o+R_1+R_L+r_o}$
wo: $\sqrt{\frac{1}{L_3(C_3+C_L)}}$
bandwidth: $\frac{R_1g_mr_o+R_1+R_L+r_o}{R_L(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1R_L(g_mr_o+1)}{R_1g_mr_o+R_1+R_L+r_o}$
Qz: 0
Wz: None

3.10 BP-10 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3s}{C_3L_3s^2+1},\ \infty,\ \infty,\ \frac{L_Ls}{C_LL_Ls^2+1}\right)$

$$H(s) = \frac{L_3L_LR_1s\left(g_mr_o+1\right)}{C_3L_3L_LR_1g_mr_os^2 + C_3L_3L_LR_1s^2 + C_3L_3L_Lr_os^2 + C_LL_3L_LR_1g_mr_os^2 + C_LL_3L_LR_1s^2 + C_LL_3L_Lr_os^2 + L_3L_Ls + L_3R_1g_mr_o + L_3R_1 + L_3r_o + L_LR_1g_mr_o + L_LR_1 + L_Lr_o}$$

Parameters:

Q: $\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_L)}}\left(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o\right)$
wo: $\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_L)}}$
bandwidth: $\frac{1}{C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o}$
K-LP: 0
K-HP: 0
K-BP: $R_1\left(g_mr_o+1\right)$
Qz: 0
Wz: None

3.11 BP-11 $Z(s)=\left(R_1,\ \infty,\ \frac{L_3s}{C_3L_3s^2+1},\ \infty,\ \infty,\ \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$

$$H(s)=\frac{L_3L_LR_1R_Ls\left(g_mr_o+1\right)}{C_3L_3L_LR_1R_Lg_mr_os^2+C_3L_3L_LR_1R_Ls^2+C_3L_3L_LR_Lr_os^2+C_LL_3L_LR_1R_Lg_mr_os^2+C_LL_3L_LR_1R_Ls^2+C_LL_3L_LR_Lr_os^2+L_3L_LR_1g_mr_os+L_3L_LR_1s+L_3L_LR_Ls+L_3L$$

Parameters:

Q: $\frac{R_L\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_L)}}(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}{R_1g_mr_o+R_1+R_L+r_o}$
wo: $\sqrt{\frac{L_3+L_L}{L_3L_L(C_3+C_L)}}$
bandwidth: $\frac{R_1g_mr_o+R_1+R_L+r_o}{R_L(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1R_L(g_mr_o+1)}{R_1g_mr_o+R_1+R_L+r_o}$
Qz: 0
Wz: None

3.12 BP-12 $Z(s)=\left(R_1,\ \infty,\ \frac{1}{C_3s+\frac{1}{R_3}+\frac{1}{L_3s}},\ \infty,\ \infty,\ R_L\right)$

$$H(s)=\frac{L_3R_1R_3R_Ls\left(g_mr_o+1\right)}{C_3L_3R_1R_3R_Lg_mr_os^2+C_3L_3R_1R_3R_Ls^2+C_3L_3R_3R_Lr_os^2+L_3R_1R_3g_mr_os+L_3R_1R_3s+L_3R_1R_Lg_mr_os+L_3R_1R_Ls+L_3R_3R_Ls+L_3R_3r_os+L_3R_Lr_os+R_1R_3R_Lg_mr_o+$$

Parameters:

Q: $\frac{C_3R_3R_L\sqrt{\frac{1}{C_3L_3}}(R_1g_mr_o+R_1+r_o)}{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}$
wo: $\sqrt{\frac{1}{C_3L_3}}$
bandwidth: $\frac{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}{C_3R_3R_L(R_1g_mr_o+R_1+r_o)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1R_3R_L(g_mr_o+1)}{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}$
Qz: 0
Wz: None

3.13 BP-13 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3s+\frac{1}{R_3}+\frac{1}{L_3s}},\ \infty,\ \infty,\ \frac{1}{C_Ls}\right)$

$$H(s) = \frac{L_3R_1R_3s\left(g_mr_o+1\right)}{C_3L_3R_1R_3g_mr_os^2+C_3L_3R_1R_3s^2+C_3L_3R_3r_os^2+C_LL_3R_1R_3g_mr_os^2+C_LL_3R_1R_3s^2+C_LL_3R_3r_os^2+L_3R_1g_mr_os+L_3R_1s+L_3R_3s+L_3r_os+R_1R_3g_mr_o+R_1R_3+R_3}$$

Parameters:

Q: $\frac{R_3\sqrt{\frac{1}{L_3(C_3+C_L)}}(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}{R_1g_mr_o+R_1+R_3+r_o}$
wo: $\sqrt{\frac{1}{L_3(C_3+C_L)}}$
bandwidth: $\frac{R_1g_mr_o+R_1+R_3+r_o}{R_3(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1R_3(g_mr_o+1)}{R_1g_mr_o+R_1+R_3+r_o}$
Qz: 0
Wz: None

3.14 BP-14 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3s+\frac{1}{R_3}+\frac{1}{L_3s}},\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{L_3R_1R_3R_Ls\left(g_mr_o+1\right)}{C_3L_3R_1R_3R_Lg_mr_os^2+C_3L_3R_1R_3R_Ls^2+C_3L_3R_3R_Lr_os^2+C_LL_3R_1R_3R_Lg_mr_os^2+C_LL_3R_1R_3R_Ls^2+C_LL_3R_3R_Lr_os^2+L_3R_1R_3g_mr_os+L_3R_1R_3s+L_3R_1R_Lg_mr_os+}$$

Parameters:

Q: $\frac{R_3 R_L \sqrt{\frac{1}{L_3(C_3+C_L)}}(C_3 R_1 g_m r_o+C_3 R_1+C_3 r_o+C_L R_1 g_m r_o+C_L R_1+C_L r_o)}{R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o}$

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

bandwidth: $\frac{R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o}{R_3 R_L(C_3 R_1 g_m r_o+C_3 R_1+C_3 r_o+C_L R_1 g_m r_o+C_L R_1+C_L r_o)}$

K-LP: 0

K-HP: 0

K-BP: $\frac{R_1 R_3 R_L(g_m r_o+1)}{R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o}$

Qz: 0

Wz: None

3.15 BP-15 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_3 L_L R_1 R_3 s\,(g_m r_o + 1)}{C_3 L_3 L_L R_1 R_3 g_m r_o s^2 + C_3 L_3 L_L R_1 R_3 s^2 + C_3 L_3 L_L R_3 r_o s^2 + C_L L_3 L_L R_1 R_3 g_m r_o s^2 + C_L L_3 L_L R_1 R_3 s^2 + C_L L_3 L_L R_3 r_o s^2 + L_3 L_L R_1 g_m r_o s + L_3 L_L R_1 s + L_3 L_L R_3 s + L_3 L_L r$$

Parameters:

Q: $\frac{R_3 \sqrt{\frac{L_3+L_L}{L_3 L_L(C_3+C_L)}}(C_3 R_1 g_m r_o+C_3 R_1+C_3 r_o+C_L R_1 g_m r_o+C_L R_1+C_L r_o)}{R_1 g_m r_o+R_1+R_3+r_o}$

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

bandwidth: $\frac{R_1 g_m r_o+R_1+R_3+r_o}{R_3(C_3 R_1 g_m r_o+C_3 R_1+C_3 r_o+C_L R_1 g_m r_o+C_L R_1+C_L r_o)}$

K-LP: 0

K-HP: 0

K-BP: $\frac{R_1 R_3(g_m r_o+1)}{R_1 g_m r_o+R_1+R_3+r_o}$

Qz: 0

Wz: None

3.16 BP-16 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_3 L_L R_1 R}{C_3 L_3 L_L R_1 R_3 R_L g_m r_o s^2 + C_3 L_3 L_L R_1 R_3 R_L s^2 + C_3 L_3 L_L R_3 R_L r_o s^2 + C_L L_3 L_L R_1 R_3 R_L g_m r_o s^2 + C_L L_3 L_L R_1 R_3 R_L s^2 + C_L L_3 L_L R_3 R_L r_o s^2 + L_3 L_L R_1 R_3 g_m r_o s + L_3 L_L R_1 R$$

Parameters:

Q: $\frac{R_3 R_L \sqrt{\frac{L_3+L_L}{L_3 L_L (C_3+C_L)}} (C_3 R_1 g_m r_o + C_3 R_1 + C_3 r_o + C_L R_1 g_m r_o + C_L R_1 + C_L r_o)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$
wo: $\sqrt{\frac{L_3+L_L}{L_3 L_L (C_3+C_L)}}$
bandwidth: $\frac{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}{R_3 R_L (C_3 R_1 g_m r_o + C_3 R_1 + C_3 r_o + C_L R_1 g_m r_o + C_L R_1 + C_L r_o)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1 R_3 R_L (g_m r_o + 1)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$
Qz: 0
Wz: None

3.17 BP-17 $Z(s) = \left(L_1 s,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_3 s\,(g_m r_o + 1)}{C_L L_1 R_3 g_m r_o s^2 + C_L L_1 R_3 s^2 + C_L R_3 r_o s + L_1 g_m r_o s + L_1 s + R_3 + r_o}$$

Parameters:

Q: $\frac{C_L L_1 R_3 \sqrt{\frac{R_3+r_o}{C_L L_1 R_3 (g_m r_o+1)}} (g_m r_o+1)}{C_L R_3 r_o + L_1 g_m r_o + L_1}$
wo: $\sqrt{\frac{R_3+r_o}{C_L L_1 R_3 (g_m r_o+1)}}$
bandwidth: $\frac{C_L R_3 r_o + L_1 g_m r_o + L_1}{C_L L_1 R_3 (g_m r_o+1)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{L_1 R_3 (g_m r_o+1)}{C_L R_3 r_o + L_1 g_m r_o + L_1}$
Qz: 0
Wz: None

3.18 BP-18 $Z(s) = \left(L_1 s,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 R_3 R_L s\,(g_m r_o + 1)}{C_L L_1 R_3 R_L g_m r_o s^2 + C_L L_1 R_3 R_L s^2 + C_L R_3 R_L r_o s + L_1 R_3 g_m r_o s + L_1 R_3 s + L_1 R_L g_m r_o s + L_1 R_L s + R_3 R_L + R_3 r_o + R_L r_o}$$

Parameters:

Q: $\frac{C_L L_1 R_3 R_L \sqrt{\frac{R_3 R_L + R_3 r_o + R_L r_o}{C_L L_1 R_3 R_L (g_m r_o + 1)}} (g_m r_o + 1)}{C_L R_3 R_L r_o + L_1 R_3 g_m r_o + L_1 R_3 + L_1 R_L g_m r_o + L_1 R_L}$
wo: $\sqrt{\frac{R_3 R_L + R_3 r_o + R_L r_o}{C_L L_1 R_3 R_L (g_m r_o + 1)}}$
bandwidth: $\frac{C_L R_3 R_L r_o + L_1 R_3 g_m r_o + L_1 R_3 + L_1 R_L g_m r_o + L_1 R_L}{C_L L_1 R_3 R_L (g_m r_o + 1)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{L_1 R_3 R_L (g_m r_o + 1)}{C_L R_3 R_L r_o + L_1 R_3 g_m r_o + L_1 R_3 + L_1 R_L g_m r_o + L_1 R_L}$
Qz: 0
Wz: None

3.19 BP-19 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_L s \left(g_m r_o + 1\right)}{C_3 L_1 R_L g_m r_o s^2 + C_3 L_1 R_L s^2 + C_3 R_L r_o s + L_1 g_m r_o s + L_1 s + R_L + r_o}$$

Parameters:

Q: $\frac{C_3 L_1 R_L \sqrt{\frac{R_L + r_o}{C_3 L_1 R_L (g_m r_o + 1)}} (g_m r_o + 1)}{C_3 R_L r_o + L_1 g_m r_o + L_1}$
wo: $\sqrt{\frac{R_L + r_o}{C_3 L_1 R_L (g_m r_o + 1)}}$
bandwidth: $\frac{C_3 R_L r_o + L_1 g_m r_o + L_1}{C_3 L_1 R_L (g_m r_o + 1)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{L_1 R_L (g_m r_o + 1)}{C_3 R_L r_o + L_1 g_m r_o + L_1}$
Qz: 0
Wz: None

3.20 BP-20 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s \left(g_m r_o + 1\right)}{C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 r_o s + C_L L_1 g_m r_o s^2 + C_L L_1 s^2 + C_L r_o s + 1}$$

Parameters:

Q: $\frac{L_1\sqrt{\frac{1}{L_1(C_3g_mr_o+C_3+C_Lg_mr_o+C_L)}}(g_mr_o+1)}{r_o}$
wo: $\sqrt{\frac{1}{L_1(C_3g_mr_o+C_3+C_Lg_mr_o+C_L)}}$
bandwidth: $\frac{r_o}{L_1(g_mr_o+1)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{L_1(g_mr_o+1)}{r_o(C_3+C_L)}$
Qz: 0
Wz: None

3.21 BP-21 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 R_L s\,(g_m r_o + 1)}{C_3 L_1 R_L g_m r_o s^2 + C_3 L_1 R_L s^2 + C_3 R_L r_o s + C_L L_1 R_L g_m r_o s^2 + C_L L_1 R_L s^2 + C_L R_L r_o s + L_1 g_m r_o s + L_1 s + R_L + r_o}$$

Parameters:

Q: $\frac{L_1R_L\sqrt{\frac{R_L+r_o}{L_1R_L(C_3g_mr_o+C_3+C_Lg_mr_o+C_L)}}(C_3g_mr_o+C_3+C_Lg_mr_o+C_L)}{C_3R_Lr_o+C_LR_Lr_o+L_1g_mr_o+L_1}$
wo: $\sqrt{\frac{R_L+r_o}{L_1R_L(C_3g_mr_o+C_3+C_Lg_mr_o+C_L)}}$
bandwidth: $\frac{C_3R_Lr_o+C_LR_Lr_o+L_1g_mr_o+L_1}{L_1R_L(C_3g_mr_o+C_3+C_Lg_mr_o+C_L)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{L_1R_L(g_mr_o+1)}{C_3R_Lr_o+C_LR_Lr_o+L_1g_mr_o+L_1}$
Qz: 0
Wz: None

3.22 BP-22 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_3 R_L s\,(g_m r_o + 1)}{C_3 L_1 R_3 R_L g_m r_o s^2 + C_3 L_1 R_3 R_L s^2 + C_3 R_3 R_L r_o s + L_1 R_3 g_m r_o s + L_1 R_3 s + L_1 R_L g_m r_o s + L_1 R_L s + R_3 R_L + R_3 r_o + R_L r_o}$$

Parameters:

Q: $\frac{C_3 L_1 R_3 R_L \sqrt{\frac{R_3 R_L + R_3 r_o + R_L r_o}{C_3 L_1 R_3 R_L (g_m r_o + 1)}} (g_m r_o + 1)}{C_3 R_3 R_L r_o + L_1 R_3 g_m r_o + L_1 R_3 + L_1 R_L g_m r_o + L_1 R_L}$
wo: $\sqrt{\frac{R_3 R_L + R_3 r_o + R_L r_o}{C_3 L_1 R_3 R_L (g_m r_o + 1)}}$
bandwidth: $\frac{C_3 R_3 R_L r_o + L_1 R_3 g_m r_o + L_1 R_3 + L_1 R_L g_m r_o + L_1 R_L}{C_3 L_1 R_3 R_L (g_m r_o + 1)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{L_1 R_3 R_L (g_m r_o + 1)}{C_3 R_3 R_L r_o + L_1 R_3 g_m r_o + L_1 R_3 + L_1 R_L g_m r_o + L_1 R_L}$
Qz: 0
Wz: None

3.23 BP-23 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_3 s \left(g_m r_o + 1\right)}{C_3 L_1 R_3 g_m r_o s^2 + C_3 L_1 R_3 s^2 + C_3 R_3 r_o s + C_L L_1 R_3 g_m r_o s^2 + C_L L_1 R_3 s^2 + C_L R_3 r_o s + L_1 g_m r_o s + L_1 s + R_3 + r_o}$$

Parameters:

Q: $\frac{L_1 R_3 \sqrt{\frac{R_3 + r_o}{L_1 R_3 (C_3 g_m r_o + C_3 + C_L g_m r_o + C_L)}} (C_3 g_m r_o + C_3 + C_L g_m r_o + C_L)}{C_3 R_3 r_o + C_L R_3 r_o + L_1 g_m r_o + L_1}$
wo: $\sqrt{\frac{R_3 + r_o}{L_1 R_3 (C_3 g_m r_o + C_3 + C_L g_m r_o + C_L)}}$
bandwidth: $\frac{C_3 R_3 r_o + C_L R_3 r_o + L_1 g_m r_o + L_1}{L_1 R_3 (C_3 g_m r_o + C_3 + C_L g_m r_o + C_L)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{L_1 R_3 (g_m r_o + 1)}{C_3 R_3 r_o + C_L R_3 r_o + L_1 g_m r_o + L_1}$
Qz: 0
Wz: None

3.24 BP-24 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{L_1 R_3 R_L s \left(g_m r_o + 1\right)}{C_3 L_1 R_3 R_L g_m r_o s^2 + C_3 L_1 R_3 R_L s^2 + C_3 R_3 R_L r_o s + C_L L_1 R_3 R_L g_m r_o s^2 + C_L L_1 R_3 R_L s^2 + C_L R_3 R_L r_o s + L_1 R_3 g_m r_o s + L_1 R_3 s + L_1 R_L g_m r_o s + L_1 R_L s + R_3 R_L + R_3 r_o + R$$

Parameters:

Q: $\frac{L_1 R_3 R_L \sqrt{\frac{R_3 R_L + R_3 r_o + R_L r_o}{L_1 R_3 R_L (C_3 g_m r_o + C_3 + C_L g_m r_o + C_L)}} (C_3 g_m r_o + C_3 + C_L g_m r_o + C_L)}{C_3 R_3 R_L r_o + C_L R_3 R_L r_o + L_1 R_3 g_m r_o + L_1 R_3 + L_1 R_L g_m r_o + L_1 R_L}$

wo: $\sqrt{\frac{R_3 R_L + R_3 r_o + R_L r_o}{L_1 R_3 R_L (C_3 g_m r_o + C_3 + C_L g_m r_o + C_L)}}$

bandwidth: $\frac{C_3 R_3 R_L r_o + C_L R_3 R_L r_o + L_1 R_3 g_m r_o + L_1 R_3 + L_1 R_L g_m r_o + L_1 R_L}{L_1 R_3 R_L (C_3 g_m r_o + C_3 + C_L g_m r_o + C_L)}$

K-LP: 0

K-HP: 0

K-BP: $\frac{L_1 R_3 R_L (g_m r_o + 1)}{C_3 R_3 R_L r_o + C_L R_3 R_L r_o + L_1 R_3 g_m r_o + L_1 R_3 + L_1 R_L g_m r_o + L_1 R_L}$

Qz: 0

Wz: None

3.25 BP-25 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_3 R_L s\,(g_m r_o + 1)}{C_1 L_1 R_3 R_L s^2 + C_1 L_1 R_3 r_o s^2 + C_1 L_1 R_L r_o s^2 + L_1 R_3 g_m r_o s + L_1 R_3 s + L_1 R_L g_m r_o s + L_1 R_L s + R_3 R_L + R_3 r_o + R_L r_o}$$

Parameters:

Q: $\frac{C_1 \sqrt{\frac{1}{C_1 L_1}} (R_3 R_L + R_3 r_o + R_L r_o)}{R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}$

wo: $\sqrt{\frac{1}{C_1 L_1}}$

bandwidth: $\frac{R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}{C_1 (R_3 R_L + R_3 r_o + R_L r_o)}$

K-LP: 0

K-HP: 0

K-BP: $\frac{R_3 R_L}{R_3 + R_L}$

Qz: 0

Wz: None

3.26 BP-26 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_1 R_3 R_L s\,(g_m r_o + 1)}{C_1 L_1 R_1 R_3 R_L s^2 + C_1 L_1 R_1 R_3 r_o s^2 + C_1 L_1 R_1 R_L r_o s^2 + L_1 R_1 R_3 g_m r_o s + L_1 R_1 R_3 s + L_1 R_1 R_L g_m r_o s + L_1 R_1 R_L s + L_1 R_3 R_L s + L_1 R_3 r_o s + L_1 R_L r_o s + R_1 R_3 R_L + R_1 R_3 r_o +$$

Parameters:

Q: $\frac{C_1 R_1 \sqrt{\frac{1}{C_1 L_1}} (R_3 R_L + R_3 r_o + R_L r_o)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$
wo: $\sqrt{\frac{1}{C_1 L_1}}$
bandwidth: $\frac{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}{C_1 R_1 (R_3 R_L + R_3 r_o + R_L r_o)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1 R_3 R_L (g_m r_o + 1)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$
Qz: 0
Wz: None

4 LP

4.1 LP-1 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 \left(g_m r_o + 1\right)}{C_1 C_L R_3 r_o s^2 + C_1 R_3 s + C_1 r_o s + C_L R_3 g_m r_o s + C_L R_3 s + g_m r_o + 1}$$

Parameters:

Q: $\frac{C_1 C_L R_3 r_o \sqrt{\frac{g_m r_o + 1}{C_1 C_L R_3 r_o}}}{C_1 R_3 + C_1 r_o + C_L R_3 g_m r_o + C_L R_3}$
wo: $\sqrt{\frac{g_m r_o + 1}{C_1 C_L R_3 r_o}}$
bandwidth: $\frac{C_1 R_3 + C_1 r_o + C_L R_3 g_m r_o + C_L R_3}{C_1 C_L R_3 r_o}$
K-LP: R_3
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.2 LP-2 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_3 R_L \left(g_m r_o + 1\right)}{C_1 C_L R_3 R_L r_o s^2 + C_1 R_3 R_L s + C_1 R_3 r_o s + C_1 R_L r_o s + C_L R_3 R_L g_m r_o s + C_L R_3 R_L s + R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}$$

Parameters:

Q: $\frac{C_1 C_L R_3 R_L r_o \sqrt{\frac{R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}{C_1 C_L R_3 R_L r_o}}}{C_1 R_3 R_L + C_1 R_3 r_o + C_1 R_L r_o + C_L R_3 R_L g_m r_o + C_L R_3 R_L}$
wo: $\sqrt{\frac{R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}{C_1 C_L R_3 R_L r_o}}$
bandwidth: $\frac{C_1 R_3 R_L + C_1 R_3 r_o + C_1 R_L r_o + C_L R_3 R_L g_m r_o + C_L R_3 R_L}{C_1 C_L R_3 R_L r_o}$
K-LP: $\frac{R_3 R_L}{R_3 + R_L}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.3 LP-3 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L \left(g_m r_o + 1\right)}{C_1 C_3 R_L r_o s^2 + C_1 R_L s + C_1 r_o s + C_3 R_L g_m r_o s + C_3 R_L s + g_m r_o + 1}$$

Parameters:

Q: $\frac{C_1 C_3 R_L r_o \sqrt{\frac{g_m r_o + 1}{C_1 C_3 R_L r_o}}}{C_1 R_L + C_1 r_o + C_3 R_L g_m r_o + C_3 R_L}$
wo: $\sqrt{\frac{g_m r_o + 1}{C_1 C_3 R_L r_o}}$
bandwidth: $\frac{C_1 R_L + C_1 r_o + C_3 R_L g_m r_o + C_3 R_L}{C_1 C_3 R_L r_o}$
K-LP: R_L
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.4 LP-4 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

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

Parameters:

Q: $\frac{C_1 R_L r_o \sqrt{\frac{g_m r_o+1}{C_1 R_L r_o (C_3+C_L)}}(C_3+C_L)}{C_1 R_L + C_1 r_o + C_3 R_L g_m r_o + C_3 R_L + C_L R_L g_m r_o + C_L R_L}$
wo: $\sqrt{\frac{g_m r_o+1}{C_1 R_L r_o (C_3+C_L)}}$
bandwidth: $\frac{C_1 R_L + C_1 r_o + C_3 R_L g_m r_o + C_3 R_L + C_L R_L g_m r_o + C_L R_L}{C_1 R_L r_o (C_3+C_L)}$
K-LP: R_L
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.5 LP-5 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_3 R_L\left(g_m r_o + 1\right)}{C_1 C_3 R_3 R_L r_o s^2 + C_1 R_3 R_L s + C_1 R_3 r_o s + C_1 R_L r_o s + C_3 R_3 R_L g_m r_o s + C_3 R_3 R_L s + R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}$$

Parameters:

Q: $\frac{C_1 C_3 R_3 R_L r_o \sqrt{\frac{R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}{C_1 C_3 R_3 R_L r_o}}}{C_1 R_3 R_L + C_1 R_3 r_o + C_1 R_L r_o + C_3 R_3 R_L g_m r_o + C_3 R_3 R_L}$
wo: $\sqrt{\frac{R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}{C_1 C_3 R_3 R_L r_o}}$
bandwidth: $\frac{C_1 R_3 R_L + C_1 R_3 r_o + C_1 R_L r_o + C_3 R_3 R_L g_m r_o + C_3 R_3 R_L}{C_1 C_3 R_3 R_L r_o}$
K-LP: $\frac{R_3 R_L}{R_3 + R_L}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.6 LP-6 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3\left(g_m r_o + 1\right)}{C_1 C_3 R_3 r_o s^2 + C_1 C_L R_3 r_o s^2 + C_1 R_3 s + C_1 r_o s + C_3 R_3 g_m r_o s + C_3 R_3 s + C_L R_3 g_m r_o s + C_L R_3 s + g_m r_o + 1}$$

Parameters:

Q: $\frac{C_1 R_3 r_o \sqrt{\frac{g_m r_o+1}{C_1 R_3 r_o (C_3+C_L)}}(C_3+C_L)}{C_1 R_3 + C_1 r_o + C_3 R_3 g_m r_o + C_3 R_3 + C_L R_3 g_m r_o + C_L R_3}$
wo: $\sqrt{\frac{g_m r_o+1}{C_1 R_3 r_o (C_3+C_L)}}$
bandwidth: $\frac{C_1 R_3 + C_1 r_o + C_3 R_3 g_m r_o + C_3 R_3 + C_L R_3 g_m r_o + C_L R_3}{C_1 R_3 r_o (C_3+C_L)}$
K-LP: R_3
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.7 LP-7 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_3 R_L\left(g_m r_o + 1\right)}{C_1 C_3 R_3 R_L r_o s^2 + C_1 C_L R_3 R_L r_o s^2 + C_1 R_3 R_L s + C_1 R_3 r_o s + C_1 R_L r_o s + C_3 R_3 R_L g_m r_o s + C_3 R_3 R_L s + C_L R_3 R_L g_m r_o s + C_L R_3 R_L s + R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}$$

Parameters:

Q: $\frac{C_1 R_3 R_L r_o \sqrt{\frac{R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}{C_1 R_3 R_L r_o (C_3+C_L)}}(C_3+C_L)}{C_1 R_3 R_L + C_1 R_3 r_o + C_1 R_L r_o + C_3 R_3 R_L g_m r_o + C_3 R_3 R_L + C_L R_3 R_L g_m r_o + C_L R_3 R_L}$
wo: $\sqrt{\frac{R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}{C_1 R_3 R_L r_o (C_3+C_L)}}$
bandwidth: $\frac{C_1 R_3 R_L + C_1 R_3 r_o + C_1 R_L r_o + C_3 R_3 R_L g_m r_o + C_3 R_3 R_L + C_L R_3 R_L g_m r_o + C_L R_3 R_L}{C_1 R_3 R_L r_o (C_3+C_L)}$
K-LP: $\frac{R_3 R_L}{R_3+R_L}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.8 LP-8 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_Ls}\right)$

$$H(s) = \frac{R_1R_3\left(g_mr_o+1\right)}{C_1C_LR_1R_3r_os^2 + C_1R_1R_3s + C_1R_1r_os + C_LR_1R_3g_mr_os + C_LR_1R_3s + C_LR_3r_os + R_1g_mr_o + R_1 + R_3 + r_o}$$

Parameters:

Q: $\frac{C_1C_LR_1R_3r_o\sqrt{\frac{R_1g_mr_o+R_1+R_3+r_o}{C_1C_LR_1R_3r_o}}}{C_1R_1R_3+C_1R_1r_o+C_LR_1R_3g_mr_o+C_LR_1R_3+C_LR_3r_o}$
wo: $\sqrt{\frac{R_1g_mr_o+R_1+R_3+r_o}{C_1C_LR_1R_3r_o}}$
bandwidth: $\frac{C_1R_1R_3+C_1R_1r_o+C_LR_1R_3g_mr_o+C_LR_1R_3+C_LR_3r_o}{C_1C_LR_1R_3r_o}$
K-LP: $\frac{R_1R_3(g_mr_o+1)}{R_1g_mr_o+R_1+R_3+r_o}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.9 LP-9 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{R_1R_3R_L\left(g_mr_o+1\right)}{C_1C_LR_1R_3R_Lr_os^2 + C_1R_1R_3R_Ls + C_1R_1R_3r_os + C_1R_1R_Lr_os + C_LR_1R_3R_Lg_mr_os + C_LR_1R_3R_Ls + C_LR_3R_Lr_os + R_1R_3g_mr_o + R_1R_3 + R_1R_Lg_mr_o + R_1R_L + R_3R_L + \cdots}$$

Parameters:

Q: $\frac{C_1C_LR_1R_3R_Lr_o\sqrt{\frac{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}{C_1C_LR_1R_3R_Lr_o}}}{C_1R_1R_3R_L+C_1R_1R_3r_o+C_1R_1R_Lr_o+C_LR_1R_3R_Lg_mr_o+C_LR_1R_3R_L+C_LR_3R_Lr_o}$
wo: $\sqrt{\frac{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}{C_1C_LR_1R_3R_Lr_o}}$
bandwidth: $\frac{C_1R_1R_3R_L+C_1R_1R_3r_o+C_1R_1R_Lr_o+C_LR_1R_3R_Lg_mr_o+C_LR_1R_3R_L+C_LR_3R_Lr_o}{C_1C_LR_1R_3R_Lr_o}$
K-LP: $\frac{R_1R_3R_L(g_mr_o+1)}{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.10 LP-10 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ \frac{1}{C_3s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1R_L\left(g_mr_o+1\right)}{C_1C_3R_1R_Lr_os^2 + C_1R_1R_Ls + C_1R_1r_os + C_3R_1R_Lg_mr_os + C_3R_1R_Ls + C_3R_Lr_os + R_1g_mr_o + R_1 + R_L + r_o}$$

Parameters:

Q: $\frac{C_1C_3R_1R_Lr_o\sqrt{\frac{R_1g_mr_o+R_1+R_L+r_o}{C_1C_3R_1R_Lr_o}}}{C_1R_1R_L+C_1R_1r_o+C_3R_1R_Lg_mr_o+C_3R_1R_L+C_3R_Lr_o}$
wo: $\sqrt{\frac{R_1g_mr_o+R_1+R_L+r_o}{C_1C_3R_1R_Lr_o}}$
bandwidth: $\frac{C_1R_1R_L+C_1R_1r_o+C_3R_1R_Lg_mr_o+C_3R_1R_L+C_3R_Lr_o}{C_1C_3R_1R_Lr_o}$
K-LP: $\frac{R_1R_L(g_mr_o+1)}{R_1g_mr_o+R_1+R_L+r_o}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.11 LP-11 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ \frac{1}{C_3s},\ \infty,\ \infty,\ \frac{1}{C_Ls}\right)$

$$H(s) = \frac{R_1\left(g_mr_o+1\right)}{C_1C_3R_1r_os^2 + C_1C_LR_1r_os^2 + C_1R_1s + C_3R_1g_mr_os + C_3R_1s + C_3r_os + C_LR_1g_mr_os + C_LR_1s + C_Lr_os + 1}$$

Parameters:

Q: $\frac{C_1R_1r_o\sqrt{\frac{1}{C_1R_1r_o(C_3+C_L)}}(C_3+C_L)}{C_1R_1+C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o}$
wo: $\sqrt{\frac{1}{C_1R_1r_o(C_3+C_L)}}$
bandwidth: $\frac{C_1R_1+C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o}{C_1R_1r_o(C_3+C_L)}$
K-LP: $R_1\left(g_mr_o+1\right)$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.12 LP-12 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ \frac{1}{C_3s},\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{R_1R_L\left(g_mr_o+1\right)}{C_1C_3R_1R_Lr_os^2+C_1C_LR_1R_Lr_os^2+C_1R_1R_Ls+C_1R_1r_os+C_3R_1R_Lg_mr_os+C_3R_1R_Ls+C_3R_Lr_os+C_LR_1R_Lg_mr_os+C_LR_1R_Ls+C_LR_Lr_os+R_1g_mr_o+R_1+R_L+r_o}$$

Parameters:

Q: $\frac{C_1R_1R_Lr_o\sqrt{\frac{R_1g_mr_o+R_1+R_L+r_o}{C_1R_1R_Lr_o(C_3+C_L)}}(C_3+C_L)}{C_1R_1R_L+C_1R_1r_o+C_3R_1R_Lg_mr_o+C_3R_1R_L+C_3R_Lr_o+C_LR_1R_Lg_mr_o+C_LR_1R_L+C_LR_Lr_o}$
wo: $\sqrt{\frac{R_1g_mr_o+R_1+R_L+r_o}{C_1R_1R_Lr_o(C_3+C_L)}}$
bandwidth: $\frac{C_1R_1R_L+C_1R_1r_o+C_3R_1R_Lg_mr_o+C_3R_1R_L+C_3R_Lr_o+C_LR_1R_Lg_mr_o+C_LR_1R_L+C_LR_Lr_o}{C_1R_1R_Lr_o(C_3+C_L)}$
K-LP: $\frac{R_1R_L(g_mr_o+1)}{R_1g_mr_o+R_1+R_L+r_o}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.13 LP-13 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1R_3R_L\left(g_mr_o+1\right)}{C_1C_3R_1R_3R_Lr_os^2+C_1R_1R_3R_Ls+C_1R_1R_3r_os+C_1R_1R_Lr_os+C_3R_1R_3R_Lg_mr_os+C_3R_1R_3R_Ls+C_3R_3R_Lr_os+R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R}$$

Parameters:

Q: $\frac{C_1C_3R_1R_3R_Lr_o\sqrt{\frac{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}{C_1C_3R_1R_3R_Lr_o}}}{C_1R_1R_3R_L+C_1R_1R_3r_o+C_1R_1R_Lr_o+C_3R_1R_3R_Lg_mr_o+C_3R_1R_3R_L+C_3R_3R_Lr_o}$
wo: $\sqrt{\frac{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}{C_1C_3R_1R_3R_Lr_o}}$
bandwidth: $\frac{C_1R_1R_3R_L+C_1R_1R_3r_o+C_1R_1R_Lr_o+C_3R_1R_3R_Lg_mr_o+C_3R_1R_3R_L+C_3R_3R_Lr_o}{C_1C_3R_1R_3R_Lr_o}$
K-LP: $\frac{R_1R_3R_L(g_mr_o+1)}{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.14 LP-14 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ \frac{1}{C_Ls}\right)$

$$H(s) = \frac{R_1R_3\left(g_mr_o+1\right)}{C_1C_3R_1R_3r_os^2+C_1C_LR_1R_3r_os^2+C_1R_1R_3s+C_1R_1r_os+C_3R_1R_3g_mr_os+C_3R_1R_3s+C_3R_3r_os+C_LR_1R_3g_mr_os+C_LR_1R_3s+C_LR_3r_os+R_1g_mr_o+R_1+R_3+r_o}$$

Parameters:

Q: $\frac{C_1R_1R_3r_o\sqrt{\frac{R_1g_mr_o+R_1+R_3+r_o}{C_1R_1R_3r_o(C_3+C_L)}}(C_3+C_L)}{C_1R_1R_3+C_1R_1r_o+C_3R_1R_3g_mr_o+C_3R_1R_3+C_3R_3r_o+C_LR_1R_3g_mr_o+C_LR_1R_3+C_LR_3r_o}$
wo: $\sqrt{\frac{R_1g_mr_o+R_1+R_3+r_o}{C_1R_1R_3r_o(C_3+C_L)}}$
bandwidth: $\frac{C_1R_1R_3+C_1R_1r_o+C_3R_1R_3g_mr_o+C_3R_1R_3+C_3R_3r_o+C_LR_1R_3g_mr_o+C_LR_1R_3+C_LR_3r_o}{C_1R_1R_3r_o(C_3+C_L)}$
K-LP: $\frac{R_1R_3(g_mr_o+1)}{R_1g_mr_o+R_1+R_3+r_o}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.15 LP-15 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{R_1R_3R_L\left(g_mr_o+1\right)}{C_1C_3R_1R_3R_Lr_os^2+C_1C_LR_1R_3R_Lr_os^2+C_1R_1R_3R_Ls+C_1R_1R_3r_os+C_1R_1R_Lr_os+C_3R_1R_3R_Lg_mr_os+C_3R_1R_3R_Ls+C_3R_3R_Lr_os+C_LR_1R_3R_Lg_mr_os+C_LR_1R_3R_Ls}$$

Parameters:

Q: $\frac{C_1R_1R_3R_Lr_o\sqrt{\frac{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}{C_1R_1R_3R_Lr_o(C_3+C_L)}}(C_3+C_L)}{C_1R_1R_3R_L+C_1R_1R_3r_o+C_1R_1R_Lr_o+C_3R_1R_3R_Lg_mr_o+C_3R_1R_3R_L+C_3R_3R_Lr_o+C_LR_1R_3R_Lg_mr_o+C_LR_1R_3R_L+C_LR_3R_Lr_o}$
wo: $\sqrt{\frac{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}{C_1R_1R_3R_Lr_o(C_3+C_L)}}$
bandwidth: $\frac{C_1R_1R_3R_L+C_1R_1R_3r_o+C_1R_1R_Lr_o+C_3R_1R_3R_Lg_mr_o+C_3R_1R_3R_L+C_3R_3R_Lr_o+C_LR_1R_3R_Lg_mr_o+C_LR_1R_3R_L+C_LR_3R_Lr_o}{C_1R_1R_3R_Lr_o(C_3+C_L)}$
K-LP: $\frac{R_1R_3R_L(g_mr_o+1)}{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

5 BS

5.1 BS-1 $Z(s) = \left(R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 R_3 \left(g_m r_o + 1\right)\left(C_L L_L s^2 + 1\right)}{C_L L_L R_1 g_m r_o s^2 + C_L L_L R_1 s^2 + C_L L_L R_3 s^2 + C_L L_L r_o s^2 + C_L R_1 R_3 g_m r_o s + C_L R_1 R_3 s + C_L R_3 r_o s + R_1 g_m r_o + R_1 + R_3 + r_o}$$

Parameters:

Q: $\frac{L_L \sqrt{\frac{1}{C_L L_L}} (R_1 g_m r_o + R_1 + R_3 + r_o)}{R_3 (R_1 g_m r_o + R_1 + r_o)}$
wo: $\sqrt{\frac{1}{C_L L_L}}$
bandwidth: $\frac{R_3 (R_1 g_m r_o + R_1 + r_o)}{L_L (R_1 g_m r_o + R_1 + R_3 + r_o)}$
K-LP: $\frac{R_1 R_3 (g_m r_o + 1)}{R_1 g_m r_o + R_1 + R_3 + r_o}$
K-HP: $\frac{R_1 R_3 (g_m r_o + 1)}{R_1 g_m r_o + R_1 + R_3 + r_o}$
K-BP: 0
Qz: None
Wz: $\sqrt{\frac{1}{C_L L_L}}$

5.2 BS-2 $Z(s) = \left(R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

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

Parameters:

Q: $\frac{L_L \sqrt{\frac{1}{C_L L_L}} (R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o)}{R_3 R_L (R_1 g_m r_o + R_1 + r_o)}$
wo: $\sqrt{\frac{1}{C_L L_L}}$
bandwidth: $\frac{R_3 R_L (R_1 g_m r_o + R_1 + r_o)}{L_L (R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o)}$
K-LP: $\frac{R_1 R_3 R_L (g_m r_o + 1)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$
K-HP: $\frac{R_1 R_3 R_L (g_m r_o + 1)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$
K-BP: 0

Qz: None
Wz: $\sqrt{\frac{1}{C_L L_L}}$

5.3 BS-3 $Z(s) = \left(R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1 R_L \left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 R_1 g_m r_o s^2 + C_3 L_3 R_1 s^2 + C_3 L_3 R_L s^2 + C_3 L_3 r_o s^2 + C_3 R_1 R_L g_m r_o s + C_3 R_1 R_L s + C_3 R_L r_o s + R_1 g_m r_o + R_1 + R_L + r_o}$$

Parameters:

Q: $\frac{L_3 \sqrt{\frac{1}{C_3 L_3}} (R_1 g_m r_o + R_1 + R_L + r_o)}{R_L (R_1 g_m r_o + R_1 + r_o)}$
wo: $\sqrt{\frac{1}{C_3 L_3}}$
bandwidth: $\frac{R_L (R_1 g_m r_o + R_1 + r_o)}{L_3 (R_1 g_m r_o + R_1 + R_L + r_o)}$
K-LP: $\frac{R_1 R_L (g_m r_o + 1)}{R_1 g_m r_o + R_1 + R_L + r_o}$
K-HP: $\frac{R_1 R_L (g_m r_o + 1)}{R_1 g_m r_o + R_1 + R_L + r_o}$
K-BP: 0
Qz: None
Wz: $\sqrt{\frac{1}{C_3 L_3}}$

5.4 BS-4 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1 R_3 R_L \left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 R_1 R_3 g_m r_o s^2 + C_3 L_3 R_1 R_3 s^2 + C_3 L_3 R_1 R_L g_m r_o s^2 + C_3 L_3 R_1 R_L s^2 + C_3 L_3 R_3 R_L s^2 + C_3 L_3 R_3 r_o s^2 + C_3 L_3 R_L r_o s^2 + C_3 R_1 R_3 R_L g_m r_o s + C_3 R_1 R_3 R_L s + C_3 R_3 R_L r_o s +$$

Parameters:

Q: $\frac{L_3 \sqrt{\frac{1}{C_3 L_3}} (R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o)}{R_3 R_L (R_1 g_m r_o + R_1 + r_o)}$
wo: $\sqrt{\frac{1}{C_3 L_3}}$
bandwidth: $\frac{R_3 R_L (R_1 g_m r_o + R_1 + r_o)}{L_3 (R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o)}$
K-LP: $\frac{R_1 R_3 R_L (g_m r_o + 1)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$

K-HP: $\frac{R_1 R_3 R_L (g_m r_o + 1)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$
K-BP: 0
Qz: None
Wz: $\sqrt{\frac{1}{C_3 L_3}}$

5.5 BS-5 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_3 R_L \left(g_m r_o + 1\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 L_1 R_3 g_m r_o s^2 + C_1 L_1 R_3 s^2 + C_1 L_1 R_L g_m r_o s^2 + C_1 L_1 R_L s^2 + C_1 R_3 R_L s + C_1 R_3 r_o s + C_1 R_L r_o s + R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}$$

Parameters:

Q: $\frac{L_1 \sqrt{\frac{1}{C_1 L_1}} (R_3 g_m r_o + R_3 + R_L g_m r_o + R_L)}{R_3 R_L + R_3 r_o + R_L r_o}$
wo: $\sqrt{\frac{1}{C_1 L_1}}$
bandwidth: $\frac{R_3 R_L + R_3 r_o + R_L r_o}{L_1 (R_3 g_m r_o + R_3 + R_L g_m r_o + R_L)}$
K-LP: $\frac{R_3 R_L}{R_3 + R_L}$
K-HP: $\frac{R_3 R_L}{R_3 + R_L}$
K-BP: 0
Qz: None
Wz: $\sqrt{\frac{1}{C_1 L_1}}$

5.6 BS-6 $Z(s) = \left(\frac{R_1 \left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1 R_3 R_L \left(g_m r_o + 1\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 L_1 R_1 R_3 g_m r_o s^2 + C_1 L_1 R_1 R_3 s^2 + C_1 L_1 R_1 R_L g_m r_o s^2 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R_3 R_L s^2 + C_1 L_1 R_3 r_o s^2 + C_1 L_1 R_L r_o s^2 + C_1 R_1 R_3 R_L s + C_1 R_1 R_3 r_o s + C_1 R_1 R_L r_o s + R_1 R_3}$$

Parameters:

Q: $\frac{L_1 \sqrt{\frac{1}{C_1 L_1}} (R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o)}{R_1 (R_3 R_L + R_3 r_o + R_L r_o)}$
wo: $\sqrt{\frac{1}{C_1 L_1}}$
bandwidth: $\frac{R_1 (R_3 R_L + R_3 r_o + R_L r_o)}{L_1 (R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o)}$

K-LP: $\frac{R_1 R_3 R_L (g_m r_o+1)}{R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o}$
K-HP: $\frac{R_1 R_3 R_L (g_m r_o+1)}{R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o}$
K-BP: 0
Qz: None
Wz: $\sqrt{\frac{1}{C_1 L_1}}$

6 GE

6.1 GE-1 $Z(s) = \left(R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

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

Parameters:

Q: $\frac{L_L \sqrt{\frac{1}{C_L L_L}} (R_1 g_m r_o+R_1+R_3+r_o)}{R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o}$
wo: $\sqrt{\frac{1}{C_L L_L}}$
bandwidth: $\frac{R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o}{L_L (R_1 g_m r_o+R_1+R_3+r_o)}$
K-LP: $\frac{R_1 R_3 (g_m r_o+1)}{R_1 g_m r_o+R_1+R_3+r_o}$
K-HP: $\frac{R_1 R_3 (g_m r_o+1)}{R_1 g_m r_o+R_1+R_3+r_o}$
K-BP: $\frac{R_1 R_3 R_L (g_m r_o+1)}{R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o}$
Qz: $\frac{L_L \sqrt{\frac{1}{C_L L_L}}}{R_L}$
Wz: $\sqrt{\frac{1}{C_L L_L}}$

6.2 GE-2 $Z(s) = \left(R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{R_1 R_3 \left(g_m r_o + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_L L_L R_1 R_3 g_m r_o s^2 + C_L L_L R_1 R_3 s^2 + C_L L_L R_1 R_L g_m r_o s^2 + C_L L_L R_1 R_L s^2 + C_L L_L R_3 R_L s^2 + C_L L_L R_3 r_o s^2 + C_L L_L R_L r_o s^2 + L_L R_1 g_m r_o s + L_L R_1 s + L_L R_3 s + L_L r_o s + R}$$

Parameters:

Q: $\frac{C_L\sqrt{\frac{1}{C_L L_L}}(R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o)}{R_1g_mr_o+R_1+R_3+r_o}$

wo: $\sqrt{\frac{1}{C_L L_L}}$

bandwidth: $\frac{R_1g_mr_o+R_1+R_3+r_o}{C_L(R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o)}$

K-LP: $\frac{R_1R_3R_L(g_mr_o+1)}{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}$

K-HP: $\frac{R_1R_3R_L(g_mr_o+1)}{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}$

K-BP: $\frac{R_1R_3(g_mr_o+1)}{R_1g_mr_o+R_1+R_3+r_o}$

Qz: $C_LR_L\sqrt{\frac{1}{C_L L_L}}$

Wz: $\sqrt{\frac{1}{C_L L_L}}$

6.3 GE-3 $Z(s) = \left(R_1,\ \infty,\ L_3s + R_3 + \frac{1}{C_3s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1R_L\left(g_mr_o+1\right)\left(C_3L_3s^2+C_3R_3s+1\right)}{C_3L_3R_1g_mr_os^2+C_3L_3R_1s^2+C_3L_3R_Ls^2+C_3L_3r_os^2+C_3R_1R_3g_mr_os+C_3R_1R_3s+C_3R_1R_Lg_mr_os+C_3R_1R_Ls+C_3R_3R_Ls+C_3R_3r_os+C_3R_Lr_os+R_1g_mr_o+R_1+R_1}$$

Parameters:

Q: $\frac{L_3\sqrt{\frac{1}{C_3L_3}}(R_1g_mr_o+R_1+R_L+r_o)}{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}$

wo: $\sqrt{\frac{1}{C_3L_3}}$

bandwidth: $\frac{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}{L_3(R_1g_mr_o+R_1+R_L+r_o)}$

K-LP: $\frac{R_1R_L(g_mr_o+1)}{R_1g_mr_o+R_1+R_L+r_o}$

K-HP: $\frac{R_1R_L(g_mr_o+1)}{R_1g_mr_o+R_1+R_L+r_o}$

K-BP: $\frac{R_1R_3R_L(g_mr_o+1)}{R_1R_3g_mr_o+R_1R_3+R_1R_Lg_mr_o+R_1R_L+R_3R_L+R_3r_o+R_Lr_o}$

Qz: $\frac{L_3\sqrt{\frac{1}{C_3L_3}}}{R_3}$

Wz: $\sqrt{\frac{1}{C_3L_3}}$

6.4 GE-4 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1 R_L \left(g_m r_o + 1\right)\left(C_3 L_3 R_3 s^2 + L_3 s + R_3\right)}{C_3 L_3 R_1 R_3 g_m r_o s^2 + C_3 L_3 R_1 R_3 s^2 + C_3 L_3 R_1 R_L g_m r_o s^2 + C_3 L_3 R_1 R_L s^2 + C_3 L_3 R_3 R_L s^2 + C_3 L_3 R_3 r_o s^2 + C_3 L_3 R_L r_o s^2 + L_3 R_1 g_m r_o s + L_3 R_1 s + L_3 R_L s + L_3 r_o s + R_1 R_3 g_m}$$

Parameters:

Q: $\frac{C_3\sqrt{\frac{1}{C_3 L_3}}(R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o)}{R_1 g_m r_o + R_1 + R_L + r_o}$

wo: $\sqrt{\frac{1}{C_3 L_3}}$

bandwidth: $\frac{R_1 g_m r_o + R_1 + R_L + r_o}{C_3(R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o)}$

K-LP: $\frac{R_1 R_3 R_L(g_m r_o + 1)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$

K-HP: $\frac{R_1 R_3 R_L(g_m r_o + 1)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$

K-BP: $\frac{R_1 R_L(g_m r_o + 1)}{R_1 g_m r_o + R_1 + R_L + r_o}$

Qz: $C_3 R_3\sqrt{\frac{1}{C_3 L_3}}$

Wz: $\sqrt{\frac{1}{C_3 L_3}}$

6.5 GE-5 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_3 R_L \left(g_m r_o + 1\right)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{C_1 L_1 R_3 g_m r_o s^2 + C_1 L_1 R_3 s^2 + C_1 L_1 R_L g_m r_o s^2 + C_1 L_1 R_L s^2 + C_1 R_1 R_3 g_m r_o s + C_1 R_1 R_3 s + C_1 R_1 R_L g_m r_o s + C_1 R_1 R_L s + C_1 R_3 R_L s + C_1 R_3 r_o s + C_1 R_L r_o s + R_3 g_m r_o + R_3}$$

Parameters:

Q: $\frac{L_1\sqrt{\frac{1}{C_1 L_1}}(R_3 g_m r_o + R_3 + R_L g_m r_o + R_L)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$

wo: $\sqrt{\frac{1}{C_1 L_1}}$

bandwidth: $\frac{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}{L_1(R_3 g_m r_o + R_3 + R_L g_m r_o + R_L)}$

K-LP: $\frac{R_3 R_L}{R_3 + R_L}$

K-HP: $\frac{R_3 R_L}{R_3 + R_L}$

K-BP: $\frac{R_1 R_3 R_L(g_m r_o + 1)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$

Qz: $\frac{L_1\sqrt{\frac{1}{C_1 L_1}}}{R_1}$

Wz: $\sqrt{\frac{1}{C_1 L_1}}$

6.6 GE-6 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_3 R_L \left(g_m r_o + 1\right)\left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1 L_1 R_1 R_3 g_m r_o s^2 + C_1 L_1 R_1 R_3 s^2 + C_1 L_1 R_1 R_L g_m r_o s^2 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R_3 R_L s^2 + C_1 L_1 R_3 r_o s^2 + C_1 L_1 R_L r_o s^2 + L_1 R_3 g_m r_o s + L_1 R_3 s + L_1 R_L g_m r_o s + L_1 R_L s + R}$$

Parameters:

Q: $\frac{C_1\sqrt{\frac{1}{C_1 L_1}}(R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o)}{R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}$

wo: $\sqrt{\frac{1}{C_1 L_1}}$

bandwidth: $\frac{R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}{C_1(R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o)}$

K-LP: $\frac{R_1 R_3 R_L (g_m r_o + 1)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$

K-HP: $\frac{R_1 R_3 R_L (g_m r_o + 1)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$

K-BP: $\frac{R_3 R_L}{R_3 + R_L}$

Qz: $C_1 R_1 \sqrt{\frac{1}{C_1 L_1}}$

Wz: $\sqrt{\frac{1}{C_1 L_1}}$

7 AP

8 INVALID-NUMER

8.1 INVALID-NUMER-1 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right)\left(C_L R_L s + 1\right)}{C_3 C_L R_1 R_L g_m r_o s^2 + C_3 C_L R_1 R_L s^2 + C_3 C_L R_L r_o s^2 + C_3 R_1 g_m r_o s + C_3 R_1 s + C_3 r_o s + C_L R_1 g_m r_o s + C_L R_1 s + C_L R_L s + C_L r_o s + 1}$$

Parameters:

Q: $\frac{C_3C_LR_L\sqrt{\frac{1}{C_3C_LR_L(R_1g_mr_o+R_1+r_o)}}(R_1g_mr_o+R_1+r_o)}{C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_LR_L+C_Lr_o}$
wo: $\sqrt{\frac{1}{C_3C_LR_L(R_1g_mr_o+R_1+r_o)}}$
bandwidth: $\frac{C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_LR_L+C_Lr_o}{C_3C_LR_L(R_1g_mr_o+R_1+r_o)}$
K-LP: $R_1\left(g_mr_o+1\right)$
K-HP: 0
K-BP: $\frac{C_LR_1R_L(g_mr_o+1)}{C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_LR_L+C_Lr_o}$
Qz: 0
Wz: None

8.2 INVALID-NUMER-2 $Z(s)=\left(R_1,\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ R_L+\frac{1}{C_Ls}\right)$

$$H(s)=\frac{R_1R_3\left(g_mr_o+1\right)\left(C_LR_Ls+1\right)}{C_3C_LR_1R_3R_Lg_mr_os^2+C_3C_LR_1R_3R_Ls^2+C_3C_LR_3R_Lr_os^2+C_3R_1R_3g_mr_os+C_3R_1R_3s+C_3R_3r_os+C_LR_1R_3g_mr_os+C_LR_1R_3s+C_LR_1R_Lg_mr_os+C_LR_1R_Ls+C_LR_3$$

Parameters:

Q: $\frac{C_3C_LR_3R_L\sqrt{\frac{R_1g_mr_o+R_1+R_3+r_o}{C_3C_LR_3R_L(R_1g_mr_o+R_1+r_o)}}(R_1g_mr_o+R_1+r_o)}{C_3R_1R_3g_mr_o+C_3R_1R_3+C_3R_3r_o+C_LR_1R_3g_mr_o+C_LR_1R_3+C_LR_1R_Lg_mr_o+C_LR_1R_L+C_LR_3R_L+C_LR_3r_o+C_LR_Lr_o}$
wo: $\sqrt{\frac{R_1g_mr_o+R_1+R_3+r_o}{C_3C_LR_3R_L(R_1g_mr_o+R_1+r_o)}}$
bandwidth: $\frac{C_3R_1R_3g_mr_o+C_3R_1R_3+C_3R_3r_o+C_LR_1R_3g_mr_o+C_LR_1R_3+C_LR_1R_Lg_mr_o+C_LR_1R_L+C_LR_3R_L+C_LR_3r_o+C_LR_Lr_o}{C_3C_LR_3R_L(R_1g_mr_o+R_1+r_o)}$
K-LP: $\frac{R_1R_3(g_mr_o+1)}{R_1g_mr_o+R_1+R_3+r_o}$
K-HP: 0
K-BP: $\frac{C_LR_1R_3R_L(g_mr_o+1)}{C_3R_1R_3g_mr_o+C_3R_1R_3+C_3R_3r_o+C_LR_1R_3g_mr_o+C_LR_1R_3+C_LR_1R_Lg_mr_o+C_LR_1R_L+C_LR_3R_L+C_LR_3r_o+C_LR_Lr_o}$
Qz: 0
Wz: None

8.3 INVALID-NUMER-3 $Z(s)=\left(R_1,\ \infty,\ R_3+\frac{1}{C_3s},\ \infty,\ \infty,\ \frac{1}{C_Ls}\right)$

$$H(s)=\frac{R_1\left(g_mr_o+1\right)\left(C_3R_3s+1\right)}{C_3C_LR_1R_3g_mr_os^2+C_3C_LR_1R_3s^2+C_3C_LR_3r_os^2+C_3R_1g_mr_os+C_3R_1s+C_3R_3s+C_3r_os+C_LR_1g_mr_os+C_LR_1s+C_Lr_os+1}$$

Parameters:

Q: $\frac{C_3C_LR_3\sqrt{\frac{1}{C_3C_LR_3(R_1g_mr_o+R_1+r_o)}}(R_1g_mr_o+R_1+r_o)}{C_3R_1g_mr_o+C_3R_1+C_3R_3+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o}$
wo: $\sqrt{\frac{1}{C_3C_LR_3(R_1g_mr_o+R_1+r_o)}}$
bandwidth: $\frac{C_3R_1g_mr_o+C_3R_1+C_3R_3+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o}{C_3C_LR_3(R_1g_mr_o+R_1+r_o)}$
K-LP: $R_1\left(g_mr_o+1\right)$
K-HP: 0
K-BP: $\frac{C_3R_1R_3(g_mr_o+1)}{C_3R_1g_mr_o+C_3R_1+C_3R_3+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o}$
Qz: 0
Wz: None

8.4 INVALID-NUMER-4 $Z(s)=\left(R_1,\ \infty,\ R_3+\frac{1}{C_3s},\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s)=\frac{R_1R_L\left(g_mr_o+1\right)\left(C_3R_3s+1\right)}{C_3C_LR_1R_3R_Lg_mr_os^2+C_3C_LR_1R_3R_Ls^2+C_3C_LR_3R_Lr_os^2+C_3R_1R_3g_mr_os+C_3R_1R_3s+C_3R_1R_Lg_mr_os+C_3R_1R_Ls+C_3R_3R_Ls+C_3R_3r_os+C_3R_Lr_os+C_LR_1R_Lg_mr$$

Parameters:

Q: $\frac{C_3C_LR_3R_L\sqrt{\frac{R_1g_mr_o+R_1+R_L+r_o}{C_3C_LR_3R_L(R_1g_mr_o+R_1+r_o)}}(R_1g_mr_o+R_1+r_o)}{C_3R_1R_3g_mr_o+C_3R_1R_3+C_3R_1R_Lg_mr_o+C_3R_1R_L+C_3R_3R_L+C_3R_3r_o+C_3R_Lr_o+C_LR_1R_Lg_mr_o+C_LR_1R_L+C_LR_Lr_o}$
wo: $\sqrt{\frac{R_1g_mr_o+R_1+R_L+r_o}{C_3C_LR_3R_L(R_1g_mr_o+R_1+r_o)}}$
bandwidth: $\frac{C_3R_1R_3g_mr_o+C_3R_1R_3+C_3R_1R_Lg_mr_o+C_3R_1R_L+C_3R_3R_L+C_3R_3r_o+C_3R_Lr_o+C_LR_1R_Lg_mr_o+C_LR_1R_L+C_LR_Lr_o}{C_3C_LR_3R_L(R_1g_mr_o+R_1+r_o)}$
K-LP: $\frac{R_1R_L(g_mr_o+1)}{R_1g_mr_o+R_1+R_L+r_o}$
K-HP: 0
K-BP: $\frac{C_3R_1R_3R_L(g_mr_o+1)}{C_3R_1R_3g_mr_o+C_3R_1R_3+C_3R_1R_Lg_mr_o+C_3R_1R_L+C_3R_3R_L+C_3R_3r_o+C_3R_Lr_o+C_LR_1R_Lg_mr_o+C_LR_1R_L+C_LR_Lr_o}$
Qz: 0
Wz: None

8.5 INVALID-NUMER-5 $Z(s)=\left(L_1s,\ \infty,\ R_3,\ \infty,\ \infty,\ R_L+\frac{1}{C_Ls}\right)$

$$H(s)=\frac{L_1R_3s\left(g_mr_o+1\right)\left(C_LR_Ls+1\right)}{C_LL_1R_3g_mr_os^2+C_LL_1R_3s^2+C_LL_1R_Lg_mr_os^2+C_LL_1R_Ls^2+C_LR_3R_Ls+C_LR_3r_os+C_LR_Lr_os+L_1g_mr_os+L_1s+R_3+r_o}$$

Parameters:

Q: $\frac{C_L L_1 \sqrt{\frac{R_3+r_o}{C_L L_1(R_3 g_m r_o+R_3+R_L g_m r_o+R_L)}}(R_3 g_m r_o+R_3+R_L g_m r_o+R_L)}{C_L R_3 R_L+C_L R_3 r_o+C_L R_L r_o+L_1 g_m r_o+L_1}$
wo: $\sqrt{\frac{R_3+r_o}{C_L L_1(R_3 g_m r_o+R_3+R_L g_m r_o+R_L)}}$
bandwidth: $\frac{C_L R_3 R_L+C_L R_3 r_o+C_L R_L r_o+L_1 g_m r_o+L_1}{C_L L_1(R_3 g_m r_o+R_3+R_L g_m r_o+R_L)}$
K-LP: 0
K-HP: $\frac{R_3 R_L}{R_3+R_L}$
K-BP: $\frac{L_1 R_3(g_m r_o+1)}{C_L R_3 R_L+C_L R_3 r_o+C_L R_L r_o+L_1 g_m r_o+L_1}$
Qz: $C_L R_L \sqrt{\frac{R_3+r_o}{C_L L_1(R_3 g_m r_o+R_3+R_L g_m r_o+R_L)}}$
Wz: None

8.6 INVALID-NUMER-6 $Z(s) = \left(L_1 s,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_L s\left(g_m r_o + 1\right)\left(C_3 R_3 s + 1\right)}{C_3 L_1 R_3 g_m r_o s^2 + C_3 L_1 R_3 s^2 + C_3 L_1 R_L g_m r_o s^2 + C_3 L_1 R_L s^2 + C_3 R_3 R_L s + C_3 R_3 r_o s + C_3 R_L r_o s + L_1 g_m r_o s + L_1 s + R_L + r_o}$$

Parameters:

Q: $\frac{C_3 L_1 \sqrt{\frac{R_L+r_o}{C_3 L_1(R_3 g_m r_o+R_3+R_L g_m r_o+R_L)}}(R_3 g_m r_o+R_3+R_L g_m r_o+R_L)}{C_3 R_3 R_L+C_3 R_3 r_o+C_3 R_L r_o+L_1 g_m r_o+L_1}$
wo: $\sqrt{\frac{R_L+r_o}{C_3 L_1(R_3 g_m r_o+R_3+R_L g_m r_o+R_L)}}$
bandwidth: $\frac{C_3 R_3 R_L+C_3 R_3 r_o+C_3 R_L r_o+L_1 g_m r_o+L_1}{C_3 L_1(R_3 g_m r_o+R_3+R_L g_m r_o+R_L)}$
K-LP: 0
K-HP: $\frac{R_3 R_L}{R_3+R_L}$
K-BP: $\frac{L_1 R_L(g_m r_o+1)}{C_3 R_3 R_L+C_3 R_3 r_o+C_3 R_L r_o+L_1 g_m r_o+L_1}$
Qz: $C_3 R_3 \sqrt{\frac{R_L+r_o}{C_3 L_1(R_3 g_m r_o+R_3+R_L g_m r_o+R_L)}}$
Wz: None

8.7 INVALID-NUMER-7 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3\left(g_m r_o + 1\right)\left(C_L R_L s + 1\right)}{C_1 C_L R_3 R_L s^2 + C_1 C_L R_3 r_o s^2 + C_1 C_L R_L r_o s^2 + C_1 R_3 s + C_1 r_o s + C_L R_3 g_m r_o s + C_L R_3 s + C_L R_L g_m r_o s + C_L R_L s + g_m r_o + 1}$$

Parameters:

Q: $\frac{C_1 C_L \sqrt{\frac{g_m r_o+1}{C_1 C_L (R_3 R_L+R_3 r_o+R_L r_o)}} (R_3 R_L+R_3 r_o+R_L r_o)}{C_1 R_3+C_1 r_o+C_L R_3 g_m r_o+C_L R_3+C_L R_L g_m r_o+C_L R_L}$
wo: $\sqrt{\frac{g_m r_o+1}{C_1 C_L (R_3 R_L+R_3 r_o+R_L r_o)}}$
bandwidth: $\frac{C_1 R_3+C_1 r_o+C_L R_3 g_m r_o+C_L R_3+C_L R_L g_m r_o+C_L R_L}{C_1 C_L (R_3 R_L+R_3 r_o+R_L r_o)}$
K-LP: R_3
K-HP: 0
K-BP: $\frac{C_L R_3 R_L (g_m r_o+1)}{C_1 R_3+C_1 r_o+C_L R_3 g_m r_o+C_L R_3+C_L R_L g_m r_o+C_L R_L}$
Qz: 0
Wz: None

8.8 INVALID-NUMER-8 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L \left(g_m r_o + 1\right) \left(C_3 R_3 s + 1\right)}{C_1 C_3 R_3 R_L s^2 + C_1 C_3 R_3 r_o s^2 + C_1 C_3 R_L r_o s^2 + C_1 R_L s + C_1 r_o s + C_3 R_3 g_m r_o s + C_3 R_3 s + C_3 R_L g_m r_o s + C_3 R_L s + g_m r_o + 1}$$

Parameters:

Q: $\frac{C_1 C_3 \sqrt{\frac{g_m r_o+1}{C_1 C_3 (R_3 R_L+R_3 r_o+R_L r_o)}} (R_3 R_L+R_3 r_o+R_L r_o)}{C_1 R_L+C_1 r_o+C_3 R_3 g_m r_o+C_3 R_3+C_3 R_L g_m r_o+C_3 R_L}$
wo: $\sqrt{\frac{g_m r_o+1}{C_1 C_3 (R_3 R_L+R_3 r_o+R_L r_o)}}$
bandwidth: $\frac{C_1 R_L+C_1 r_o+C_3 R_3 g_m r_o+C_3 R_3+C_3 R_L g_m r_o+C_3 R_L}{C_1 C_3 (R_3 R_L+R_3 r_o+R_L r_o)}$
K-LP: R_L
K-HP: 0
K-BP: $\frac{C_3 R_3 R_L (g_m r_o+1)}{C_1 R_L+C_1 r_o+C_3 R_3 g_m r_o+C_3 R_3+C_3 R_L g_m r_o+C_3 R_L}$
Qz: 0
Wz: None

8.9 INVALID-NUMER-9 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 R_3 \left(g_m r_o + 1\right) \left(C_L R_L s + 1\right)}{C_1 C_L R_1 R_3 R_L s^2 + C_1 C_L R_1 R_3 r_o s^2 + C_1 C_L R_1 R_L r_o s^2 + C_1 R_1 R_3 s + C_1 R_1 r_o s + C_L R_1 R_3 g_m r_o s + C_L R_1 R_3 s + C_L R_1 R_L g_m r_o s + C_L R_1 R_L s + C_L R_3 R_L s + C_L R_3 r_o s + C_L R$$

Parameters:

Q: $\frac{C_1 C_L R_1 \sqrt{\frac{R_1 g_m r_o + R_1 + R_3 + r_o}{C_1 C_L R_1 (R_3 R_L + R_3 r_o + R_L r_o)}} (R_3 R_L + R_3 r_o + R_L r_o)}{C_1 R_1 R_3 + C_1 R_1 r_o + C_L R_1 R_3 g_m r_o + C_L R_1 R_3 + C_L R_1 R_L g_m r_o + C_L R_1 R_L + C_L R_3 R_L + C_L R_3 r_o + C_L R_L r_o}$

wo: $\sqrt{\frac{R_1 g_m r_o + R_1 + R_3 + r_o}{C_1 C_L R_1 (R_3 R_L + R_3 r_o + R_L r_o)}}$

bandwidth: $\frac{C_1 R_1 R_3 + C_1 R_1 r_o + C_L R_1 R_3 g_m r_o + C_L R_1 R_3 + C_L R_1 R_L g_m r_o + C_L R_1 R_L + C_L R_3 R_L + C_L R_3 r_o + C_L R_L r_o}{C_1 C_L R_1 (R_3 R_L + R_3 r_o + R_L r_o)}$

K-LP: $\frac{R_1 R_3 (g_m r_o + 1)}{R_1 g_m r_o + R_1 + R_3 + r_o}$

K-HP: 0

K-BP: $\frac{C_L R_1 R_3 R_L (g_m r_o + 1)}{C_1 R_1 R_3 + C_1 R_1 r_o + C_L R_1 R_3 g_m r_o + C_L R_1 R_3 + C_L R_1 R_L g_m r_o + C_L R_1 R_L + C_L R_3 R_L + C_L R_3 r_o + C_L R_L r_o}$

Qz: 0

Wz: None

8.10 INVALID-NUMER-10 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1 R_L \left(g_m r_o + 1\right) \left(C_3 R_3 s + 1\right)}{C_1 C_3 R_1 R_3 R_L s^2 + C_1 C_3 R_1 R_3 r_o s^2 + C_1 C_3 R_1 R_L r_o s^2 + C_1 R_1 R_L s + C_1 R_1 r_o s + C_3 R_1 R_3 g_m r_o s + C_3 R_1 R_3 s + C_3 R_1 R_L g_m r_o s + C_3 R_1 R_L s + C_3 R_3 R_L s + C_3 R_3 r_o s + C_3 R_L r_o}$$

Parameters:

Q: $\frac{C_1 C_3 R_1 \sqrt{\frac{R_1 g_m r_o + R_1 + R_L + r_o}{C_1 C_3 R_1 (R_3 R_L + R_3 r_o + R_L r_o)}} (R_3 R_L + R_3 r_o + R_L r_o)}{C_1 R_1 R_L + C_1 R_1 r_o + C_3 R_1 R_3 g_m r_o + C_3 R_1 R_3 + C_3 R_1 R_L g_m r_o + C_3 R_1 R_L + C_3 R_3 R_L + C_3 R_3 r_o + C_3 R_L r_o}$

wo: $\sqrt{\frac{R_1 g_m r_o + R_1 + R_L + r_o}{C_1 C_3 R_1 (R_3 R_L + R_3 r_o + R_L r_o)}}$

bandwidth: $\frac{C_1 R_1 R_L + C_1 R_1 r_o + C_3 R_1 R_3 g_m r_o + C_3 R_1 R_3 + C_3 R_1 R_L g_m r_o + C_3 R_1 R_L + C_3 R_3 R_L + C_3 R_3 r_o + C_3 R_L r_o}{C_1 C_3 R_1 (R_3 R_L + R_3 r_o + R_L r_o)}$

K-LP: $\frac{R_1 R_L (g_m r_o + 1)}{R_1 g_m r_o + R_1 + R_L + r_o}$

K-HP: 0

K-BP: $\frac{C_3 R_1 R_3 R_L (g_m r_o + 1)}{C_1 R_1 R_L + C_1 R_1 r_o + C_3 R_1 R_3 g_m r_o + C_3 R_1 R_3 + C_3 R_1 R_L g_m r_o + C_3 R_1 R_L + C_3 R_3 R_L + C_3 R_3 r_o + C_3 R_L r_o}$

Qz: 0

Wz: None

8.11 INVALID-NUMER-11 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 \left(g_m r_o + 1\right) \left(C_1 R_1 s + 1\right)}{C_1 C_L R_1 R_3 g_m r_o s^2 + C_1 C_L R_1 R_3 s^2 + C_1 C_L R_3 r_o s^2 + C_1 R_1 g_m r_o s + C_1 R_1 s + C_1 R_3 s + C_1 r_o s + C_L R_3 g_m r_o s + C_L R_3 s + g_m r_o + 1}$$

Parameters:

Q: $\frac{C_1C_LR_3\sqrt{\frac{g_mr_o+1}{C_1C_LR_3(R_1g_mr_o+R_1+r_o)}}(R_1g_mr_o+R_1+r_o)}{C_1R_1g_mr_o+C_1R_1+C_1R_3+C_1r_o+C_LR_3g_mr_o+C_LR_3}$
wo: $\sqrt{\frac{g_mr_o+1}{C_1C_LR_3(R_1g_mr_o+R_1+r_o)}}$
bandwidth: $\frac{C_1R_1g_mr_o+C_1R_1+C_1R_3+C_1r_o+C_LR_3g_mr_o+C_LR_3}{C_1C_LR_3(R_1g_mr_o+R_1+r_o)}$
K-LP: R_3
K-HP: 0
K-BP: $\frac{C_1R_1R_3(g_mr_o+1)}{C_1R_1g_mr_o+C_1R_1+C_1R_3+C_1r_o+C_LR_3g_mr_o+C_LR_3}$
Qz: 0
Wz: None

8.12 INVALID-NUMER-12 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_3R_L\left(g_mr_o+1\right)\left(C_1R_1s+1\right)}{C_1C_LR_1R_3R_Lg_mr_os^2+C_1C_LR_1R_3R_Ls^2+C_1C_LR_3R_Lr_os^2+C_1R_1R_3g_mr_os+C_1R_1R_3s+C_1R_1R_Lg_mr_os+C_1R_1R_Ls+C_1R_3R_Ls+C_1R_3r_os+C_1R_Lr_os+C_LR_3R_Lg_mr}$$

Parameters:

Q: $\frac{C_1C_LR_3R_L\sqrt{\frac{R_3g_mr_o+R_3+R_Lg_mr_o+R_L}{C_1C_LR_3R_L(R_1g_mr_o+R_1+r_o)}}(R_1g_mr_o+R_1+r_o)}{C_1R_1R_3g_mr_o+C_1R_1R_3+C_1R_1R_Lg_mr_o+C_1R_1R_L+C_1R_3R_L+C_1R_3r_o+C_1R_Lr_o+C_LR_3R_Lg_mr_o+C_LR_3R_L}$
wo: $\sqrt{\frac{R_3g_mr_o+R_3+R_Lg_mr_o+R_L}{C_1C_LR_3R_L(R_1g_mr_o+R_1+r_o)}}$
bandwidth: $\frac{C_1R_1R_3g_mr_o+C_1R_1R_3+C_1R_1R_Lg_mr_o+C_1R_1R_L+C_1R_3R_L+C_1R_3r_o+C_1R_Lr_o+C_LR_3R_Lg_mr_o+C_LR_3R_L}{C_1C_LR_3R_L(R_1g_mr_o+R_1+r_o)}$
K-LP: $\frac{R_3R_L}{R_3+R_L}$
K-HP: 0
K-BP: $\frac{C_1R_1R_3R_L(g_mr_o+1)}{C_1R_1R_3g_mr_o+C_1R_1R_3+C_1R_1R_Lg_mr_o+C_1R_1R_L+C_1R_3R_L+C_1R_3r_o+C_1R_Lr_o+C_LR_3R_Lg_mr_o+C_LR_3R_L}$
Qz: 0
Wz: None

8.13 INVALID-NUMER-13 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(g_mr_o+1\right)\left(C_1R_1s+1\right)}{C_1C_3R_1R_Lg_mr_os^2+C_1C_3R_1R_Ls^2+C_1C_3R_Lr_os^2+C_1R_1g_mr_os+C_1R_1s+C_1R_Ls+C_1r_os+C_3R_Lg_mr_os+C_3R_Ls+g_mr_o+1}$$

Parameters:

Q: $\frac{C_1C_3R_L\sqrt{\frac{g_mr_o+1}{C_1C_3R_L(R_1g_mr_o+R_1+r_o)}}(R_1g_mr_o+R_1+r_o)}{C_1R_1g_mr_o+C_1R_1+C_1R_L+C_1r_o+C_3R_Lg_mr_o+C_3R_L}$
wo: $\sqrt{\frac{g_mr_o+1}{C_1C_3R_L(R_1g_mr_o+R_1+r_o)}}$
bandwidth: $\frac{C_1R_1g_mr_o+C_1R_1+C_1R_L+C_1r_o+C_3R_Lg_mr_o+C_3R_L}{C_1C_3R_L(R_1g_mr_o+R_1+r_o)}$
K-LP: R_L
K-HP: 0
K-BP: $\frac{C_1R_1R_L(g_mr_o+1)}{C_1R_1g_mr_o+C_1R_1+C_1R_L+C_1r_o+C_3R_Lg_mr_o+C_3R_L}$
Qz: 0
Wz: None

8.14 INVALID-NUMER-14 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_L\left(g_m r_o + 1\right)\left(C_1 R_1 s + 1\right)}{C_1C_3R_1R_Lg_mr_os^2 + C_1C_3R_1R_Ls^2 + C_1C_3R_Lr_os^2 + C_1C_LR_1R_Lg_mr_os^2 + C_1C_LR_1R_Ls^2 + C_1C_LR_Lr_os^2 + C_1R_1g_mr_os + C_1R_1s + C_1R_Ls + C_1r_os + C_3R_Lg_mr_os + C_3R_Ls$$

Parameters:

Q: $\frac{C_1R_L\sqrt{\frac{g_mr_o+1}{C_1R_L(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}}(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}{C_1R_1g_mr_o+C_1R_1+C_1R_L+C_1r_o+C_3R_Lg_mr_o+C_3R_L+C_LR_Lg_mr_o+C_LR_L}$
wo: $\sqrt{\frac{g_mr_o+1}{C_1R_L(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}}$
bandwidth: $\frac{C_1R_1g_mr_o+C_1R_1+C_1R_L+C_1r_o+C_3R_Lg_mr_o+C_3R_L+C_LR_Lg_mr_o+C_LR_L}{C_1R_L(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}$
K-LP: R_L
K-HP: 0
K-BP: $\frac{C_1R_1R_L(g_mr_o+1)}{C_1R_1g_mr_o+C_1R_1+C_1R_L+C_1r_o+C_3R_Lg_mr_o+C_3R_L+C_LR_Lg_mr_o+C_LR_L}$
Qz: 0
Wz: None

8.15 INVALID-NUMER-15 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_3R_L\left(g_m r_o + 1\right)\left(C_1 R_1 s + 1\right)}{C_1C_3R_1R_3R_Lg_mr_os^2 + C_1C_3R_1R_3R_Ls^2 + C_1C_3R_3R_Lr_os^2 + C_1R_1R_3g_mr_os + C_1R_1R_3s + C_1R_1R_Lg_mr_os + C_1R_1R_Ls + C_1R_3R_Ls + C_1R_3r_os + C_1R_Lr_os + C_3R_3R_Lg_mr_o$$

Parameters:

Q: $\frac{C_1C_3R_3R_L\sqrt{\frac{R_3g_mr_o+R_3+R_Lg_mr_o+R_L}{C_1C_3R_3R_L(R_1g_mr_o+R_1+r_o)}}(R_1g_mr_o+R_1+r_o)}{C_1R_1R_3g_mr_o+C_1R_1R_3+C_1R_1R_Lg_mr_o+C_1R_1R_L+C_1R_3R_L+C_1R_3r_o+C_1R_Lr_o+C_3R_3R_Lg_mr_o+C_3R_3R_L}$

wo: $\sqrt{\frac{R_3g_mr_o+R_3+R_Lg_mr_o+R_L}{C_1C_3R_3R_L(R_1g_mr_o+R_1+r_o)}}$

bandwidth: $\frac{C_1R_1R_3g_mr_o+C_1R_1R_3+C_1R_1R_Lg_mr_o+C_1R_1R_L+C_1R_3R_L+C_1R_3r_o+C_1R_Lr_o+C_3R_3R_Lg_mr_o+C_3R_3R_L}{C_1C_3R_3R_L(R_1g_mr_o+R_1+r_o)}$

K-LP: $\frac{R_3R_L}{R_3+R_L}$

K-HP: 0

K-BP: $\frac{C_1R_1R_3R_L(g_mr_o+1)}{C_1R_1R_3g_mr_o+C_1R_1R_3+C_1R_1R_Lg_mr_o+C_1R_1R_L+C_1R_3R_L+C_1R_3r_o+C_1R_Lr_o+C_3R_3R_Lg_mr_o+C_3R_3R_L}$

Qz: 0

Wz: None

8.16 INVALID-NUMER-16 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3\left(g_mr_o+1\right)\left(C_1R_1s+1\right)}{C_1C_3R_1R_3g_mr_os^2 + C_1C_3R_1R_3s^2 + C_1C_3R_3r_os^2 + C_1C_LR_1R_3g_mr_os^2 + C_1C_LR_1R_3s^2 + C_1C_LR_3r_os^2 + C_1R_1g_mr_os + C_1R_1s + C_1R_3s + C_1r_os + C_3R_3g_mr_os + C_3R_3s +}$$

Parameters:

Q: $\frac{C_1R_3\sqrt{\frac{g_mr_o+1}{C_1R_3(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}}(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}{C_1R_1g_mr_o+C_1R_1+C_1R_3+C_1r_o+C_3R_3g_mr_o+C_3R_3+C_LR_3g_mr_o+C_LR_3}$

wo: $\sqrt{\frac{g_mr_o+1}{C_1R_3(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}}$

bandwidth: $\frac{C_1R_1g_mr_o+C_1R_1+C_1R_3+C_1r_o+C_3R_3g_mr_o+C_3R_3+C_LR_3g_mr_o+C_LR_3}{C_1R_3(C_3R_1g_mr_o+C_3R_1+C_3r_o+C_LR_1g_mr_o+C_LR_1+C_Lr_o)}$

K-LP: R_3

K-HP: 0

K-BP: $\frac{C_1R_1R_3(g_mr_o+1)}{C_1R_1g_mr_o+C_1R_1+C_1R_3+C_1r_o+C_3R_3g_mr_o+C_3R_3+C_LR_3g_mr_o+C_LR_3}$

Qz: 0

Wz: None

8.17 INVALID-NUMER-17 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{R_3R_L\left(g_mr_o+1\right)\left(C_1R_1s+1\right)}{C_1C_3R_1R_3R_Lg_mr_os^2 + C_1C_3R_1R_3R_Ls^2 + C_1C_3R_3R_Lr_os^2 + C_1C_LR_1R_3R_Lg_mr_os^2 + C_1C_LR_1R_3R_Ls^2 + C_1C_LR_3R_Lr_os^2 + C_1R_1R_3g_mr_os + C_1R_1R_3s + C_1R_1R_Lg_mr_os +}$$

Parameters:

Q: $\frac{C_1 R_3 R_L \sqrt{\frac{R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}{C_1 R_3 R_L (C_3 R_1 g_m r_o + C_3 R_1 + C_3 r_o + C_L R_1 g_m r_o + C_L R_1 + C_L r_o)}} (C_3 R_1 g_m r_o + C_3 R_1 + C_3 r_o + C_L R_1 g_m r_o + C_L R_1 + C_L r_o)}{C_1 R_1 R_3 g_m r_o + C_1 R_1 R_3 + C_1 R_1 R_L g_m r_o + C_1 R_1 R_L + C_1 R_3 R_L + C_1 R_3 r_o + C_1 R_L r_o + C_3 R_3 R_L g_m r_o + C_3 R_3 R_L + C_L R_3 R_L g_m r_o + C_L R_3 R_L}$

wo: $\sqrt{\frac{R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}{C_1 R_3 R_L (C_3 R_1 g_m r_o + C_3 R_1 + C_3 r_o + C_L R_1 g_m r_o + C_L R_1 + C_L r_o)}}$

bandwidth: $\frac{C_1 R_1 R_3 g_m r_o + C_1 R_1 R_3 + C_1 R_1 R_L g_m r_o + C_1 R_1 R_L + C_1 R_3 R_L + C_1 R_3 r_o + C_1 R_L r_o + C_3 R_3 R_L g_m r_o + C_3 R_3 R_L + C_L R_3 R_L g_m r_o + C_L R_3 R_L}{C_1 R_3 R_L (C_3 R_1 g_m r_o + C_3 R_1 + C_3 r_o + C_L R_1 g_m r_o + C_L R_1 + C_L r_o)}$

K-LP: $\frac{R_3 R_L}{R_3 + R_L}$

K-HP: 0

K-BP: $\frac{C_1 R_1 R_3 R_L (g_m r_o + 1)}{C_1 R_1 R_3 g_m r_o + C_1 R_1 R_3 + C_1 R_1 R_L g_m r_o + C_1 R_1 R_L + C_1 R_3 R_L + C_1 R_3 r_o + C_1 R_L r_o + C_3 R_3 R_L g_m r_o + C_3 R_3 R_L + C_L R_3 R_L g_m r_o + C_L R_3 R_L}$

Qz: 0

Wz: None

9 INVALID-WZ

9.1 INVALID-WZ-1 $Z(s) = \left(R_1,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right) \left(C_3 R_3 s + 1\right) \left(C_L R_L s + 1\right)}{C_3 C_L R_1 R_3 g_m r_o s^2 + C_3 C_L R_1 R_3 s^2 + C_3 C_L R_1 R_L g_m r_o s^2 + C_3 C_L R_1 R_L s^2 + C_3 C_L R_3 R_L s^2 + C_3 C_L R_3 r_o s^2 + C_3 C_L R_L r_o s^2 + C_3 R_1 g_m r_o s + C_3 R_1 s + C_3 R_3 s + C_3 r_o s + C_L R}$$

Parameters:

Q: $\frac{C_3 C_L \sqrt{\frac{1}{C_3 C_L (R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o)}} (R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o)}{C_3 R_1 g_m r_o + C_3 R_1 + C_3 R_3 + C_3 r_o + C_L R_1 g_m r_o + C_L R_1 + C_L R_L + C_L r_o}$

wo: $\sqrt{\frac{1}{C_3 C_L (R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o)}}$

bandwidth: $\frac{C_3 R_1 g_m r_o + C_3 R_1 + C_3 R_3 + C_3 r_o + C_L R_1 g_m r_o + C_L R_1 + C_L R_L + C_L r_o}{C_3 C_L (R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o)}$

K-LP: $R_1 \left(g_m r_o + 1\right)$

K-HP: $\frac{R_1 R_3 R_L (g_m r_o + 1)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$

K-BP: $\frac{R_1 (C_3 R_3 g_m r_o + C_3 R_3 + C_L R_L g_m r_o + C_L R_L)}{C_3 R_1 g_m r_o + C_3 R_1 + C_3 R_3 + C_3 r_o + C_L R_1 g_m r_o + C_L R_1 + C_L R_L + C_L r_o}$

Qz: $\frac{C_3 C_L R_3 R_L \sqrt{\frac{1}{C_3 C_L (R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o)}}}{C_3 R_3 + C_L R_L}$

Wz: $\sqrt{\frac{1}{C_3 C_L R_3 R_L}}$

9.2 INVALID-WZ-2 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3\left(g_m r_o + 1\right)\left(C_1 R_1 s + 1\right)\left(C_L R_L s + 1\right)}{C_1 C_L R_1 R_3 g_m r_o s^2 + C_1 C_L R_1 R_3 s^2 + C_1 C_L R_1 R_L g_m r_o s^2 + C_1 C_L R_1 R_L s^2 + C_1 C_L R_3 R_L s^2 + C_1 C_L R_3 r_o s^2 + C_1 C_L R_L r_o s^2 + C_1 R_1 g_m r_o s + C_1 R_1 s + C_1 R_3 s + C_1 r_o s + C_L R$$

Parameters:

Q: $\frac{C_1 C_L \sqrt{\frac{g_m r_o+1}{C_1 C_L(R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o)}}(R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o)}{C_1 R_1 g_m r_o+C_1 R_1+C_1 R_3+C_1 r_o+C_L R_3 g_m r_o+C_L R_3+C_L R_L g_m r_o+C_L R_L}$

wo: $\sqrt{\frac{g_m r_o+1}{C_1 C_L(R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o)}}$

bandwidth: $\frac{C_1 R_1 g_m r_o+C_1 R_1+C_1 R_3+C_1 r_o+C_L R_3 g_m r_o+C_L R_3+C_L R_L g_m r_o+C_L R_L}{C_1 C_L(R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o)}$

K-LP: R_3

K-HP: $\frac{R_1 R_3 R_L(g_m r_o+1)}{R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o}$

K-BP: $\frac{R_3(C_1 R_1 g_m r_o+C_1 R_1+C_L R_L g_m r_o+C_L R_L)}{C_1 R_1 g_m r_o+C_1 R_1+C_1 R_3+C_1 r_o+C_L R_3 g_m r_o+C_L R_3+C_L R_L g_m r_o+C_L R_L}$

Qz: $\frac{C_1 C_L R_1 R_L \sqrt{\frac{g_m r_o+1}{C_1 C_L(R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o)}}}{C_1 R_1+C_L R_L}$

Wz: $\sqrt{\frac{1}{C_1 C_L R_1 R_L}}$

9.3 INVALID-WZ-3 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(g_m r_o + 1\right)\left(C_1 R_1 s + 1\right)\left(C_3 R_3 s + 1\right)}{C_1 C_3 R_1 R_3 g_m r_o s^2 + C_1 C_3 R_1 R_3 s^2 + C_1 C_3 R_1 R_L g_m r_o s^2 + C_1 C_3 R_1 R_L s^2 + C_1 C_3 R_3 R_L s^2 + C_1 C_3 R_3 r_o s^2 + C_1 C_3 R_L r_o s^2 + C_1 R_1 g_m r_o s + C_1 R_1 s + C_1 R_L s + C_1 r_o s + C_3 R_3 g_$$

Parameters:

Q: $\frac{C_1 C_3 \sqrt{\frac{g_m r_o+1}{C_1 C_3(R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o)}}(R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o)}{C_1 R_1 g_m r_o+C_1 R_1+C_1 R_L+C_1 r_o+C_3 R_3 g_m r_o+C_3 R_3+C_3 R_L g_m r_o+C_3 R_L}$

wo: $\sqrt{\frac{g_m r_o+1}{C_1 C_3(R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o)}}$

bandwidth: $\frac{C_1 R_1 g_m r_o+C_1 R_1+C_1 R_L+C_1 r_o+C_3 R_3 g_m r_o+C_3 R_3+C_3 R_L g_m r_o+C_3 R_L}{C_1 C_3(R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o)}$

K-LP: R_L

K-HP: $\frac{R_1 R_3 R_L(g_m r_o+1)}{R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o}$

K-BP: $\frac{R_L(C_1 R_1 g_m r_o+C_1 R_1+C_3 R_3 g_m r_o+C_3 R_3)}{C_1 R_1 g_m r_o+C_1 R_1+C_1 R_L+C_1 r_o+C_3 R_3 g_m r_o+C_3 R_3+C_3 R_L g_m r_o+C_3 R_L}$

Qz: $\frac{C_1 C_3 R_1 R_3 \sqrt{\frac{g_m r_o+1}{C_1 C_3(R_1 R_3 g_m r_o+R_1 R_3+R_1 R_L g_m r_o+R_1 R_L+R_3 R_L+R_3 r_o+R_L r_o)}}}{C_1 R_1+C_3 R_3}$

Wz: $\sqrt{\frac{1}{C_1 C_3 R_1 R_3}}$

10 INVALID-ORDER

10.1 INVALID-ORDER-1 $Z(s) = (R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ R_L)$

$$H(s) = \frac{R_1 R_3 R_L \left(g_m r_o + 1\right)}{R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$$

10.2 INVALID-ORDER-2 $Z(s) = \left(R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 R_3 \left(g_m r_o + 1\right)}{C_L R_1 R_3 g_m r_o s + C_L R_1 R_3 s + C_L R_3 r_o s + R_1 g_m r_o + R_1 + R_3 + r_o}$$

10.3 INVALID-ORDER-3 $Z(s) = \left(R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_1 R_3 R_L \left(g_m r_o + 1\right)}{C_L R_1 R_3 R_L g_m r_o s + C_L R_1 R_3 R_L s + C_L R_3 R_L r_o s + R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$$

10.4 INVALID-ORDER-4 $Z(s) = \left(R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 R_3 \left(g_m r_o + 1\right) \left(C_L R_L s + 1\right)}{C_L R_1 R_3 g_m r_o s + C_L R_1 R_3 s + C_L R_1 R_L g_m r_o s + C_L R_1 R_L s + C_L R_3 R_L s + C_L R_3 r_o s + C_L R_L r_o s + R_1 g_m r_o + R_1 + R_3 + r_o}$$

10.5 INVALID-ORDER-5 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1 R_L \left(g_m r_o + 1\right)}{C_3 R_1 R_L g_m r_o s + C_3 R_1 R_L s + C_3 R_L r_o s + R_1 g_m r_o + R_1 + R_L + r_o}$$

10.6 INVALID-ORDER-6 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(g_m r_o + 1\right)}{C_3 R_1 g_m r_o s + C_3 R_1 s + C_3 r_o s + C_L R_1 g_m r_o s + C_L R_1 s + C_L r_o s + 1}$$

10.7 INVALID-ORDER-7 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_1 R_L\left(g_m r_o + 1\right)}{C_3 R_1 R_L g_m r_o s + C_3 R_1 R_L s + C_3 R_L r_o s + C_L R_1 R_L g_m r_o s + C_L R_1 R_L s + C_L R_L r_o s + R_1 g_m r_o + R_1 + R_L + r_o}$$

10.8 INVALID-ORDER-8 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(g_m r_o + 1\right)\left(C_L L_L s^2 + 1\right)}{C_3 C_L L_L R_1 g_m r_o s^3 + C_3 C_L L_L R_1 s^3 + C_3 C_L L_L r_o s^3 + C_3 R_1 g_m r_o s + C_3 R_1 s + C_3 r_o s + C_L L_L s^2 + C_L R_1 g_m r_o s + C_L R_1 s + C_L r_o s + 1}$$

10.9 INVALID-ORDER-9 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(g_m r_o + 1\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_3 C_L L_L R_1 g_m r_o s^3 + C_3 C_L L_L R_1 s^3 + C_3 C_L L_L r_o s^3 + C_3 C_L R_1 R_L g_m r_o s^2 + C_3 C_L R_1 R_L s^2 + C_3 C_L R_L r_o s^2 + C_3 R_1 g_m r_o s + C_3 R_1 s + C_3 r_o s + C_L L_L s^2 + C_L R_1 g_m r_o s + C_L R$$

10.10 INVALID-ORDER-10 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{R_1\left(g_m r_o + 1\right)\left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_3 C_L L_L R_1 R_L g_m r_o s^3 + C_3 C_L L_L R_1 R_L s^3 + C_3 C_L L_L R_L r_o s^3 + C_3 L_L R_1 g_m r_o s^2 + C_3 L_L R_1 s^2 + C_3 L_L r_o s^2 + C_3 R_1 R_L g_m r_o s + C_3 R_1 R_L s + C_3 R_L r_o s + C_L L_L R_1 g_m r_o s^2 + C_L$$

10.11 INVALID-ORDER-11 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{R_1 R_L \left(g_m r_o+1\right)\left(C_L L_L s^2+1\right)}{C_3 C_L L_L R_1 R_L g_m r_o s^3 + C_3 C_L L_L R_1 R_L s^3 + C_3 C_L L_L R_L r_o s^3 + C_3 R_1 R_L g_m r_o s + C_3 R_1 R_L s + C_3 R_L r_o s + C_L L_L R_1 g_m r_o s^2 + C_L L_L R_1 s^2 + C_L L_L R_L s^2 + C_L L_L r_o s^2 + C_L R_1}$$

10.12 INVALID-ORDER-12 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1 R_3 R_L \left(g_m r_o+1\right)}{C_3 R_1 R_3 R_L g_m r_o s + C_3 R_1 R_3 R_L s + C_3 R_3 R_L r_o s + R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$$

10.13 INVALID-ORDER-13 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 R_3 \left(g_m r_o+1\right)}{C_3 R_1 R_3 g_m r_o s + C_3 R_1 R_3 s + C_3 R_3 r_o s + C_L R_1 R_3 g_m r_o s + C_L R_1 R_3 s + C_L R_3 r_o s + R_1 g_m r_o + R_1 + R_3 + r_o}$$

10.14 INVALID-ORDER-14 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_1 R_3 R_L \left(g_m r_o+1\right)}{C_3 R_1 R_3 R_L g_m r_o s + C_3 R_1 R_3 R_L s + C_3 R_3 R_L r_o s + C_L R_1 R_3 R_L g_m r_o s + C_L R_1 R_3 R_L s + C_L R_3 R_L r_o s + R_1 R_3 g_m r_o + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_3 R_L + R_3 r_o + R_L r_o}$$

10.15 INVALID-ORDER-15 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s+\frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 R_3 \left(g_m r_o+1\right)\left(C_L L_L s^2+1\right)}{C_3 C_L L_L R_1 R_3 g_m r_o s^3 + C_3 C_L L_L R_1 R_3 s^3 + C_3 C_L L_L R_3 r_o s^3 + C_3 R_1 R_3 g_m r_o s + C_3 R_1 R_3 s + C_3 R_3 r_o s + C_L L_L R_1 g_m r_o s^2 + C_L L_L R_1 s^2 + C_L L_L R_3 s^2 + C_L L_L r_o s^2 + C_L R_1 R_3}$$

10.16 INVALID-ORDER-16 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s+R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 R_3 \left(g_m r_o+1\right)\left(}{C_3 C_L L_L R_1 R_3 g_m r_o s^3 + C_3 C_L L_L R_1 R_3 s^3 + C_3 C_L L_L R_3 r_o s^3 + C_3 C_L R_1 R_3 R_L g_m r_o s^2 + C_3 C_L R_1 R_3 R_L s^2 + C_3 C_L R_3 R_L r_o s^2 + C_3 R_1 R_3 g_m r_o s + C_3 R_1 R_3 s + C_3 R_3 r_o s + C_L L_L}$$

10.17 INVALID-ORDER-17 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$

$$H(s) = \frac{}{C_3C_LL_LR_1R_3R_Lg_mr_os^3 + C_3C_LL_LR_1R_3R_Ls^3 + C_3C_LL_LR_3R_Lr_os^3 + C_3L_LR_1R_3g_mr_os^2 + C_3L_LR_1R_3s^2 + C_3L_LR_3r_os^2 + C_3R_1R_3R_Lg_mr_os + C_3R_1R_3R_Ls + C_3R_3R_Lr_o}$$

10.18 INVALID-ORDER-18 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ \frac{R_L\left(L_Ls+\frac{1}{C_Ls}\right)}{L_Ls+R_L+\frac{1}{C_Ls}}\right)$

$$H(s) = \frac{R_1R_3}{C_3C_LL_LR_1R_3R_Lg_mr_os^3 + C_3C_LL_LR_1R_3R_Ls^3 + C_3C_LL_LR_3R_Lr_os^3 + C_3R_1R_3R_Lg_mr_os + C_3R_1R_3R_Ls + C_3R_3R_Lr_os + C_LL_LR_1R_3g_mr_os^2 + C_LL_LR_1R_3s^2 + C_LL_LR_1R}$$

10.19 INVALID-ORDER-19 $Z(s) = \left(R_1,\ \infty,\ R_3 + \frac{1}{C_3s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1R_L\left(g_mr_o+1\right)\left(C_3R_3s+1\right)}{C_3R_1R_3g_mr_os + C_3R_1R_3s + C_3R_1R_Lg_mr_os + C_3R_1R_Ls + C_3R_3R_Ls + C_3R_3r_os + C_3R_Lr_os + R_1g_mr_o + R_1 + R_L + r_o}$$

10.20 INVALID-ORDER-20 $Z(s) = \left(R_1,\ \infty,\ R_3 + \frac{1}{C_3s},\ \infty,\ \infty,\ L_Ls + \frac{1}{C_Ls}\right)$

$$H(s) = \frac{R_1\left(g_mr_o+1\right)\left(C_3R_3s+1\right)\left(C_LL_Ls^2+1\right)}{C_3C_LL_LR_1g_mr_os^3 + C_3C_LL_LR_1s^3 + C_3C_LL_LR_3s^3 + C_3C_LL_Lr_os^3 + C_3C_LR_1R_3g_mr_os^2 + C_3C_LR_1R_3s^2 + C_3C_LR_3r_os^2 + C_3R_1g_mr_os + C_3R_1s + C_3R_3s + C_3r_os + C_LL_L}$$

10.21 INVALID-ORDER-21 $Z(s) = \left(R_1,\ \infty,\ R_3 + \frac{1}{C_3s},\ \infty,\ \infty,\ \frac{L_Ls}{C_LL_Ls^2+1}\right)$

$$H(s) = \frac{L_LR_1s\left(g_mr_o+1\right)\left(C_3R_3s+1\right)}{C_3C_LL_LR_1R_3g_mr_os^3 + C_3C_LL_LR_1R_3s^3 + C_3C_LL_LR_3r_os^3 + C_3L_LR_1g_mr_os^2 + C_3L_LR_1s^2 + C_3L_LR_3s^2 + C_3L_Lr_os^2 + C_3R_1R_3g_mr_os + C_3R_1R_3s + C_3R_3r_os + C_LL_LR_1g}$$

10.22 INVALID-ORDER-22 $Z(s) = \left(R_1,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right) \left(C_3 R_3 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right.}{C_3 C_L L_L R_1 g_m r_o s^3 + C_3 C_L L_L R_1 s^3 + C_3 C_L L_L R_3 s^3 + C_3 C_L L_L r_o s^3 + C_3 C_L R_1 R_3 g_m r_o s^2 + C_3 C_L R_1 R_3 s^2 + C_3 C_L R_1 R_L g_m r_o s^2 + C_3 C_L R_1 R_L s^2 + C_3 C_L R_3 R_L s^2 + C_3 C_L R_3}$$

10.23 INVALID-ORDER-23 $Z(s) = \left(R_1,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L}{C_3 C_L L_L R_1 R_3 R_L g_m r_o s^3 + C_3 C_L L_L R_1 R_3 R_L s^3 + C_3 C_L L_L R_3 R_L r_o s^3 + C_3 L_L R_1 R_3 g_m r_o s^2 + C_3 L_L R_1 R_3 s^2 + C_3 L_L R_1 R_L g_m r_o s^2 + C_3 L_L R_1 R_L s^2 + C_3 L_L R_3 R_L s^2 + C_3 L_L R}$$

10.24 INVALID-ORDER-24 $Z(s) = \left(R_1,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{R_1}{C_3 C_L L_L R_1 R_3 g_m r_o s^3 + C_3 C_L L_L R_1 R_3 s^3 + C_3 C_L L_L R_1 R_L g_m r_o s^3 + C_3 C_L L_L R_1 R_L s^3 + C_3 C_L L_L R_3 R_L s^3 + C_3 C_L L_L R_3 r_o s^3 + C_3 C_L L_L R_L r_o s^3 + C_3 L_L R_1 g_m r_o s^2 + C_3 L_L R}$$

10.25 INVALID-ORDER-25 $Z(s) = \left(R_1,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_3 C_L L_L R_1 R_3 g_m r_o s^3 + C_3 C_L L_L R_1 R_3 s^3 + C_3 C_L L_L R_1 R_L g_m r_o s^3 + C_3 C_L L_L R_1 R_L s^3 + C_3 C_L L_L R_3 R_L s^3 + C_3 C_L L_L R_3 r_o s^3 + C_3 C_L L_L R_L r_o s^3 + C_3 C_L R_1 R_3 R_L g_m r_o s^2 + C}$$

10.26 INVALID-ORDER-26 $Z(s) = \left(R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right) \left(C_3 L_3 s^2 + 1\right)}{C_3 C_L L_3 R_1 g_m r_o s^3 + C_3 C_L L_3 R_1 s^3 + C_3 C_L L_3 r_o s^3 + C_3 L_3 s^2 + C_3 R_1 g_m r_o s + C_3 R_1 s + C_3 r_o s + C_L R_1 g_m r_o s + C_L R_1 s + C_L r_o s + 1}$$

10.27 INVALID-ORDER-27 $Z(s) = \left(R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_1 R_L \left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + 1\right)}{C_3 C_L L_3 R_1 R_L g_m r_o s^3 + C_3 C_L L_3 R_1 R_L s^3 + C_3 C_L L_3 R_L r_o s^3 + C_3 L_3 R_1 g_m r_o s^2 + C_3 L_3 R_1 s^2 + C_3 L_3 R_L s^2 + C_3 L_3 r_o s^2 + C_3 R_1 R_L g_m r_o s + C_3 R_1 R_L s + C_3 R_L r_o s + C_L R_1 R_L g}$$

10.28 INVALID-ORDER-28 $Z(s) = \left(R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + 1\right)\left(C_L R_L s + 1\right)}{C_3 C_L L_3 R_1 g_m r_o s^3 + C_3 C_L L_3 R_1 s^3 + C_3 C_L L_3 R_L s^3 + C_3 C_L L_3 r_o s^3 + C_3 C_L R_1 R_L g_m r_o s^2 + C_3 C_L R_1 R_L s^2 + C_3 C_L R_L r_o s^2 + C_3 L_3 s^2 + C_3 R_1 g_m r_o s + C_3 R_1 s + C_3 r_o s + C_L R}$$

10.29 INVALID-ORDER-29 $Z(s) = \left(R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + 1\right)\left(C_L L_L s^2 + 1\right)}{C_3 C_L L_3 L_L s^4 + C_3 C_L L_3 R_1 g_m r_o s^3 + C_3 C_L L_3 R_1 s^3 + C_3 C_L L_3 r_o s^3 + C_3 C_L L_L R_1 g_m r_o s^3 + C_3 C_L L_L R_1 s^3 + C_3 C_L L_L r_o s^3 + C_3 L_3 s^2 + C_3 R_1 g_m r_o s + C_3 R_1 s + C_3 r_o s + C_L L_L}$$

10.30 INVALID-ORDER-30 $Z(s) = \left(R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 s \left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + 1\right)}{C_3 C_L L_3 L_L R_1 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 L_3 L_L s^3 + C_3 L_3 R_1 g_m r_o s^2 + C_3 L_3 R_1 s^2 + C_3 L_3 r_o s^2 + C_3 L_L R_1 g_m r_o s^2 + C_3 L_L R_1 s^2 + C_3 L_L r_o s^2 + C_L L_L R}$$

10.31 INVALID-ORDER-31 $Z(s) = \left(R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + 1\right)\left(C_L L_L s^2 + C_L R_L s + 1\right.}{C_3 C_L L_3 L_L s^4 + C_3 C_L L_3 R_1 g_m r_o s^3 + C_3 C_L L_3 R_1 s^3 + C_3 C_L L_3 R_L s^3 + C_3 C_L L_3 r_o s^3 + C_3 C_L L_L R_1 g_m r_o s^3 + C_3 C_L L_L R_1 s^3 + C_3 C_L L_L r_o s^3 + C_3 C_L R_1 R_L g_m r_o s^2 + C_3 C_L R_1 R}$$

10.32 INVALID-ORDER-32 $Z(s) = \left(R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L}{C_3 C_L L_3 L_L R_1 R_L g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_L s^4 + C_3 C_L L_3 L_L R_L r_o s^4 + C_3 L_3 L_L R_1 g_m r_o s^3 + C_3 L_3 L_L R_1 s^3 + C_3 L_3 L_L R_L s^3 + C_3 L_3 L_L r_o s^3 + C_3 L_3 R_1 R_L g_m r_o s^2 + C_3 L_3 R_1 R$$

10.33 INVALID-ORDER-33 $Z(s) = \left(R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{R_1}{C_3 C_L L_3 L_L R_1 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 s^4 + C_3 C_L L_3 L_L R_L s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C_L L_L R_1 R_L g_m r_o s^3 + C_3 C_L L_L R_1 R_L s^3 + C_3 C_L L_L R_L r_o s^3 + C_3 L_3 L_L s^3 + C_3 L_3 R_1 g_m r_o s$$

10.34 INVALID-ORDER-34 $Z(s) = \left(R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_3 C_L L_3 L_L R_1 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 s^4 + C_3 C_L L_3 L_L R_L s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C_L L_3 R_1 R_L g_m r_o s^3 + C_3 C_L L_3 R_1 R_L s^3 + C_3 C_L L_3 R_L r_o s^3 + C_3 C_L L_L R_1 R_L g_m r_o s^3 + C_3 C$$

10.35 INVALID-ORDER-35 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_3 R_1 s\left(g_m r_o + 1\right)\left(C_L R_L s + 1\right)}{C_3 C_L L_3 R_1 R_L g_m r_o s^3 + C_3 C_L L_3 R_1 R_L s^3 + C_3 C_L L_3 R_L r_o s^3 + C_3 L_3 R_1 g_m r_o s^2 + C_3 L_3 R_1 s^2 + C_3 L_3 r_o s^2 + C_L L_3 R_1 g_m r_o s^2 + C_L L_3 R_1 s^2 + C_L L_3 R_L s^2 + C_L L_3 r_o s^2 + C_L R_1 R$$

10.36 INVALID-ORDER-36 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_3 R_1 s\left(g_m r_o + 1\right)\left(C_L L_L s^2 + 1\right)}{C_3 C_L L_3 L_L R_1 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 L_3 R_1 g_m r_o s^2 + C_3 L_3 R_1 s^2 + C_3 L_3 r_o s^2 + C_L L_3 L_L s^3 + C_L L_3 R_1 g_m r_o s^2 + C_L L_3 R_1 s^2 + C_L L_3 r_o s^2 + C_L L_L R$$

10.37 INVALID-ORDER-37 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_3 R_1 s \left(g_m r_o +}{C_3 C_L L_3 L_L R_1 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C_L L_3 R_1 R_L g_m r_o s^3 + C_3 C_L L_3 R_1 R_L s^3 + C_3 C_L L_3 R_L r_o s^3 + C_3 L_3 R_1 g_m r_o s^2 + C_3 L_3 R_1 s^2 + C_3 L_3 r_o s^2 + C_L L}$$

10.38 INVALID-ORDER-38 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_3 C_L L_3 L_L R_1 R_L g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_L s^4 + C_3 C_L L_3 L_L R_L r_o s^4 + C_3 L_3 L_L R_1 g_m r_o s^3 + C_3 L_3 L_L R_1 s^3 + C_3 L_3 L_L r_o s^3 + C_3 L_3 R_1 R_L g_m r_o s^2 + C_3 L_3 R_1 R_L s^2 + C_3 L_3 R_L r_o}$$

10.39 INVALID-ORDER-39 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{L_3}{C_3 C_L L_3 L_L R_1 R_L g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_L s^4 + C_3 C_L L_3 L_L R_L r_o s^4 + C_3 L_3 R_1 R_L g_m r_o s^2 + C_3 L_3 R_1 R_L s^2 + C_3 L_3 R_L r_o s^2 + C_L L_3 L_L R_1 g_m r_o s^3 + C_L L_3 L_L R_1 s^3 + C_L L_3 L_L}$$

10.40 INVALID-ORDER-40 $Z(s) = \left(R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + C_3 R_3 s + 1\right)}{C_3 C_L L_3 R_1 g_m r_o s^3 + C_3 C_L L_3 R_1 s^3 + C_3 C_L L_3 r_o s^3 + C_3 C_L R_1 R_3 g_m r_o s^2 + C_3 C_L R_1 R_3 s^2 + C_3 C_L R_3 r_o s^2 + C_3 L_3 s^2 + C_3 R_1 g_m r_o s + C_3 R_1 s + C_3 R_3 s + C_3 r_o s + C_L R_1 g_m r_o s +}$$

10.41 INVALID-ORDER-41 $Z(s) = \left(R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_1 R_L \left(g_m r_o + 1\right)\left(}{C_3 C_L L_3 R_1 R_L g_m r_o s^3 + C_3 C_L L_3 R_1 R_L s^3 + C_3 C_L L_3 R_L r_o s^3 + C_3 C_L R_1 R_3 R_L g_m r_o s^2 + C_3 C_L R_1 R_3 R_L s^2 + C_3 C_L R_3 R_L r_o s^2 + C_3 L_3 R_1 g_m r_o s^2 + C_3 L_3 R_1 s^2 + C_3 L_3 R_L s^2 + C}$$

10.42 INVALID-ORDER-42 $Z(s) = \left(R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right) \left(C_L R_L s + 1\right) \left(C_3 L_3 s^2 + C_3 R_3 s + 1\right)}{C_3 C_L L_3 R_1 g_m r_o s^3 + C_3 C_L L_3 R_1 s^3 + C_3 C_L L_3 R_L s^3 + C_3 C_L L_3 r_o s^3 + C_3 C_L R_1 R_3 g_m r_o s^2 + C_3 C_L R_1 R_3 s^2 + C_3 C_L R_1 R_L g_m r_o s^2 + C_3 C_L R_1 R_L s^2 + C_3 C_L R_3 R_L s^2 + C_3 C_L R_3 r}$$

10.43 INVALID-ORDER-43 $Z(s) = \left(R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_3 L_3 s^2 + C_3 R_3 s + 1\right)}{C_3 C_L L_3 L_L s^4 + C_3 C_L L_3 R_1 g_m r_o s^3 + C_3 C_L L_3 R_1 s^3 + C_3 C_L L_3 r_o s^3 + C_3 C_L L_L R_1 g_m r_o s^3 + C_3 C_L L_L R_1 s^3 + C_3 C_L L_L R_3 s^3 + C_3 C_L L_L r_o s^3 + C_3 C_L R_1 R_3 g_m r_o s^2 + C_3 C_L R_1 R_3}$$

10.44 INVALID-ORDER-44 $Z(s) = \left(R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L R_1 s \left(g_m r_o + 1\right.}{C_3 C_L L_3 L_L R_1 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C_L L_L R_1 R_3 g_m r_o s^3 + C_3 C_L L_L R_1 R_3 s^3 + C_3 C_L L_L R_3 r_o s^3 + C_3 L_3 L_L s^3 + C_3 L_3 R_1 g_m r_o s^2 + C_3 L_3 R_1 s^2 + C_3}$$

10.45 INVALID-ORDER-45 $Z(s) = \left(R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_\right.}{C_3 C_L L_3 L_L s^4 + C_3 C_L L_3 R_1 g_m r_o s^3 + C_3 C_L L_3 R_1 s^3 + C_3 C_L L_3 R_L s^3 + C_3 C_L L_3 r_o s^3 + C_3 C_L L_L R_1 g_m r_o s^3 + C_3 C_L L_L R_1 s^3 + C_3 C_L L_L R_3 s^3 + C_3 C_L L_L r_o s^3 + C_3 C_L R_1 R_3 g_m r}$$

10.46 INVALID-ORDER-46 $Z(s) = \left(R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_3 C_L L_3 L_L R_1 R_L g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_L s^4 + C_3 C_L L_3 L_L R_L r_o s^4 + C_3 C_L L_L R_1 R_3 R_L g_m r_o s^3 + C_3 C_L L_L R_1 R_3 R_L s^3 + C_3 C_L L_L R_3 R_L r_o s^3 + C_3 L_3 L_L R_1 g_m r_o s^3 + C_3 L_3 L_L}$$

10.47 INVALID-ORDER-47 $Z(s) = \left(R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_3 C_L L_3 L_L R_1 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 s^4 + C_3 C_L L_3 L_L R_L s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C_L L_L R_1 R_3 g_m r_o s^3 + C_3 C_L L_L R_1 R_3 s^3 + C_3 C_L L_L R_1 R_L g_m r_o s^3 + C_3 C_L L_L R_1 R_L s^3 + C_3$$

10.48 INVALID-ORDER-48 $Z(s) = \left(R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_3 C_L L_3 L_L R_1 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 s^4 + C_3 C_L L_3 L_L R_L s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C_L L_3 R_1 R_L g_m r_o s^3 + C_3 C_L L_3 R_1 R_L s^3 + C_3 C_L L_3 R_L r_o s^3 + C_3 C_L L_L R_1 R_3 g_m r_o s^3 + C_3 C$$

10.49 INVALID-ORDER-49 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_3 R_1}{C_3 C_L L_3 R_1 R_3 R_L g_m r_o s^3 + C_3 C_L L_3 R_1 R_3 R_L s^3 + C_3 C_L L_3 R_3 R_L r_o s^3 + C_3 L_3 R_1 R_3 g_m r_o s^2 + C_3 L_3 R_1 R_3 s^2 + C_3 L_3 R_3 r_o s^2 + C_L L_3 R_1 R_3 g_m r_o s^2 + C_L L_3 R_1 R_3 s^2 + C_L L_3 R_1 R_L$$

10.50 INVALID-ORDER-50 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_3 R_1}{C_3 C_L L_3 L_L R_1 R_3 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_3 s^4 + C_3 C_L L_3 L_L R_3 r_o s^4 + C_3 L_3 R_1 R_3 g_m r_o s^2 + C_3 L_3 R_1 R_3 s^2 + C_3 L_3 R_3 r_o s^2 + C_L L_3 L_L R_1 g_m r_o s^3 + C_L L_3 L_L R_1 s^3 + C_L L_3 L_L R_3$$

10.51 INVALID-ORDER-51 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_3 C_L L_3 L_L R_1 R_3 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_3 s^4 + C_3 C_L L_3 L_L R_3 r_o s^4 + C_3 C_L L_3 R_1 R_3 R_L g_m r_o s^3 + C_3 C_L L_3 R_1 R_3 R_L s^3 + C_3 C_L L_3 R_3 R_L r_o s^3 + C_3 L_3 R_1 R_3 g_m r_o s^2 + C_3 L_3 R_1 R$$

10.52 INVALID-ORDER-52 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_3C_LL_3L_LR_1R_3R_Lg_mr_os^4 + C_3C_LL_3L_LR_1R_3R_Ls^4 + C_3C_LL_3L_LR_3R_Lr_os^4 + C_3L_3L_LR_1R_3g_mr_os^3 + C_3L_3L_LR_1R_3s^3 + C_3L_3L_LR_3r_os^3 + C_3L_3R_1R_3R_Lg_mr_os^2 + C_3L_3R}$$

10.53 INVALID-ORDER-53 $Z(s) = \left(R_1,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_3C_LL_3L_LR_1R_3R_Lg_mr_os^4 + C_3C_LL_3L_LR_1R_3R_Ls^4 + C_3C_LL_3L_LR_3R_Lr_os^4 + C_3L_3R_1R_3R_Lg_mr_os^2 + C_3L_3R_1R_3R_Ls^2 + C_3L_3R_3R_Lr_os^2 + C_LL_3L_LR_1R_3g_mr_os^3 + C_LL_3}$$

10.54 INVALID-ORDER-54 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(g_mr_o+1\right)\left(C_3L_3R_3s^2 + L_3s + R_3\right)}{C_3C_LL_3R_1R_3g_mr_os^3 + C_3C_LL_3R_1R_3s^3 + C_3C_LL_3R_3r_os^3 + C_3L_3R_1g_mr_os^2 + C_3L_3R_1s^2 + C_3L_3R_3s^2 + C_3L_3r_os^2 + C_LL_3R_1g_mr_os^2 + C_LL_3R_1s^2 + C_LL_3r_os^2 + C_LR_1R_3}$$

10.55 INVALID-ORDER-55 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_3C_LL_3R_1R_3R_Lg_mr_os^3 + C_3C_LL_3R_1R_3R_Ls^3 + C_3C_LL_3R_3R_Lr_os^3 + C_3L_3R_1R_3g_mr_os^2 + C_3L_3R_1R_3s^2 + C_3L_3R_1R_Lg_mr_os^2 + C_3L_3R_1R_Ls^2 + C_3L_3R_3R_Ls^2 + C_3L_3R_3r_o}$$

10.56 INVALID-ORDER-56 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(}{C_3C_LL_3R_1R_3g_mr_os^3 + C_3C_LL_3R_1R_3s^3 + C_3C_LL_3R_1R_Lg_mr_os^3 + C_3C_LL_3R_1R_Ls^3 + C_3C_LL_3R_3R_Ls^3 + C_3C_LL_3R_3r_os^3 + C_3C_LL_3R_Lr_os^3 + C_3L_3R_1g_mr_os^2 + C_3L_3R_1s^2}$$

10.57 INVALID-ORDER-57 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 (}{C_3 C_L L_3 L_L R_1 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 s^4 + C_3 C_L L_3 L_L R_3 s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C_L L_3 R_1 R_3 g_m r_o s^3 + C_3 C_L L_3 R_1 R_3 s^3 + C_3 C_L L_3 R_3 r_o s^3 + C_3 L_3 R_1 g_m r_o s^2 + C_3 L_3 R_1 s^2 +}$$

10.58 INVALID-ORDER-58 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_3 C_L L_3 L_L R_1 R_3 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_3 s^4 + C_3 C_L L_3 L_L R_3 r_o s^4 + C_3 L_3 L_L R_1 g_m r_o s^3 + C_3 L_3 L_L R_1 s^3 + C_3 L_3 L_L R_3 s^3 + C_3 L_3 L_L r_o s^3 + C_3 L_3 R_1 R_3 g_m r_o s^2 + C_3 L_3 R_1 R_3 s}$$

10.59 INVALID-ORDER-59 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_3 C_L L_3 L_L R_1 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 s^4 + C_3 C_L L_3 L_L R_3 s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C_L L_3 R_1 R_3 g_m r_o s^3 + C_3 C_L L_3 R_1 R_3 s^3 + C_3 C_L L_3 R_1 R_L g_m r_o s^3 + C_3 C_L L_3 R_1 R_L s^3 + C_3 C}$$

10.60 INVALID-ORDER-60 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_3 C_L L_3 L_L R_1 R_3 R_L g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_3 R_L s^4 + C_3 C_L L_3 L_L R_3 R_L r_o s^4 + C_3 L_3 L_L R_1 R_3 g_m r_o s^3 + C_3 L_3 L_L R_1 R_3 s^3 + C_3 L_3 L_L R_1 R_L g_m r_o s^3 + C_3 L_3 L_L R_1 R_L s^3 + C_3 L_3}$$

10.61 INVALID-ORDER-61 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_3 C_L L_3 L_L R_1 R_3 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_3 s^4 + C_3 C_L L_3 L_L R_1 R_L g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_L s^4 + C_3 C_L L_3 L_L R_3 R_L s^4 + C_3 C_L L_3 L_L R_3 r_o s^4 + C_3 C_L L_3 L_L R_L r_o s^4 + C_3 L_3 L_L}$$

10.62 INVALID-ORDER-62 $Z(s) = \left(R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_3C_LL_3L_LR_1R_3g_mr_os^4 + C_3C_LL_3L_LR_1R_3s^4 + C_3C_LL_3L_LR_1R_Lg_mr_os^4 + C_3C_LL_3L_LR_1R_Ls^4 + C_3C_LL_3L_LR_3R_Ls^4 + C_3C_LL_3L_LR_3r_os^4 + C_3C_LL_3L_LR_Lr_os^4 + C_3C_LL_3$$

10.63 INVALID-ORDER-63 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1R_3\left(g_mr_o+1\right)\left(C_3L_3s^2+1\right)}{C_3C_LL_3R_1R_3g_mr_os^3 + C_3C_LL_3R_1R_3s^3 + C_3C_LL_3R_3r_os^3 + C_3L_3R_1g_mr_os^2 + C_3L_3R_1s^2 + C_3L_3R_3s^2 + C_3L_3r_os^2 + C_3R_1R_3g_mr_os + C_3R_1R_3s + C_3R_3r_os + C_LR_1R_3g_mr$$

10.64 INVALID-ORDER-64 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{R_1R_3R_L}{C_3C_LL_3R_1R_3R_Lg_mr_os^3 + C_3C_LL_3R_1R_3R_Ls^3 + C_3C_LL_3R_3R_Lr_os^3 + C_3L_3R_1R_3g_mr_os^2 + C_3L_3R_1R_3s^2 + C_3L_3R_1R_Lg_mr_os^2 + C_3L_3R_1R_Ls^2 + C_3L_3R_3R_Ls^2 + C_3L_3R_3r_o$$

10.65 INVALID-ORDER-65 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_3C_LL_3R_1R_3g_mr_os^3 + C_3C_LL_3R_1R_3s^3 + C_3C_LL_3R_1R_Lg_mr_os^3 + C_3C_LL_3R_1R_Ls^3 + C_3C_LL_3R_3R_Ls^3 + C_3C_LL_3R_3r_os^3 + C_3C_LL_3R_Lr_os^3 + C_3C_LR_1R_3R_Lg_mr_os^2 + C_3C$$

10.66 INVALID-ORDER-66 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ L_Ls+\frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_3C_LL_3L_LR_1g_mr_os^4 + C_3C_LL_3L_LR_1s^4 + C_3C_LL_3L_LR_3s^4 + C_3C_LL_3L_Lr_os^4 + C_3C_LL_3R_1R_3g_mr_os^3 + C_3C_LL_3R_1R_3s^3 + C_3C_LL_3R_3r_os^3 + C_3C_LL_LR_1R_3g_mr_os^3 + C_3C_L$$

10.67 INVALID-ORDER-67 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R}{C_3 C_L L_3 L_L R_1 R_3 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_3 s^4 + C_3 C_L L_3 L_L R_3 r_o s^4 + C_3 L_3 L_L R_1 g_m r_o s^3 + C_3 L_3 L_L R_1 s^3 + C_3 L_3 L_L R_3 s^3 + C_3 L_3 L_L r_o s^3 + C_3 L_3 R_1 R_3 g_m r_o s^2 + C_3 L_3 R_1 R_3 s}$$

10.68 INVALID-ORDER-68 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_3 C_L L_3 L_L R_1 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 s^4 + C_3 C_L L_3 L_L R_3 s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C_L L_3 R_1 R_3 g_m r_o s^3 + C_3 C_L L_3 R_1 R_3 s^3 + C_3 C_L L_3 R_1 R_L g_m r_o s^3 + C_3 C_L L_3 R_1 R_L s^3 + C_3 C}$$

10.69 INVALID-ORDER-69 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_3 C_L L_3 L_L R_1 R_3 R_L g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_3 R_L s^4 + C_3 C_L L_3 L_L R_3 R_L r_o s^4 + C_3 L_3 L_L R_1 R_3 g_m r_o s^3 + C_3 L_3 L_L R_1 R_3 s^3 + C_3 L_3 L_L R_1 R_L g_m r_o s^3 + C_3 L_3 L_L R_1 R_L s^3 + C_3 L_3}$$

10.70 INVALID-ORDER-70 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_3 C_L L_3 L_L R_1 R_3 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_3 s^4 + C_3 C_L L_3 L_L R_1 R_L g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_L s^4 + C_3 C_L L_3 L_L R_3 R_L s^4 + C_3 C_L L_3 L_L R_3 r_o s^4 + C_3 C_L L_3 L_L R_L r_o s^4 + C_3 C_L L}$$

10.71 INVALID-ORDER-71 $Z(s) = \left(R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_3 C_L L_3 L_L R_1 R_3 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_3 s^4 + C_3 C_L L_3 L_L R_1 R_L g_m r_o s^4 + C_3 C_L L_3 L_L R_1 R_L s^4 + C_3 C_L L_3 L_L R_3 R_L s^4 + C_3 C_L L_3 L_L R_3 r_o s^4 + C_3 C_L L_3 L_L R_L r_o s^4 + C_3 C_L L_3}$$

10.72 INVALID-ORDER-72 $Z(s) = (L_1 s,\ \infty,\ R_3,\ \infty,\ \infty,\ R_L)$

$$H(s) = \frac{L_1 R_3 R_L s\left(g_m r_o + 1\right)}{L_1 R_3 g_m r_o s + L_1 R_3 s + L_1 R_L g_m r_o s + L_1 R_L s + R_3 R_L + R_3 r_o + R_L r_o}$$

10.73 INVALID-ORDER-73 $Z(s) = \left(L_1 s,\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_3 s\left(g_m r_o + 1\right)\left(C_L L_L s^2 + 1\right)}{C_L L_1 L_L g_m r_o s^3 + C_L L_1 L_L s^3 + C_L L_1 R_3 g_m r_o s^2 + C_L L_1 R_3 s^2 + C_L L_L R_3 s^2 + C_L L_L r_o s^2 + C_L R_3 r_o s + L_1 g_m r_o s + L_1 s + R_3 + r_o}$$

10.74 INVALID-ORDER-74 $Z(s) = \left(L_1 s,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_1 L_L R_3 s^2\left(g_m r_o + 1\right)}{C_L L_1 L_L R_3 g_m r_o s^3 + C_L L_1 L_L R_3 s^3 + C_L L_L R_3 r_o s^2 + L_1 L_L g_m r_o s^2 + L_1 L_L s^2 + L_1 R_3 g_m r_o s + L_1 R_3 s + L_L R_3 s + L_L r_o s + R_3 r_o}$$

10.75 INVALID-ORDER-75 $Z(s) = \left(L_1 s,\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_3 s\left(g_m r_o + 1\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_L L_1 L_L g_m r_o s^3 + C_L L_1 L_L s^3 + C_L L_1 R_3 g_m r_o s^2 + C_L L_1 R_3 s^2 + C_L L_1 R_L g_m r_o s^2 + C_L L_1 R_L s^2 + C_L L_L R_3 s^2 + C_L L_L r_o s^2 + C_L R_3 R_L s + C_L R_3 r_o s + C_L R_L r_o s + L_1 g_m r_o s +$$

10.76 INVALID-ORDER-76 $Z(s) = \left(L_1 s,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_L R_3 R_L s^2\left(g_m r_o + 1\right)}{C_L L_1 L_L R_3 R_L g_m r_o s^3 + C_L L_1 L_L R_3 R_L s^3 + C_L L_L R_3 R_L r_o s^2 + L_1 L_L R_3 g_m r_o s^2 + L_1 L_L R_3 s^2 + L_1 L_L R_L g_m r_o s^2 + L_1 L_L R_L s^2 + L_1 R_3 R_L g_m r_o s + L_1 R_3 R_L s + L_L R_3 R_L s + L$$

10.77 INVALID-ORDER-77 $Z(s) = \left(L_1 s,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{L_1 R_3 s\left(g_m r_o + 1\right)\left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_L L_1 L_L R_3 g_m r_o s^3 + C_L L_1 L_L R_3 s^3 + C_L L_1 L_L R_L g_m r_o s^3 + C_L L_1 L_L R_L s^3 + C_L L_L R_3 R_L s^2 + C_L L_L R_3 r_o s^2 + C_L L_L R_L r_o s^2 + L_1 L_L g_m r_o s^2 + L_1 L_L s^2 + L_1 R_3 g_m r_o s + L_1 R_3$$

10.78 INVALID-ORDER-78 $Z(s) = \left(L_1 s,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{L_1 R_3 R_L s\left(g_m r_o+1\right)\left(C_L L_L s^2+1\right)}{C_L L_1 L_L R_3 g_m r_o s^3 + C_L L_1 L_L R_3 s^3 + C_L L_1 L_L R_L g_m r_o s^3 + C_L L_1 L_L R_L s^3 + C_L L_1 R_3 R_L g_m r_o s^2 + C_L L_1 R_3 R_L s^2 + C_L L_L R_3 R_L s^2 + C_L L_L R_3 r_o s^2 + C_L L_L R_L r_o s^2 + C_L R_3 R$$

10.79 INVALID-ORDER-79 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o+1\right)\left(C_L R_L s+1\right)}{C_3 C_L L_1 R_L g_m r_o s^3 + C_3 C_L L_1 R_L s^3 + C_3 C_L R_L r_o s^2 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 r_o s + C_L L_1 g_m r_o s^2 + C_L L_1 s^2 + C_L R_L s + C_L r_o s + 1}$$

10.80 INVALID-ORDER-80 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s+\frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o+1\right)\left(C_L L_L s^2+1\right)}{C_3 C_L L_1 L_L g_m r_o s^4 + C_3 C_L L_1 L_L s^4 + C_3 C_L L_L r_o s^3 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 r_o s + C_L L_1 g_m r_o s^2 + C_L L_1 s^2 + C_L L_L s^2 + C_L r_o s + 1}$$

10.81 INVALID-ORDER-81 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_L s^2\left(g_m r_o+1\right)}{C_3 L_1 L_L g_m r_o s^3 + C_3 L_1 L_L s^3 + C_3 L_L r_o s^2 + C_L L_1 L_L g_m r_o s^3 + C_L L_1 L_L s^3 + C_L L_L r_o s^2 + L_1 g_m r_o s + L_1 s + L_L s + r_o}$$

10.82 INVALID-ORDER-82 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s+R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o+1\right)\left(C_L L_L s^2+C_L R_L s+1\right)}{C_3 C_L L_1 L_L g_m r_o s^4 + C_3 C_L L_1 L_L s^4 + C_3 C_L L_1 R_L g_m r_o s^3 + C_3 C_L L_1 R_L s^3 + C_3 C_L L_L r_o s^3 + C_3 C_L R_L r_o s^2 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 r_o s + C_L L_1 g_m r_o s^2 + C_L L_1 s^2 + C_L$$

10.83 INVALID-ORDER-83 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_L R_L s^2 \left(g_m r_o + 1\right)}{C_3 L_1 L_L R_L g_m r_o s^3 + C_3 L_1 L_L R_L s^3 + C_3 L_L R_L r_o s^2 + C_L L_1 L_L R_L g_m r_o s^3 + C_L L_1 L_L R_L s^3 + C_L L_L R_L r_o s^2 + L_1 L_L g_m r_o s^2 + L_1 L_L s^2 + L_1 R_L g_m r_o s + L_1 R_L s + L_L R_L s + L_1}$$

10.84 INVALID-ORDER-84 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{L_1 s \left(g_m r_o + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_3 C_L L_1 L_L R_L g_m r_o s^4 + C_3 C_L L_1 L_L R_L s^4 + C_3 C_L L_L R_L r_o s^3 + C_3 L_1 L_L g_m r_o s^3 + C_3 L_1 L_L s^3 + C_3 L_1 R_L g_m r_o s^2 + C_3 L_1 R_L s^2 + C_3 L_L r_o s^2 + C_3 R_L r_o s + C_L L_1 L_L g_m r_o s^3 + C}$$

10.85 INVALID-ORDER-85 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{L_1 R_L s \left(g_m r_o + 1\right) \left(C_L L_L s^2 + 1\right)}{C_3 C_L L_1 L_L R_L g_m r_o s^4 + C_3 C_L L_1 L_L R_L s^4 + C_3 C_L L_L R_L r_o s^3 + C_3 L_1 R_L g_m r_o s^2 + C_3 L_1 R_L s^2 + C_3 R_L r_o s + C_L L_1 L_L g_m r_o s^3 + C_L L_1 L_L s^3 + C_L L_1 R_L g_m r_o s^2 + C_L L_1 R_L s^2 +}$$

10.86 INVALID-ORDER-86 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_3 s \left(g_m r_o + 1\right) \left(C_L R_L s + 1\right)}{C_3 C_L L_1 R_3 R_L g_m r_o s^3 + C_3 C_L L_1 R_3 R_L s^3 + C_3 C_L R_3 R_L r_o s^2 + C_3 L_1 R_3 g_m r_o s^2 + C_3 L_1 R_3 s^2 + C_3 R_3 r_o s + C_L L_1 R_3 g_m r_o s^2 + C_L L_1 R_3 s^2 + C_L L_1 R_L g_m r_o s^2 + C_L L_1 R_L s^2 + C}$$

10.87 INVALID-ORDER-87 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_3 s \left(g_m r_o + 1\right) \left(C_L L_L s^2 + 1\right)}{C_3 C_L L_1 L_L R_3 g_m r_o s^4 + C_3 C_L L_1 L_L R_3 s^4 + C_3 C_L L_L R_3 r_o s^3 + C_3 L_1 R_3 g_m r_o s^2 + C_3 L_1 R_3 s^2 + C_3 R_3 r_o s + C_L L_1 L_L g_m r_o s^3 + C_L L_1 L_L s^3 + C_L L_1 R_3 g_m r_o s^2 + C_L L_1 R_3 s^2 + C_L}$$

10.88 INVALID-ORDER-88 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_L R_3 s^2 \left(g_m r_o + 1\right)}{C_3 L_1 L_L R_3 g_m r_o s^3 + C_3 L_1 L_L R_3 s^3 + C_3 L_L R_3 r_o s^2 + C_L L_1 L_L R_3 g_m r_o s^3 + C_L L_1 L_L R_3 s^3 + C_L L_L R_3 r_o s^2 + L_1 L_L g_m r_o s^2 + L_1 L_L s^2 + L_1 R_3 g_m r_o s + L_1 R_3 s + L_L R_3 s + L_L r_o s}$$

10.89 INVALID-ORDER-89 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_3 s \left(g_m r_o +$$
$$C_3 C_L L_1 L_L R_3 g_m r_o s^4 + C_3 C_L L_1 L_L R_3 s^4 + C_3 C_L L_1 R_3 R_L g_m r_o s^3 + C_3 C_L L_1 R_3 R_L s^3 + C_3 C_L L_L R_3 r_o s^3 + C_3 C_L R_3 R_L r_o s^2 + C_3 L_1 R_3 g_m r_o s^2 + C_3 L_1 R_3 s^2 + C_3 R_3 r_o s + C_L L$$

10.90 INVALID-ORDER-90 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_L R_3 R_L s^2 \left(g_m r_o + 1\right)}{C_3 L_1 L_L R_3 R_L g_m r_o s^3 + C_3 L_1 L_L R_3 R_L s^3 + C_3 L_L R_3 R_L r_o s^2 + C_L L_1 L_L R_3 R_L g_m r_o s^3 + C_L L_1 L_L R_3 R_L s^3 + C_L L_L R_3 R_L r_o s^2 + L_1 L_L R_3 g_m r_o s^2 + L_1 L_L R_3 s^2 + L_1 L_L R_L g_m r_o s$$

10.91 INVALID-ORDER-91 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_L R_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_L R_3 R_L s^4 + C_3 C_L L_L R_3 R_L r_o s^3 + C_3 L_1 L_L R_3 g_m r_o s^3 + C_3 L_1 L_L R_3 s^3 + C_3 L_1 R_3 R_L g_m r_o s^2 + C_3 L_1 R_3 R_L s^2 + C_3 L_L R_3 r_o s^2 + C_3 R_3 R_L r$$

10.92 INVALID-ORDER-92 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{L_1}{C_3 C_L L_1 L_L R_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_L R_3 R_L s^4 + C_3 C_L L_L R_3 R_L r_o s^3 + C_3 L_1 R_3 R_L g_m r_o s^2 + C_3 L_1 R_3 R_L s^2 + C_3 R_3 R_L r_o s + C_L L_1 L_L R_3 g_m r_o s^3 + C_L L_1 L_L R_3 s^3 + C_L L_1 L_L R$$

10.93 INVALID-ORDER-93 $Z(s) = \left(L_1 s,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o + 1\right)\left(C_3 R_3 s + 1\right)}{C_3 C_L L_1 R_3 g_m r_o s^3 + C_3 C_L L_1 R_3 s^3 + C_3 C_L R_3 r_o s^2 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 R_3 s + C_3 r_o s + C_L L_1 g_m r_o s^2 + C_L L_1 s^2 + C_L r_o s + 1}$$

10.94 INVALID-ORDER-94 $Z(s) = \left(L_1 s,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 R_L s\left(g_m r_o + 1\right)\left(C_3 R_3 s + 1\right)}{C_3 C_L L_1 R_3 R_L g_m r_o s^3 + C_3 C_L L_1 R_3 R_L s^3 + C_3 C_L R_3 R_L r_o s^2 + C_3 L_1 R_3 g_m r_o s^2 + C_3 L_1 R_3 s^2 + C_3 L_1 R_L g_m r_o s^2 + C_3 L_1 R_L s^2 + C_3 R_3 R_L s + C_3 R_3 r_o s + C_3 R_L r_o s + C_L L_1 R_L g$$

10.95 INVALID-ORDER-95 $Z(s) = \left(L_1 s,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o + 1\right)\left(C_3 R_3 s + 1\right)\left(C_L R_L s + 1\right)}{C_3 C_L L_1 R_3 g_m r_o s^3 + C_3 C_L L_1 R_3 s^3 + C_3 C_L L_1 R_L g_m r_o s^3 + C_3 C_L L_1 R_L s^3 + C_3 C_L R_3 R_L s^2 + C_3 C_L R_3 r_o s^2 + C_3 C_L R_L r_o s^2 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 R_3 s + C_3 r_o s + C_L L$$

10.96 INVALID-ORDER-96 $Z(s) = \left(L_1 s,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o + 1\right)\left(C_3 R_3 s + 1\right)\left(C_L L_L s^2 + 1\right)}{C_3 C_L L_1 L_L g_m r_o s^4 + C_3 C_L L_1 L_L s^4 + C_3 C_L L_1 R_3 g_m r_o s^3 + C_3 C_L L_1 R_3 s^3 + C_3 C_L L_L R_3 s^3 + C_3 C_L L_L r_o s^3 + C_3 C_L R_3 r_o s^2 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 R_3 s + C_3 r_o s + C_L L$$

10.97 INVALID-ORDER-97 $Z(s) = \left(L_1 s,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_L s^2\left(g_m r_o + 1\right)\left(C_3 R_3 s + 1\right)}{C_3 C_L L_1 L_L R_3 g_m r_o s^4 + C_3 C_L L_1 L_L R_3 s^4 + C_3 C_L L_L R_3 r_o s^3 + C_3 L_1 L_L g_m r_o s^3 + C_3 L_1 L_L s^3 + C_3 L_1 R_3 g_m r_o s^2 + C_3 L_1 R_3 s^2 + C_3 L_L R_3 s^2 + C_3 L_L r_o s^2 + C_3 R_3 r_o s + C_L L_1 L_L$$

10.98 INVALID-ORDER-98 $Z(s) = \left(L_1 s,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o + 1\right)\left(C_3 R_3 s + 1\right)\left(C_L L_L s^2 + C_L R_L s +\right.}{C_3 C_L L_1 L_L g_m r_o s^4 + C_3 C_L L_1 L_L s^4 + C_3 C_L L_1 R_3 g_m r_o s^3 + C_3 C_L L_1 R_3 s^3 + C_3 C_L L_1 R_L g_m r_o s^3 + C_3 C_L L_1 R_L s^3 + C_3 C_L L_L R_3 s^3 + C_3 C_L L_L r_o s^3 + C_3 C_L R_3 R_L s^2 + C_3 C_L R_3 r$$

10.99 INVALID-ORDER-99 $Z(s) = \left(L_1 s,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_L R_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_L R_3 R_L s^4 + C_3 C_L L_L R_3 R_L r_o s^3 + C_3 L_1 L_L R_3 g_m r_o s^3 + C_3 L_1 L_L R_3 s^3 + C_3 L_1 L_L R_L g_m r_o s^3 + C_3 L_1 L_L R_L s^3 + C_3 L_1 R_3 R_L g_m r_o s^2 + C_3 L}$$

10.100 INVALID-ORDER-100 $Z(s) = \left(L_1 s,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{L}{C_3 C_L L_1 L_L R_3 g_m r_o s^4 + C_3 C_L L_1 L_L R_3 s^4 + C_3 C_L L_1 L_L R_L g_m r_o s^4 + C_3 C_L L_1 L_L R_L s^4 + C_3 C_L L_L R_3 R_L s^3 + C_3 C_L L_L R_3 r_o s^3 + C_3 C_L L_L R_L r_o s^3 + C_3 L_1 L_L g_m r_o s^3 + C_3 L_1 L_L}$$

10.101 INVALID-ORDER-101 $Z(s) = \left(L_1 s,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_L R_3 g_m r_o s^4 + C_3 C_L L_1 L_L R_3 s^4 + C_3 C_L L_1 L_L R_L g_m r_o s^4 + C_3 C_L L_1 L_L R_L s^4 + C_3 C_L L_1 R_3 R_L g_m r_o s^3 + C_3 C_L L_1 R_3 R_L s^3 + C_3 C_L L_L R_3 R_L s^3 + C_3 C_L L_L R_3 r_o s^3 + C_3}$$

10.102 INVALID-ORDER-102 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_L s\left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + 1\right)}{C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 + C_3 L_1 R_L g_m r_o s^2 + C_3 L_1 R_L s^2 + C_3 L_3 R_L s^2 + C_3 L_3 r_o s^2 + C_3 R_L r_o s + L_1 g_m r_o s + L_1 s + R_L + r_o}$$

10.103 INVALID-ORDER-103 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + 1\right)}{C_3 C_L L_1 L_3 g_m r_o s^4 + C_3 C_L L_1 L_3 s^4 + C_3 C_L L_3 r_o s^3 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 L_3 s^2 + C_3 r_o s + C_L L_1 g_m r_o s^2 + C_L L_1 s^2 + C_L r_o s + 1}$$

10.104 INVALID-ORDER-104 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 R_L s \left(g_m r_o + 1\right) \left(C_3 L_3 s^2 + 1\right)}{C_3 C_L L_1 L_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_L s^4 + C_3 C_L L_3 R_L r_o s^3 + C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 + C_3 L_1 R_L g_m r_o s^2 + C_3 L_1 R_L s^2 + C_3 L_3 R_L s^2 + C_3 L_3 r_o s^2 + C_3 R_L r_o s + C_L L_1 R_L}$$

10.105 INVALID-ORDER-105 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s \left(g_m r_o + 1\right) \left(C_3 L_3 s^2 + 1\right) \left(C_L R_L s + 1\right)}{C_3 C_L L_1 L_3 g_m r_o s^4 + C_3 C_L L_1 L_3 s^4 + C_3 C_L L_1 R_L g_m r_o s^3 + C_3 C_L L_1 R_L s^3 + C_3 C_L L_3 R_L s^3 + C_3 C_L L_3 r_o s^3 + C_3 C_L R_L r_o s^2 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 L_3 s^2 + C_3 r_o s + C_L}$$

10.106 INVALID-ORDER-106 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s \left(g_m r_o + 1\right) \left(C_3 L_3 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{C_3 C_L L_1 L_3 g_m r_o s^4 + C_3 C_L L_1 L_3 s^4 + C_3 C_L L_1 L_L g_m r_o s^4 + C_3 C_L L_1 L_L s^4 + C_3 C_L L_3 L_L s^4 + C_3 C_L L_3 r_o s^3 + C_3 C_L L_L r_o s^3 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 L_3 s^2 + C_3 r_o s + C_L}$$

10.107 INVALID-ORDER-107 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_L s^2 \left(g_m r_o + 1\right) \left(C_3 L_3 s^2 + 1\right)}{C_3 C_L L_1 L_3 L_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L s^5 + C_3 C_L L_3 L_L r_o s^4 + C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 + C_3 L_1 L_L g_m r_o s^3 + C_3 L_1 L_L s^3 + C_3 L_3 L_L s^3 + C_3 L_3 r_o s^2 + C_3 L_L r_o s^2 + C_L L_1 L_L}$$

10.108 INVALID-ORDER-108 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s \left(g_m r_o + 1\right) \left(C_3 L_3 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s +\right.}{C_3 C_L L_1 L_3 g_m r_o s^4 + C_3 C_L L_1 L_3 s^4 + C_3 C_L L_1 L_L g_m r_o s^4 + C_3 C_L L_1 L_L s^4 + C_3 C_L L_1 R_L g_m r_o s^3 + C_3 C_L L_1 R_L s^3 + C_3 C_L L_3 L_L s^4 + C_3 C_L L_3 R_L s^3 + C_3 C_L L_3 r_o s^3 + C_3 C_L L_L r_o$$

10.109 INVALID-ORDER-109 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L}{C_3 C_L L_1 L_3 L_L R_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_L s^5 + C_3 C_L L_3 L_L R_L r_o s^4 + C_3 L_1 L_3 L_L g_m r_o s^4 + C_3 L_1 L_3 L_L s^4 + C_3 L_1 L_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_L s^3 + C_3 L_1 L_L R_L g_m r_o s^3 + C_3 L_1}$$

10.110 INVALID-ORDER-110 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{L_1}{C_3 C_L L_1 L_3 L_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L s^5 + C_3 C_L L_1 L_L R_L g_m r_o s^4 + C_3 C_L L_1 L_L R_L s^4 + C_3 C_L L_3 L_L R_L s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C_L L_L R_L r_o s^3 + C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3}$$

10.111 INVALID-ORDER-111 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 L_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L s^5 + C_3 C_L L_1 L_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_L s^4 + C_3 C_L L_1 L_L R_L g_m r_o s^4 + C_3 C_L L_1 L_L R_L s^4 + C_3 C_L L_3 L_L R_L s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C}$$

10.112 INVALID-ORDER-112 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 L_3 R_L s^2 \left(g_m r_o + 1\right)}{C_3 L_1 L_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_L s^3 + C_3 L_3 R_L r_o s^2 + L_1 L_3 g_m r_o s^2 + L_1 L_3 s^2 + L_1 R_L g_m r_o s + L_1 R_L s + L_3 R_L s + L_3 r_o s + R_L r_o}$$

10.113 INVALID-ORDER-113 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 L_3 s^2 \left(g_m r_o + 1\right)}{C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 + C_3 L_3 r_o s^2 + C_L L_1 L_3 g_m r_o s^3 + C_L L_1 L_3 s^3 + C_L L_3 r_o s^2 + L_1 g_m r_o s + L_1 s + L_3 s + r_o}$$

10.114 INVALID-ORDER-114 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 L_3 R_L s^2 \left(g_m r_o + 1\right)}{C_3 L_1 L_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_L s^3 + C_3 L_3 R_L r_o s^2 + C_L L_1 L_3 R_L g_m r_o s^3 + C_L L_1 L_3 R_L s^3 + C_L L_3 R_L r_o s^2 + L_1 L_3 g_m r_o s^2 + L_1 L_3 s^2 + L_1 R_L g_m r_o s + L_1 R_L s + L_3 R_L s + L_3 r_o s}$$

10.115 INVALID-ORDER-115 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 L_3 s^2 \left(g_m r_o + 1\right) \left(C_L R_L s + 1\right)}{C_3 C_L L_1 L_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_L s^4 + C_3 C_L L_3 R_L r_o s^3 + C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 + C_3 L_3 r_o s^2 + C_L L_1 L_3 g_m r_o s^3 + C_L L_1 L_3 s^3 + C_L L_1 R_L g_m r_o s^2 + C_L L_1 R_L s^2 + C_L$$

10.116 INVALID-ORDER-116 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 L_3 s^2 \left(g_m r_o + 1\right) \left(C_L L_L s^2 + 1\right)}{C_3 C_L L_1 L_3 L_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L s^5 + C_3 C_L L_3 L_L r_o s^4 + C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 + C_3 L_3 r_o s^2 + C_L L_1 L_3 g_m r_o s^3 + C_L L_1 L_3 s^3 + C_L L_1 L_L g_m r_o s^3 + C_L L_1 L_L s^3 + C_L$$

10.117 INVALID-ORDER-117 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_3 L_L s^2 \left(g_m r_o + 1\right)}{C_3 L_1 L_3 L_L g_m r_o s^3 + C_3 L_1 L_3 L_L s^3 + C_3 L_3 L_L r_o s^2 + C_L L_1 L_3 L_L g_m r_o s^3 + C_L L_1 L_3 L_L s^3 + C_L L_3 L_L r_o s^2 + L_1 L_3 g_m r_o s + L_1 L_3 s + L_1 L_L g_m r_o s + L_1 L_L s + L_3 L_L s + L_3 r_o + L$$

10.118 INVALID-ORDER-118 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 L_3 s^2 \left(g_m r_o +$$

$$C_3 C_L L_1 L_3 L_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L s^5 + C_3 C_L L_1 L_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_L s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C_L L_3 R_L r_o s^3 + C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 + C_3 L_3 r_o s^2 + C_L L_$$

10.119 INVALID-ORDER-119 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_3 L_L R_L s^2 \left(g_m r_o + 1\right)}{C_3 L_1 L_3 L_L R_L g_m r_o s^3 + C_3 L_1 L_3 L_L R_L s^3 + C_3 L_3 L_L R_L r_o s^2 + C_L L_1 L_3 L_L R_L g_m r_o s^3 + C_L L_1 L_3 L_L R_L s^3 + C_L L_3 L_L R_L r_o s^2 + L_1 L_3 L_L g_m r_o s^2 + L_1 L_3 L_L s^2 + L_1 L_3 R_L g_m r_o s -$$

10.120 INVALID-ORDER-120 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 L_L R_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_L s^5 + C_3 C_L L_3 L_L R_L r_o s^4 + C_3 L_1 L_3 L_L g_m r_o s^4 + C_3 L_1 L_3 L_L s^4 + C_3 L_1 L_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_L s^3 + C_3 L_3 L_L r_o s^3 + C_3 L_3 R_L r_o s}$$

10.121 INVALID-ORDER-121 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{L}{C_3 C_L L_1 L_3 L_L R_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_L s^5 + C_3 C_L L_3 L_L R_L r_o s^4 + C_3 L_1 L_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_L s^3 + C_3 L_3 R_L r_o s^2 + C_L L_1 L_3 L_L g_m r_o s^4 + C_L L_1 L_3 L_L s^4 + C_L L_1 L_3 R}$$

10.122 INVALID-ORDER-122 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_L s\left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + C_3 R_3 s + 1\right)}{C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 + C_3 L_1 R_3 g_m r_o s^2 + C_3 L_1 R_3 s^2 + C_3 L_1 R_L g_m r_o s^2 + C_3 L_1 R_L s^2 + C_3 L_3 R_L s^2 + C_3 L_3 r_o s^2 + C_3 R_3 R_L s + C_3 R_3 r_o s + C_3 R_L r_o s + L_1 g_m r_o s + L_1 s}$$

10.123 INVALID-ORDER-123 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + C_3 R_3 s + 1\right)}{C_3 C_L L_1 L_3 g_m r_o s^4 + C_3 C_L L_1 L_3 s^4 + C_3 C_L L_1 R_3 g_m r_o s^3 + C_3 C_L L_1 R_3 s^3 + C_3 C_L L_3 r_o s^3 + C_3 C_L R_3 r_o s^2 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 L_3 s^2 + C_3 R_3 s + C_3 r_o s + C_L L_1 g_m r_o s}$$

10.124 INVALID-ORDER-124 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 R_L s\left(g_m r_o + 1\right.}{C_3 C_L L_1 L_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_L s^4 + C_3 C_L L_1 R_3 R_L g_m r_o s^3 + C_3 C_L L_1 R_3 R_L s^3 + C_3 C_L L_3 R_L r_o s^3 + C_3 C_L R_3 R_L r_o s^2 + C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 + C_3 L_1 R_3 g_m r_o s^2 +}$$

10.125 INVALID-ORDER-125 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s \left(g_m r_o + 1\right) \left(C_L R_L s + 1\right) \left(C_3 L_3 s^2 + C_3 R_3 s + 1}{C_3 C_L L_1 L_3 g_m r_o s^4 + C_3 C_L L_1 L_3 s^4 + C_3 C_L L_1 R_3 g_m r_o s^3 + C_3 C_L L_1 R_3 s^3 + C_3 C_L L_1 R_L g_m r_o s^3 + C_3 C_L L_1 R_L s^3 + C_3 C_L L_3 R_L s^3 + C_3 C_L L_3 r_o s^3 + C_3 C_L R_3 R_L s^2 + C_3 C_L R_3 r_o}$$

10.126 INVALID-ORDER-126 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s \left(g_m r_o + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_3 L_3 s^2 + C_3 R_3 s + 1}{C_3 C_L L_1 L_3 g_m r_o s^4 + C_3 C_L L_1 L_3 s^4 + C_3 C_L L_1 L_L g_m r_o s^4 + C_3 C_L L_1 L_L s^4 + C_3 C_L L_1 R_3 g_m r_o s^3 + C_3 C_L L_1 R_3 s^3 + C_3 C_L L_3 L_L s^4 + C_3 C_L L_3 r_o s^3 + C_3 C_L L_L R_3 s^3 + C_3 C_L L_L r_o}$$

10.127 INVALID-ORDER-127 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_1 L_L s^2 \left(g_m r_o +}{C_3 C_L L_1 L_3 L_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L s^5 + C_3 C_L L_1 L_L R_3 g_m r_o s^4 + C_3 C_L L_1 L_L R_3 s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C_L L_L R_3 r_o s^3 + C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 + C_3 L_1 L_L g_m r_o s^3 +}$$

10.128 INVALID-ORDER-128 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s \left(g_m}{C_3 C_L L_1 L_3 g_m r_o s^4 + C_3 C_L L_1 L_3 s^4 + C_3 C_L L_1 L_L g_m r_o s^4 + C_3 C_L L_1 L_L s^4 + C_3 C_L L_1 R_3 g_m r_o s^3 + C_3 C_L L_1 R_3 s^3 + C_3 C_L L_1 R_L g_m r_o s^3 + C_3 C_L L_1 R_L s^3 + C_3 C_L L_3 L_L s^4 + C_3 C_L}$$

10.129 INVALID-ORDER-129 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 L_L R_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_L s^5 + C_3 C_L L_1 L_L R_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_L R_3 R_L s^4 + C_3 C_L L_3 L_L R_L r_o s^4 + C_3 C_L L_L R_3 R_L r_o s^3 + C_3 L_1 L_3 L_L g_m r_o s^4 + C_3 L_1 L_3}$$

10.130 INVALID-ORDER-130 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 L_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L s^5 + C_3 C_L L_1 L_L R_3 g_m r_o s^4 + C_3 C_L L_1 L_L R_3 s^4 + C_3 C_L L_1 L_L R_L g_m r_o s^4 + C_3 C_L L_1 L_L R_L s^4 + C_3 C_L L_3 L_L R_L s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C}$$

10.131 INVALID-ORDER-131 $Z(s) = \left(L_1 s,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 L_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L s^5 + C_3 C_L L_1 L_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_L s^4 + C_3 C_L L_1 L_L R_3 g_m r_o s^4 + C_3 C_L L_1 L_L R_3 s^4 + C_3 C_L L_1 L_L R_L g_m r_o s^4 + C_3 C_L L_1 L_L R_L s^4 +}$$

10.132 INVALID-ORDER-132 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 L_3 R_3 R_L s^2 \left(g_m r_o + 1\right)}{C_3 L_1 L_3 R_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_3 R_L s^3 + C_3 L_3 R_3 R_L r_o s^2 + L_1 L_3 R_3 g_m r_o s^2 + L_1 L_3 R_3 s^2 + L_1 L_3 R_L g_m r_o s^2 + L_1 L_3 R_L s^2 + L_1 R_3 R_L g_m r_o s + L_1 R_3 R_L s + L_3 R_3 R_L s + L_3 R_{3}}$$

10.133 INVALID-ORDER-133 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 L_3 R_3 s^2 \left(g_m r_o + 1\right)}{C_3 L_1 L_3 R_3 g_m r_o s^3 + C_3 L_1 L_3 R_3 s^3 + C_3 L_3 R_3 r_o s^2 + C_L L_1 L_3 R_3 g_m r_o s^3 + C_L L_1 L_3 R_3 s^3 + C_L L_3 R_3 r_o s^2 + L_1 L_3 g_m r_o s^2 + L_1 L_3 s^2 + L_1 R_3 g_m r_o s + L_1 R_3 s + L_3 R_3 s + L_3 r_o s +}$$

10.134 INVALID-ORDER-134 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{L_1 L_3 R_3 R_L s^2 \left(g_m r_o + 1\right)}{C_3 L_1 L_3 R_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_3 R_L s^3 + C_3 L_3 R_3 R_L r_o s^2 + C_L L_1 L_3 R_3 R_L g_m r_o s^3 + C_L L_1 L_3 R_3 R_L s^3 + C_L L_3 R_3 R_L r_o s^2 + L_1 L_3 R_3 g_m r_o s^2 + L_1 L_3 R_3 s^2 + L_1 L_3 R_L g_m r_o s^2 +}$$

10.135 INVALID-ORDER-135 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 L}{C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_3 R_L s^4 + C_3 C_L L_3 R_3 R_L r_o s^3 + C_3 L_1 L_3 R_3 g_m r_o s^3 + C_3 L_1 L_3 R_3 s^3 + C_3 L_3 R_3 r_o s^2 + C_L L_1 L_3 R_3 g_m r_o s^3 + C_L L_1 L_3 R_3 s^3 + C_L L_1 L_3 R_L g}$$

10.136 INVALID-ORDER-136 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 L_3}{C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_3 s^5 + C_3 C_L L_3 L_L R_3 r_o s^4 + C_3 L_1 L_3 R_3 g_m r_o s^3 + C_3 L_1 L_3 R_3 s^3 + C_3 L_3 R_3 r_o s^2 + C_L L_1 L_3 L_L g_m r_o s^4 + C_L L_1 L_3 L_L s^4 + C_L L_1 L_3 R_3 g}$$

10.137 INVALID-ORDER-137 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_1 L_3 L_L R_3 s^2 \left(g_m r_o + 1\right)}{C_3 L_1 L_3 L_L R_3 g_m r_o s^3 + C_3 L_1 L_3 L_L R_3 s^3 + C_3 L_3 L_L R_3 r_o s^2 + C_L L_1 L_3 L_L R_3 g_m r_o s^3 + C_L L_1 L_3 L_L R_3 s^3 + C_L L_3 L_L R_3 r_o s^2 + L_1 L_3 L_L g_m r_o s^2 + L_1 L_3 L_L s^2 + L_1 L_3 R_3 g_m r_o s + L}$$

10.138 INVALID-ORDER-138 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_3 s^5 + C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_3 R_L s^4 + C_3 C_L L_3 L_L R_3 r_o s^4 + C_3 C_L L_3 R_3 R_L r_o s^3 + C_3 L_1 L_3 R_3 g_m r_o s^3 + C_3 L_1 L_3 R_3}$$

10.139 INVALID-ORDER-139 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_3 L}{C_3 L_1 L_3 L_L R_3 R_L g_m r_o s^3 + C_3 L_1 L_3 L_L R_3 R_L s^3 + C_3 L_3 L_L R_3 R_L r_o s^2 + C_L L_1 L_3 L_L R_3 R_L g_m r_o s^3 + C_L L_1 L_3 L_L R_3 R_L s^3 + C_L L_3 L_L R_3 R_L r_o s^2 + L_1 L_3 L_L R_3 g_m r_o s^2 + L_1 L_3 L_L R}$$

10.140 INVALID-ORDER-140 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 L_L R_3 R_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_3 R_L s^5 + C_3 C_L L_3 L_L R_3 R_L r_o s^4 + C_3 L_1 L_3 L_L R_3 g_m r_o s^4 + C_3 L_1 L_3 L_L R_3 s^4 + C_3 L_1 L_3 R_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_3 R_L s^3 + C_3 L_3 L}$$

10.141 INVALID-ORDER-141 $Z(s) = \left(L_1 s,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 L_L R_3 R_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_3 R_L s^5 + C_3 C_L L_3 L_L R_3 R_L r_o s^4 + C_3 L_1 L_3 R_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_3 R_L s^3 + C_3 L_3 R_3 R_L r_o s^2 + C_L L_1 L_3 L_L R_3 g_m r_o s^4 + C_L L_1 L}$$

10.142 INVALID-ORDER-142 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_L s \left(g_m r_o + 1\right)\left(C_3 L_3 R_3 s^2 + L_3 s + R_3\right)}{C_3 L_1 L_3 R_3 g_m r_o s^3 + C_3 L_1 L_3 R_3 s^3 + C_3 L_1 L_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_L s^3 + C_3 L_3 R_3 R_L s^2 + C_3 L_3 R_3 r_o s^2 + C_3 L_3 R_L r_o s^2 + L_1 L_3 g_m r_o s^2 + L_1 L_3 s^2 + L_1 R_3 g_m r_o s + L_1 R_3 s + L}$$

10.143 INVALID-ORDER-143 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s \left(g_m r_o + 1\right)\left(C_3 L_3 R_3 s^2 + L_3 s + R_3\right)}{C_3 C_L L_1 L_3 R_3 g_m r_o s^4 + C_3 C_L L_1 L_3 R_3 s^4 + C_3 C_L L_3 R_3 r_o s^3 + C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 + C_3 L_3 R_3 s^2 + C_3 L_3 r_o s^2 + C_L L_1 L_3 g_m r_o s^3 + C_L L_1 L_3 s^3 + C_L L_1 R_3 g_m r_o s^2 + C_L L}$$

10.144 INVALID-ORDER-144 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_3 R_L s^4 + C_3 C_L L_3 R_3 R_L r_o s^3 + C_3 L_1 L_3 R_3 g_m r_o s^3 + C_3 L_1 L_3 R_3 s^3 + C_3 L_1 L_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_L s^3 + C_3 L_3 R_3 R_L s^2 + C_3 L_3 R_3 r_o s}$$

10.145 INVALID-ORDER-145 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1}{C_3 C_L L_1 L_3 R_3 g_m r_o s^4 + C_3 C_L L_1 L_3 R_3 s^4 + C_3 C_L L_1 L_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_L s^4 + C_3 C_L L_3 R_3 R_L s^3 + C_3 C_L L_3 R_3 r_o s^3 + C_3 C_L L_3 R_L r_o s^3 + C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 +}$$

10.146 INVALID-ORDER-146 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s}{C_3 C_L L_1 L_3 L_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L s^5 + C_3 C_L L_1 L_3 R_3 g_m r_o s^4 + C_3 C_L L_1 L_3 R_3 s^4 + C_3 C_L L_3 L_L R_3 s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C_L L_3 R_3 r_o s^3 + C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 +}$$

10.147 INVALID-ORDER-147 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_3 s^5 + C_3 C_L L_3 L_L R_3 r_o s^4 + C_3 L_1 L_3 L_L g_m r_o s^4 + C_3 L_1 L_3 L_L s^4 + C_3 L_1 L_3 R_3 g_m r_o s^3 + C_3 L_1 L_3 R_3 s^3 + C_3 L_3 L_L R_3 s^3 + C_3 L_3 L_L r_o s^3}$$

10.148 INVALID-ORDER-148 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 L_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L s^5 + C_3 C_L L_1 L_3 R_3 g_m r_o s^4 + C_3 C_L L_1 L_3 R_3 s^4 + C_3 C_L L_1 L_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_L s^4 + C_3 C_L L_3 L_L R_3 s^4 + C_3 C_L L_3 L_L r_o s^4 + C_3 C_L}$$

10.149 INVALID-ORDER-149 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 L_L R_3 R_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_3 R_L s^5 + C_3 C_L L_3 L_L R_3 R_L r_o s^4 + C_3 L_1 L_3 L_L R_3 g_m r_o s^4 + C_3 L_1 L_3 L_L R_3 s^4 + C_3 L_1 L_3 L_L R_L g_m r_o s^4 + C_3 L_1 L_3 L_L R_L s^4 + C_3 L_1 L}$$

10.150 INVALID-ORDER-150 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_3 s^5 + C_3 C_L L_1 L_3 L_L R_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_L s^5 + C_3 C_L L_3 L_L R_3 R_L s^4 + C_3 C_L L_3 L_L R_3 r_o s^4 + C_3 C_L L_3 L_L R_L r_o s^4 + C_3 L_1 L_3}$$

10.151 INVALID-ORDER-151 $Z(s) = \left(L_1 s,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_3 s^5 + C_3 C_L L_1 L_3 L_L R_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_L s^5 + C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_3 R_L s^4 + C_3 C_L L_3 L_L R_3 R_L s^4 + C_3}$$

10.152 INVALID-ORDER-152 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_3 R_L s\left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + 1\right)}{C_3 L_1 L_3 R_3 g_m r_o s^3 + C_3 L_1 L_3 R_3 s^3 + C_3 L_1 L_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_L s^3 + C_3 L_1 R_3 R_L g_m r_o s^2 + C_3 L_1 R_3 R_L s^2 + C_3 L_3 R_3 R_L s^2 + C_3 L_3 R_3 r_o s^2 + C_3 L_3 R_L r_o s^2 + C_3 R_3 R_L r_o s +}$$

10.153 INVALID-ORDER-153 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_3 s\left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + 1\right)}{C_3 C_L L_1 L_3 R_3 g_m r_o s^4 + C_3 C_L L_1 L_3 R_3 s^4 + C_3 C_L L_3 R_3 r_o s^3 + C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 + C_3 L_1 R_3 g_m r_o s^2 + C_3 L_1 R_3 s^2 + C_3 L_3 R_3 s^2 + C_3 L_3 r_o s^2 + C_3 R_3 r_o s + C_L L_1 R_3 g_m}$$

10.154 INVALID-ORDER-154 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{L_1 R_3}{C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_3 R_L s^4 + C_3 C_L L_3 R_3 R_L r_o s^3 + C_3 L_1 L_3 R_3 g_m r_o s^3 + C_3 L_1 L_3 R_3 s^3 + C_3 L_1 L_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_L s^3 + C_3 L_1 R_3 R_L g_m r_o s^2 + C_3 L_1 R}$$

10.155 INVALID-ORDER-155 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_3C_LL_1L_3R_3g_mr_os^4 + C_3C_LL_1L_3R_3s^4 + C_3C_LL_1L_3R_Lg_mr_os^4 + C_3C_LL_1L_3R_Ls^4 + C_3C_LL_1R_3R_Lg_mr_os^3 + C_3C_LL_1R_3R_Ls^3 + C_3C_LL_3R_3R_Ls^3 + C_3C_LL_3R_3r_os^3 + C_3C$$

10.156 INVALID-ORDER-156 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s+\frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_3C_LL_1L_3L_Lg_mr_os^5 + C_3C_LL_1L_3L_Ls^5 + C_3C_LL_1L_3R_3g_mr_os^4 + C_3C_LL_1L_3R_3s^4 + C_3C_LL_1L_LR_3g_mr_os^4 + C_3C_LL_1L_LR_3s^4 + C_3C_LL_3L_LR_3s^4 + C_3C_LL_3L_Lr_os^4 + C_3C_L$$

10.157 INVALID-ORDER-157 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1L_}{C_3C_LL_1L_3L_LR_3g_mr_os^5 + C_3C_LL_1L_3L_LR_3s^5 + C_3C_LL_3L_LR_3r_os^4 + C_3L_1L_3L_Lg_mr_os^4 + C_3L_1L_3L_Ls^4 + C_3L_1L_3R_3g_mr_os^3 + C_3L_1L_3R_3s^3 + C_3L_1L_LR_3g_mr_os^3 + C_3L_1L_$$

10.158 INVALID-ORDER-158 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s+R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_3C_LL_1L_3L_Lg_mr_os^5 + C_3C_LL_1L_3L_Ls^5 + C_3C_LL_1L_3R_3g_mr_os^4 + C_3C_LL_1L_3R_3s^4 + C_3C_LL_1L_3R_Lg_mr_os^4 + C_3C_LL_1L_3R_Ls^4 + C_3C_LL_1L_LR_3g_mr_os^4 + C_3C_LL_1L_LR_3s^4 +$$

10.159 INVALID-ORDER-159 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_3C_LL_1L_3L_LR_3R_Lg_mr_os^5 + C_3C_LL_1L_3L_LR_3R_Ls^5 + C_3C_LL_3L_LR_3R_Lr_os^4 + C_3L_1L_3L_LR_3g_mr_os^4 + C_3L_1L_3L_LR_3s^4 + C_3L_1L_3L_LR_Lg_mr_os^4 + C_3L_1L_3L_LR_Ls^4 + C_3L_1L$$

10.160 INVALID-ORDER-160 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_3 s^5 + C_3 C_L L_1 L_3 L_L R_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_L s^5 + C_3 C_L L_1 L_L R_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_L R_3 R_L s^4 + C_3 C_L L_3 L_L R_3 R_L s^4 + C}$$

10.161 INVALID-ORDER-161 $Z(s) = \left(L_1 s,\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_3 s^5 + C_3 C_L L_1 L_3 L_L R_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L R_L s^5 + C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_3 R_L s^4 + C_3 C_L L_1 L_L R_3 R_L g_m r_o s^4}$$

10.162 INVALID-ORDER-162 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{R_3 R_L \left(g_m r_o + 1\right)}{C_1 R_3 R_L s + C_1 R_3 r_o s + C_1 R_L r_o s + R_3 g_m r_o + R_3 + R_L g_m r_o + R_L}$$

10.163 INVALID-ORDER-163 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_3 \left(g_m r_o + 1\right) \left(C_L L_L s^2 + 1\right)}{C_1 C_L L_L R_3 s^3 + C_1 C_L L_L r_o s^3 + C_1 C_L R_3 r_o s^2 + C_1 R_3 s + C_1 r_o s + C_L L_L g_m r_o s^2 + C_L L_L s^2 + C_L R_3 g_m r_o s + C_L R_3 s + g_m r_o + 1}$$

10.164 INVALID-ORDER-164 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L R_3 s \left(g_m r_o + 1\right)}{C_1 C_L L_L R_3 r_o s^3 + C_1 L_L R_3 s^2 + C_1 L_L r_o s^2 + C_1 R_3 r_o s + C_L L_L R_3 g_m r_o s^2 + C_L L_L R_3 s^2 + L_L g_m r_o s + L_L s + R_3 g_m r_o + R_3}$$

10.165 INVALID-ORDER-165 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 \left(g_m r_o + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_1 C_L L_L R_3 s^3 + C_1 C_L L_L r_o s^3 + C_1 C_L R_3 R_L s^2 + C_1 C_L R_3 r_o s^2 + C_1 C_L R_L r_o s^2 + C_1 R_3 s + C_1 r_o s + C_L L_L g_m r_o s^2 + C_L L_L s^2 + C_L R_3 g_m r_o s + C_L R_3 s + C_L R_L g_m r_o s + C_L R_L$$

10.166 INVALID-ORDER-166 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_3 R_L s \left(g_m r_o + 1\right)}{C_1 C_L L_L R_3 R_L r_o s^3 + C_1 L_L R_3 R_L s^2 + C_1 L_L R_3 r_o s^2 + C_1 L_L R_L r_o s^2 + C_1 R_3 R_L r_o s + C_L L_L R_3 R_L g_m r_o s^2 + C_L L_L R_3 R_L s^2 + L_L R_3 g_m r_o s + L_L R_3 s + L_L R_L g_m r_o s + L_L R_L s +$$

10.167 INVALID-ORDER-167 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{R_3 \left(g_m r_o + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_1 C_L L_L R_3 R_L s^3 + C_1 C_L L_L R_3 r_o s^3 + C_1 C_L L_L R_L r_o s^3 + C_1 L_L R_3 s^2 + C_1 L_L r_o s^2 + C_1 R_3 R_L s + C_1 R_3 r_o s + C_1 R_L r_o s + C_L L_L R_3 g_m r_o s^2 + C_L L_L R_3 s^2 + C_L L_L R_L g_m r_o s^2 +$$

10.168 INVALID-ORDER-168 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{R_3 R_L \left(g_m r_o + 1\right) \left(C_L L_L s^2 + 1\right)}{C_1 C_L L_L R_3 R_L s^3 + C_1 C_L L_L R_3 r_o s^3 + C_1 C_L L_L R_L r_o s^3 + C_1 C_L R_3 R_L r_o s^2 + C_1 R_3 R_L s + C_1 R_3 r_o s + C_1 R_L r_o s + C_L L_L R_3 g_m r_o s^2 + C_L L_L R_3 s^2 + C_L L_L R_L g_m r_o s^2 + C_L L_L R$$

10.169 INVALID-ORDER-169 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{g_m r_o + 1}{s \left(C_1 C_3 r_o s + C_1 C_L r_o s + C_1 + C_3 g_m r_o + C_3 + C_L g_m r_o + C_L\right)}$$

10.170 INVALID-ORDER-170 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)(C_L R_L s + 1)}{s(C_1 C_3 C_L R_L r_o s^2 + C_1 C_3 r_o s + C_1 C_L R_L s + C_1 C_L r_o s + C_1 + C_3 C_L R_L g_m r_o s + C_3 C_L R_L s + C_3 g_m r_o + C_3 + C_L g_m r_o + C_L)}$$

10.171 INVALID-ORDER-171 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)(C_L L_L s^2 + 1)}{s(C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 r_o s + C_1 C_L L_L s^2 + C_1 C_L r_o s + C_1 + C_3 C_L L_L g_m r_o s^2 + C_3 C_L L_L s^2 + C_3 g_m r_o + C_3 + C_L g_m r_o + C_L)}$$

10.172 INVALID-ORDER-172 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s(g_m r_o + 1)}{C_1 C_3 L_L r_o s^3 + C_1 C_L L_L r_o s^3 + C_1 L_L s^2 + C_1 r_o s + C_3 L_L g_m r_o s^2 + C_3 L_L s^2 + C_L L_L g_m r_o s^2 + C_L L_L s^2 + g_m r_o + 1}$$

10.173 INVALID-ORDER-173 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)(C_L L_L s^2 + C_L R_L s + 1)}{s(C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 C_L R_L r_o s^2 + C_1 C_3 r_o s + C_1 C_L L_L s^2 + C_1 C_L R_L s + C_1 C_L r_o s + C_1 + C_3 C_L L_L g_m r_o s^2 + C_3 C_L L_L s^2 + C_3 C_L R_L g_m r_o s + C_3 C_L R_L s + C_3 g_m r_o + C_3$$

10.174 INVALID-ORDER-174 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_L s(g_m r_o + 1)}{C_1 C_3 L_L R_L r_o s^3 + C_1 C_L L_L R_L r_o s^3 + C_1 L_L R_L s^2 + C_1 L_L r_o s^2 + C_1 R_L r_o s + C_3 L_L R_L g_m r_o s^2 + C_3 L_L R_L s^2 + C_L L_L R_L g_m r_o s^2 + C_L L_L R_L s^2 + L_L g_m r_o s + L_L s + R_L g_m r_o +$$

10.175 INVALID-ORDER-175 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{(g_m r_o + 1)(C_L L_L R_L s^2 + L_L s + R_L)}{C_1 C_3 C_L L_L R_L r_o s^4 + C_1 C_3 L_L r_o s^3 + C_1 C_3 R_L r_o s^2 + C_1 C_L L_L R_L s^3 + C_1 C_L L_L r_o s^3 + C_1 L_L s^2 + C_1 R_L s + C_1 r_o s + C_3 C_L L_L R_L g_m r_o s^3 + C_3 C_L L_L R_L s^3 + C_3 L_L g_m r_o s^2 + C_3$$

10.176 INVALID-ORDER-176 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{R_L\left(g_m r_o+1\right)\left(C_L L_L s^2+1\right)}{C_1C_3C_LL_LR_Lr_os^4 + C_1C_3R_Lr_os^2 + C_1C_LL_LR_Ls^3 + C_1C_LL_Lr_os^3 + C_1C_LR_Lr_os^2 + C_1R_Ls + C_1r_os + C_3C_LL_LR_Lg_mr_os^3 + C_3C_LL_LR_Ls^3 + C_3R_Lg_mr_os + C_3R_Ls + C_L$$

10.177 INVALID-ORDER-177 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3\left(g_m r_o+1\right)\left(C_L R_L s+1\right)}{C_1C_3C_LR_3R_Lr_os^3 + C_1C_3R_3r_os^2 + C_1C_LR_3R_Ls^2 + C_1C_LR_3r_os^2 + C_1C_LR_Lr_os^2 + C_1R_3s + C_1r_os + C_3C_LR_3R_Lg_mr_os^2 + C_3C_LR_3R_Ls^2 + C_3R_3g_mr_os + C_3R_3s + C_LR_3$$

10.178 INVALID-ORDER-178 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ L_L s+\frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3\left(g_m r_o+1\right)\left(C_L L_L s^2+1\right)}{C_1C_3C_LL_LR_3r_os^4 + C_1C_3R_3r_os^2 + C_1C_LL_LR_3s^3 + C_1C_LL_Lr_os^3 + C_1C_LR_3r_os^2 + C_1R_3s + C_1r_os + C_3C_LL_LR_3g_mr_os^3 + C_3C_LL_LR_3s^3 + C_3R_3g_mr_os + C_3R_3s + C_LL_Lg$$

10.179 INVALID-ORDER-179 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_LR_3s\left(g_m r_o+1\right)}{C_1C_3L_LR_3r_os^3 + C_1C_LL_LR_3r_os^3 + C_1L_LR_3s^2 + C_1L_Lr_os^2 + C_1R_3r_os + C_3L_LR_3g_mr_os^2 + C_3L_LR_3s^2 + C_LL_LR_3g_mr_os^2 + C_LL_LR_3s^2 + L_Lg_mr_os + L_Ls + R_3g_mr_o + R_3$$

10.180 INVALID-ORDER-180 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ L_L s+R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3\left(g_m r_o+1\right)\left(C_L L\right.}{C_1C_3C_LL_LR_3r_os^4 + C_1C_3C_LR_3R_Lr_os^3 + C_1C_3R_3r_os^2 + C_1C_LL_LR_3s^3 + C_1C_LL_Lr_os^3 + C_1C_LR_3R_Ls^2 + C_1C_LR_3r_os^2 + C_1C_LR_Lr_os^2 + C_1R_3s + C_1r_os + C_3C_LL_LR_3g_m$$

10.181 INVALID-ORDER-181 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_3 R_L s\left(g_m r_o+1\right)}{C_1 C_3 L_L R_3 R_L r_o s^3 + C_1 C_L L_L R_3 R_L r_o s^3 + C_1 L_L R_3 R_L s^2 + C_1 L_L R_3 r_o s^2 + C_1 L_L R_L r_o s^2 + C_1 R_3 R_L r_o s + C_3 L_L R_3 R_L g_m r_o s^2 + C_3 L_L R_3 R_L s^2 + C_L L_L R_3 R_L g_m r_o s^2 + C_L L_1}$$

10.182 INVALID-ORDER-182 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}+R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_L R_3 R_L r_o s^4 + C_1 C_3 L_L R_3 r_o s^3 + C_1 C_3 R_3 R_L r_o s^2 + C_1 C_L L_L R_3 R_L s^3 + C_1 C_L L_L R_3 r_o s^3 + C_1 C_L L_L R_L r_o s^3 + C_1 L_L R_3 s^2 + C_1 L_L r_o s^2 + C_1 R_3 R_L s + C_1 R_3 r_o s + C_1}$$

10.183 INVALID-ORDER-183 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{R_3 R_L\left(g_r\right.}{C_1 C_3 C_L L_L R_3 R_L r_o s^4 + C_1 C_3 R_3 R_L r_o s^2 + C_1 C_L L_L R_3 R_L s^3 + C_1 C_L L_L R_3 r_o s^3 + C_1 C_L L_L R_L r_o s^3 + C_1 C_L R_3 R_L r_o s^2 + C_1 R_3 R_L s + C_1 R_3 r_o s + C_1 R_L r_o s + C_3 C_L L_L R_3 R_L g_r}$$

10.184 INVALID-ORDER-184 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3+\frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_m r_o+1\right)\left(C_3 R_3 s+1\right)}{s\left(C_1 C_3 C_L R_3 r_o s^2 + C_1 C_3 R_3 s + C_1 C_3 r_o s + C_1 C_L r_o s + C_1 + C_3 C_L R_3 g_m r_o s + C_3 C_L R_3 s + C_3 g_m r_o + C_3 + C_L g_m r_o + C_L\right)}$$

10.185 INVALID-ORDER-185 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3+\frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_L\left(g_m r_o+1\right)\left(C_3 R_3 s+1\right)}{C_1 C_3 C_L R_3 R_L r_o s^3 + C_1 C_3 R_3 R_L s^2 + C_1 C_3 R_3 r_o s^2 + C_1 C_3 R_L r_o s^2 + C_1 C_L R_L r_o s^2 + C_1 R_L s + C_1 r_o s + C_3 C_L R_3 R_L g_m r_o s^2 + C_3 C_L R_3 R_L s^2 + C_3 R_3 g_m r_o s + C_3 R_3 s + C_3 R_L}$$

10.186 INVALID-ORDER-186 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)\,(C_3 R_3 s + 1)\,(C_L R_L s + 1)}{s\,(C_1 C_3 C_L R_3 R_L s^2 + C_1 C_3 C_L R_3 r_o s^2 + C_1 C_3 C_L R_L r_o s^2 + C_1 C_3 R_3 s + C_1 C_3 r_o s + C_1 C_L R_L s + C_1 C_L r_o s + C_1 + C_3 C_L R_3 g_m r_o s + C_3 C_L R_3 s + C_3 C_L R_L g_m r_o s + C_3 C_L R_L s +$$

10.187 INVALID-ORDER-187 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)\,(C_3 R_3 s + 1)\left(C_L L_L s^2 + 1\right)}{s\,(C_1 C_3 C_L L_L R_3 s^3 + C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 C_L R_3 r_o s^2 + C_1 C_3 R_3 s + C_1 C_3 r_o s + C_1 C_L L_L s^2 + C_1 C_L r_o s + C_1 + C_3 C_L L_L g_m r_o s^2 + C_3 C_L L_L s^2 + C_3 C_L R_3 g_m r_o s + C_3 C_L R_3$$

10.188 INVALID-ORDER-188 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s\,(g_m r_o + 1)\,(C_3 R_3 s + 1)}{C_1 C_3 C_L L_L R_3 r_o s^4 + C_1 C_3 L_L R_3 s^3 + C_1 C_3 L_L r_o s^3 + C_1 C_3 R_3 r_o s^2 + C_1 C_L L_L r_o s^3 + C_1 L_L s^2 + C_1 r_o s + C_3 C_L L_L R_3 g_m r_o s^3 + C_3 C_L L_L R_3 s^3 + C_3 L_L g_m r_o s^2 + C_3 L_L s^2 + C_3 R$$

10.189 INVALID-ORDER-189 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)\,(C_3 R_3 s + 1)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{s\,(C_1 C_3 C_L L_L R_3 s^3 + C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 C_L R_3 R_L s^2 + C_1 C_3 C_L R_3 r_o s^2 + C_1 C_3 C_L R_L r_o s^2 + C_1 C_3 R_3 s + C_1 C_3 r_o s + C_1 C_L L_L s^2 + C_1 C_L R_L s + C_1 C_L r_o s + C_1 + C_3 C_L L$$

10.190 INVALID-ORDER-190 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_L$$

10.191 INVALID-ORDER-191 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{C_1 C_3 C_L L_L R_3 R_L s^4 + C_1 C_3 C_L L_L R_3 r_o s^4 + C_1 C_3 C_L L_L R_L r_o s^4 + C_1 C_3 L_L R_3 s^3 + C_1 C_3 L_L r_o s^3 + C_1 C_3 R_3 R_L s^2 + C_1 C_3 R_3 r_o s^2 + C_1 C_3 R_L r_o s^2 + C_1 C_L L_L R_L s^3 + C_1 C_L L_L r_o$$

10.192 INVALID-ORDER-192 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_3R_Ls^4 + C_1C_3C_LL_LR_3r_os^4 + C_1C_3C_LL_LR_Lr_os^4 + C_1C_3C_LR_3R_Lr_os^3 + C_1C_3R_3R_Ls^2 + C_1C_3R_3r_os^2 + C_1C_3R_Lr_os^2 + C_1C_LL_LR_Ls^3 + C_1C_LL_Lr_os^3 + C_1C}$$

10.193 INVALID-ORDER-193 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(g_m r_o + 1\right)\left(C_3L_3s^2 + 1\right)}{C_1C_3L_3R_Ls^3 + C_1C_3L_3r_os^3 + C_1C_3R_Lr_os^2 + C_1R_Ls + C_1r_os + C_3L_3g_mr_os^2 + C_3L_3s^2 + C_3R_Lg_mr_os + C_3R_Ls + g_mr_o + 1}$$

10.194 INVALID-ORDER-194 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_m r_o + 1\right)\left(C_3L_3s^2 + 1\right)}{s\left(C_1C_3C_LL_3r_os^3 + C_1C_3L_3s^2 + C_1C_3r_os + C_1C_Lr_os + C_1 + C_3C_LL_3g_mr_os^2 + C_3C_LL_3s^2 + C_3g_mr_o + C_3 + C_Lg_mr_o + C_L\right)}$$

10.195 INVALID-ORDER-195 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_L\left(g_m r_o + 1\right)\left(C_3L_3s^2 + 1\right)}{C_1C_3C_LL_3R_Lr_os^4 + C_1C_3L_3R_Ls^3 + C_1C_3L_3r_os^3 + C_1C_3R_Lr_os^2 + C_1C_LR_Lr_os^2 + C_1R_Ls + C_1r_os + C_3C_LL_3R_Lg_mr_os^3 + C_3C_LL_3R_Ls^3 + C_3L_3g_mr_os^2 + C_3L_3s^2 + C_3R_l}$$

10.196 INVALID-ORDER-196 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_m r_o + 1\right)\left(C_3L_3s^2 + 1\right)\left(C_LR_Ls + 1\right)}{s\left(C_1C_3C_LL_3R_Ls^3 + C_1C_3C_LL_3r_os^3 + C_1C_3C_LR_Lr_os^2 + C_1C_3L_3s^2 + C_1C_3r_os + C_1C_LR_Ls + C_1C_Lr_os + C_1 + C_3C_LL_3g_mr_os^2 + C_3C_LL_3s^2 + C_3C_LR_Lg_mr_os + C_3C_LR_L\right.}$$

10.197 INVALID-ORDER-197 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)\left(C_3 L_3 s^2 + 1\right)\left(C_L L_L s^2 + 1\right)}{s\left(C_1 C_3 C_L L_3 L_L s^4 + C_1 C_3 C_L L_3 r_o s^3 + C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 L_3 s^2 + C_1 C_3 r_o s + C_1 C_L L_L s^2 + C_1 C_L r_o s + C_1 + C_3 C_L L_3 g_m r_o s^2 + C_3 C_L L_3 s^2 + C_3 C_L L_L g_m r_o s^2 + C_3 C_L L\right.}$$

10.198 INVALID-ORDER-198 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s\,(g_m r_o + 1)\left(C_3 L_3 s^2 + 1\right)}{C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 L_3 L_L s^4 + C_1 C_3 L_3 r_o s^3 + C_1 C_3 L_L r_o s^3 + C_1 C_L L_L r_o s^3 + C_1 L_L s^2 + C_1 r_o s + C_3 C_L L_3 L_L g_m r_o s^4 + C_3 C_L L_3 L_L s^4 + C_3 L_3 g_m r_o s^2 + C_3 L_3 s^2 + C_3 L_L}$$

10.199 INVALID-ORDER-199 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)\left(C_3 L_3 s^2 + 1\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{s\left(C_1 C_3 C_L L_3 L_L s^4 + C_1 C_3 C_L L_3 R_L s^3 + C_1 C_3 C_L L_3 r_o s^3 + C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 C_L R_L r_o s^2 + C_1 C_3 L_3 s^2 + C_1 C_3 r_o s + C_1 C_L L_L s^2 + C_1 C_L R_L s + C_1 C_L r_o s + C_1 + C_3 C_L L\right.}$$

10.200 INVALID-ORDER-200 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_L s}{C_1 C_3 C_L L_3 L_L R_L r_o s^5 + C_1 C_3 L_3 L_L R_L s^4 + C_1 C_3 L_3 L_L r_o s^4 + C_1 C_3 L_3 R_L r_o s^3 + C_1 C_3 L_L R_L r_o s^3 + C_1 C_L L_L R_L r_o s^3 + C_1 L_L R_L s^2 + C_1 L_L r_o s^2 + C_1 R_L r_o s + C_3 C_L L_3 L_L R_L g}$$

10.201 INVALID-ORDER-201 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_L s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_L R_L r_o s^4 + C_1 C_3 L_3 L_L s^4 + C_1 C_3 L_3 R_L s^3 + C_1 C_3 L_3 r_o s^3 + C_1 C_3 L_L r_o s^3 + C_1 C_3 R_L r_o s^2 + C_1 C_L L_L R_L s^3 + C_1 C_L L_L r_o$$

10.202 INVALID-ORDER-202 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_3 L_L R_L s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C_3 C_L L_L R_L r_o s^4 + C_1 C_3 L_3 R_L s^3 + C_1 C_3 L_3 r_o s^3 + C_1 C_3 R_L r_o s^2 + C_1 C_L L_L R_L s^3 + C_1 C_L L_L r_o s^3 + C_1 C_L$$

10.203 INVALID-ORDER-203 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_3 R_L s\left(g_m r_o + 1\right)}{C_1 C_3 L_3 R_L r_o s^3 + C_1 L_3 R_L s^2 + C_1 L_3 r_o s^2 + C_1 R_L r_o s + C_3 L_3 R_L g_m r_o s^2 + C_3 L_3 R_L s^2 + L_3 g_m r_o s + L_3 s + R_L g_m r_o + R_L}$$

10.204 INVALID-ORDER-204 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_3 s\left(g_m r_o + 1\right)}{C_1 C_3 L_3 r_o s^3 + C_1 C_L L_3 r_o s^3 + C_1 L_3 s^2 + C_1 r_o s + C_3 L_3 g_m r_o s^2 + C_3 L_3 s^2 + C_L L_3 g_m r_o s^2 + C_L L_3 s^2 + g_m r_o + 1}$$

10.205 INVALID-ORDER-205 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_3 R_L s\left(g_m r_o + 1\right)}{C_1 C_3 L_3 R_L r_o s^3 + C_1 C_L L_3 R_L r_o s^3 + C_1 L_3 R_L s^2 + C_1 L_3 r_o s^2 + C_1 R_L r_o s + C_3 L_3 R_L g_m r_o s^2 + C_3 L_3 R_L s^2 + C_L L_3 R_L g_m r_o s^2 + C_L L_3 R_L s^2 + L_3 g_m r_o s + L_3 s + R_L g_m r_o + R_L}$$

10.206 INVALID-ORDER-206 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_3 s\left(g_m r_o + 1\right)\left(C_L R_L s + 1\right)}{C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C_3 L_3 r_o s^3 + C_1 C_L L_3 R_L s^3 + C_1 C_L L_3 r_o s^3 + C_1 C_L R_L r_o s^2 + C_1 L_3 s^2 + C_1 r_o s + C_3 C_L L_3 R_L g_m r_o s^3 + C_3 C_L L_3 R_L s^3 + C_3 L_3 g_m r_o s^2 + C_3 L_3 s^2 + C_L L$$

10.207 INVALID-ORDER-207 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_3 s\left(g_m r_o + 1\right)\left(C_L L_L s^2 + 1\right)}{C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 L_3 r_o s^3 + C_1 C_L L_3 L_L s^4 + C_1 C_L L_3 r_o s^3 + C_1 C_L L_L r_o s^3 + C_1 L_3 s^2 + C_1 r_o s + C_3 C_L L_3 L_L g_m r_o s^4 + C_3 C_L L_3 L_L s^4 + C_3 L_3 g_m r_o s^2 + C_3 L_3 s^2 + C_L L_3$$

10.208 INVALID-ORDER-208 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_3 L_L s\left(g_m r_o + 1\right)}{C_1 C_3 L_3 L_L r_o s^3 + C_1 C_L L_3 L_L r_o s^3 + C_1 L_3 L_L s^2 + C_1 L_3 r_o s + C_1 L_L r_o s + C_3 L_3 L_L g_m r_o s^2 + C_3 L_3 L_L s^2 + C_L L_3 L_L g_m r_o s^2 + C_L L_3 L_L s^2 + L_3 g_m r_o + L_3 + L_L g_m r_o + L_L}$$

10.209 INVALID-ORDER-209 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_3 s\left(g_m r_o + 1\right)\left(C_1\right.}{C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C_3 L_3 r_o s^3 + C_1 C_L L_3 L_L s^4 + C_1 C_L L_3 R_L s^3 + C_1 C_L L_3 r_o s^3 + C_1 C_L L_L r_o s^3 + C_1 C_L R_L r_o s^2 + C_1 L_3 s^2 + C_1 r_o s + C_3 C_L L_3 L_L g_m r}$$

10.210 INVALID-ORDER-210 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_3 L_L R_L s\left(g_m r_o + 1\right)}{C_1 C_3 L_3 L_L R_L r_o s^3 + C_1 C_L L_3 L_L R_L r_o s^3 + C_1 L_3 L_L R_L s^2 + C_1 L_3 L_L r_o s^2 + C_1 L_3 R_L r_o s + C_1 L_L R_L r_o s + C_3 L_3 L_L R_L g_m r_o s^2 + C_3 L_3 L_L R_L s^2 + C_L L_3 L_L R_L g_m r_o s^2 + C_L L_3 L_L}$$

10.211 INVALID-ORDER-211 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_L r_o s^5 + C_1 C_3 L_3 L_L r_o s^4 + C_1 C_3 L_3 R_L r_o s^3 + C_1 C_L L_3 L_L R_L s^4 + C_1 C_L L_3 L_L r_o s^4 + C_1 C_L L_L R_L r_o s^3 + C_1 L_3 L_L s^3 + C_1 L_3 R_L s^2 + C_1 L_3 r_o s^2 + C_1 L_L r_o s^2 + C}$$

10.212 INVALID-ORDER-212 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{L_3 R_L s}{C_1 C_3 C_L L_3 L_L R_L r_o s^5 + C_1 C_3 L_3 R_L r_o s^3 + C_1 C_L L_3 L_L R_L s^4 + C_1 C_L L_3 L_L r_o s^4 + C_1 C_L L_3 R_L r_o s^3 + C_1 C_L L_L R_L r_o s^3 + C_1 L_3 R_L s^2 + C_1 L_3 r_o s^2 + C_1 R_L r_o s + C_3 C_L L_3 L_L R_L g}$$

10.213 INVALID-ORDER-213 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + C_3 R_3 s + 1\right)}{C_1 C_3 L_3 R_L s^3 + C_1 C_3 L_3 r_o s^3 + C_1 C_3 R_3 R_L s^2 + C_1 C_3 R_3 r_o s^2 + C_1 C_3 R_L r_o s^2 + C_1 R_L s + C_1 r_o s + C_3 L_3 g_m r_o s^2 + C_3 L_3 s^2 + C_3 R_3 g_m r_o s + C_3 R_3 s + C_3 R_L g_m r_o s + C_3 R_L s + $$

10.214 INVALID-ORDER-214 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + C_3 R_3 s + 1\right)}{s\left(C_1 C_3 C_L L_3 r_o s^3 + C_1 C_3 C_L R_3 r_o s^2 + C_1 C_3 L_3 s^2 + C_1 C_3 R_3 s + C_1 C_3 r_o s + C_1 C_L r_o s + C_1 + C_3 C_L L_3 g_m r_o s^2 + C_3 C_L L_3 s^2 + C_3 C_L R_3 g_m r_o s + C_3 C_L R_3 s + C_3 g_m r_o + C_3 + C\right.}$$

10.215 INVALID-ORDER-215 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_L\left(g_m r_o + 1\right)\left(C_3 L\right.}{C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C_3 C_L R_3 R_L r_o s^3 + C_1 C_3 L_3 R_L s^3 + C_1 C_3 L_3 r_o s^3 + C_1 C_3 R_3 R_L s^2 + C_1 C_3 R_3 r_o s^2 + C_1 C_3 R_L r_o s^2 + C_1 C_L R_L r_o s^2 + C_1 R_L s + C_1 r_o s + C_3 C_L L_3 R_L g_m r$$

10.216 INVALID-ORDER-216 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_m r_o + 1\right)\left(C_L R_L s + 1\right)\left(C_3 L_3 s^2 + C_3 R_3 s + 1\right)}{s\left(C_1 C_3 C_L L_3 R_L s^3 + C_1 C_3 C_L L_3 r_o s^3 + C_1 C_3 C_L R_3 R_L s^2 + C_1 C_3 C_L R_3 r_o s^2 + C_1 C_3 C_L R_L r_o s^2 + C_1 C_3 L_3 s^2 + C_1 C_3 R_3 s + C_1 C_3 r_o s + C_1 C_L R_L s + C_1 C_L r_o s + C_1 + C_3 C_L L_3\right.}$$

10.217 INVALID-ORDER-217 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_m r_o + 1\right)\left(C_L L_L s^2 + 1\right)\left(C_3 L_3 s^2 + C_3 R_3 s + 1\right)}{s\left(C_1 C_3 C_L L_3 L_L s^4 + C_1 C_3 C_L L_3 r_o s^3 + C_1 C_3 C_L L_L R_3 s^3 + C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 C_L R_3 r_o s^2 + C_1 C_3 L_3 s^2 + C_1 C_3 R_3 s + C_1 C_3 r_o s + C_1 C_L L_L s^2 + C_1 C_L r_o s + C_1 + C_3 C_L L_3\right.}$$

10.218 INVALID-ORDER-218 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s\left(g_m r_o + 1\right)\left(C_3\right.}{C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_L R_3 r_o s^4 + C_1 C_3 L_3 L_L s^4 + C_1 C_3 L_3 r_o s^3 + C_1 C_3 L_L R_3 s^3 + C_1 C_3 L_L r_o s^3 + C_1 C_3 R_3 r_o s^2 + C_1 C_L L_L r_o s^3 + C_1 L_L s^2 + C_1 r_o s + C_3 C_L L_3 L_L g_m r_o$$

10.219 INVALID-ORDER-219 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o$$
$$s\left(C_1 C_3 C_L L_3 L_L s^4 + C_1 C_3 C_L L_3 R_L s^3 + C_1 C_3 C_L L_3 r_o s^3 + C_1 C_3 C_L L_L R_3 s^3 + C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 C_L R_3 R_L s^2 + C_1 C_3 C_L R_3 r_o s^2 + C_1 C_3 C_L R_L r_o s^2 + C_1 C_3 L_3 s^2 + C_1 C_3\right.$$

10.220 INVALID-ORDER-220 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_L r_o s^5 + C_1 C_3 C_L L_L R_3 R_L r_o s^4 + C_1 C_3 L_3 L_L R_L s^4 + C_1 C_3 L_3 L_L r_o s^4 + C_1 C_3 L_3 R_L r_o s^3 + C_1 C_3 L_L R_3 R_L s^3 + C_1 C_3 L_L R_3 r_o s^3 + C_1 C_3 L_L R_L r_o s^3 + C_1 C_3 R_3 R_L$$

10.221 INVALID-ORDER-221 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_L s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_L R_3 R_L s^4 + C_1 C_3 C_L L_L R_3 r_o s^4 + C_1 C_3 C_L L_L R_L r_o s^4 + C_1 C_3 L_3 L_L s^4 + C_1 C_3 L_3 R_L s^3 + C_1 C_3 L_3 r_o s^3 + C_1 C_3 L_L R_3 s^3 +$$

10.222 INVALID-ORDER-222 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_L s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C_3 C_L L_L R_3 R_L s^4 + C_1 C_3 C_L L_L R_3 r_o s^4 + C_1 C_3 C_L L_L R_L r_o s^4 + C_1 C_3 C_L R_3 R_L r_o s^3 + C_1 C_3 L_3 R_L s^3 + C_1 C$$

10.223 INVALID-ORDER-223 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_3 R_3 R_L s\left(g_m r_o + 1\right)}{C_1 C_3 L_3 R_3 R_L r_o s^3 + C_1 L_3 R_3 R_L s^2 + C_1 L_3 R_3 r_o s^2 + C_1 L_3 R_L r_o s^2 + C_1 R_3 R_L r_o s + C_3 L_3 R_3 R_L g_m r_o s^2 + C_3 L_3 R_3 R_L s^2 + L_3 R_3 g_m r_o s + L_3 R_3 s + L_3 R_L g_m r_o s + L_3 R_L s + R_3$$

10.224 INVALID-ORDER-224 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_3 R_3 s \left(g_m r_o + 1\right)}{C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_L L_3 R_3 r_o s^3 + C_1 L_3 R_3 s^2 + C_1 L_3 r_o s^2 + C_1 R_3 r_o s + C_3 L_3 R_3 g_m r_o s^2 + C_3 L_3 R_3 s^2 + C_L L_3 R_3 g_m r_o s^2 + C_L L_3 R_3 s^2 + L_3 g_m r_o s + L_3 s + R_3 g_m r_o + R_3}$$

10.225 INVALID-ORDER-225 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_3 R_3 R_L s \left(g_m r_o + 1\right)}{C_1 C_3 L_3 R_3 R_L r_o s^3 + C_1 C_L L_3 R_3 R_L r_o s^3 + C_1 L_3 R_3 R_L s^2 + C_1 L_3 R_3 r_o s^2 + C_1 L_3 R_L r_o s^2 + C_1 R_3 R_L r_o s + C_3 L_3 R_3 R_L g_m r_o s^2 + C_3 L_3 R_3 R_L s^2 + C_L L_3 R_3 R_L g_m r_o s^2 + C_L L_3 R_3$$

10.226 INVALID-ORDER-226 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_3 R_3 s \left(g$$
$$C_1 C_3 C_L L_3 R_3 R_L r_o s^4 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_L L_3 R_3 R_L s^3 + C_1 C_L L_3 R_3 r_o s^3 + C_1 C_L L_3 R_L r_o s^3 + C_1 C_L R_3 R_L r_o s^2 + C_1 L_3 R_3 s^2 + C_1 L_3 r_o s^2 + C_1 R_3 r_o s + C_3 C_L L_3 R_3 R_L g_m$$

10.227 INVALID-ORDER-227 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_3 R_3 s \left(g_$$
$$C_1 C_3 C_L L_3 L_L R_3 r_o s^5 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_L L_3 L_L R_3 s^4 + C_1 C_L L_3 L_L r_o s^4 + C_1 C_L L_3 R_3 r_o s^3 + C_1 C_L L_L R_3 r_o s^3 + C_1 L_3 R_3 s^2 + C_1 L_3 r_o s^2 + C_1 R_3 r_o s + C_3 C_L L_3 L_L R_3 g_m r$$

10.228 INVALID-ORDER-228 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_3 L_L R_3 s \left(g_m r_o + 1\right)}{C_1 C_3 L_3 L_L R_3 r_o s^3 + C_1 C_L L_3 L_L R_3 r_o s^3 + C_1 L_3 L_L R_3 s^2 + C_1 L_3 L_L r_o s^2 + C_1 L_3 R_3 r_o s + C_1 L_L R_3 r_o s + C_3 L_3 L_L R_3 g_m r_o s^2 + C_3 L_3 L_L R_3 s^2 + C_L L_3 L_L R_3 g_m r_o s^2 + C_L L_3 L_L R$$

10.229 INVALID-ORDER-229 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_3r_os^5 + C_1C_3C_LL_3R_3R_Lr_os^4 + C_1C_3L_3R_3r_os^3 + C_1C_LL_3L_LR_3s^4 + C_1C_LL_3L_Lr_os^4 + C_1C_LL_3R_3R_Ls^3 + C_1C_LL_3R_3r_os^3 + C_1C_LL_3R_Lr_os^3 + C_1C_LL_LR_3}$$

10.230 INVALID-ORDER-230 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_3L_LR_3R_Ls}{C_1C_3L_3L_LR_3R_Lr_os^3 + C_1C_LL_3L_LR_3R_Lr_os^3 + C_1L_3L_LR_3R_Ls^2 + C_1L_3L_LR_3r_os^2 + C_1L_3L_LR_Lr_os^2 + C_1L_3R_3R_Lr_os + C_1L_LR_3R_Lr_os + C_3L_3L_LR_3R_Lg_mr_os^2 + C_3L_3L_L}$$

10.231 INVALID-ORDER-231 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_3R_Lr_os^5 + C_1C_3L_3L_LR_3r_os^4 + C_1C_3L_3R_3R_Lr_os^3 + C_1C_LL_3L_LR_3R_Ls^4 + C_1C_LL_3L_LR_3r_os^4 + C_1C_LL_3L_LR_Lr_os^4 + C_1C_LL_LR_3R_Lr_os^3 + C_1L_3L_LR_3s^3 +}$$

10.232 INVALID-ORDER-232 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_3R_Lr_os^5 + C_1C_3L_3R_3R_Lr_os^3 + C_1C_LL_3L_LR_3R_Ls^4 + C_1C_LL_3L_LR_3r_os^4 + C_1C_LL_3L_LR_Lr_os^4 + C_1C_LL_3R_3R_Lr_os^3 + C_1C_LL_LR_3R_Lr_os^3 + C_1L_3R_3R_Ls^2 +}$$

10.233 INVALID-ORDER-233 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(g_mr_o+1\right)\left(C_3L_3R_3s^2 + L_3s + R_3\right)}{C_1C_3L_3R_3R_Ls^3 + C_1C_3L_3R_3r_os^3 + C_1C_3L_3R_Lr_os^3 + C_1L_3R_Ls^2 + C_1L_3r_os^2 + C_1R_3R_Ls + C_1R_3r_os + C_1R_Lr_os + C_3L_3R_3g_mr_os^2 + C_3L_3R_3s^2 + C_3L_3R_Lg_mr_os^2 + C_3L_3}$$

10.234 INVALID-ORDER-234 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)\left(C_3 L_3 R_3 s^2 + L_3 s + R_3\right)}{C_1 C_3 C_L L_3 R_3 r_o s^4 + C_1 C_3 L_3 R_3 s^3 + C_1 C_3 L_3 r_o s^3 + C_1 C_L L_3 r_o s^3 + C_1 C_L R_3 r_o s^2 + C_1 L_3 s^2 + C_1 R_3 s + C_1 r_o s + C_3 C_L L_3 R_3 g_m r_o s^3 + C_3 C_L L_3 R_3 s^3 + C_3 L_3 g_m r_o s^2 + C_3 L_3 s^2}$$

10.235 INVALID-ORDER-235 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 R_3 R_L r_o s^4 + C_1 C_3 L_3 R_3 R_L s^3 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_3 L_3 R_L r_o s^3 + C_1 C_L L_3 R_L r_o s^3 + C_1 C_L R_3 R_L r_o s^2 + C_1 L_3 R_L s^2 + C_1 L_3 r_o s^2 + C_1 R_3 R_L s + C_1 R_3 r_o s + C_1 R}$$

10.236 INVALID-ORDER-236 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(}{C_1 C_3 C_L L_3 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_3 r_o s^4 + C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C_3 L_3 R_3 s^3 + C_1 C_3 L_3 r_o s^3 + C_1 C_L L_3 R_L s^3 + C_1 C_L L_3 r_o s^3 + C_1 C_L R_3 R_L s^2 + C_1 C_L R_3 r_o s^2 + C_1 C_L R_L r_o s}$$

10.237 INVALID-ORDER-237 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(}{C_1 C_3 C_L L_3 L_L R_3 s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_3 R_3 r_o s^4 + C_1 C_3 L_3 R_3 s^3 + C_1 C_3 L_3 r_o s^3 + C_1 C_L L_3 L_L s^4 + C_1 C_L L_3 r_o s^3 + C_1 C_L L_L R_3 s^3 + C_1 C_L L_L r_o s^3 + C_1 C_L R_3 r_o s^2}$$

10.238 INVALID-ORDER-238 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_3 r_o s^5 + C_1 C_3 L_3 L_L R_3 s^4 + C_1 C_3 L_3 L_L r_o s^4 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_L L_3 L_L r_o s^4 + C_1 C_L L_L R_3 r_o s^3 + C_1 L_3 L_L s^3 + C_1 L_3 r_o s^2 + C_1 L_L R_3 s^2 + C_1 L_L r_o s^2 + C_1 R}$$

10.239 INVALID-ORDER-239 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_3 s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_3 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_3 r_o s^4 + C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C_3 L_3 R_3 s^3 + C_1 C_3 L_3 r_o s^3 + C_1 C_L L_3 L_L s^4 + C_1 C_L L_3 R_L s^3 + C}$$

10.240 INVALID-ORDER-240 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_3R_Lr_os^5 + C_1C_3L_3L_LR_3R_Ls^4 + C_1C_3L_3L_LR_3r_os^4 + C_1C_3L_3L_LR_Lr_os^4 + C_1C_3L_3R_3R_Lr_os^3 + C_1C_LL_3L_LR_Lr_os^4 + C_1C_LL_LR_3R_Lr_os^3 + C_1L_3L_LR_Ls^3 +$$

10.241 INVALID-ORDER-241 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_3R_Ls^5 + C_1C_3C_LL_3L_LR_3r_os^5 + C_1C_3C_LL_3L_LR_Lr_os^5 + C_1C_3L_3L_LR_3s^4 + C_1C_3L_3L_Lr_os^4 + C_1C_3L_3R_3R_Ls^3 + C_1C_3L_3R_3r_os^3 + C_1C_3L_3R_Lr_os^3 + C_1C_L$$

10.242 INVALID-ORDER-242 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_3R_Ls^5 + C_1C_3C_LL_3L_LR_3r_os^5 + C_1C_3C_LL_3L_LR_Lr_os^5 + C_1C_3C_LL_3R_3R_Lr_os^4 + C_1C_3L_3R_3R_Ls^3 + C_1C_3L_3R_3r_os^3 + C_1C_3L_3R_Lr_os^3 + C_1C_LL_3L_LR_Ls^4 +$$

10.243 INVALID-ORDER-243 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_3R_L\left(g_mr_o+1\right)\left(C_3L_3s^2+1\right)}{C_1C_3L_3R_3R_Ls^3 + C_1C_3L_3R_3r_os^3 + C_1C_3L_3R_Lr_os^3 + C_1C_3R_3R_Lr_os^2 + C_1R_3R_Ls + C_1R_3r_os + C_1R_Lr_os + C_3L_3R_3g_mr_os^2 + C_3L_3R_3s^2 + C_3L_3R_Lg_mr_os^2 + C_3L_3R_Ls^2 +}$$

10.244 INVALID-ORDER-244 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3\left(g_mr_o+1\right)\left(C_3L_3s^2+1\right)}{C_1C_3C_LL_3R_3r_os^4 + C_1C_3L_3R_3s^3 + C_1C_3L_3r_os^3 + C_1C_3R_3r_os^2 + C_1C_LR_3r_os^2 + C_1R_3s + C_1r_os + C_3C_LL_3R_3g_mr_os^3 + C_3C_LL_3R_3s^3 + C_3L_3g_mr_os^2 + C_3L_3s^2 + C_3R_3g_m}$$

10.245 INVALID-ORDER-245 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_3 R_L \left(g_m r_o$$
$$C_1 C_3 C_L L_3 R_3 R_L r_o s^4 + C_1 C_3 L_3 R_3 R_L s^3 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_3 L_3 R_L r_o s^3 + C_1 C_3 R_3 R_L r_o s^2 + C_1 C_L R_3 R_L r_o s^2 + C_1 R_3 R_L s + C_1 R_3 r_o s + C_1 R_L r_o s + C_3 C_L L_3 R_3 R_L g_m r_o$$

10.246 INVALID-ORDER-246 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_3 r_o s^4 + C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C_3 C_L R_3 R_L r_o s^3 + C_1 C_3 L_3 R_3 s^3 + C_1 C_3 L_3 r_o s^3 + C_1 C_3 R_3 r_o s^2 + C_1 C_L R_3 R_L s^2 + C_1 C_L R_3 r_o s^2 + C_1 C_L R$$

10.247 INVALID-ORDER-247 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_3 s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_3 R_3 r_o s^4 + C_1 C_3 C_L L_L R_3 r_o s^4 + C_1 C_3 L_3 R_3 s^3 + C_1 C_3 L_3 r_o s^3 + C_1 C_3 R_3 r_o s^2 + C_1 C_L L_L R_3 s^3 + C_1 C_L L_L r_o s^3 + C_1 C_L R$$

10.248 INVALID-ORDER-248 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L R_3 s \left(g$$
$$C_1 C_3 C_L L_3 L_L R_3 r_o s^5 + C_1 C_3 L_3 L_L R_3 s^4 + C_1 C_3 L_3 L_L r_o s^4 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_3 L_L R_3 r_o s^3 + C_1 C_L L_L R_3 s^3 + C_1 L_L R_3 s^2 + C_1 L_L r_o s^2 + C_1 R_3 r_o s + C_3 C_L L_3 L_L R_3 g_m r$$

10.249 INVALID-ORDER-249 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_3 s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_3 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_3 r_o s^4 + C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C_3 C_L L_L R_3 r_o s^4 + C_1 C_3 C_L R_3 R_L r_o s^3 + C_1 C_3 L_3 R_3 s^3 + C_1 C_3$$

10.250 INVALID-ORDER-250 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_3R_Lr_os^5 + C_1C_3L_3L_LR_3R_Ls^4 + C_1C_3L_3L_LR_3r_os^4 + C_1C_3L_3L_LR_Lr_os^4 + C_1C_3L_3R_3R_Lr_os^3 + C_1C_3L_LR_3R_Lr_os^3 + C_1C_LL_LR_3R_Lr_os^3 + C_1L_LR_3R_Ls^2 +$$

10.251 INVALID-ORDER-251 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}+R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_3R_Ls^5 + C_1C_3C_LL_3L_LR_3r_os^5 + C_1C_3C_LL_3L_LR_Lr_os^5 + C_1C_3C_LL_LR_3R_Lr_os^4 + C_1C_3L_3L_LR_3s^4 + C_1C_3L_3L_Lr_os^4 + C_1C_3L_3R_3R_Ls^3 + C_1C_3L_3R_3r_os^3 +$$

10.252 INVALID-ORDER-252 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_3R_Ls^5 + C_1C_3C_LL_3L_LR_3r_os^5 + C_1C_3C_LL_3L_LR_Lr_os^5 + C_1C_3C_LL_3R_3R_Lr_os^4 + C_1C_3C_LL_LR_3R_Lr_os^4 + C_1C_3L_3R_3R_Ls^3 + C_1C_3L_3R_3r_os^3 + C_1C_3L_3R_Lr_$$

10.253 INVALID-ORDER-253 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1R_3R_L\left(g_mr_o+1\right)}{C_1R_1R_3R_Ls + C_1R_1R_3r_os + C_1R_1R_Lr_os + R_1R_3g_mr_o + R_1R_3 + R_1R_Lg_mr_o + R_1R_L + R_3R_L + R_3r_o + R_Lr_o}$$

10.254 INVALID-ORDER-254 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ R_3,\ \infty,\ \infty,\ L_Ls+\frac{1}{C_Ls}\right)$

$$H(s) = \frac{R_1R_3\left(g_mr_o+1\right)\left(C_LL_Ls^2+1\right)}{C_1C_LL_LR_1R_3s^3 + C_1C_LL_LR_1r_os^3 + C_1C_LR_1R_3r_os^2 + C_1R_1R_3s + C_1R_1r_os + C_LL_LR_1g_mr_os^2 + C_LL_LR_1s^2 + C_LL_LR_3s^2 + C_LL_Lr_os^2 + C_LR_1R_3g_mr_os + C_LR_1R_3s + C$$

10.255 INVALID-ORDER-255 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 R_3 s\left(g_m r_o + 1\right)}{C_1 C_L L_L R_1 R_3 r_o s^3 + C_1 L_L R_1 R_3 s^2 + C_1 L_L R_1 r_o s^2 + C_1 R_1 R_3 r_o s + C_L L_L R_1 R_3 g_m r_o s^2 + C_L L_L R_1 R_3 s^2 + C_L L_L R_3 r_o s^2 + L_L R_1 g_m r_o s + L_L R_1 s + L_L R_3 s + L_L r_o s + R_1 R_3 g}$$

10.256 INVALID-ORDER-256 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 R_3\left(g_m r_o + 1\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_1 C_L L_L R_1 R_3 s^3 + C_1 C_L L_L R_1 r_o s^3 + C_1 C_L R_1 R_3 R_L s^2 + C_1 C_L R_1 R_3 r_o s^2 + C_1 C_L R_1 R_L r_o s^2 + C_1 R_1 R_3 s + C_1 R_1 r_o s + C_L L_L R_1 g_m r_o s^2 + C_L L_L R_1 s^2 + C_L L_L R_3 s^2 + C_L L_L}$$

10.257 INVALID-ORDER-257 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_1 R_3 R_L s\left(g_m r_o + 1\right)}{C_1 C_L L_L R_1 R_3 R_L r_o s^3 + C_1 L_L R_1 R_3 R_L s^2 + C_1 L_L R_1 R_3 r_o s^2 + C_1 L_L R_1 R_L r_o s^2 + C_1 R_1 R_3 R_L r_o s + C_L L_L R_1 R_3 R_L g_m r_o s^2 + C_L L_L R_1 R_3 R_L s^2 + C_L L_L R_3 R_L r_o s^2 + L_L R_1 R_3 g}$$

10.258 INVALID-ORDER-258 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{R_1 R}{C_1 C_L L_L R_1 R_3 R_L s^3 + C_1 C_L L_L R_1 R_3 r_o s^3 + C_1 C_L L_L R_1 R_L r_o s^3 + C_1 L_L R_1 R_3 s^2 + C_1 L_L R_1 r_o s^2 + C_1 R_1 R_3 R_L s + C_1 R_1 R_3 r_o s + C_1 R_1 R_L r_o s + C_L L_L R_1 R_3 g_m r_o s^2 + C_L L_L R}$$

10.259 INVALID-ORDER-259 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{1}{C_1 C_L L_L R_1 R_3 R_L s^3 + C_1 C_L L_L R_1 R_3 r_o s^3 + C_1 C_L L_L R_1 R_L r_o s^3 + C_1 C_L R_1 R_3 R_L r_o s^2 + C_1 R_1 R_3 R_L s + C_1 R_1 R_3 r_o s + C_1 R_1 R_L r_o s + C_L L_L R_1 R_3 g_m r_o s^2 + C_L L_L R_1 R_3 s^2 + C}$$

10.260 INVALID-ORDER-260 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right) \left(C_L R_L s + 1\right)}{C_1 C_3 C_L R_1 R_L r_o s^3 + C_1 C_3 R_1 r_o s^2 + C_1 C_L R_1 R_L s^2 + C_1 C_L R_1 r_o s^2 + C_1 R_1 s + C_3 C_L R_1 R_L g_m r_o s^2 + C_3 C_L R_1 R_L s^2 + C_3 C_L R_L r_o s^2 + C_3 R_1 g_m r_o s + C_3 R_1 s + C_3 r_o s + C_L R_1$$

10.261 INVALID-ORDER-261 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right) \left(C_L L_L s^2 + 1\right)}{C_1 C_3 C_L L_L R_1 r_o s^4 + C_1 C_3 R_1 r_o s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 r_o s^2 + C_1 R_1 s + C_3 C_L L_L R_1 g_m r_o s^3 + C_3 C_L L_L R_1 s^3 + C_3 C_L L_L r_o s^3 + C_3 R_1 g_m r_o s + C_3 R_1 s + C_3 r_o s + C_L L_L s$$

10.262 INVALID-ORDER-262 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 s \left(g_m r_o + 1\right)}{C_1 C_3 L_L R_1 r_o s^3 + C_1 C_L L_L R_1 r_o s^3 + C_1 L_L R_1 s^2 + C_1 R_1 r_o s + C_3 L_L R_1 g_m r_o s^2 + C_3 L_L R_1 s^2 + C_3 L_L r_o s^2 + C_L L_L R_1 g_m r_o s^2 + C_L L_L R_1 s^2 + C_L L_L r_o s^2 + L_L s + R_1 g_m r_o + R$$

10.263 INVALID-ORDER-263 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right) \left(C_L L_L s^2 + C_L R_L s\right.}{C_1 C_3 C_L L_L R_1 r_o s^4 + C_1 C_3 C_L R_1 R_L r_o s^3 + C_1 C_3 R_1 r_o s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_L s^2 + C_1 C_L R_1 r_o s^2 + C_1 R_1 s + C_3 C_L L_L R_1 g_m r_o s^3 + C_3 C_L L_L R_1 s^3 + C_3 C_L L_L r_o s^3 + C$$

10.264 INVALID-ORDER-264 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_1 R_L s \left(g_m r_o + 1\right)}{C_1 C_3 L_L R_1 R_L r_o s^3 + C_1 C_L L_L R_1 R_L r_o s^3 + C_1 L_L R_1 R_L s^2 + C_1 L_L R_1 r_o s^2 + C_1 R_1 R_L r_o s + C_3 L_L R_1 R_L g_m r_o s^2 + C_3 L_L R_1 R_L s^2 + C_3 L_L R_L r_o s^2 + C_L L_L R_1 R_L g_m r_o s^2 + C_L L_L$$

10.265 INVALID-ORDER-265 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{R_1}{C_1 C_3 C_L L_L R_1 R_L r_o s^4 + C_1 C_3 L_L R_1 r_o s^3 + C_1 C_3 R_1 R_L r_o s^2 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L L_L R_1 r_o s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_L s + C_1 R_1 r_o s + C_3 C_L L_L R_1 R_L g_m r_o s^3 + C_3 C_L L_L$$

10.266 INVALID-ORDER-266 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = \frac{R_1 R_L \left(g_$$
$$C_1C_3C_LL_LR_1R_Lr_os^4 + C_1C_3R_1R_Lr_os^2 + C_1C_LL_LR_1R_Ls^3 + C_1C_LL_LR_1r_os^3 + C_1C_LR_1R_Lr_os^2 + C_1R_1R_Ls + C_1R_1r_os + C_3C_LL_LR_1R_Lg_mr_os^3 + C_3C_LL_LR_1R_Ls^3 + C_3$$

10.267 INVALID-ORDER-267 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 R_3 \left(g_m r_o \right.}{C_1C_3C_LR_1R_3R_Lr_os^3 + C_1C_3R_1R_3r_os^2 + C_1C_LR_1R_3R_Ls^2 + C_1C_LR_1R_3r_os^2 + C_1C_LR_1R_Lr_os^2 + C_1R_1R_3s + C_1R_1r_os + C_3C_LR_1R_3R_Lg_mr_os^2 + C_3C_LR_1R_3R_Ls^2 + C_3C$$

10.268 INVALID-ORDER-268 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 R_3 \left(g_m r_o \right.}{C_1C_3C_LL_LR_1R_3r_os^4 + C_1C_3R_1R_3r_os^2 + C_1C_LL_LR_1R_3s^3 + C_1C_LL_LR_1r_os^3 + C_1C_LR_1R_3r_os^2 + C_1R_1R_3s + C_1R_1r_os + C_3C_LL_LR_1R_3g_mr_os^3 + C_3C_LL_LR_1R_3s^3 + C_3C_L$$

10.269 INVALID-ORDER-269 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} \right)$

$$H(s) = \frac{L_L R_1 R_3 s \left(g_m r_o + 1\right)}{C_1C_3L_LR_1R_3r_os^3 + C_1C_LL_LR_1R_3r_os^3 + C_1L_LR_1R_3s^2 + C_1L_LR_1r_os^2 + C_1R_1R_3r_os + C_3L_LR_1R_3g_mr_os^2 + C_3L_LR_1R_3s^2 + C_3L_LR_3r_os^2 + C_LL_LR_1R_3g_mr_os^2 + C_LL_LR$$

10.270 INVALID-ORDER-270 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_1R_3r_os^4 + C_1C_3C_LR_1R_3R_Lr_os^3 + C_1C_3R_1R_3r_os^2 + C_1C_LL_LR_1R_3s^3 + C_1C_LL_LR_1r_os^3 + C_1C_LR_1R_3R_Ls^2 + C_1C_LR_1R_3r_os^2 + C_1C_LR_1R_Lr_os^2 + C_1R_1R_3s$$

10.271 INVALID-ORDER-271 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 L_L R_1 R_3 R_L r_o s^3 + C_1 C_L L_L R_1 R_3 R_L r_o s^3 + C_1 L_L R_1 R_3 R_L s^2 + C_1 L_L R_1 R_3 r_o s^2 + C_1 L_L R_1 R_L r_o s^2 + C_1 R_1 R_3 R_L r_o s + C_3 L_L R_1 R_3 R_L g_m r_o s^2 + C_3 L_L R_1 R_3 R_L s^2 + C_3 L_L$$

10.272 INVALID-ORDER-272 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_L R_1 R_3 R_L r_o s^4 + C_1 C_3 L_L R_1 R_3 r_o s^3 + C_1 C_3 R_1 R_3 R_L r_o s^2 + C_1 C_L L_L R_1 R_3 R_L s^3 + C_1 C_L L_L R_1 R_3 r_o s^3 + C_1 C_L L_L R_1 R_L r_o s^3 + C_1 L_L R_1 R_3 s^2 + C_1 L_L R_1 r_o s^2 + C_1 R$$

10.273 INVALID-ORDER-273 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_L R_1 R_3 R_L r_o s^4 + C_1 C_3 R_1 R_3 R_L r_o s^2 + C_1 C_L L_L R_1 R_3 R_L s^3 + C_1 C_L L_L R_1 R_3 r_o s^3 + C_1 C_L L_L R_1 R_L r_o s^3 + C_1 C_L R_1 R_3 R_L r_o s^2 + C_1 R_1 R_3 R_L s + C_1 R_1 R_3 r_o s + C_1 R_1$$

10.274 INVALID-ORDER-274 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right) \left(C_3 R_3 s + 1\right)}{C_1 C_3 C_L R_1 R_3 r_o s^3 + C_1 C_3 R_1 R_3 s^2 + C_1 C_3 R_1 r_o s^2 + C_1 C_L R_1 r_o s^2 + C_1 R_1 s + C_3 C_L R_1 R_3 g_m r_o s^2 + C_3 C_L R_1 R_3 s^2 + C_3 C_L R_3 r_o s^2 + C_3 R_1 g_m r_o s + C_3 R_1 s + C_3 R_3 s + C_3 r_o s +$$

10.275 INVALID-ORDER-275 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_1 R_L \left(g_m r_o\right.}{C_1 C_3 C_L R_1 R_3 R_L r_o s^3 + C_1 C_3 R_1 R_3 R_L s^2 + C_1 C_3 R_1 R_3 r_o s^2 + C_1 C_3 R_1 R_L r_o s^2 + C_1 C_L R_1 R_L r_o s^2 + C_1 R_1 R_L s + C_1 R_1 r_o s + C_3 C_L R_1 R_3 R_L g_m r_o s^2 + C_3 C_L R_1 R_3 R_L s^2 + C_3 C$$

10.276 INVALID-ORDER-276 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ R_3+\frac{1}{C_3s},\ \infty,\ \infty,\ R_L+\frac{1}{C_Ls}\right)$

$$H(s) = \frac{R_1\left(g_mr_o+1\right)(C}{C_1C_3C_LR_1R_3R_Ls^3+C_1C_3C_LR_1R_3r_os^3+C_1C_3C_LR_1R_Lr_os^3+C_1C_3R_1R_3s^2+C_1C_3R_1r_os^2+C_1C_LR_1R_Ls^2+C_1C_LR_1r_os^2+C_1R_1s+C_3C_LR_1R_3g_mr_os^2+C_3C_LR_1R_3s}$$

10.277 INVALID-ORDER-277 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ R_3+\frac{1}{C_3s},\ \infty,\ \infty,\ L_Ls+\frac{1}{C_Ls}\right)$

$$H(s) = \frac{R_1\left(g_mr_o+1\right)(C_3}{C_1C_3C_LL_LR_1R_3s^4+C_1C_3C_LL_LR_1r_os^4+C_1C_3C_LR_1R_3r_os^3+C_1C_3R_1R_3s^2+C_1C_3R_1r_os^2+C_1C_LL_LR_1s^3+C_1C_LR_1r_os^2+C_1R_1s+C_3C_LL_LR_1g_mr_os^3+C_3C_LL_LR_1s}$$

10.278 INVALID-ORDER-278 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ R_3+\frac{1}{C_3s},\ \infty,\ \infty,\ \frac{L_Ls}{C_LL_Ls^2+1}\right)$

$$H(s) = \frac{L_LR_1s\left(g\right.}{C_1C_3C_LL_LR_1R_3r_os^4+C_1C_3L_LR_1R_3s^3+C_1C_3L_LR_1r_os^3+C_1C_3R_1R_3r_os^2+C_1C_LL_LR_1r_os^3+C_1L_LR_1s^2+C_1R_1r_os+C_3C_LL_LR_1R_3g_mr_os^3+C_3C_LL_LR_1R_3s^3+C_3C_L}$$

10.279 INVALID-ORDER-279 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ R_3+\frac{1}{C_3s},\ \infty,\ \infty,\ L_Ls+R_L+\frac{1}{C_Ls}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_1R_3s^4+C_1C_3C_LL_LR_1r_os^4+C_1C_3C_LR_1R_3R_Ls^3+C_1C_3C_LR_1R_3r_os^3+C_1C_3C_LR_1R_Lr_os^3+C_1C_3R_1R_3s^2+C_1C_3R_1r_os^2+C_1C_LL_LR_1s^3+C_1C_LR_1R_Ls^2+}$$

10.280 INVALID-ORDER-280 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ R_3+\frac{1}{C_3s},\ \infty,\ \infty,\ \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_1R_3R_Lr_os^4+C_1C_3L_LR_1R_3R_Ls^3+C_1C_3L_LR_1R_3r_os^3+C_1C_3L_LR_1R_Lr_os^3+C_1C_3R_1R_3R_Lr_os^2+C_1C_LL_LR_1R_Lr_os^3+C_1L_LR_1R_Ls^2+C_1L_LR_1r_os^2+C_1R}$$

10.281 INVALID-ORDER-281 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ R_3+\frac{1}{C_3s},\ \infty,\ \infty,\ \frac{L_Ls}{C_LL_Ls^2+1}+R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_1R_3R_Ls^4+C_1C_3C_LL_LR_1R_3r_os^4+C_1C_3C_LL_LR_1R_Lr_os^4+C_1C_3L_LR_1R_3s^3+C_1C_3L_LR_1r_os^3+C_1C_3R_1R_3R_Ls^2+C_1C_3R_1R_3r_os^2+C_1C_3R_1R_Lr_os^2+C_1C}$$

10.282 INVALID-ORDER-282 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_1R_3R_Ls^4 + C_1C_3C_LL_LR_1R_3r_os^4 + C_1C_3C_LL_LR_1R_Lr_os^4 + C_1C_3C_LR_1R_3R_Lr_os^3 + C_1C_3R_1R_3R_Ls^2 + C_1C_3R_1R_3r_os^2 + C_1C_3R_1R_Lr_os^2 + C_1C_LL_LR_1R_Ls^3 +$$

10.283 INVALID-ORDER-283 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1R_L\left(g_mr_o+1\right)\left(C_3L_3s^2+1\right)}{C_1C_3L_3R_1R_Ls^3 + C_1C_3L_3R_1r_os^3 + C_1C_3R_1R_Lr_os^2 + C_1R_1R_Ls + C_1R_1r_os + C_3L_3R_1g_mr_os^2 + C_3L_3R_1s^2 + C_3L_3R_Ls^2 + C_3L_3r_os^2 + C_3R_1R_Lg_mr_os + C_3R_1R_Ls + C_3R$$

10.284 INVALID-ORDER-284 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(g_mr_o+1\right)\left(C_3L_3s^2+1\right)}{C_1C_3C_LL_3R_1r_os^4 + C_1C_3L_3R_1s^3 + C_1C_3R_1r_os^2 + C_1C_LR_1r_os^2 + C_1R_1s + C_3C_LL_3R_1g_mr_os^3 + C_3C_LL_3R_1s^3 + C_3C_LL_3r_os^3 + C_3L_3s^2 + C_3R_1g_mr_os + C_3R_1s + C_3r_os +$$

10.285 INVALID-ORDER-285 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_1R_L\left(g_mr\right.}{C_1C_3C_LL_3R_1R_Lr_os^4 + C_1C_3L_3R_1R_Ls^3 + C_1C_3L_3R_1r_os^3 + C_1C_3R_1R_Lr_os^2 + C_1C_LR_1R_Lr_os^2 + C_1R_1R_Ls + C_1R_1r_os + C_3C_LL_3R_1R_Lg_mr_os^3 + C_3C_LL_3R_1R_Ls^3 + C_3C_L$$

10.286 INVALID-ORDER-286 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(g_mr_o+1\right)\left(C_{3}\right.}{C_1C_3C_LL_3R_1R_Ls^4 + C_1C_3C_LL_3R_1r_os^4 + C_1C_3C_LR_1R_Lr_os^3 + C_1C_3L_3R_1s^3 + C_1C_3R_1r_os^2 + C_1C_LR_1R_Ls^2 + C_1C_LR_1r_os^2 + C_1R_1s + C_3C_LL_3R_1g_mr_os^3 + C_3C_LL_3R_1s^{3}$$

10.287 INVALID-ORDER-287 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right) \left(C_3 \right.}{C_1 C_3 C_L L_3 L_L R_1 s^5 + C_1 C_3 C_L L_3 R_1 r_o s^4 + C_1 C_3 C_L L_L R_1 r_o s^4 + C_1 C_3 L_3 R_1 s^3 + C_1 C_3 R_1 r_o s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 r_o s^2 + C_1 R_1 s + C_3 C_L L_3 L_L s^4 + C_3 C_L L_3 R_1 g_m r_o s^3}$$

10.288 INVALID-ORDER-288 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 s \left(g\right.}{C_1 C_3 C_L L_3 L_L R_1 r_o s^5 + C_1 C_3 L_3 L_L R_1 s^4 + C_1 C_3 L_3 R_1 r_o s^3 + C_1 C_3 C_L L_L R_1 r_o s^3 + C_1 C_L L_L R_1 s^2 + C_1 R_1 r_o s + C_3 C_L L_3 L_L R_1 g_m r_o s^4 + C_3 C_L L_3 L_L R_1 s^4 + C_3 C_L}$$

10.289 INVALID-ORDER-289 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 s^5 + C_1 C_3 C_L L_3 R_1 R_L s^4 + C_1 C_3 C_L L_3 R_1 r_o s^4 + C_1 C_3 C_L L_L R_1 r_o s^4 + C_1 C_3 C_L R_1 R_L r_o s^3 + C_1 C_3 L_3 R_1 s^3 + C_1 C_3 R_1 r_o s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_L s^2 +}$$

10.290 INVALID-ORDER-290 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 R_L r_o s^5 + C_1 C_3 L_3 L_L R_1 R_L s^4 + C_1 C_3 L_3 L_L R_1 r_o s^4 + C_1 C_3 L_3 R_1 R_L r_o s^3 + C_1 C_3 L_L R_1 R_L r_o s^3 + C_1 C_L L_L R_1 R_L r_o s^3 + C_1 L_L R_1 R_L s^2 + C_1 L_L R_1 r_o s^2 + C_1 R_1}$$

10.291 INVALID-ORDER-291 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 R_L s^5 + C_1 C_3 C_L L_3 L_L R_1 r_o s^5 + C_1 C_3 C_L L_L R_1 R_L r_o s^4 + C_1 C_3 L_3 L_L R_1 s^4 + C_1 C_3 L_3 R_1 R_L s^3 + C_1 C_3 L_3 R_1 r_o s^3 + C_1 C_3 L_L R_1 r_o s^3 + C_1 C_3 R_1 R_L r_o s^2 + C_1 C_L}$$

10.292 INVALID-ORDER-292 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ L_3s + \frac{1}{C_3s},\ \infty,\ \infty,\ \frac{R_L\left(L_Ls+\frac{1}{C_Ls}\right)}{L_Ls+R_L+\frac{1}{C_Ls}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_Ls^5 + C_1C_3C_LL_3L_LR_1r_os^5 + C_1C_3C_LL_3R_1R_Lr_os^4 + C_1C_3C_LL_LR_1R_Lr_os^4 + C_1C_3L_3R_1R_Ls^3 + C_1C_3L_3R_1r_os^3 + C_1C_3R_1R_Lr_os^2 + C_1C_LL_LR_1R_Ls^3 +}$$

10.293 INVALID-ORDER-293 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ \frac{L_3s}{C_3L_3s^2+1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_3R_1R_Ls\left(g_mr_o+1\right)}{C_1C_3L_3R_1R_Lr_os^3 + C_1L_3R_1R_Ls^2 + C_1L_3R_1r_os^2 + C_1R_1R_Lr_os + C_3L_3R_1R_Lg_mr_os^2 + C_3L_3R_1R_Ls^2 + C_3L_3R_Lr_os^2 + L_3R_1g_mr_os + L_3R_1s + L_3R_Ls + L_3r_os + R_1R_Lg_m}$$

10.294 INVALID-ORDER-294 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ \frac{L_3s}{C_3L_3s^2+1},\ \infty,\ \infty,\ \frac{1}{C_Ls}\right)$

$$H(s) = \frac{L_3R_1s\left(g_mr_o+1\right)}{C_1C_3L_3R_1r_os^3 + C_1C_LL_3R_1r_os^3 + C_1L_3R_1s^2 + C_1R_1r_os + C_3L_3R_1g_mr_os^2 + C_3L_3R_1s^2 + C_3L_3r_os^2 + C_LL_3R_1g_mr_os^2 + C_LL_3R_1s^2 + C_LL_3r_os^2 + L_3s + R_1g_mr_o + R_1 +}$$

10.295 INVALID-ORDER-295 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ \frac{L_3s}{C_3L_3s^2+1},\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{L_3R_1R_Ls\left(g_mr_o+1\right)}{C_1C_3L_3R_1R_Lr_os^3 + C_1C_LL_3R_1R_Lr_os^3 + C_1L_3R_1R_Ls^2 + C_1L_3R_1r_os^2 + C_1R_1R_Lr_os + C_3L_3R_1R_Lg_mr_os^2 + C_3L_3R_1R_Ls^2 + C_3L_3R_Lr_os^2 + C_LL_3R_1R_Lg_mr_os^2 + C_LL_3R_1}$$

10.296 INVALID-ORDER-296 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ \frac{L_3s}{C_3L_3s^2+1},\ \infty,\ \infty,\ R_L + \frac{1}{C_Ls}\right)$

$$H(s) = \frac{L_3R_1s\left(g_\right.}{C_1C_3C_LL_3R_1R_Lr_os^4 + C_1C_3L_3R_1r_os^3 + C_1C_LL_3R_1R_Ls^3 + C_1C_LL_3R_1r_os^3 + C_1C_LR_1R_Lr_os^2 + C_1L_3R_1s^2 + C_1R_1r_os + C_3C_LL_3R_1R_Lg_mr_os^3 + C_3C_LL_3R_1R_Ls^3 + C_3C_}$$

10.297 INVALID-ORDER-297 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ \frac{L_3s}{C_3L_3s^2+1},\ \infty,\ \infty,\ L_Ls + \frac{1}{C_Ls}\right)$

$$H(s) = \frac{L_3R_1s\left(g_\right.}{C_1C_3C_LL_3L_LR_1r_os^5 + C_1C_3L_3R_1r_os^3 + C_1C_LL_3L_LR_1s^4 + C_1C_LL_3R_1r_os^3 + C_1C_LL_LR_1r_os^3 + C_1L_3R_1s^2 + C_1R_1r_os + C_3C_LL_3L_LR_1g_mr_os^4 + C_3C_LL_3L_LR_1s^4 + C_3C_L}$$

10.298 INVALID-ORDER-298 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_3 L_L R_1 s\left(g_m r_o + 1\right)}{C_1 C_3 L_3 L_L R_1 r_o s^3 + C_1 C_L L_3 L_L R_1 r_o s^3 + C_1 L_3 L_L R_1 s^2 + C_1 L_3 R_1 r_o s + C_1 L_L R_1 r_o s + C_3 L_3 L_L R_1 g_m r_o s^2 + C_3 L_3 L_L R_1 s^2 + C_3 L_3 L_L r_o s^2 + C_L L_3 L_L R_1 g_m r_o s^2 + C_L L_3 L_L R$$

10.299 INVALID-ORDER-299 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 r_o s^5 + C_1 C_3 C_L L_3 R_1 R_L r_o s^4 + C_1 C_3 L_3 R_1 r_o s^3 + C_1 C_L L_3 L_L R_1 s^4 + C_1 C_L L_3 R_1 R_L s^3 + C_1 C_L L_3 R_1 r_o s^3 + C_1 C_L L_L R_1 r_o s^3 + C_1 C_L R_1 R_L r_o s^2 + C_1 L_3 R_1 s^2 +}$$

10.300 INVALID-ORDER-300 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 L_3 L_L R_1 R_L r_o s^3 + C_1 C_L L_3 L_L R_1 R_L r_o s^3 + C_1 L_3 L_L R_1 R_L s^2 + C_1 L_3 L_L R_1 r_o s^2 + C_1 L_3 R_1 R_L r_o s + C_1 L_L R_1 R_L r_o s + C_3 L_3 L_L R_1 R_L g_m r_o s^2 + C_3 L_3 L_L R_1 R_L s^2 + C_3 L_3 L}$$

10.301 INVALID-ORDER-301 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 R_L r_o s^5 + C_1 C_3 L_3 L_L R_1 r_o s^4 + C_1 C_3 L_3 R_1 R_L r_o s^3 + C_1 C_L L_3 L_L R_1 R_L s^4 + C_1 C_L L_3 L_L R_1 r_o s^4 + C_1 C_L L_L R_1 R_L r_o s^3 + C_1 L_3 L_L R_1 s^3 + C_1 L_3 R_1 R_L s^2 + C_1 L_3}$$

10.302 INVALID-ORDER-302 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 R_L r_o s^5 + C_1 C_3 L_3 R_1 R_L r_o s^3 + C_1 C_L L_3 L_L R_1 R_L s^4 + C_1 C_L L_3 L_L R_1 r_o s^4 + C_1 C_L L_3 R_1 R_L r_o s^3 + C_1 C_L L_L R_1 R_L r_o s^3 + C_1 L_3 R_1 R_L s^2 + C_1 L_3 R_1 r_o s^2 + C_1 R_1}$$

10.303 INVALID-ORDER-303 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ L_3s + R_3 + \frac{1}{C_3s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1R_L\left(g_mr_o+1\right)\left(C_3L_3s^2+C_3R_3s+1\right)}{C_1C_3L_3R_1R_Ls^3+C_1C_3L_3R_1r_os^3+C_1C_3R_1R_3R_Ls^2+C_1C_3R_1R_3r_os^2+C_1C_3R_1R_Lr_os^2+C_1R_1R_Ls+C_1R_1r_os+C_3L_3R_1g_mr_os^2+C_3L_3R_1s^2+C_3L_3R_Ls^2+C_3L_3r_os^2}$$

10.304 INVALID-ORDER-304 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ L_3s + R_3 + \frac{1}{C_3s},\ \infty,\ \infty,\ \frac{1}{C_Ls}\right)$

$$H(s) = \frac{R_1\left(g_mr_o+1\right)\left(C_3L_3s^2+C_3R_3s+1\right.}{C_1C_3C_LL_3R_1r_os^4+C_1C_3C_LR_1R_3r_os^3+C_1C_3L_3R_1s^3+C_1C_3R_1R_3s^2+C_1C_3R_1r_os^2+C_1C_LR_1r_os^2+C_1R_1s+C_3C_LL_3R_1g_mr_os^3+C_3C_LL_3R_1s^3+C_3C_LL_3r_os^3+C_3C}$$

10.305 INVALID-ORDER-305 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ L_3s + R_3 + \frac{1}{C_3s},\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3R_1R_Lr_os^4+C_1C_3C_LR_1R_3R_Lr_os^3+C_1C_3L_3R_1R_Ls^3+C_1C_3L_3R_1r_os^3+C_1C_3R_1R_3R_Ls^2+C_1C_3R_1R_3r_os^2+C_1C_3R_1R_Lr_os^2+C_1C_LR_1R_Lr_os^2+C_1R_1R_Ls+}$$

10.306 INVALID-ORDER-306 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ L_3s + R_3 + \frac{1}{C_3s},\ \infty,\ \infty,\ R_L + \frac{1}{C_Ls}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3R_1R_Ls^4+C_1C_3C_LL_3R_1r_os^4+C_1C_3C_LR_1R_3R_Ls^3+C_1C_3C_LR_1R_3r_os^3+C_1C_3C_LR_1R_Lr_os^3+C_1C_3L_3R_1s^3+C_1C_3R_1R_3s^2+C_1C_3R_1r_os^2+C_1C_LR_1R_Ls^2+}$$

10.307 INVALID-ORDER-307 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ L_3s + R_3 + \frac{1}{C_3s},\ \infty,\ \infty,\ L_Ls + \frac{1}{C_Ls}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1s^5+C_1C_3C_LL_3R_1r_os^4+C_1C_3C_LL_LR_1R_3s^4+C_1C_3C_LL_LR_1r_os^4+C_1C_3C_LR_1R_3r_os^3+C_1C_3L_3R_1s^3+C_1C_3R_1R_3s^2+C_1C_3R_1r_os^2+C_1C_LL_LR_1s^3+}$$

10.308 INVALID-ORDER-308 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \infty,\ L_3s + R_3 + \frac{1}{C_3s},\ \infty,\ \infty,\ \frac{L_Ls}{C_LL_Ls^2+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1r_os^5+C_1C_3C_LL_LR_1R_3r_os^4+C_1C_3L_3L_LR_1s^4+C_1C_3L_3R_1r_os^3+C_1C_3L_LR_1R_3s^3+C_1C_3L_LR_1r_os^3+C_1C_3R_1R_3r_os^2+C_1C_LL_LR_1r_os^3+C_1L_LR_1s^2+}$$

10.309 INVALID-ORDER-309 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1s^5 + C_1C_3C_LL_3R_1R_Ls^4 + C_1C_3C_LL_3R_1r_os^4 + C_1C_3C_LL_LR_1R_3s^4 + C_1C_3C_LL_LR_1r_os^4 + C_1C_3C_LR_1R_3R_Ls^3 + C_1C_3C_LR_1R_3r_os^3 + C_1C_3C_LR_1R_Lr_os^3 +}$$

10.310 INVALID-ORDER-310 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_Lr_os^5 + C_1C_3C_LL_LR_1R_3R_Lr_os^4 + C_1C_3L_3L_LR_1R_Ls^4 + C_1C_3L_3L_LR_1r_os^4 + C_1C_3L_3R_1R_Lr_os^3 + C_1C_3L_LR_1R_3R_Ls^3 + C_1C_3L_LR_1R_3r_os^3 + C_1C_3L_LR}$$

10.311 INVALID-ORDER-311 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_Ls^5 + C_1C_3C_LL_3L_LR_1r_os^5 + C_1C_3C_LL_LR_1R_3R_Ls^4 + C_1C_3C_LL_LR_1R_3r_os^4 + C_1C_3C_LL_LR_1R_Lr_os^4 + C_1C_3L_3L_LR_1s^4 + C_1C_3L_3R_1R_Ls^3 + C_1C_3L_3R_1}$$

10.312 INVALID-ORDER-312 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_Ls^5 + C_1C_3C_LL_3L_LR_1r_os^5 + C_1C_3C_LL_3R_1R_Lr_os^4 + C_1C_3C_LL_LR_1R_3R_Ls^4 + C_1C_3C_LL_LR_1R_3r_os^4 + C_1C_3C_LL_LR_1R_Lr_os^4 + C_1C_3C_LR_1R_3R_Lr_os^3 +}$$

10.313 INVALID-ORDER-313 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_3R_1R_3R_Ls\left(g_mr_o+1\right)}{C_1C_3L_3R_1R_3R_Lr_os^3 + C_1L_3R_1R_3R_Ls^2 + C_1L_3R_1R_3r_os^2 + C_1L_3R_1R_Lr_os^2 + C_1R_1R_3R_Lr_os + C_3L_3R_1R_3R_Lg_mr_os^2 + C_3L_3R_1R_3R_Ls^2 + C_3L_3R_3R_Lr_os^2 + L_3R_1R_3g_mr_o}$$

10.314 INVALID-ORDER-314 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_3 R_1 R_3 s \left(g_m r_o + 1\right)}{C_1 C_3 L_3 R_1 R_3 r_o s^3 + C_1 C_L L_3 R_1 R_3 r_o s^3 + C_1 L_3 R_1 R_3 s^2 + C_1 L_3 R_1 r_o s^2 + C_1 R_1 R_3 r_o s + C_3 L_3 R_1 R_3 g_m r_o s^2 + C_3 L_3 R_1 R_3 s^2 + C_3 L_3 R_3 r_o s^2 + C_L L_3 R_1 R_3 g_m r_o s^2 + C_L L_3 R_1 R_3$$

10.315 INVALID-ORDER-315 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1} \right)$

$$H(s) = \frac{}{C_1 C_3 L_3 R_1 R_3 R_L r_o s^3 + C_1 C_L L_3 R_1 R_3 R_L r_o s^3 + C_1 L_3 R_1 R_3 R_L s^2 + C_1 L_3 R_1 R_3 r_o s^2 + C_1 L_3 R_1 R_L r_o s^2 + C_1 R_1 R_3 R_L r_o s + C_3 L_3 R_1 R_3 R_L g_m r_o s^2 + C_3 L_3 R_1 R_3 R_L s^2 + C_3 L_3 R$$

10.316 INVALID-ORDER-316 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 R_1 R_3 R_L r_o s^4 + C_1 C_3 L_3 R_1 R_3 r_o s^3 + C_1 C_L L_3 R_1 R_3 R_L s^3 + C_1 C_L L_3 R_1 R_3 r_o s^3 + C_1 C_L L_3 R_1 R_L r_o s^3 + C_1 C_L R_1 R_3 R_L r_o s^2 + C_1 L_3 R_1 R_3 s^2 + C_1 L_3 R_1 r_o s^2 + C_1 R_1 R$$

10.317 INVALID-ORDER-317 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 R_3 r_o s^5 + C_1 C_3 L_3 R_1 R_3 r_o s^3 + C_1 C_L L_3 L_L R_1 R_3 s^4 + C_1 C_L L_3 L_L R_1 r_o s^4 + C_1 C_L L_3 R_1 R_3 r_o s^3 + C_1 C_L L_L R_1 R_3 r_o s^3 + C_1 L_3 R_1 R_3 s^2 + C_1 L_3 R_1 r_o s^2 + C_1 R_1 R$$

10.318 INVALID-ORDER-318 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} \right)$

$$H(s) = \frac{}{C_1 C_3 L_3 L_L R_1 R_3 r_o s^3 + C_1 C_L L_3 L_L R_1 R_3 r_o s^3 + C_1 L_3 L_L R_1 R_3 s^2 + C_1 L_3 L_L R_1 r_o s^2 + C_1 L_3 R_1 R_3 r_o s + C_1 L_L R_1 R_3 r_o s + C_3 L_3 L_L R_1 R_3 g_m r_o s^2 + C_3 L_3 L_L R_1 R_3 s^2 + C_3 L_3 L_L R$$

10.319 INVALID-ORDER-319 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3r_os^5 + C_1C_3C_LL_3R_1R_3R_Lr_os^4 + C_1C_3L_3R_1R_3r_os^3 + C_1C_LL_3L_LR_1R_3s^4 + C_1C_LL_3L_LR_1r_os^4 + C_1C_LL_3R_1R_3R_Ls^3 + C_1C_LL_3R_1R_3r_os^3 + C_1C_LL_3R_1$$

10.320 INVALID-ORDER-320 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1C_3L_3L_LR_1R_3R_Lr_os^3 + C_1C_LL_3L_LR_1R_3R_Lr_os^3 + C_1L_3L_LR_1R_3R_Ls^2 + C_1L_3L_LR_1R_3r_os^2 + C_1L_3L_LR_1R_Lr_os^2 + C_1L_3R_1R_3R_Lr_os + C_1L_LR_1R_3R_Lr_os + C_3L_3L_LR_1R$$

10.321 INVALID-ORDER-321 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3R_Lr_os^5 + C_1C_3L_3L_LR_1R_3r_os^4 + C_1C_3L_3R_1R_3R_Lr_os^3 + C_1C_LL_3L_LR_1R_3R_Ls^4 + C_1C_LL_3L_LR_1R_3r_os^4 + C_1C_LL_3L_LR_1R_Lr_os^4 + C_1C_LL_LR_1R_3R_Lr_os$$

10.322 INVALID-ORDER-322 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3R_Lr_os^5 + C_1C_3L_3R_1R_3R_Lr_os^3 + C_1C_LL_3L_LR_1R_3R_Ls^4 + C_1C_LL_3L_LR_1R_3r_os^4 + C_1C_LL_3L_LR_1R_Lr_os^4 + C_1C_LL_3R_1R_3R_Lr_os^3 + C_1C_LL_LR_1R_3R_Lr_o$$

10.323 INVALID-ORDER-323 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{R_1R_L\,(g}{C_1C_3L_3R_1R_3R_Ls^3 + C_1C_3L_3R_1R_3r_os^3 + C_1C_3L_3R_1R_Lr_os^3 + C_1L_3R_1R_Ls^2 + C_1L_3R_1r_os^2 + C_1R_1R_3R_Ls + C_1R_1R_3r_os + C_1R_1R_Lr_os + C_3L_3R_1R_3g_mr_os^2 + C_3L_3R_1R_3$$

10.324 INVALID-ORDER-324 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 (g_m$$
$$C_1 C_3 C_L L_3 R_1 R_3 r_o s^4 + C_1 C_3 L_3 R_1 R_3 s^3 + C_1 C_3 L_3 R_1 r_o s^3 + C_1 C_L L_3 R_1 r_o s^3 + C_1 C_L R_1 R_3 r_o s^2 + C_1 L_3 R_1 s^2 + C_1 R_1 R_3 s + C_1 R_1 r_o s + C_3 C_L L_3 R_1 R_3 g_m r_o s^3 + C_3 C_L L_3 R_1 R_3$$

10.325 INVALID-ORDER-325 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 R_1 R_3 R_L r_o s^4 + C_1 C_3 L_3 R_1 R_3 R_L s^3 + C_1 C_3 L_3 R_1 R_3 r_o s^3 + C_1 C_3 L_3 R_1 R_L r_o s^3 + C_1 C_L L_3 R_1 R_L r_o s^3 + C_1 C_L R_1 R_3 R_L r_o s^2 + C_1 L_3 R_1 R_L s^2 + C_1 L_3 R_1 r_o s^2 + C_1 R_1 R$$

10.326 INVALID-ORDER-326 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_1 R_3 r_o s^4 + C_1 C_3 C_L L_3 R_1 R_L r_o s^4 + C_1 C_3 L_3 R_1 R_3 s^3 + C_1 C_3 L_3 R_1 r_o s^3 + C_1 C_L L_3 R_1 R_L s^3 + C_1 C_L L_3 R_1 r_o s^3 + C_1 C_L R_1 R_3 R_L s^2 + C_1 C_L$$

10.327 INVALID-ORDER-327 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_3 L_L R_1 r_o s^5 + C_1 C_3 C_L L_3 R_1 R_3 r_o s^4 + C_1 C_3 L_3 R_1 R_3 s^3 + C_1 C_3 L_3 R_1 r_o s^3 + C_1 C_L L_3 L_L R_1 s^4 + C_1 C_L L_3 R_1 r_o s^3 + C_1 C_L L_L R_1 R_3 s^3 + C_1 C_L$$

10.328 INVALID-ORDER-328 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 R_3 r_o s^5 + C_1 C_3 L_3 L_L R_1 R_3 s^4 + C_1 C_3 L_3 L_L R_1 r_o s^4 + C_1 C_3 L_3 R_1 R_3 r_o s^3 + C_1 C_L L_3 L_L R_1 r_o s^4 + C_1 C_L L_L R_1 R_3 r_o s^3 + C_1 L_3 L_L R_1 s^3 + C_1 L_3 R_1 r_o s^2 + C_1 L_L R$$

10.329 INVALID-ORDER-329 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_3 L_L R_1 r_o s^5 + C_1 C_3 C_L L_3 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_1 R_3 r_o s^4 + C_1 C_3 C_L L_3 R_1 R_L r_o s^4 + C_1 C_3 L_3 R_1 R_3 s^3 + C_1 C_3 L_3 R_1 r_o s^3 + C_1 C_L L_3 L_L R$$

10.330 INVALID-ORDER-330 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 R_3 R_L r_o s^5 + C_1 C_3 L_3 L_L R_1 R_3 R_L s^4 + C_1 C_3 L_3 L_L R_1 R_3 r_o s^4 + C_1 C_3 L_3 L_L R_1 R_L r_o s^4 + C_1 C_3 L_3 R_1 R_3 R_L r_o s^3 + C_1 C_L L_3 L_L R_1 R_L r_o s^4 + C_1 C_L L_L R_1 R_3 R_L r_o s$$

10.331 INVALID-ORDER-331 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 R_3 R_L s^5 + C_1 C_3 C_L L_3 L_L R_1 R_3 r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_L r_o s^5 + C_1 C_3 L_3 L_L R_1 R_3 s^4 + C_1 C_3 L_3 L_L R_1 r_o s^4 + C_1 C_3 L_3 R_1 R_3 R_L s^3 + C_1 C_3 L_3 R_1 R_3 r_o s^3 + C_1 C_3$$

10.332 INVALID-ORDER-332 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 R_3 R_L s^5 + C_1 C_3 C_L L_3 L_L R_1 R_3 r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_L r_o s^5 + C_1 C_3 C_L L_3 R_1 R_3 R_L r_o s^4 + C_1 C_3 L_3 R_1 R_3 R_L s^3 + C_1 C_3 L_3 R_1 R_3 r_o s^3 + C_1 C_3 L_3 R_1 R_L r_o s^3 +$$

10.333 INVALID-ORDER-333 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3 \left(L_3 s + \frac{1}{C_3 s} \right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{R_1 R}{C_1 C_3 L_3 R_1 R_3 R_L s^3 + C_1 C_3 L_3 R_1 R_3 r_o s^3 + C_1 C_3 L_3 R_1 R_L r_o s^3 + C_1 C_3 R_1 R_3 R_L r_o s^2 + C_1 R_1 R_3 R_L s + C_1 R_1 R_3 r_o s + C_1 R_1 R_L r_o s + C_3 L_3 R_1 R_3 g_m r_o s^2 + C_3 L_3 R_1 R_3 s^2 + C_3 L_3$$

10.334 INVALID-ORDER-334 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3 \left(L_3 s + \frac{1}{C_3 s} \right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 R_3 \left(g_m r_o + \right.}{C_1 C_3 C_L L_3 R_1 R_3 r_o s^4 + C_1 C_3 L_3 R_1 R_3 s^3 + C_1 C_3 L_3 R_1 r_o s^3 + C_1 C_3 R_1 R_3 r_o s^2 + C_1 C_L R_1 R_3 r_o s^2 + C_1 R_1 R_3 s + C_1 R_1 r_o s + C_3 C_L L_3 R_1 R_3 g_m r_o s^3 + C_3 C_L L_3 R_1 R_3 s^3 + C_3 C_L L_3$$

10.335 INVALID-ORDER-335 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_3R_1R_3R_Lr_os^4 + C_1C_3L_3R_1R_3R_Ls^3 + C_1C_3L_3R_1R_3r_os^3 + C_1C_3L_3R_1R_Lr_os^3 + C_1C_3R_1R_3R_Lr_os^2 + C_1C_LR_1R_3R_Lr_os^2 + C_1R_1R_3R_Ls + C_1R_1R_3r_os + C_1R_1R_L}$$

10.336 INVALID-ORDER-336 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_3R_1R_3R_Ls^4 + C_1C_3C_LL_3R_1R_3r_os^4 + C_1C_3C_LL_3R_1R_Lr_os^4 + C_1C_3C_LR_1R_3R_Lr_os^3 + C_1C_3L_3R_1R_3s^3 + C_1C_3L_3R_1r_os^3 + C_1C_3R_1R_3r_os^2 + C_1C_LR_1R_3R_Ls^2 + C}$$

10.337 INVALID-ORDER-337 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3s^5 + C_1C_3C_LL_3L_LR_1r_os^5 + C_1C_3C_LL_3R_1R_3r_os^4 + C_1C_3C_LL_LR_1R_3r_os^4 + C_1C_3L_3R_1R_3s^3 + C_1C_3L_3R_1r_os^3 + C_1C_3R_1R_3r_os^2 + C_1C_LL_LR_1R_3s^3 + C}$$

10.338 INVALID-ORDER-338 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3r_os^5 + C_1C_3L_3L_LR_1R_3s^4 + C_1C_3L_3L_LR_1r_os^4 + C_1C_3L_3R_1R_3r_os^3 + C_1C_3L_LR_1R_3r_os^3 + C_1C_LL_LR_1R_3r_os^3 + C_1L_LR_1R_3s^2 + C_1L_LR_1r_os^2 + C_1R_1R}$$

10.339 INVALID-ORDER-339 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3s^5 + C_1C_3C_LL_3L_LR_1r_os^5 + C_1C_3C_LL_3R_1R_3R_Ls^4 + C_1C_3C_LL_3R_1R_3r_os^4 + C_1C_3C_LL_3R_1R_Lr_os^4 + C_1C_3C_LL_LR_1R_3r_os^4 + C_1C_3C_LR_1R_3R_Lr_os^3 + C}$$

10.340 INVALID-ORDER-340 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3R_Lr_os^5 + C_1C_3L_3L_LR_1R_3R_Ls^4 + C_1C_3L_3L_LR_1R_3r_os^4 + C_1C_3L_3L_LR_1R_Lr_os^4 + C_1C_3L_3R_1R_3R_Lr_os^3 + C_1C_3L_LR_1R_3R_Lr_os^3 + C_1C_LL_LR_1R_3R_Lr_os$$

10.341 INVALID-ORDER-341 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3R_Ls^5 + C_1C_3C_LL_3L_LR_1R_3r_os^5 + C_1C_3C_LL_3L_LR_1R_Lr_os^5 + C_1C_3C_LL_LR_1R_3R_Lr_os^4 + C_1C_3L_3L_LR_1R_3s^4 + C_1C_3L_3L_LR_1r_os^4 + C_1C_3L_3R_1R_3R_Ls^3 +$$

10.342 INVALID-ORDER-342 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3R_Ls^5 + C_1C_3C_LL_3L_LR_1R_3r_os^5 + C_1C_3C_LL_3L_LR_1R_Lr_os^5 + C_1C_3C_LL_3R_1R_3R_Lr_os^4 + C_1C_3C_LL_LR_1R_3R_Lr_os^4 + C_1C_3L_3R_1R_3R_Ls^3 + C_1C_3L_3R_1R_3$$

10.343 INVALID-ORDER-343 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{R_3R_L\left(g_mr_o+1\right)\left(C_1R_1s+1\right)}{C_1R_1R_3g_mr_os + C_1R_1R_3s + C_1R_1R_Lg_mr_os + C_1R_1R_Ls + C_1R_3R_Ls + C_1R_3r_os + C_1R_Lr_os + R_3g_mr_o + R_3 + R_Lg_mr_o + R_L}$$

10.344 INVALID-ORDER-344 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_3\left(g_mr_o+1\right)\left(C_1R_1s+1\right)\left(C_LL_Ls^2+1\right)}{C_1C_LL_LR_1g_mr_os^3 + C_1C_LL_LR_1s^3 + C_1C_LL_LR_3s^3 + C_1C_LL_Lr_os^3 + C_1C_LR_1R_3g_mr_os^2 + C_1C_LR_1R_3s^2 + C_1C_LR_3r_os^2 + C_1R_1g_mr_os + C_1R_1s + C_1R_3s + C_1r_os + C_LL_L$$

10.345 INVALID-ORDER-345 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_3 s \left(g_m r_o + 1\right) \left(C_1 R_1 s + 1\right)}{C_1 C_L L_L R_1 R_3 g_m r_o s^3 + C_1 C_L L_L R_1 R_3 s^3 + C_1 C_L L_L R_3 r_o s^3 + C_1 L_L R_1 g_m r_o s^2 + C_1 L_L R_1 s^2 + C_1 L_L R_3 s^2 + C_1 L_L r_o s^2 + C_1 R_1 R_3 g_m r_o s + C_1 R_1 R_3 s + C_1 R_3 r_o s + C_L L_L R_3 g$$

10.346 INVALID-ORDER-346 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 \left(g_m r_o + 1\right) \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2$$
$$C_1 C_L L_L R_1 g_m r_o s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_3 s^3 + C_1 C_L L_L r_o s^3 + C_1 C_L R_1 R_3 g_m r_o s^2 + C_1 C_L R_1 R_3 s^2 + C_1 C_L R_1 R_L g_m r_o s^2 + C_1 C_L R_1 R_L s^2 + C_1 C_L R_3 R_L s^2 + C_1 C_L R_3$$

10.347 INVALID-ORDER-347 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_3 R_L s \left($$
$$C_1 C_L L_L R_1 R_3 R_L g_m r_o s^3 + C_1 C_L L_L R_1 R_3 R_L s^3 + C_1 C_L L_L R_3 R_L r_o s^3 + C_1 L_L R_1 R_3 g_m r_o s^2 + C_1 L_L R_1 R_3 s^2 + C_1 L_L R_1 R_L g_m r_o s^2 + C_1 L_L R_1 R_L s^2 + C_1 L_L R_3 R_L s^2 + C_1 L_L R$$

10.348 INVALID-ORDER-348 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_L L_L R_1 R_3 g_m r_o s^3 + C_1 C_L L_L R_1 R_3 s^3 + C_1 C_L L_L R_1 R_L g_m r_o s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L L_L R_3 R_L s^3 + C_1 C_L L_L R_3 r_o s^3 + C_1 C_L L_L R_L r_o s^3 + C_1 L_L R_1 g_m r_o s^2 + C_1 L_L R$$

10.349 INVALID-ORDER-349 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_L L_L R_1 R_3 g_m r_o s^3 + C_1 C_L L_L R_1 R_3 s^3 + C_1 C_L L_L R_1 R_L g_m r_o s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L L_L R_3 R_L s^3 + C_1 C_L L_L R_3 r_o s^3 + C_1 C_L L_L R_L r_o s^3 + C_1 C_L R_1 R_3 R_L g_m r_o s^2 + C$$

10.350 INVALID-ORDER-350 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)(C_1 R_1 s + 1)}{s(C_1 C_3 R_1 g_m r_o s + C_1 C_3 R_1 s + C_1 C_3 r_o s + C_1 C_L R_1 g_m r_o s + C_1 C_L R_1 s + C_1 C_L r_o s + C_1 + C_3 g_m r_o + C_3 + C_L g_m r_o + C_L)}$$

10.351 INVALID-ORDER-351 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)(C_1 R_1 s + 1)(C_L R_L s + 1)}{s(C_1 C_3 C_L R_1 R_L g_m r_o s^2 + C_1 C_3 C_L R_1 R_L s^2 + C_1 C_3 C_L R_L r_o s^2 + C_1 C_3 R_1 g_m r_o s + C_1 C_3 R_1 s + C_1 C_3 r_o s + C_1 C_L R_1 g_m r_o s + C_1 C_L R_1 s + C_1 C_L R_L s + C_1 C_L r_o s + C_1 + C_3 C_L$$

10.352 INVALID-ORDER-352 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)(C_1 R_1 s + 1)\left(C_L L_L s^2 + 1\right)}{s(C_1 C_3 C_L L_L R_1 g_m r_o s^3 + C_1 C_3 C_L L_L R_1 s^3 + C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 R_1 g_m r_o s + C_1 C_3 R_1 s + C_1 C_3 r_o s + C_1 C_L L_L s^2 + C_1 C_L R_1 g_m r_o s + C_1 C_L R_1 s + C_1 C_L r_o s + C_1 + C_3 C_L$$

10.353 INVALID-ORDER-353 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s(g_m r_o + 1)(C_1 R_1 s + 1)}{C_1 C_3 L_L R_1 g_m r_o s^3 + C_1 C_3 L_L R_1 s^3 + C_1 C_3 L_L r_o s^3 + C_1 C_L L_L R_1 g_m r_o s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L r_o s^3 + C_1 L_L s^2 + C_1 R_1 g_m r_o s + C_1 R_1 s + C_1 r_o s + C_3 L_L g_m r_o s^2 + C_3 L_L$$

10.354 INVALID-ORDER-354 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)(C_1 R_1 s + 1)\left(C_L$$
$$s(C_1 C_3 C_L L_L R_1 g_m r_o s^3 + C_1 C_3 C_L L_L R_1 s^3 + C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 C_L R_1 R_L g_m r_o s^2 + C_1 C_3 C_L R_1 R_L s^2 + C_1 C_3 C_L R_L r_o s^2 + C_1 C_3 R_1 g_m r_o s + C_1 C_3 R_1 s + C_1 C_3 r_o s + C_1 C$$

10.355 INVALID-ORDER-355 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_L s(g_m r_o + 1)(C_1 R_1$$
$$C_1 C_3 L_L R_1 R_L g_m r_o s^3 + C_1 C_3 L_L R_1 R_L s^3 + C_1 C_3 L_L R_L r_o s^3 + C_1 C_L L_L R_1 R_L g_m r_o s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L L_L R_L r_o s^3 + C_1 L_L R_1 g_m r_o s^2 + C_1 L_L R_1 s^2 + C_1 L_L R_L s^2 +$$

10.356 INVALID-ORDER-356 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_1R_Lg_mr_os^4 + C_1C_3C_LL_LR_1R_Ls^4 + C_1C_3C_LL_LR_Lr_os^4 + C_1C_3L_LR_1g_mr_os^3 + C_1C_3L_LR_1s^3 + C_1C_3L_Lr_os^3 + C_1C_3R_1R_Lg_mr_os^2 + C_1C_3R_1R_Ls^2 + C_1C_3R_Lr$$

10.357 INVALID-ORDER-357 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_1R_Lg_mr_os^4 + C_1C_3C_LL_LR_1R_Ls^4 + C_1C_3C_LL_LR_Lr_os^4 + C_1C_3R_1R_Lg_mr_os^2 + C_1C_3R_1R_Ls^2 + C_1C_3R_Lr_os^2 + C_1C_LL_LR_1g_mr_os^3 + C_1C_LL_LR_1s^3 + C_1C_LL_L$$

10.358 INVALID-ORDER-358 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LR_1R_3R_Lg_mr_os^3 + C_1C_3C_LR_1R_3R_Ls^3 + C_1C_3C_LR_3R_Lr_os^3 + C_1C_3R_1R_3g_mr_os^2 + C_1C_3R_1R_3s^2 + C_1C_3R_3r_os^2 + C_1C_LR_1R_3g_mr_os^2 + C_1C_LR_1R_3s^2 + C_1C_LR_1R_$$

10.359 INVALID-ORDER-359 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_1R_3g_mr_os^4 + C_1C_3C_LL_LR_1R_3s^4 + C_1C_3C_LL_LR_3r_os^4 + C_1C_3R_1R_3g_mr_os^2 + C_1C_3R_1R_3s^2 + C_1C_3R_3r_os^2 + C_1C_LL_LR_1g_mr_os^3 + C_1C_LL_LR_1s^3 + C_1C_LL_LR_$$

10.360 INVALID-ORDER-360 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_LR_3s\left(g_mr_o+1\right)\left(C_1R_1s+\right.}{C_1C_3L_LR_1R_3g_mr_os^3 + C_1C_3L_LR_1R_3s^3 + C_1C_3L_LR_3r_os^3 + C_1C_LL_LR_1R_3g_mr_os^3 + C_1C_LL_LR_1R_3s^3 + C_1C_LL_LR_3r_os^3 + C_1L_LR_1g_mr_os^2 + C_1L_LR_1s^2 + C_1L_LR_3s^2 + C_1}$$

10.361 INVALID-ORDER-361 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_1R_3g_mr_os^4 + C_1C_3C_LL_LR_1R_3s^4 + C_1C_3C_LL_LR_3r_os^4 + C_1C_3C_LR_1R_3R_Lg_mr_os^3 + C_1C_3C_LR_1R_3R_Ls^3 + C_1C_3C_LR_3R_Lr_os^3 + C_1C_3R_1R_3g_mr_os^2 + C_1C_3R_1R}$$

10.362 INVALID-ORDER-362 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3L_LR_1R_3R_Lg_mr_os^3 + C_1C_3L_LR_1R_3R_Ls^3 + C_1C_3L_LR_3R_Lr_os^3 + C_1C_LL_LR_1R_3R_Lg_mr_os^3 + C_1C_LL_LR_1R_3R_Ls^3 + C_1C_LL_LR_3R_Lr_os^3 + C_1L_LR_1R_3g_mr_os^2 + C_1L_LR}$$

10.363 INVALID-ORDER-363 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_LR_1R_3R_Ls^4 + C_1C_3C_LL_LR_3R_Lr_os^4 + C_1C_3L_LR_1R_3g_mr_os^3 + C_1C_3L_LR_1R_3s^3 + C_1C_3L_LR_3r_os^3 + C_1C_3R_1R_3R_Lg_mr_os^2 + C_1C_3R}$$

10.364 INVALID-ORDER-364 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_LR_1R_3R_Ls^4 + C_1C_3C_LL_LR_3R_Lr_os^4 + C_1C_3R_1R_3R_Lg_mr_os^2 + C_1C_3R_1R_3R_Ls^2 + C_1C_3R_3R_Lr_os^2 + C_1C_LL_LR_1R_3g_mr_os^3 + C_1C_L}$$

10.365 INVALID-ORDER-365 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_mr_o + 1)\,(C_1R_1s + 1)\,(C_3R_3s + 1)}{s\,(C_1C_3C_LR_1R_3g_mr_os^2 + C_1C_3C_LR_1R_3s^2 + C_1C_3C_LR_3r_os^2 + C_1C_3R_1g_mr_os + C_1C_3R_1s + C_1C_3R_3s + C_1C_3r_os + C_1C_LR_1g_mr_os + C_1C_LR_1s + C_1C_Lr_os + C_1 + C_3C_LR}$$

10.366 INVALID-ORDER-366 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LR_1R_3R_Lg_mr_os^3 + C_1C_3C_LR_1R_3R_Ls^3 + C_1C_3C_LR_3R_Lr_os^3 + C_1C_3R_1R_3g_mr_os^2 + C_1C_3R_1R_3s^2 + C_1C_3R_1R_Lg_mr_os^2 + C_1C_3R_1R_Ls^2 + C_1C_3R_3R_Ls^2 + C_1C_3R_3r$$

10.367 INVALID-ORDER-367 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_mr_o + 1)\,(C_1R_1s +}{s\,(C_1C_3C_LR_1R_3g_mr_os^2 + C_1C_3C_LR_1R_3s^2 + C_1C_3C_LR_1R_Lg_mr_os^2 + C_1C_3C_LR_1R_Ls^2 + C_1C_3C_LR_3R_Ls^2 + C_1C_3C_LR_3r_os^2 + C_1C_3C_LR_Lr_os^2 + C_1C_3R_1g_mr_os + C_1C_3R_1$$

10.368 INVALID-ORDER-368 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_mr_o + 1)\,(C_1R_1s +}{s\,(C_1C_3C_LL_LR_1g_mr_os^3 + C_1C_3C_LL_LR_1s^3 + C_1C_3C_LL_LR_3s^3 + C_1C_3C_LL_Lr_os^3 + C_1C_3C_LR_1R_3g_mr_os^2 + C_1C_3C_LR_1R_3s^2 + C_1C_3C_LR_3r_os^2 + C_1C_3R_1g_mr_os + C_1C_3R_1s$$

10.369 INVALID-ORDER-369 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_1R_3g_mr_os^4 + C_1C_3C_LL_LR_1R_3s^4 + C_1C_3C_LL_LR_3r_os^4 + C_1C_3L_LR_1g_mr_os^3 + C_1C_3L_LR_1s^3 + C_1C_3L_LR_3s^3 + C_1C_3L_Lr_os^3 + C_1C_3R_1R_3g_mr_os^2 + C_1C_3R_1R_3$$

10.370 INVALID-ORDER-370 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\,(C_1C_3C_LL_LR_1g_mr_os^3 + C_1C_3C_LL_LR_1s^3 + C_1C_3C_LL_LR_3s^3 + C_1C_3C_LL_Lr_os^3 + C_1C_3C_LR_1R_3g_mr_os^2 + C_1C_3C_LR_1R_3s^2 + C_1C_3C_LR_1R_Lg_mr_os^2 + C_1C_3C_LR_1R_Ls^2 + C$$

10.371 INVALID-ORDER-371 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_LR_1R_3R_Ls^4 + C_1C_3C_LL_LR_3R_Lr_os^4 + C_1C_3L_LR_1R_3g_mr_os^3 + C_1C_3L_LR_1R_3s^3 + C_1C_3L_LR_1R_Lg_mr_os^3 + C_1C_3L_LR_1R_Ls^3 + C_1C_3$$

10.372 INVALID-ORDER-372 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_1R_3g_mr_os^4 + C_1C_3C_LL_LR_1R_3s^4 + C_1C_3C_LL_LR_1R_Lg_mr_os^4 + C_1C_3C_LL_LR_1R_Ls^4 + C_1C_3C_LL_LR_3R_Ls^4 + C_1C_3C_LL_LR_3r_os^4 + C_1C_3C_LL_LR_Lr_os^4 + C_1C_3L_}$$

10.373 INVALID-ORDER-373 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_LR_1R_3g_mr_os^4 + C_1C_3C_LL_LR_1R_3s^4 + C_1C_3C_LL_LR_1R_Lg_mr_os^4 + C_1C_3C_LL_LR_1R_Ls^4 + C_1C_3C_LL_LR_3R_Ls^4 + C_1C_3C_LL_LR_3r_os^4 + C_1C_3C_LL_LR_Lr_os^4 + C_1C_3C}$$

10.374 INVALID-ORDER-374 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(g_mr_o + 1\right)\left(C_1R_1s + 1\right)\left(C_3L_3s^2 + 1\right)}{C_1C_3L_3R_1g_mr_os^3 + C_1C_3L_3R_1s^3 + C_1C_3L_3R_Ls^3 + C_1C_3L_3r_os^3 + C_1C_3R_1R_Lg_mr_os^2 + C_1C_3R_1R_Ls^2 + C_1C_3R_Lr_os^2 + C_1R_1g_mr_os + C_1R_1s + C_1R_Ls + C_1r_os + C_3L_3g_m}$$

10.375 INVALID-ORDER-375 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_mr_o + 1\right)\left(C_1R_1s + 1\right)\left(C_3L_3s^2 + 1\right)}{s\left(C_1C_3C_LL_3R_1g_mr_os^3 + C_1C_3C_LL_3R_1s^3 + C_1C_3C_LL_3r_os^3 + C_1C_3L_3s^2 + C_1C_3R_1g_mr_os + C_1C_3R_1s + C_1C_3r_os + C_1C_LR_1g_mr_os + C_1C_LR_1s + C_1C_Lr_os + C_1 + C_3C_LL}$$

10.376 INVALID-ORDER-376 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3R_1R_Lg_mr_os^4 + C_1C_3C_LL_3R_1R_Ls^4 + C_1C_3C_LL_3R_Lr_os^4 + C_1C_3L_3R_1g_mr_os^3 + C_1C_3L_3R_1s^3 + C_1C_3L_3R_Ls^3 + C_1C_3L_3r_os^3 + C_1C_3R_1R_Lg_mr_os^2 + C_1C_3R_1R_Ls}$$

10.377 INVALID-ORDER-377 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)\,(C_1 R_1 s +}{s\,(C_1 C_3 C_L L_3 R_1 g_m r_o s^3 + C_1 C_3 C_L L_3 R_1 s^3 + C_1 C_3 C_L L_3 R_L s^3 + C_1 C_3 C_L L_3 r_o s^3 + C_1 C_3 C_L R_1 R_L g_m r_o s^2 + C_1 C_3 C_L R_1 R_L s^2 + C_1 C_3 C_L R_L r_o s^2 + C_1 C_3 L_3 s^2 + C_1 C_3 R_1 g_m r_o}$$

10.378 INVALID-ORDER-378 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)\,(C_1 R_1 s +}{s\,(C_1 C_3 C_L L_3 L_L s^4 + C_1 C_3 C_L L_3 R_1 g_m r_o s^3 + C_1 C_3 C_L L_3 R_1 s^3 + C_1 C_3 C_L L_3 r_o s^3 + C_1 C_3 C_L L_L R_1 g_m r_o s^3 + C_1 C_3 C_L L_L R_1 s^3 + C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 L_3 s^2 + C_1 C_3 R_1 g_m r_o s}$$

10.379 INVALID-ORDER-379 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 L_3 L_L s^4 + C_1 C_3 L_3 R_1 g_m r_o s^3 + C_1 C_3 L_3 R_1 s^3 + C_1 C_3 L_3 r_o s^3 + C_1 C_3 L_L R_1 g_m r_o s^3 + C_1 C_3 L_L R_1 s^3}$$

10.380 INVALID-ORDER-380 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\,(C_1 C_3 C_L L_3 L_L s^4 + C_1 C_3 C_L L_3 R_1 g_m r_o s^3 + C_1 C_3 C_L L_3 R_1 s^3 + C_1 C_3 C_L L_3 R_L s^3 + C_1 C_3 C_L L_3 r_o s^3 + C_1 C_3 C_L L_L R_1 g_m r_o s^3 + C_1 C_3 C_L L_L R_1 s^3 + C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 C_L}$$

10.381 INVALID-ORDER-381 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_L s^5 + C_1 C_3 C_L L_3 L_L R_L r_o s^5 + C_1 C_3 L_3 L_L R_1 g_m r_o s^4 + C_1 C_3 L_3 L_L R_1 s^4 + C_1 C_3 L_3 L_L R_L s^4 + C_1 C_3 L_3 L_L r_o s^4 + C_1 C_3 L_3 R_1 R}$$

10.382 INVALID-ORDER-382 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1g_mr_os^5 + C_1C_3C_LL_3L_LR_1s^5 + C_1C_3C_LL_3L_LR_Ls^5 + C_1C_3C_LL_3L_Lr_os^5 + C_1C_3C_LL_LR_1R_Lg_mr_os^4 + C_1C_3C_LL_LR_1R_Ls^4 + C_1C_3C_LL_LR_Lr_os^4 + C_1C_3L_3}$$

10.383 INVALID-ORDER-383 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1g_mr_os^5 + C_1C_3C_LL_3L_LR_1s^5 + C_1C_3C_LL_3L_LR_Ls^5 + C_1C_3C_LL_3L_Lr_os^5 + C_1C_3C_LL_3R_1R_Lg_mr_os^4 + C_1C_3C_LL_3R_1R_Ls^4 + C_1C_3C_LL_3R_Lr_os^4 + C_1C_3C_L}$$

10.384 INVALID-ORDER-384 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_3R_Ls\left(g_mr_o+1\right)\left(C_1R_1s+1\right)}{C_1C_3L_3R_1R_Lg_mr_os^3 + C_1C_3L_3R_1R_Ls^3 + C_1C_3L_3R_Lr_os^3 + C_1L_3R_1g_mr_os^2 + C_1L_3R_1s^2 + C_1L_3R_Ls^2 + C_1L_3r_os^2 + C_1R_1R_Lg_mr_os + C_1R_1R_Ls + C_1R_Lr_os + C_3L_3R_Lg_m}$$

10.385 INVALID-ORDER-385 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_3s\left(g_mr_o+1\right)\left(C_1R_1s+1\right)}{C_1C_3L_3R_1g_mr_os^3 + C_1C_3L_3R_1s^3 + C_1C_3L_3r_os^3 + C_1C_LL_3R_1g_mr_os^3 + C_1C_LL_3R_1s^3 + C_1C_LL_3r_os^3 + C_1L_3s^2 + C_1R_1g_mr_os + C_1R_1s + C_1r_os + C_3L_3g_mr_os^2 + C_3L_3s^2 -}$$

10.386 INVALID-ORDER-386 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_3R_Ls\left(g_mr_o+1\right)\left(C_1R_1s-\right.}{C_1C_3L_3R_1R_Lg_mr_os^3 + C_1C_3L_3R_1R_Ls^3 + C_1C_3L_3R_Lr_os^3 + C_1C_LL_3R_1R_Lg_mr_os^3 + C_1C_LL_3R_1R_Ls^3 + C_1C_LL_3R_Lr_os^3 + C_1L_3R_1g_mr_os^2 + C_1L_3R_1s^2 + C_1L_3R_Ls^2 + C_1}$$

10.387 INVALID-ORDER-387 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3R_1R_Lg_mr_os^4 + C_1C_3C_LL_3R_1R_Ls^4 + C_1C_3C_LL_3R_Lr_os^4 + C_1C_3L_3R_1g_mr_os^3 + C_1C_3L_3R_1s^3 + C_1C_3L_3r_os^3 + C_1C_LL_3R_1g_mr_os^3 + C_1C_LL_3R_1s^3 + C_1C_LL_3R_Ls$$

10.388 INVALID-ORDER-388 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 L_3 R_1 g_m r_o s^3 + C_1 C_3 L_3 R_1 s^3 + C_1 C_3 L_3 r_o s^3 + C_1 C_L L_3 L_L s^4 + C_1 C_L L_3 R_1 g_m r_o s^3 + C_1 C_L L_3 R_1 s$$

10.389 INVALID-ORDER-389 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_3 L_L s \left(g_m r_o + 1\right) \left(C_1 R_1 s + 1\right)}{C_1 C_3 L_3 L_L R_1 g_m r_o s^3 + C_1 C_3 L_3 L_L R_1 s^3 + C_1 C_3 L_3 L_L r_o s^3 + C_1 C_L L_3 L_L R_1 g_m r_o s^3 + C_1 C_L L_3 L_L R_1 s^3 + C_1 C_L L_3 L_L r_o s^3 + C_1 L_3 L_L s^2 + C_1 L_3 R_1 g_m r_o s + C_1 L_3 R_1 s + C_1 L_3 r_o}$$

10.390 INVALID-ORDER-390 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_3 R_1 R_L g_m r_o s^4 + C_1 C_3 C_L L_3 R_1 R_L s^4 + C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C_3 L_3 R_1 g_m r_o s^3 + C_1 C_3 L_3 R_1$$

10.391 INVALID-ORDER-391 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 L_3 L_L R_1 R_L g_m r_o s^3 + C_1 C_3 L_3 L_L R_1 R_L s^3 + C_1 C_3 L_3 L_L R_L r_o s^3 + C_1 C_L L_3 L_L R_1 R_L g_m r_o s^3 + C_1 C_L L_3 L_L R_1 R_L s^3 + C_1 C_L L_3 L_L R_L r_o s^3 + C_1 L_3 L_L R_1 g_m r_o s^2 + C_1 L_3 L_L$$

10.392 INVALID-ORDER-392 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_L s^5 + C_1 C_3 C_L L_3 L_L R_L r_o s^5 + C_1 C_3 L_3 L_L R_1 g_m r_o s^4 + C_1 C_3 L_3 L_L R_1 s^4 + C_1 C_3 L_3 L_L r_o s^4 + C_1 C_3 L_3 R_1 R_L g_m r_o s^3 + C_1 C_3 L_3$$

10.393 INVALID-ORDER-393 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_Lg_mr_os^5 + C_1C_3C_LL_3L_LR_1R_Ls^5 + C_1C_3C_LL_3L_LR_Lr_os^5 + C_1C_3L_3R_1R_Lg_mr_os^3 + C_1C_3L_3R_1R_Ls^3 + C_1C_3L_3R_Lr_os^3 + C_1C_LL_3L_LR_1g_mr_os^4 + C_1C_LL$$

10.394 INVALID-ORDER-394 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(g_mr_o+1\right)\left(C_1R_1s+1\right)\left(C_3L_3s^2+\right.}{C_1C_3L_3R_1g_mr_os^3 + C_1C_3L_3R_1s^3 + C_1C_3L_3R_Ls^3 + C_1C_3L_3r_os^3 + C_1C_3R_1R_3g_mr_os^2 + C_1C_3R_1R_3s^2 + C_1C_3R_1R_Lg_mr_os^2 + C_1C_3R_1R_Ls^2 + C_1C_3R_3R_Ls^2 + C_1C_3R_3r_os^2}$$

10.395 INVALID-ORDER-395 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_mr_o+1\right)\left(C_1R_1s+1\right)\left(C_3L_3\right.}{s\left(C_1C_3C_LL_3R_1g_mr_os^3 + C_1C_3C_LL_3R_1s^3 + C_1C_3C_LL_3r_os^3 + C_1C_3C_LR_1R_3g_mr_os^2 + C_1C_3C_LR_1R_3s^2 + C_1C_3C_LR_3r_os^2 + C_1C_3L_3s^2 + C_1C_3R_1g_mr_os + C_1C_3R_1s + C_1C\right.}$$

10.396 INVALID-ORDER-396 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3R_1R_Lg_mr_os^4 + C_1C_3C_LL_3R_1R_Ls^4 + C_1C_3C_LL_3R_Lr_os^4 + C_1C_3C_LR_1R_3R_Lg_mr_os^3 + C_1C_3C_LR_1R_3R_Ls^3 + C_1C_3C_LR_3R_Lr_os^3 + C_1C_3L_3R_1g_mr_os^3 + C_1C_3L_3R$$

10.397 INVALID-ORDER-397 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1C_3C_LL_3R_1g_mr_os^3 + C_1C_3C_LL_3R_1s^3 + C_1C_3C_LL_3R_Ls^3 + C_1C_3C_LL_3r_os^3 + C_1C_3C_LR_1R_3g_mr_os^2 + C_1C_3C_LR_1R_3s^2 + C_1C_3C_LR_1R_Lg_mr_os^2 + C_1C_3C_LR_1R_Ls^2 + C_\right.}$$

10.398 INVALID-ORDER-398 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1 C_3 C_L L_3 L_L s^4 + C_1 C_3 C_L L_3 R_1 g_m r_o s^3 + C_1 C_3 C_L L_3 R_1 s^3 + C_1 C_3 C_L L_3 r_o s^3 + C_1 C_3 C_L L_L R_1 g_m r_o s^3 + C_1 C_3 C_L L_L R_1 s^3 + C_1 C_3 C_L L_L R_3 s^3 + C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 C_L\right.}$$

10.399 INVALID-ORDER-399 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_L R_1 R_3 g_m r_o s^4 + C_1 C_3 C_L L_L R_1 R_3 s^4 + C_1 C_3 C_L L_L R_3 r_o s^4 + C_1 C_3 L_3 L_L s^4 + C_1 C_3 L_3 R_1 g_m r_o$$

10.400 INVALID-ORDER-400 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1 C_3 C_L L_3 L_L s^4 + C_1 C_3 C_L L_3 R_1 g_m r_o s^3 + C_1 C_3 C_L L_3 R_1 s^3 + C_1 C_3 C_L L_3 R_L s^3 + C_1 C_3 C_L L_3 r_o s^3 + C_1 C_3 C_L L_L R_1 g_m r_o s^3 + C_1 C_3 C_L L_L R_1 s^3 + C_1 C_3 C_L L_L R_3 s^3 + C_1 C_3 C\right.}$$

10.401 INVALID-ORDER-401 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_L s^5 + C_1 C_3 C_L L_3 L_L R_L r_o s^5 + C_1 C_3 C_L L_L R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_L R_1 R_3 R_L s^4 + C_1 C_3 C_L L_L R_3 R_L r_o s^4 + C_1 C_3 L_3 L_L R$$

10.402 INVALID-ORDER-402 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 s^5 + C_1 C_3 C_L L_3 L_L R_L s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_L R_1 R_3 g_m r_o s^4 + C_1 C_3 C_L L_L R_1 R_3 s^4 + C_1 C_3 C_L L_L R_1 R_L g_m r_o s^4 + C_1$$

10.403 INVALID-ORDER-403 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 s^5 + C_1 C_3 C_L L_3 L_L R_L s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_3 R_1 R_L g_m r_o s^4 + C_1 C_3 C_L L_3 R_1 R_L s^4 + C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C_3 C_L}$$

10.404 INVALID-ORDER-404 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{L_3 R_3 R_L s\,(g_m r}{C_1 C_3 L_3 R_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_3 R_1 R_3 R_L s^3 + C_1 C_3 L_3 R_3 R_L r_o s^3 + C_1 L_3 R_1 R_3 g_m r_o s^2 + C_1 L_3 R_1 R_3 s^2 + C_1 L_3 R_1 R_L g_m r_o s^2 + C_1 L_3 R_1 R_L s^2 + C_1 L_3 R_3 R_L s^2 + C_1 L_3 R_3 r_o s}$$

10.405 INVALID-ORDER-405 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_3 R_3 s\,(g_m r_o + 1)\,(C_1 R_1 s + 1}{C_1 C_3 L_3 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_3 R_1 R_3 s^3 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_L L_3 R_1 R_3 g_m r_o s^3 + C_1 C_L L_3 R_1 R_3 s^3 + C_1 C_L L_3 R_3 r_o s^3 + C_1 L_3 R_1 g_m r_o s^2 + C_1 L_3 R_1 s^2 + C_1 L_3 R_3 s^2 + C_1 L_3}$$

10.406 INVALID-ORDER-406 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{}{C_1 C_3 L_3 R_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_3 R_1 R_3 R_L s^3 + C_1 C_3 L_3 R_3 R_L r_o s^3 + C_1 C_L L_3 R_1 R_3 R_L g_m r_o s^3 + C_1 C_L L_3 R_1 R_3 R_L s^3 + C_1 C_L L_3 R_3 R_L r_o s^3 + C_1 L_3 R_1 R_3 g_m r_o s^2 + C_1 L_3 R_1 R_3}$$

10.407 INVALID-ORDER-407 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_3 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_3 R_L r_o s^4 + C_1 C_3 L_3 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_3 R_1 R_3 s^3 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_L L_3 R_1 R_3 g_m r_o s^3 + C_1 C_L L_3}$$

10.408 INVALID-ORDER-408 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_3 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_3 L_L R_3 r_o s^5 + C_1 C_3 L_3 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_3 R_1 R_3 s^3 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_L L_3 L_L R_1 g_m r_o s^4 + C_1 C_L L_3$$

10.409 INVALID-ORDER-409 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{C_1 C_3 L_3 L_L R_1 R_3 g_m r_o s^3 + C_1 C_3 L_3 L_L R_1 R_3 s^3 + C_1 C_3 L_3 L_L R_3 r_o s^3 + C_1 C_L L_3 L_L R_1 R_3 g_m r_o s^3 + C_1 C_L L_3 L_L R_1 R_3 s^3 + C_1 C_L L_3 L_L R_3 r_o s^3 + C_1 L_3 L_L R_1 g_m r_o s^2 + C_1 L_3 L_L R_1$$

10.410 INVALID-ORDER-410 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_3 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_3 L_L R_3 r_o s^5 + C_1 C_3 C_L L_3 R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_3 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_3 R_L r_o s^4 + C_1 C_3 L_3 R_1 R_3 g$$

10.411 INVALID-ORDER-411 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{C_1 C_3 L_3 L_L R_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_3 L_L R_1 R_3 R_L s^3 + C_1 C_3 L_3 L_L R_3 R_L r_o s^3 + C_1 C_L L_3 L_L R_1 R_3 R_L g_m r_o s^3 + C_1 C_L L_3 L_L R_1 R_3 R_L s^3 + C_1 C_L L_3 L_L R_3 R_L r_o s^3 + C_1 L_3 L_L R_1 R_3$$

10.412 INVALID-ORDER-412 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{C_1 C_3 C_L L_3 L_L R_1 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_3 R_L s^5 + C_1 C_3 C_L L_3 L_L R_3 R_L r_o s^5 + C_1 C_3 L_3 L_L R_1 R_3 g_m r_o s^4 + C_1 C_3 L_3 L_L R_1 R_3 s^4 + C_1 C_3 L_3 L_L R_3 r_o s^4 + C_1 C_3 L_3 R_1 R_3 R$$

10.413 INVALID-ORDER-413 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_3 L_L R_1 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_3 R_L s^5 + C_1 C_3 C_L L_3 L_L R_3 R_L r_o s^5 + C_1 C_3 L_3 R_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_3 R_1 R_3 R_L s^3 + C_1 C_3 L_3 R_3 R_L r_o s^3 + C_1 C_L L_3 L_L R_1}{}$$

10.414 INVALID-ORDER-414 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{C_1 C_3 L_3 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_3 R_1 R_3 s^3 + C_1 C_3 L_3 R_1 R_L g_m r_o s^3 + C_1 C_3 L_3 R_1 R_L s^3 + C_1 C_3 L_3 R_3 R_L s^3 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_3 L_3 R_L r_o s^3 + C_1 L_3 R_1 g_m r_o s^2 + C_1 L_3 R_1 s^2 +}{}$$

10.415 INVALID-ORDER-415 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_3 R_1 R_3 g_m r_o s^4 + C_1 C_3 C_L L_3 R_1 R_3 s^4 + C_1 C_3 C_L L_3 R_3 r_o s^4 + C_1 C_3 L_3 R_1 g_m r_o s^3 + C_1 C_3 L_3 R_1 s^3 + C_1 C_3 L_3 R_3 s^3 + C_1 C_3 L_3 r_o s^3 + C_1 C_L L_3 R_1 g_m r_o s^3 + C_1 C_L L_3 R_1 s^3}{}$$

10.416 INVALID-ORDER-416 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_3 R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_3 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_3 R_L r_o s^4 + C_1 C_3 L_3 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_3 R_1 R_3 s^3 + C_1 C_3 L_3 R_1 R_L g_m r_o s^3 + C_1 C_3 L_3 R_1 R_L s^3 + C_1 C_3 L_3}{}$$

10.417 INVALID-ORDER-417 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_3 R_1 R_3 g_m r_o s^4 + C_1 C_3 C_L L_3 R_1 R_3 s^4 + C_1 C_3 C_L L_3 R_1 R_L g_m r_o s^4 + C_1 C_3 C_L L_3 R_1 R_L s^4 + C_1 C_3 C_L L_3 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_3 r_o s^4 + C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C_3 L_3 R}{}$$

10.418 INVALID-ORDER-418 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1g_mr_os^5 + C_1C_3C_LL_3L_LR_1s^5 + C_1C_3C_LL_3L_LR_3s^5 + C_1C_3C_LL_3L_Lr_os^5 + C_1C_3C_LL_3R_1R_3g_mr_os^4 + C_1C_3C_LL_3R_1R_3s^4 + C_1C_3C_LL_3R_3r_os^4 + C_1C_3L_3R_1$$

10.419 INVALID-ORDER-419 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3g_mr_os^5 + C_1C_3C_LL_3L_LR_1R_3s^5 + C_1C_3C_LL_3L_LR_3r_os^5 + C_1C_3L_3L_LR_1g_mr_os^4 + C_1C_3L_3L_LR_1s^4 + C_1C_3L_3L_LR_3s^4 + C_1C_3L_3L_Lr_os^4 + C_1C_3L_3R_1R_3$$

10.420 INVALID-ORDER-420 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1g_mr_os^5 + C_1C_3C_LL_3L_LR_1s^5 + C_1C_3C_LL_3L_LR_3s^5 + C_1C_3C_LL_3L_Lr_os^5 + C_1C_3C_LL_3R_1R_3g_mr_os^4 + C_1C_3C_LL_3R_1R_3s^4 + C_1C_3C_LL_3R_1R_Lg_mr_os^4 + C_1C$$

10.421 INVALID-ORDER-421 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3R_Lg_mr_os^5 + C_1C_3C_LL_3L_LR_1R_3R_Ls^5 + C_1C_3C_LL_3L_LR_3R_Lr_os^5 + C_1C_3L_3L_LR_1R_3g_mr_os^4 + C_1C_3L_3L_LR_1R_3s^4 + C_1C_3L_3L_LR_1R_Lg_mr_os^4 + C_1C_3L_3$$

10.422 INVALID-ORDER-422 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3g_mr_os^5 + C_1C_3C_LL_3L_LR_1R_3s^5 + C_1C_3C_LL_3L_LR_1R_Lg_mr_os^5 + C_1C_3C_LL_3L_LR_1R_Ls^5 + C_1C_3C_LL_3L_LR_3R_Ls^5 + C_1C_3C_LL_3L_LR_3r_os^5 + C_1C_3C_LL_3L$$

10.423 INVALID-ORDER-423 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3g_mr_os^5 + C_1C_3C_LL_3L_LR_1R_3s^5 + C_1C_3C_LL_3L_LR_1R_Lg_mr_os^5 + C_1C_3C_LL_3L_LR_1R_Ls^5 + C_1C_3C_LL_3L_LR_3R_Ls^5 + C_1C_3C_LL_3L_LR_3r_os^5 + C_1C_3C_LL_3L_L$

10.424 INVALID-ORDER-424 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L \right)$

$H(s) = \frac{}{C_1C_3L_3R_1R_3g_mr_os^3 + C_1C_3L_3R_1R_3s^3 + C_1C_3L_3R_1R_Lg_mr_os^3 + C_1C_3L_3R_1R_Ls^3 + C_1C_3L_3R_3R_Ls^3 + C_1C_3L_3R_3r_os^3 + C_1C_3L_3R_Lr_os^3 + C_1C_3R_1R_3R_Lg_mr_os^2 + C_1C_3R$

10.425 INVALID-ORDER-425 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$H(s) = \frac{}{C_1C_3C_LL_3R_1R_3g_mr_os^4 + C_1C_3C_LL_3R_1R_3s^4 + C_1C_3C_LL_3R_3r_os^4 + C_1C_3L_3R_1g_mr_os^3 + C_1C_3L_3R_1s^3 + C_1C_3L_3R_3s^3 + C_1C_3L_3r_os^3 + C_1C_3R_1R_3g_mr_os^2 + C_1C_3R_1R_3s^2$

10.426 INVALID-ORDER-426 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1} \right)$

$H(s) = \frac{}{C_1C_3C_LL_3R_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_3R_1R_3R_Ls^4 + C_1C_3C_LL_3R_3R_Lr_os^4 + C_1C_3L_3R_1R_3g_mr_os^3 + C_1C_3L_3R_1R_3s^3 + C_1C_3L_3R_1R_Lg_mr_os^3 + C_1C_3L_3R_1R_Ls^3 + C_1C_3L_3$

10.427 INVALID-ORDER-427 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$H(s) = \frac{}{C_1C_3C_LL_3R_1R_3g_mr_os^4 + C_1C_3C_LL_3R_1R_3s^4 + C_1C_3C_LL_3R_1R_Lg_mr_os^4 + C_1C_3C_LL_3R_1R_Ls^4 + C_1C_3C_LL_3R_3R_Ls^4 + C_1C_3C_LL_3R_3r_os^4 + C_1C_3C_LL_3R_Lr_os^4 + C_1C_3C_LR$

10.428 INVALID-ORDER-428 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1g_mr_os^5 + C_1C_3C_LL_3L_LR_1s^5 + C_1C_3C_LL_3L_LR_3s^5 + C_1C_3C_LL_3L_Lr_os^5 + C_1C_3C_LL_3R_1R_3g_mr_os^4 + C_1C_3C_LL_3R_1R_3s^4 + C_1C_3C_LL_3R_3r_os^4 + C_1C_3C_LL_$$

10.429 INVALID-ORDER-429 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3g_mr_os^5 + C_1C_3C_LL_3L_LR_1R_3s^5 + C_1C_3C_LL_3L_LR_3r_os^5 + C_1C_3L_3L_LR_1g_mr_os^4 + C_1C_3L_3L_LR_1s^4 + C_1C_3L_3L_LR_3s^4 + C_1C_3L_3L_Lr_os^4 + C_1C_3L_3R_1R_3$$

10.430 INVALID-ORDER-430 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1g_mr_os^5 + C_1C_3C_LL_3L_LR_1s^5 + C_1C_3C_LL_3L_LR_3s^5 + C_1C_3C_LL_3L_Lr_os^5 + C_1C_3C_LL_3R_1R_3g_mr_os^4 + C_1C_3C_LL_3R_1R_3s^4 + C_1C_3C_LL_3R_1R_Lg_mr_os^4 + C_1C$$

10.431 INVALID-ORDER-431 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3R_Lg_mr_os^5 + C_1C_3C_LL_3L_LR_1R_3R_Ls^5 + C_1C_3C_LL_3L_LR_3R_Lr_os^5 + C_1C_3L_3L_LR_1R_3g_mr_os^4 + C_1C_3L_3L_LR_1R_3s^4 + C_1C_3L_3L_LR_1R_Lg_mr_os^4 + C_1C_3L_3$$

10.432 INVALID-ORDER-432 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_3L_LR_1R_3g_mr_os^5 + C_1C_3C_LL_3L_LR_1R_3s^5 + C_1C_3C_LL_3L_LR_1R_Lg_mr_os^5 + C_1C_3C_LL_3L_LR_1R_Ls^5 + C_1C_3C_LL_3L_LR_3R_Ls^5 + C_1C_3C_LL_3L_LR_3r_os^5 + C_1C_3C_LL_3L_L$$

10.433 INVALID-ORDER-433 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_3 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_3 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_L s^5 + C_1 C_3 C_L L_3 L_L R_3 R_L s^5 + C_1 C_3 C_L L_3 L_L R_3 r_o s^5 + C_1 C_3 C_L L_3 L_L}$$

10.434 INVALID-ORDER-434 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 \left(g_m r_o + 1\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 C_L L_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_3 s^3 + C_1 C_L R_3 r_o s^2 + C_1 L_1 g_m r_o s^2 + C_1 L_1 s^2 + C_1 R_3 s + C_1 r_o s + C_L R_3 g_m r_o s + C_L R_3 s + g_m r_o + 1}$$

10.435 INVALID-ORDER-435 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_3 R_L \left(g_m r_o + 1\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 C_L L_1 R_3 R_L g_m r_o s^3 + C_1 C_L L_1 R_3 R_L s^3 + C_1 C_L R_3 R_L r_o s^2 + C_1 L_1 R_3 g_m r_o s^2 + C_1 L_1 R_3 s^2 + C_1 L_1 R_L g_m r_o s^2 + C_1 L_1 R_L s^2 + C_1 R_3 R_L s + C_1 R_3 r_o s + C_1 R_L r_o s + C_L R_3 R_L g}$$

10.436 INVALID-ORDER-436 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 \left(g_m r_o + 1\right) \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right)}{C_1 C_L L_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_3 s^3 + C_1 C_L L_1 R_L g_m r_o s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L R_3 R_L s^2 + C_1 C_L R_3 r_o s^2 + C_1 C_L R_L r_o s^2 + C_1 L_1 g_m r_o s^2 + C_1 L_1 s^2 + C_1 R_3 s + C_1 r_o s + C_L R}$$

10.437 INVALID-ORDER-437 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 \left(g_m r_o + 1\right) \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{C_1 C_L L_1 L_L g_m r_o s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_3 s^3 + C_1 C_L L_L R_3 s^3 + C_1 C_L L_L r_o s^3 + C_1 C_L R_3 r_o s^2 + C_1 L_1 g_m r_o s^2 + C_1 L_1 s^2 + C_1 R_3 s + C_1 r_o s + C_L L}$$

10.438 INVALID-ORDER-438 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_3 s \left(g_m r_o + 1\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 C_L L_1 L_L R_3 g_m r_o s^4 + C_1 C_L L_1 L_L R_3 s^4 + C_1 C_L L_L R_3 r_o s^3 + C_1 L_1 L_L g_m r_o s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_3 g_m r_o s^2 + C_1 L_1 R_3 s^2 + C_1 L_L R_3 s^2 + C_1 L_L r_o s^2 + C_1 R_3 r_o s + C_L L_L R_3}$$

10.439 INVALID-ORDER-439 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 \left(g_m r_o + 1\right) \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s$$
$$C_1 C_L L_1 L_L g_m r_o s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_3 s^3 + C_1 C_L L_1 R_L g_m r_o s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L L_L R_3 s^3 + C_1 C_L L_L r_o s^3 + C_1 C_L R_3 R_L s^2 + C_1 C_L R_3 r$$

10.440 INVALID-ORDER-440 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_3 R_L s \left($$
$$C_1 C_L L_1 L_L R_3 R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_3 R_L s^4 + C_1 C_L L_L R_3 R_L r_o s^3 + C_1 L_1 L_L R_3 g_m r_o s^3 + C_1 L_1 L_L R_3 s^3 + C_1 L_1 L_L R_L g_m r_o s^3 + C_1 L_1 L_L R_L s^3 + C_1 L_1 R_3 R_L g_m r_o s^2 + C_1 L$$

10.441 INVALID-ORDER-441 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_3 g_m r_o s^4 + C_1 C_L L_1 L_L R_3 s^4 + C_1 C_L L_1 L_L R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_L R_3 R_L s^3 + C_1 C_L L_L R_3 r_o s^3 + C_1 C_L L_L R_L r_o s^3 + C_1 L_1 L_L g_m r_o s^3 + C_1 L_1 L_L$$

10.442 INVALID-ORDER-442 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_3 g_m r_o s^4 + C_1 C_L L_1 L_L R_3 s^4 + C_1 C_L L_1 L_L R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_1 R_3 R_L g_m r_o s^3 + C_1 C_L L_1 R_3 R_L s^3 + C_1 C_L L_L R_3 R_L s^3 + C_1 C_L L_L R_3 r_o s^3 + C_1$$

10.443 INVALID-ORDER-443 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(g_m r_o + 1\right)\left(C_1 L_1 s^2 + 1\right)}{C_1 C_3 L_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_L s^3 + C_1 C_3 R_L r_o s^2 + C_1 L_1 g_m r_o s^2 + C_1 L_1 s^2 + C_1 R_L s + C_1 r_o s + C_3 R_L g_m r_o s + C_3 R_L s + g_m r_o + 1}$$

10.444 INVALID-ORDER-444 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_m r_o + 1\right)\left(C_1 L_1 s^2 + 1\right)}{s\left(C_1 C_3 L_1 g_m r_o s^2 + C_1 C_3 L_1 s^2 + C_1 C_3 r_o s + C_1 C_L L_1 g_m r_o s^2 + C_1 C_L L_1 s^2 + C_1 C_L r_o s + C_1 + C_3 g_m r_o + C_3 + C_L g_m r_o + C_L\right)}$$

10.445 INVALID-ORDER-445 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_L\left(g_m r_o + 1\right)\left(C_1 L_1 s^2 + 1\right)}{C_1 C_3 L_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_L s^3 + C_1 C_3 R_L r_o s^2 + C_1 C_L L_1 R_L g_m r_o s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L R_L r_o s^2 + C_1 L_1 g_m r_o s^2 + C_1 L_1 s^2 + C_1 R_L s + C_1 r_o s + C_3 R_L g_m r_o s + C_3 R_L}$$

10.446 INVALID-ORDER-446 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_m r_o + 1\right)\left(C_1 L_1 s^2 + 1\right)\left(C_L R_L s + 1\right)}{s\left(C_1 C_3 C_L L_1 R_L g_m r_o s^3 + C_1 C_3 C_L L_1 R_L s^3 + C_1 C_3 C_L R_L r_o s^2 + C_1 C_3 L_1 g_m r_o s^2 + C_1 C_3 L_1 s^2 + C_1 C_3 r_o s + C_1 C_L L_1 g_m r_o s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_L s + C_1 C_L r_o s + C_1 + C_3}$$

10.447 INVALID-ORDER-447 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_m r_o + 1\right)\left(C_1 L_1 s^2 + 1\right)\left(C_L L_L s^2 + 1\right)}{s\left(C_1 C_3 C_L L_1 L_L g_m r_o s^4 + C_1 C_3 C_L L_1 L_L s^4 + C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 L_1 g_m r_o s^2 + C_1 C_3 L_1 s^2 + C_1 C_3 r_o s + C_1 C_L L_1 g_m r_o s^2 + C_1 C_L L_1 s^2 + C_1 C_L L_L s^2 + C_1 C_L r_o s + C_1 + C_3\right.}$$

10.448 INVALID-ORDER-448 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s\left(g_m r_o + 1\right)\left(C_1 L_1 s^2 + 1\right)}{C_1 C_3 L_1 L_L g_m r_o s^4 + C_1 C_3 L_1 L_L s^4 + C_1 C_3 L_L r_o s^3 + C_1 C_L L_1 L_L g_m r_o s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_L r_o s^3 + C_1 L_1 g_m r_o s^2 + C_1 L_1 s^2 + C_1 L_L s^2 + C_1 r_o s + C_3 L_L g_m r_o s^2 + C_3 L_L}$$

10.449 INVALID-ORDER-449 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)\left(C_1 L_1 s^2 + 1\right)\left(C}{s\left(C_1 C_3 C_L L_1 L_L g_m r_o s^4 + C_1 C_3 C_L L_1 L_L s^4 + C_1 C_3 C_L L_1 R_L g_m r_o s^3 + C_1 C_3 C_L L_1 R_L s^3 + C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 C_L R_L r_o s^2 + C_1 C_3 L_1 g_m r_o s^2 + C_1 C_3 L_1 s^2 + C_1 C_3 r_o s + C_1 C\right.}$$

10.450 INVALID-ORDER-450 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_L s\left(g_m r_o + 1\right)\left(C_1 L_1}{C_1 C_3 L_1 L_L R_L g_m r_o s^4 + C_1 C_3 L_1 L_L R_L s^4 + C_1 C_3 L_L R_L r_o s^3 + C_1 C_L L_1 L_L R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_L R_L r_o s^3 + C_1 L_1 L_L g_m r_o s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_L g_m r_o s^2}$$

10.451 INVALID-ORDER-451 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_L s^5 + C_1 C_3 C_L L_L R_L r_o s^4 + C_1 C_3 L_1 L_L g_m r_o s^4 + C_1 C_3 L_1 L_L s^4 + C_1 C_3 L_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_L s^3 + C_1 C_3 L_L r_o s^3 + C_1 C_3 R_L r_o}$$

10.452 INVALID-ORDER-452 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_L s^5 + C_1 C_3 C_L L_L R_L r_o s^4 + C_1 C_3 L_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_L s^3 + C_1 C_3 R_L r_o s^2 + C_1 C_L L_1 L_L g_m r_o s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R}$$

10.453 INVALID-ORDER-453 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_3 R_L\left(g_m r_o + 1\right)\left(C_1 L_1 s^2 + 1\right)}{C_1 C_3 L_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_1 R_3 R_L s^3 + C_1 C_3 R_3 R_L r_o s^2 + C_1 L_1 R_3 g_m r_o s^2 + C_1 L_1 R_3 s^2 + C_1 L_1 R_L g_m r_o s^2 + C_1 L_1 R_L s^2 + C_1 R_3 R_L s + C_1 R_3 r_o s + C_1 R_L r_o s + C_3 R_3 R_L g_m}$$

10.454 INVALID-ORDER-454 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 \left(g_m r_o + 1\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 C_3 L_1 R_3 g_m r_o s^3 + C_1 C_3 L_1 R_3 s^3 + C_1 C_3 R_3 r_o s^2 + C_1 C_L L_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_3 s^3 + C_1 C_L R_3 r_o s^2 + C_1 L_1 g_m r_o s^2 + C_1 L_1 s^2 + C_1 R_3 s + C_1 r_o s + C_3 R_3 g_m r_o s + C_3 R_3 s +$$

10.455 INVALID-ORDER-455 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_3 R_L \left(g_m r_o + 1\right) \left(C_1 L_1 s^2 + 1\right.}{C_1 C_3 L_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_1 R_3 R_L s^3 + C_1 C_3 R_3 R_L r_o s^2 + C_1 C_L L_1 R_3 R_L g_m r_o s^3 + C_1 C_L L_1 R_3 R_L s^3 + C_1 C_L R_3 R_L r_o s^2 + C_1 L_1 R_3 g_m r_o s^2 + C_1 L_1 R_3 s^2 + C_1 L_1 R_L g_m r_o s^2 +$$

10.456 INVALID-ORDER-456 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_1 R_3 R_L s^4 + C_1 C_3 C_L R_3 R_L r_o s^3 + C_1 C_3 L_1 R_3 g_m r_o s^3 + C_1 C_3 L_1 R_3 s^3 + C_1 C_3 R_3 r_o s^2 + C_1 C_L L_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_3 s^3 + C_1 C_L L_1 R_L$$

10.457 INVALID-ORDER-457 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 s^5 + C_1 C_3 C_L L_L R_3 r_o s^4 + C_1 C_3 L_1 R_3 g_m r_o s^3 + C_1 C_3 L_1 R_3 s^3 + C_1 C_3 R_3 r_o s^2 + C_1 C_L L_1 L_L g_m r_o s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_3 g$$

10.458 INVALID-ORDER-458 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_3 s \left(g_m r_o + 1\right) \left(C_1 L_1 s^2\right.}{C_1 C_3 L_1 L_L R_3 g_m r_o s^4 + C_1 C_3 L_1 L_L R_3 s^4 + C_1 C_3 L_L R_3 r_o s^3 + C_1 C_L L_1 L_L R_3 g_m r_o s^4 + C_1 C_L L_1 L_L R_3 s^4 + C_1 C_L L_L R_3 r_o s^3 + C_1 L_1 L_L g_m r_o s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_3 g_m r_o s^2 +$$

10.459 INVALID-ORDER-459 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 s^5 + C_1 C_3 C_L L_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_1 R_3 R_L s^4 + C_1 C_3 C_L L_L R_3 r_o s^4 + C_1 C_3 C_L R_3 R_L r_o s^3 + C_1 C_3 L_1 R_3 g_m r_o s^3 + C_1 C_3 L_1 R_3$$

10.460 INVALID-ORDER-460 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3L_1L_LR_3R_Lg_mr_os^4 + C_1C_3L_1L_LR_3R_Ls^4 + C_1C_3L_LR_3R_Lr_os^3 + C_1C_LL_1L_LR_3R_Lg_mr_os^4 + C_1C_LL_1L_LR_3R_Ls^4 + C_1C_LL_LR_3R_Lr_os^3 + C_1L_1L_LR_3g_mr_os^3 + C_1L_1L_L$$

10.461 INVALID-ORDER-461 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_3R_Ls^5 + C_1C_3C_LL_LR_3R_Lr_os^4 + C_1C_3L_1L_LR_3g_mr_os^4 + C_1C_3L_1L_LR_3s^4 + C_1C_3L_1R_3R_Lg_mr_os^3 + C_1C_3L_1R_3R_Ls^3 + C_1C_3L$$

10.462 INVALID-ORDER-462 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_3R_Ls^5 + C_1C_3C_LL_LR_3R_Lr_os^4 + C_1C_3L_1R_3R_Lg_mr_os^3 + C_1C_3L_1R_3R_Ls^3 + C_1C_3R_3R_Lr_os^2 + C_1C_LL_1L_LR_3g_mr_os^4 + C_1C_L$$

10.463 INVALID-ORDER-463 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(g_mr_o+1\right)\left(C_1L_1s^2+1\right)\left(C_3R_3s+1\right)}{C_1C_3L_1R_3g_mr_os^3 + C_1C_3L_1R_3s^3 + C_1C_3L_1R_Lg_mr_os^3 + C_1C_3L_1R_Ls^3 + C_1C_3R_3R_Ls^2 + C_1C_3R_3r_os^2 + C_1C_3R_Lr_os^2 + C_1L_1g_mr_os^2 + C_1L_1s^2 + C_1R_Ls + C_1r_os + C_3R_3g$$

10.464 INVALID-ORDER-464 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_mr_o+1\right)\left(C_1L_1s^2+1\right)\left(C_3R_3s+1\right)}{s\left(C_1C_3C_LL_1R_3g_mr_os^3 + C_1C_3C_LL_1R_3s^3 + C_1C_3C_LR_3r_os^2 + C_1C_3L_1g_mr_os^2 + C_1C_3L_1s^2 + C_1C_3R_3s + C_1C_3r_os + C_1C_LL_1g_mr_os^2 + C_1C_LL_1s^2 + C_1C_Lr_os + C_1 + C_3C\right.}$$

10.465 INVALID-ORDER-465 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_1R_3R_Ls^4 + C_1C_3C_LR_3R_Lr_os^3 + C_1C_3L_1R_3g_mr_os^3 + C_1C_3L_1R_3s^3 + C_1C_3L_1R_Lg_mr_os^3 + C_1C_3L_1R_Ls^3 + C_1C_3R_3R_Ls^2 + C_1C_3R_3r_o$$

10.466 INVALID-ORDER-466 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_mr_o + 1)\left(C_1L_1s^2 + \right.}{s\left(C_1C_3C_LL_1R_3g_mr_os^3 + C_1C_3C_LL_1R_3s^3 + C_1C_3C_LL_1R_Lg_mr_os^3 + C_1C_3C_LL_1R_Ls^3 + C_1C_3C_LR_3R_Ls^2 + C_1C_3C_LR_3r_os^2 + C_1C_3C_LR_Lr_os^2 + C_1C_3L_1g_mr_os^2 + C_1C_3L_1s\right.}$$

10.467 INVALID-ORDER-467 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_mr_o + 1)\left(C_1L_1s^2 \right.}{s\left(C_1C_3C_LL_1L_Lg_mr_os^4 + C_1C_3C_LL_1L_Ls^4 + C_1C_3C_LL_1R_3g_mr_os^3 + C_1C_3C_LL_1R_3s^3 + C_1C_3C_LL_LR_3s^3 + C_1C_3C_LL_Lr_os^3 + C_1C_3C_LR_3r_os^2 + C_1C_3L_1g_mr_os^2 + C_1C_3L_1s\right.}$$

10.468 INVALID-ORDER-468 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_3g_mr_os^5 + C_1C_3C_LL_1L_LR_3s^5 + C_1C_3C_LL_LR_3r_os^4 + C_1C_3L_1L_Lg_mr_os^4 + C_1C_3L_1L_Ls^4 + C_1C_3L_1R_3g_mr_os^3 + C_1C_3L_1R_3s^3 + C_1C_3L_LR_3s^3 + C_1C_3L_Lr_os$$

10.469 INVALID-ORDER-469 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1C_3C_LL_1L_Lg_mr_os^4 + C_1C_3C_LL_1L_Ls^4 + C_1C_3C_LL_1R_3g_mr_os^3 + C_1C_3C_LL_1R_3s^3 + C_1C_3C_LL_1R_Lg_mr_os^3 + C_1C_3C_LL_1R_Ls^3 + C_1C_3C_LL_LR_3s^3 + C_1C_3C_LL_Lr_os^3 + C_1\right.}$$

10.470 INVALID-ORDER-470 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_3R_Ls^5 + C_1C_3C_LL_LR_3R_Lr_os^4 + C_1C_3L_1L_LR_3g_mr_os^4 + C_1C_3L_1L_LR_3s^4 + C_1C_3L_1L_LR_Lg_mr_os^4 + C_1C_3L_1L_LR_Ls^4 + C_1C_3L$$

10.471 INVALID-ORDER-471 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_3g_mr_os^5 + C_1C_3C_LL_1L_LR_3s^5 + C_1C_3C_LL_1L_LR_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_Ls^5 + C_1C_3C_LL_LR_3R_Ls^4 + C_1C_3C_LL_LR_3r_os^4 + C_1C_3C_LL_LR_Lr_os^4 + C_1C_3L_1$$

10.472 INVALID-ORDER-472 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_3g_mr_os^5 + C_1C_3C_LL_1L_LR_3s^5 + C_1C_3C_LL_1L_LR_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_Ls^5 + C_1C_3C_LL_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_1R_3R_Ls^4 + C_1C_3C_LL_LR_3R_Ls^4 + C$$

10.473 INVALID-ORDER-473 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(g_mr_o + 1\right)\left(C_1L_1s^2 + 1\right)\left(C_3L_3s^2 + 1\right)}{C_1C_3L_1L_3g_mr_os^4 + C_1C_3L_1L_3s^4 + C_1C_3L_1R_Lg_mr_os^3 + C_1C_3L_1R_Ls^3 + C_1C_3L_3R_Ls^3 + C_1C_3L_3r_os^3 + C_1C_3R_Lr_os^2 + C_1L_1g_mr_os^2 + C_1L_1s^2 + C_1R_Ls + C_1r_os + C_3L_3g_m}$$

10.474 INVALID-ORDER-474 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_mr_o + 1\right)\left(C_1L_1s^2 + 1\right)\left(C_3L_3s^2 + 1\right)}{s\left(C_1C_3C_LL_1L_3g_mr_os^4 + C_1C_3C_LL_1L_3s^4 + C_1C_3C_LL_3r_os^3 + C_1C_3L_1g_mr_os^2 + C_1C_3L_1s^2 + C_1C_3L_3s^2 + C_1C_3r_os + C_1C_LL_1g_mr_os^2 + C_1C_LL_1s^2 + C_1C_Lr_os + C_1 + C_3C\right.}$$

10.475 INVALID-ORDER-475 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_3R_Lr_os^4 + C_1C_3L_1L_3g_mr_os^4 + C_1C_3L_1L_3s^4 + C_1C_3L_1R_Lg_mr_os^3 + C_1C_3L_1R_Ls^3 + C_1C_3L_3R_Ls^3 + C_1C_3L_3r_os^3}$$

10.476 INVALID-ORDER-476 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_mr_o + 1)\left(C_1L_1s^2\right.}{s\left(C_1C_3C_LL_1L_3g_mr_os^4 + C_1C_3C_LL_1L_3s^4 + C_1C_3C_LL_1R_Lg_mr_os^3 + C_1C_3C_LL_1R_Ls^3 + C_1C_3C_LL_3R_Ls^3 + C_1C_3C_LL_3r_os^3 + C_1C_3C_LR_Lr_os^2 + C_1C_3L_1g_mr_os^2 + C_1C_3L_1s\right.}$$

10.477 INVALID-ORDER-477 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_mr_o + 1)\left(C_1L_1s^2\right.}{s\left(C_1C_3C_LL_1L_3g_mr_os^4 + C_1C_3C_LL_1L_3s^4 + C_1C_3C_LL_1L_Lg_mr_os^4 + C_1C_3C_LL_1L_Ls^4 + C_1C_3C_LL_3L_Ls^4 + C_1C_3C_LL_3r_os^3 + C_1C_3C_LL_Lr_os^3 + C_1C_3L_1g_mr_os^2 + C_1C_3L_1s^2\right.}$$

10.478 INVALID-ORDER-478 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_3L_Lr_os^5 + C_1C_3L_1L_3g_mr_os^4 + C_1C_3L_1L_3s^4 + C_1C_3L_1L_Lg_mr_os^4 + C_1C_3L_1L_Ls^4 + C_1C_3L_3L_Ls^4 + C_1C_3L_3r_os^3}$$

10.479 INVALID-ORDER-479 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1C_3C_LL_1L_3g_mr_os^4 + C_1C_3C_LL_1L_3s^4 + C_1C_3C_LL_1L_Lg_mr_os^4 + C_1C_3C_LL_1L_Ls^4 + C_1C_3C_LL_1R_Lg_mr_os^3 + C_1C_3C_LL_1R_Ls^3 + C_1C_3C_LL_3L_Ls^4 + C_1C_3C_LL_3R_Ls^3 + C\right.}$$

10.480 INVALID-ORDER-480 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_Ls^6 + C_1C_3C_LL_3L_LR_Lr_os^5 + C_1C_3L_1L_3L_Lg_mr_os^5 + C_1C_3L_1L_3L_Ls^5 + C_1C_3L_1L_3R_Lg_mr_os^4 + C_1C_3L_1L_3R_Ls^4 + C_1C_3L_1$$

10.481 INVALID-ORDER-481 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_LR_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_Ls^5 + C_1C_3C_LL_3L_LR_Ls^5 + C_1C_3C_LL_3L_Lr_os^5 + C_1C_3C_LL_LR_Lr_os^4 + C_1C_3L_1L$$

10.482 INVALID-ORDER-482 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_1L_LR_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_Ls^5 + C_1C_3C_LL_3L_LR_Ls^5 + C_1$$

10.483 INVALID-ORDER-483 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_3R_Ls\left(g_mr_o + 1\right)\left(C_1L_1s^2 + 1\right)}{C_1C_3L_1L_3R_Lg_mr_os^4 + C_1C_3L_1L_3R_Ls^4 + C_1C_3L_3R_Lr_os^3 + C_1L_1L_3g_mr_os^3 + C_1L_1L_3s^3 + C_1L_1R_Lg_mr_os^2 + C_1L_1R_Ls^2 + C_1L_3R_Ls^2 + C_1L_3r_os^2 + C_1R_Lr_os + C_3L_3R_Lg_m}$$

10.484 INVALID-ORDER-484 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_3s\left(g_mr_o + 1\right)\left(C_1L_1s^2 + 1\right)}{C_1C_3L_1L_3g_mr_os^4 + C_1C_3L_1L_3s^4 + C_1C_3L_3r_os^3 + C_1C_LL_1L_3g_mr_os^4 + C_1C_LL_1L_3s^4 + C_1C_LL_3r_os^3 + C_1L_1g_mr_os^2 + C_1L_1s^2 + C_1L_3s^2 + C_1r_os + C_3L_3g_mr_os^2 + C_3L_3s^2}$$

10.485 INVALID-ORDER-485 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_3 R_L s \left(g_m r_o + 1\right) \left(C_1 L_1 s^2 \right.}{C_1 C_3 L_1 L_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_3 R_L r_o s^3 + C_1 C_L L_1 L_3 R_L g_m r_o s^4 + C_1 C_L L_1 L_3 R_L s^4 + C_1 C_L L_3 R_L r_o s^3 + C_1 L_1 L_3 g_m r_o s^3 + C_1 L_1 L_3 s^3 + C_1 L_1 R_L g_m r_o s^2 +}$$

10.486 INVALID-ORDER-486 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_L s^5 + C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C_3 L_1 L_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 s^4 + C_1 C_3 L_3 r_o s^3 + C_1 C_L L_1 L_3 g_m r_o s^4 + C_1 C_L L_1 L_3 s^4 + C_1 C_L L_1 R_L g_m}$$

10.487 INVALID-ORDER-487 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 L_1 L_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 s^4 + C_1 C_3 L_3 r_o s^3 + C_1 C_L L_1 L_3 g_m r_o s^4 + C_1 C_L L_1 L_3 s^4 + C_1 C_L L_1 L_L g_m}$$

10.488 INVALID-ORDER-488 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_3 L_L s \left(g_m r_o + 1\right) \left(C_1 L_1 s^2 + 1\right.}{C_1 C_3 L_1 L_3 L_L g_m r_o s^4 + C_1 C_3 L_1 L_3 L_L s^4 + C_1 C_3 L_3 L_L r_o s^3 + C_1 C_L L_1 L_3 L_L g_m r_o s^4 + C_1 C_L L_1 L_3 L_L s^4 + C_1 C_L L_3 L_L r_o s^3 + C_1 L_1 L_3 g_m r_o s^2 + C_1 L_1 L_3 s^2 + C_1 L_1 L_L g_m r_o s^2 + C}$$

10.489 INVALID-ORDER-489 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_1 L_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_L s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C_3 L_1 L_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 s}$$

10.490 INVALID-ORDER-490 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3L_1L_3L_LR_Lg_mr_os^4 + C_1C_3L_1L_3L_LR_Ls^4 + C_1C_3L_3L_LR_Lr_os^3 + C_1C_LL_1L_3L_LR_Lg_mr_os^4 + C_1C_LL_1L_3L_LR_Ls^4 + C_1C_LL_3L_LR_Lr_os^3 + C_1L_1L_3L_Lg_mr_os^3 + C_1L_1L_3L_L}$$

10.491 INVALID-ORDER-491 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_Ls^6 + C_1C_3C_LL_3L_LR_Lr_os^5 + C_1C_3L_1L_3L_Lg_mr_os^5 + C_1C_3L_1L_3L_Ls^5 + C_1C_3L_1L_3R_Lg_mr_os^4 + C_1C_3L_1L_3R_Ls^4 + C_1C_3L_3}$$

10.492 INVALID-ORDER-492 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_Ls^6 + C_1C_3C_LL_3L_LR_Lr_os^5 + C_1C_3L_1L_3R_Lg_mr_os^4 + C_1C_3L_1L_3R_Ls^4 + C_1C_3L_3R_Lr_os^3 + C_1C_LL_1L_3L_Lg_mr_os^5 + C_1C_LL_}$$

10.493 INVALID-ORDER-493 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(g_mr_o+1\right)\left(C_1L_1s^2+1\right)\left(C_3L_3s^2+}{C_1C_3L_1L_3g_mr_os^4 + C_1C_3L_1L_3s^4 + C_1C_3L_1R_3g_mr_os^3 + C_1C_3L_1R_3s^3 + C_1C_3L_1R_Lg_mr_os^3 + C_1C_3L_1R_Ls^3 + C_1C_3L_3R_Ls^3 + C_1C_3L_3r_os^3 + C_1C_3R_3R_Ls^2 + C_1C_3R_3r_os^2 +}$$

10.494 INVALID-ORDER-494 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_mr_o+1\right)\left(C_1L_1s^2+1\right)\left(C_3}{s\left(C_1C_3C_LL_1L_3g_mr_os^4 + C_1C_3C_LL_1L_3s^4 + C_1C_3C_LL_1R_3g_mr_os^3 + C_1C_3C_LL_1R_3s^3 + C_1C_3C_LL_3r_os^3 + C_1C_3C_LR_3r_os^2 + C_1C_3L_1g_mr_os^2 + C_1C_3L_1s^2 + C_1C_3L_3s^2 + C_1C\right.}$$

10.495 INVALID-ORDER-495 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_1R_3R_Ls^4 + C_1C_3C_LL_3R_Lr_os^4 + C_1C_3C_LR_3R_Lr_os^3 + C_1C_3L_1L_3g_mr_os^4 + C_1C_3L_1L_3}$$

10.496 INVALID-ORDER-496 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1C_3C_LL_1L_3g_mr_os^4 + C_1C_3C_LL_1L_3s^4 + C_1C_3C_LL_1R_3g_mr_os^3 + C_1C_3C_LL_1R_3s^3 + C_1C_3C_LL_1R_Lg_mr_os^3 + C_1C_3C_LL_1R_Ls^3 + C_1C_3C_LL_3R_Ls^3 + C_1C_3C_LL_3r_os^3 + C_1C\right.}$$

10.497 INVALID-ORDER-497 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1C_3C_LL_1L_3g_mr_os^4 + C_1C_3C_LL_1L_3s^4 + C_1C_3C_LL_1L_Lg_mr_os^4 + C_1C_3C_LL_1L_Ls^4 + C_1C_3C_LL_1R_3g_mr_os^3 + C_1C_3C_LL_1R_3s^3 + C_1C_3C_LL_3L_Ls^4 + C_1C_3C_LL_3r_os^3 + C_1C\right.}$$

10.498 INVALID-ORDER-498 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_LR_3g_mr_os^5 + C_1C_3C_LL_1L_LR_3s^5 + C_1C_3C_LL_3L_Lr_os^5 + C_1C_3C_LL_LR_3r_os^4 + C_1C_3L_1L_3g_mr_os^4 + C_1C_3L_1L_3s}$$

10.499 INVALID-ORDER-499 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1C_3C_LL_1L_3g_mr_os^4 + C_1C_3C_LL_1L_3s^4 + C_1C_3C_LL_1L_Lg_mr_os^4 + C_1C_3C_LL_1L_Ls^4 + C_1C_3C_LL_1R_3g_mr_os^3 + C_1C_3C_LL_1R_3s^3 + C_1C_3C_LL_1R_Lg_mr_os^3 + C_1C_3C_LL_1R_Ls^3\right.}$$

10.500 INVALID-ORDER-500 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L s^6 + C_1 C_3 C_L L_1 L_L R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 R_L s^5 + C_1 C_3 C_L L_3 L_L R_L r_o s^5 + C_1 C_3 C_L L_L R_3 R_L r_o s^4 + C_1 C_3 L_1 L_3 L_L}$$

10.501 INVALID-ORDER-501 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_1 L_L R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 s^5 + C_1 C_3 C_L L_1 L_L R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_L s^5 + C_1 C_3 C_L L_3 L_L R_L s^5 + C_1}$$

10.502 INVALID-ORDER-502 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_1 L_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 s^5 + C_1 C_3 C_L L_1 L_L R_L g_m r_o s^5 +}$$

10.503 INVALID-ORDER-503 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{L_3 R_3 R_L s \left(g_m r_o \right.}{C_1 C_3 L_1 L_3 R_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 R_L s^4 + C_1 C_3 L_3 R_3 R_L r_o s^3 + C_1 L_1 L_3 R_3 g_m r_o s^3 + C_1 L_1 L_3 R_3 s^3 + C_1 L_1 L_3 R_L g_m r_o s^3 + C_1 L_1 L_3 R_L s^3 + C_1 L_1 R_3 R_L g_m r_o s^2 + C_1 L_1 R_3}$$

10.504 INVALID-ORDER-504 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_3 R_3 s \left(g_m r_o + 1 \right) \left(C_1 L_1 s^2 + 1 \right.}{C_1 C_3 L_1 L_3 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_L L_1 L_3 R_3 g_m r_o s^4 + C_1 C_L L_1 L_3 R_3 s^4 + C_1 C_L L_3 R_3 r_o s^3 + C_1 L_1 L_3 g_m r_o s^3 + C_1 L_1 L_3 s^3 + C_1 L_1 R_3 g_m r_o s^2 + C}$$

10.505 INVALID-ORDER-505 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_3 R_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 R_L s^4 + C_1 C_3 L_3 R_3 R_L r_o s^3 + C_1 C_L L_1 L_3 R_3 R_L g_m r_o s^4 + C_1 C_L L_1 L_3 R_3 R_L s^4 + C_1 C_L L_3 R_3 R_L r_o s^3 + C_1 L_1 L_3 R_3 g_m r_o s^3 + C_1 L_1 L_3 R_3}$$

10.506 INVALID-ORDER-506 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L L_3 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_L L_1 L_3 R_3 g_m r_o s^4 + C_1 C_L L_1 L}$$

10.507 INVALID-ORDER-507 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_3 L_L R_3 r_o s^5 + C_1 C_3 L_1 L_3 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_L L_1 L_3 L_L g_m r_o s^5 + C_1 C_L L_1 L}$$

10.508 INVALID-ORDER-508 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_3 L_L R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 L_L R_3 s^4 + C_1 C_3 L_3 L_L R_3 r_o s^3 + C_1 C_L L_1 L_3 L_L R_3 g_m r_o s^4 + C_1 C_L L_1 L_3 L_L R_3 s^4 + C_1 C_L L_3 L_L R_3 r_o s^3 + C_1 L_1 L_3 L_L g_m r_o s^3 + C_1 L_1 L_3 L_L s}$$

10.509 INVALID-ORDER-509 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L L_3 L_L R_3 r_o s^5 + C_1 C_3 C_L L_3 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_3 g}$$

10.510 INVALID-ORDER-510 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_L R_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 L_L R_3 R_L s^4 + C_1 C_3 L_3 L_L R_3 R_L r_o s^3 + C_1 C_L L_1 L_3 L_L R_3 R_L g_m r_o s^4 + C_1 C_L L_1 L_3 L_L R_3 R_L s^4 + C_1 C_L L_3 L_L R_3 R_L r_o s^3 + C_1 L_1 L_3 L_L R_3}{}$$

10.511 INVALID-ORDER-511 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_3 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 R_L s^6 + C_1 C_3 C_L L_3 L_L R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 L_L R_3 g_m r_o s^5 + C_1 C_3 L_1 L_3 L_L R_3 s^5 + C_1 C_3 L_1 L_3 R_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L}{}$$

10.512 INVALID-ORDER-512 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_3 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 R_L s^6 + C_1 C_3 C_L L_3 L_L R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 R_L s^4 + C_1 C_3 L_3 R_3 R_L r_o s^3 + C_1 C_L L_1 L_3 L_L}{}$$

10.513 INVALID-ORDER-513 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_1 L_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_3 R_3 R_L s^3 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_3 L_3 R_L r_o s^3 + C_1 L_1 L_3 g_m r_o s^3 + C_1 L_1 L_3 s^3 + C}{}$$

10.514 INVALID-ORDER-514 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 s^5 + C_1 C_3 C_L L_3 R_3 r_o s^4 + C_1 C_3 L_1 L_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 s^4 + C_1 C_3 L_3 R_3 s^3 + C_1 C_3 L_3 r_o s^3 + C_1 C_L L_1 L_3 g_m r_o s^4 + C_1 C_L L_1 L_3 s^4 +}{}$$

10.515 INVALID-ORDER-515 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L L_3 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_1 L_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_3}{}$$

10.516 INVALID-ORDER-516 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_L s^5 + C_1 C_3 C_L L_3 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_3 r_o s^4 + C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C_3 L_1 L_3}{}$$

10.517 INVALID-ORDER-517 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_1 L_3 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 s^5 + C_1 C_3 C_L L_3 L_L R_3 s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 C_L L_3 R_3 r_o s^4 + C_1 C_3 L_1 L_3}{}$$

10.518 INVALID-ORDER-518 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_3 L_L R_3 r_o s^5 + C_1 C_3 L_1 L_3 L_L g_m r_o s^5 + C_1 C_3 L_1 L_3 L_L s^5 + C_1 C_3 L_1 L_3 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_3 L}{}$$

10.519 INVALID-ORDER-519 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_1 L_3 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_L s^5 + C_1 C_3 C_L L_3 L_L R_3 s^5 + C_1 C}{}$$

10.520 INVALID-ORDER-520 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_3 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 R_L s^6 + C_1 C_3 C_L L_3 L_L R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 L_L R_3 g_m r_o s^5 + C_1 C_3 L_1 L_3 L_L R_3 s^5 + C_1 C_3 L_1 L_3 L_L R_L g_m r_o s^5 + C_1 C_3 L_1 L}$

10.521 INVALID-ORDER-521 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L s^6 + C_1 C_3 C_L L_3 L_L R_3 R_L s^5 + C_1 C_3 C_L L_3 L_L R_3 r_o s^5 + C_1 C_3 C_L L_3 L_L}$

10.522 INVALID-ORDER-522 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L s^6 + C_1 C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L}$

10.523 INVALID-ORDER-523 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L\right)$

$H(s) = \frac{}{C_1 C_3 L_1 L_3 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_1 L_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_1 R_3 R_L s^3 + C_1 C_3 L_3 R_3 R_L s^3 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_3 L}$

10.524 INVALID-ORDER-524 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 s^5 + C_1 C_3 C_L L_3 R_3 r_o s^4 + C_1 C_3 L_1 L_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 s^4 + C_1 C_3 L_1 R_3 g_m r_o s^3 + C_1 C_3 L_1 R_3 s^3 + C_1 C_3 L_3 R_3 s^3 + C_1 C_3 L_3 r_o s^3 +}$

10.525 INVALID-ORDER-525 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L L_3 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_1 L_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_1 L$$

10.526 INVALID-ORDER-526 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_L s^5 + C_1 C_3 C_L L_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_1 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_3 R_L s^4 + C_1 C$$

10.527 INVALID-ORDER-527 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_1 L_3 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 s^5 + C_1 C_3 C_L L_1 L_L R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 s^5 + C_1 C_3 C_L L_3 L_L R_3 s^5 + C_1 C$$

10.528 INVALID-ORDER-528 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_3 L_L R_3 r_o s^5 + C_1 C_3 L_1 L_3 L_L g_m r_o s^5 + C_1 C_3 L_1 L_3 L_L s^5 + C_1 C_3 L_1 L_3 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_1 L$$

10.529 INVALID-ORDER-529 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_1 L_3 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 g_m r_o s^5 +$$

10.530 INVALID-ORDER-530 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_3 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 R_L s^6 + C_1 C_3 C_L L_3 L_L R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 L_L R_3 g_m r_o s^5 + C_1 C_3 L_1 L_3 L_L R_3 s^5 + C_1 C_3 L_1 L_3 L_L R_L g_m r_o s^5 + C_1 C_3 L_1 L$$

10.531 INVALID-ORDER-531 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L s^6 + C_1 C_3 C_L L_1 L_L R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 R_L s^5 + C_1 C_3 C_L$$

10.532 INVALID-ORDER-532 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L s^6 + C_1 C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L$$

10.533 INVALID-ORDER-533 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_3 s \left(g_m r_o + 1\right)}{C_1 C_L L_1 R_3 r_o s^3 + C_1 L_1 R_3 s^2 + C_1 L_1 r_o s^2 + C_L L_1 R_3 g_m r_o s^2 + C_L L_1 R_3 s^2 + C_L R_3 r_o s + L_1 g_m r_o s + L_1 s + R_3 + r_o}$$

10.534 INVALID-ORDER-534 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_3 R_L s \left(g_m r_o + 1\right)}{C_1 C_L L_1 R_3 R_L r_o s^3 + C_1 L_1 R_3 R_L s^2 + C_1 L_1 R_3 r_o s^2 + C_1 L_1 R_L r_o s^2 + C_L L_1 R_3 R_L g_m r_o s^2 + C_L L_1 R_3 R_L s^2 + C_L R_3 R_L r_o s + L_1 R_3 g_m r_o s + L_1 R_3 s + L_1 R_L g_m r_o s + L_1 R_L s + R$$

10.535 INVALID-ORDER-535 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_3 s \left(g_m r_o + 1\right) \left(C_L R_L s + 1\right)}{C_1 C_L L_1 R_3 R_L s^3 + C_1 C_L L_1 R_3 r_o s^3 + C_1 C_L L_1 R_L r_o s^3 + C_1 L_1 R_3 s^2 + C_1 L_1 r_o s^2 + C_L L_1 R_3 g_m r_o s^2 + C_L L_1 R_3 s^2 + C_L L_1 R_L g_m r_o s^2 + C_L L_1 R_L s^2 + C_L R_3 R_L s + C_L R_3 r_o s + C$$

10.536 INVALID-ORDER-536 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_3 s \left(g_m r_o + 1\right) \left(C_L L_L s^2 + 1\right)}{C_1 C_L L_1 L_L R_3 s^4 + C_1 C_L L_1 L_L r_o s^4 + C_1 C_L L_1 R_3 r_o s^3 + C_1 L_1 R_3 s^2 + C_1 L_1 r_o s^2 + C_L L_1 L_L g_m r_o s^3 + C_L L_1 L_L s^3 + C_L L_1 R_3 g_m r_o s^2 + C_L L_1 R_3 s^2 + C_L L_L R_3 s^2 + C_L L_L r_o s^2 +$$

10.537 INVALID-ORDER-537 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_L R_3 s^2 \left(g_m r_o + 1\right)}{C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 L_1 L_L R_3 s^3 + C_1 L_1 L_L r_o s^3 + C_1 L_1 R_3 r_o s^2 + C_L L_1 L_L R_3 g_m r_o s^3 + C_L L_1 L_L R_3 s^3 + C_L L_L R_3 r_o s^2 + L_1 L_L g_m r_o s^2 + L_1 L_L s^2 + L_1 R_3 g_m r_o s + L_1 R_3 s +$$

10.538 INVALID-ORDER-538 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_3 s \left(g_m r_o + 1\right) \left(C_L L_L s^2 + C_L R_L s +\right.}{C_1 C_L L_1 L_L R_3 s^4 + C_1 C_L L_1 L_L r_o s^4 + C_1 C_L L_1 R_3 R_L s^3 + C_1 C_L L_1 R_3 r_o s^3 + C_1 C_L L_1 R_L r_o s^3 + C_1 L_1 R_3 s^2 + C_1 L_1 r_o s^2 + C_L L_1 L_L g_m r_o s^3 + C_L L_1 L_L s^3 + C_L L_1 R_3 g_m r_o s^2 + C$$

10.539 INVALID-ORDER-539 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_L R_3 R_L s^2 \left(g_m r_o + 1\right)}{C_1 C_L L_1 L_L R_3 R_L r_o s^4 + C_1 L_1 L_L R_3 R_L s^3 + C_1 L_1 L_L R_3 r_o s^3 + C_1 L_1 L_L R_L r_o s^3 + C_1 L_1 R_3 R_L r_o s^2 + C_L L_1 L_L R_3 R_L g_m r_o s^3 + C_L L_1 L_L R_3 R_L s^3 + C_L L_L R_3 R_L r_o s^2 + L_1 L_L R_3 g$$

10.540 INVALID-ORDER-540 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{L}{C_1 C_L L_1 L_L R_3 R_L s^4 + C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 C_L L_1 L_L R_L r_o s^4 + C_1 L_1 L_L R_3 s^3 + C_1 L_1 L_L r_o s^3 + C_1 L_1 R_3 R_L s^2 + C_1 L_1 R_3 r_o s^2 + C_1 L_1 R_L r_o s^2 + C_L L_1 L_L R_3 g_m r_o s^3 + C_L L_1$$

10.541 INVALID-ORDER-541 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_3 R_L s^4 + C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 C_L L_1 L_L R_L r_o s^4 + C_1 C_L L_1 R_3 R_L r_o s^3 + C_1 L_1 R_3 R_L s^2 + C_1 L_1 R_3 r_o s^2 + C_1 L_1 R_L r_o s^2 + C_L L_1 L_L R_3 g_m r_o s^3 + C_L L_1 L_L R_3 s^3 +$$

10.542 INVALID-ORDER-542 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_L s\left(g_m r_o + 1\right)}{C_1 C_3 L_1 R_L r_o s^3 + C_1 L_1 R_L s^2 + C_1 L_1 r_o s^2 + C_3 L_1 R_L g_m r_o s^2 + C_3 L_1 R_L s^2 + C_3 R_L r_o s + L_1 g_m r_o s + L_1 s + R_L + r_o}$$

10.543 INVALID-ORDER-543 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o + 1\right)}{C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 r_o s^3 + C_1 L_1 s^2 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 r_o s + C_L L_1 g_m r_o s^2 + C_L L_1 s^2 + C_L r_o s + 1}$$

10.544 INVALID-ORDER-544 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 R_L s\left(g_m r_o + 1\right)}{C_1 C_3 L_1 R_L r_o s^3 + C_1 C_L L_1 R_L r_o s^3 + C_1 L_1 R_L s^2 + C_1 L_1 r_o s^2 + C_3 L_1 R_L g_m r_o s^2 + C_3 L_1 R_L s^2 + C_3 R_L r_o s + C_L L_1 R_L g_m r_o s^2 + C_L L_1 R_L s^2 + C_L R_L r_o s + L_1 g_m r_o s + L_1 s + R$$

10.545 INVALID-ORDER-545 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o + 1\right)\left(C_L R_L s + 1\right)}{C_1 C_3 C_L L_1 R_L r_o s^4 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L L_1 r_o s^3 + C_1 L_1 s^2 + C_3 C_L L_1 R_L g_m r_o s^3 + C_3 C_L L_1 R_L s^3 + C_3 C_L R_L r_o s^2 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 r_o s + C_L L$$

10.546 INVALID-ORDER-546 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o + 1\right)\left(C_L L_L s^2 + 1\right)}{C_1 C_3 C_L L_1 L_L r_o s^5 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 r_o s^3 + C_1 L_1 s^2 + C_3 C_L L_1 L_L g_m r_o s^4 + C_3 C_L L_1 L_L s^4 + C_3 C_L L_L r_o s^3 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 r_o s + C_L L_1$$

10.547 INVALID-ORDER-547 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_L s^2 \left(g_m r_o + 1\right)}{C_1 C_3 L_1 L_L r_o s^4 + C_1 C_L L_1 L_L r_o s^4 + C_1 L_1 L_L s^3 + C_1 L_1 r_o s^2 + C_3 L_1 L_L g_m r_o s^3 + C_3 L_1 L_L s^3 + C_3 L_L r_o s^2 + C_L L_1 L_L g_m r_o s^3 + C_L L_1 L_L s^3 + C_L L_L r_o s^2 + L_1 g_m r_o s + L_1 s + L$$

10.548 INVALID-ORDER-548 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s \left(g_m r_o + 1\right) \left(C_L L_L s^2 + C_L R_L\right.}{C_1 C_3 C_L L_1 L_L r_o s^5 + C_1 C_3 C_L L_1 R_L r_o s^4 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C_1 C_L L_1 r_o s^3 + C_1 L_1 s^2 + C_3 C_L L_1 L_L g_m r_o s^4 + C_3 C_L L_1 L_L s^4 + C_3 C_L L_1 R_L g_m r_o s$$

10.549 INVALID-ORDER-549 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_L R_L s^2 \left(g_m r_o + 1\right)}{C_1 C_3 L_1 L_L R_L r_o s^4 + C_1 C_L L_1 L_L R_L r_o s^4 + C_1 L_1 L_L R_L s^3 + C_1 L_1 L_L r_o s^3 + C_1 L_1 R_L r_o s^2 + C_3 L_1 L_L R_L g_m r_o s^3 + C_3 L_1 L_L R_L s^3 + C_3 L_L R_L r_o s^2 + C_L L_1 L_L R_L g_m r_o s^3 + C_L L_1$$

10.550 INVALID-ORDER-550 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{L}{C_1 C_3 C_L L_1 L_L R_L r_o s^5 + C_1 C_3 L_1 L_L r_o s^4 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_1 L_L r_o s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_L s^2 + C_1 L_1 r_o s^2 + C_3 C_L L_1 L_L R_L g_m r_o s^4 + C_3 C_L L_1 L$$

10.551 INVALID-ORDER-551 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{L_1 R_L s}{C_1 C_3 C_L L_1 L_L R_L r_o s^5 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_1 L_L r_o s^4 + C_1 C_L L_1 R_L r_o s^3 + C_1 L_1 R_L s^2 + C_1 L_1 r_o s^2 + C_3 C_L L_1 L_L R_L g_m r_o s^4 + C_3 C_L L_1 L_L R_L s^4 + C_3$$

10.552 INVALID-ORDER-552 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_3 R_L s\left(g_m r_o + 1\right)}{C_1 C_3 L_1 R_3 R_L r_o s^3 + C_1 L_1 R_3 R_L s^2 + C_1 L_1 R_3 r_o s^2 + C_1 L_1 R_L r_o s^2 + C_3 L_1 R_3 R_L g_m r_o s^2 + C_3 L_1 R_3 R_L s^2 + C_3 R_3 R_L r_o s + L_1 R_3 g_m r_o s + L_1 R_3 s + L_1 R_L g_m r_o s + L_1 R_L s + R_3}$$

10.553 INVALID-ORDER-553 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_3 s\left(g_m r_o + 1\right)}{C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_L L_1 R_3 r_o s^3 + C_1 L_1 R_3 s^2 + C_1 L_1 r_o s^2 + C_3 L_1 R_3 g_m r_o s^2 + C_3 L_1 R_3 s^2 + C_3 R_3 r_o s + C_L L_1 R_3 g_m r_o s^2 + C_L L_1 R_3 s^2 + C_L R_3 r_o s + L_1 g_m r_o s + L_1 s + R_3 +$$

10.554 INVALID-ORDER-554 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 R_3 R_L s\left(g_m r_o + 1\right)}{C_1 C_3 L_1 R_3 R_L r_o s^3 + C_1 C_L L_1 R_3 R_L r_o s^3 + C_1 L_1 R_3 R_L s^2 + C_1 L_1 R_3 r_o s^2 + C_1 L_1 R_L r_o s^2 + C_3 L_1 R_3 R_L g_m r_o s^2 + C_3 L_1 R_3 R_L s^2 + C_3 R_3 R_L r_o s + C_L L_1 R_3 R_L g_m r_o s^2 + C_L L_1 R_3$$

10.555 INVALID-ORDER-555 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_3 s\left(g\right.}{C_1 C_3 C_L L_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_L L_1 R_3 R_L s^3 + C_1 C_L L_1 R_3 r_o s^3 + C_1 C_L L_1 R_L r_o s^3 + C_1 L_1 R_3 s^2 + C_1 L_1 r_o s^2 + C_3 C_L L_1 R_3 R_L g_m r_o s^3 + C_3 C_L L_1 R_3 R_L s^3 + C_3 C$$

10.556 INVALID-ORDER-556 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_3 s\left(g_\right.}{C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_L L_1 L_L R_3 s^4 + C_1 C_L L_1 L_L r_o s^4 + C_1 C_L L_1 R_3 r_o s^3 + C_1 L_1 R_3 s^2 + C_1 L_1 r_o s^2 + C_3 C_L L_1 L_L R_3 g_m r_o s^4 + C_3 C_L L_1 L_L R_3 s^4 + C_3 C_L$$

10.557 INVALID-ORDER-557 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_L R_3 s^2\left(g_m r_o + 1\right)}{C_1 C_3 L_1 L_L R_3 r_o s^4 + C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 L_1 L_L R_3 s^3 + C_1 L_1 L_L r_o s^3 + C_1 L_1 R_3 r_o s^2 + C_3 L_1 L_L R_3 g_m r_o s^3 + C_3 L_1 L_L R_3 s^3 + C_3 L_L R_3 r_o s^2 + C_L L_1 L_L R_3 g_m r_o s^3 + C_L L_1 L_L$$

10.558 INVALID-ORDER-558 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 C_L L_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_L L_1 L_L R_3 s^4 + C_1 C_L L_1 L_L r_o s^4 + C_1 C_L L_1 R_3 R_L s^3 + C_1 C_L L_1 R_3 r_o s^3 + C_1 C_L L_1 R_L r_o s^3 + C_1 L_1 R_3 s^2 +$$

10.559 INVALID-ORDER-559 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_L R_3 R_L r_o s^4 + C_1 C_L L_1 L_L R_3 R_L r_o s^4 + C_1 L_1 L_L R_3 R_L s^3 + C_1 L_1 L_L R_3 r_o s^3 + C_1 L_1 L_L R_L r_o s^3 + C_1 L_1 R_3 R_L r_o s^2 + C_3 L_1 L_L R_3 R_L g_m r_o s^3 + C_3 L_1 L_L R_3 R_L s^3 + C_3 L_L$$

10.560 INVALID-ORDER-560 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_3 R_L r_o s^5 + C_1 C_3 L_1 L_L R_3 r_o s^4 + C_1 C_3 L_1 R_3 R_L r_o s^3 + C_1 C_L L_1 L_L R_3 R_L s^4 + C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 C_L L_1 L_L R_L r_o s^4 + C_1 L_1 L_L R_3 s^3 + C_1 L_1 L_L r_o s^3 + C_1 L_1$$

10.561 INVALID-ORDER-561 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_3 R_L r_o s^5 + C_1 C_3 L_1 R_3 R_L r_o s^3 + C_1 C_L L_1 L_L R_3 R_L s^4 + C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 C_L L_1 L_L R_L r_o s^4 + C_1 C_L L_1 R_3 R_L r_o s^3 + C_1 L_1 R_3 R_L s^2 + C_1 L_1 R_3 r_o s^2 + C_1 L_1$$

10.562 INVALID-ORDER-562 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_L s\left(g_m r_o + 1\right)\left(C_3 R_3 s + 1\right)}{C_1 C_3 L_1 R_3 R_L s^3 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_3 L_1 R_L r_o s^3 + C_1 L_1 R_L s^2 + C_1 L_1 r_o s^2 + C_3 L_1 R_3 g_m r_o s^2 + C_3 L_1 R_3 s^2 + C_3 L_1 R_L g_m r_o s^2 + C_3 L_1 R_L s^2 + C_3 R_3 R_L s + C_3 R_3 r_o s + C_3$$

10.563 INVALID-ORDER-563 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o + 1\right)\left(C_3 R_3 s + 1\right)}{C_1 C_3 C_L L_1 R_3 r_o s^4 + C_1 C_3 L_1 R_3 s^3 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 r_o s^3 + C_1 L_1 s^2 + C_3 C_L L_1 R_3 g_m r_o s^3 + C_3 C_L L_1 R_3 s^3 + C_3 C_L R_3 r_o s^2 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 R_3 s + C_3 r_o s}$$

10.564 INVALID-ORDER-564 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 R_L s\left(g_m r_o + 1\right)\left(C_3 R_3 s + 1\right)}{C_1 C_3 C_L L_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 R_3 R_L s^3 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_L L_1 R_L r_o s^3 + C_1 L_1 R_L s^2 + C_1 L_1 r_o s^2 + C_3 C_L L_1 R_3 R_L g_m r_o s^3 + C_3 C_L L_1 R_3 R_L s^3 + C_3 C}$$

10.565 INVALID-ORDER-565 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o + 1\right)\left(C_3 R_3 s + 1\right)\left(}{C_1 C_3 C_L L_1 R_3 R_L s^4 + C_1 C_3 C_L L_1 R_3 r_o s^4 + C_1 C_3 C_L L_1 R_L r_o s^4 + C_1 C_3 L_1 R_3 s^3 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L L_1 r_o s^3 + C_1 L_1 s^2 + C_3 C_L L_1 R_3 g_m r_o s^3 + C_3 C_L L_1 R_3 s^3}$$

10.566 INVALID-ORDER-566 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o + 1\right)\left(C_3 R_3 s + 1\right)\left(C}{C_1 C_3 C_L L_1 L_L R_3 s^5 + C_1 C_3 C_L L_1 L_L r_o s^5 + C_1 C_3 C_L L_1 R_3 r_o s^4 + C_1 C_3 L_1 R_3 s^3 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 r_o s^3 + C_1 L_1 s^2 + C_3 C_L L_1 L_L g_m r_o s^4 + C_3 C_L L_1 L_L s^4}$$

10.567 INVALID-ORDER-567 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_L s^2\left(g_m r_o + 1\right)\left(C_3 R_3 s + 1\right)}{C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 L_1 L_L R_3 s^4 + C_1 C_3 L_1 L_L r_o s^4 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_L L_1 L_L r_o s^4 + C_1 L_1 L_L s^3 + C_1 L_1 r_o s^2 + C_3 C_L L_1 L_L R_3 g_m r_o s^4 + C_3 C_L L_1 L_L R_3 s^4 + C_3 C_L}$$

10.568 INVALID-ORDER-568 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_3 s^5 + C_1 C_3 C_L L_1 L_L r_o s^5 + C_1 C_3 C_L L_1 R_3 R_L s^4 + C_1 C_3 C_L L_1 R_3 r_o s^4 + C_1 C_3 C_L L_1 R_L r_o s^4 + C_1 C_3 L_1 R_3 s^3 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C}$$

10.569 INVALID-ORDER-569 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_3 R_L r_o s^5 + C_1 C_3 L_1 L_L R_3 R_L s^4 + C_1 C_3 L_1 L_L R_3 r_o s^4 + C_1 C_3 L_1 L_L R_L r_o s^4 + C_1 C_3 L_1 R_3 R_L r_o s^3 + C_1 C_L L_1 L_L R_L r_o s^4 + C_1 L_1 L_L R_L s^3 + C_1 L_1 L_L r_o s^3 + C_1 L_1}$$

10.570 INVALID-ORDER-570 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 C_L L_1 L_L R_L r_o s^5 + C_1 C_3 L_1 L_L R_3 s^4 + C_1 C_3 L_1 L_L r_o s^4 + C_1 C_3 L_1 R_3 R_L s^3 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_L}$$

10.571 INVALID-ORDER-571 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 C_L L_1 L_L R_L r_o s^5 + C_1 C_3 C_L L_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 R_3 R_L s^3 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_L L_1 L_L R_L s^4 +}$$

10.572 INVALID-ORDER-572 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_L s\left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + 1\right)}{C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_3 L_1 R_L r_o s^3 + C_1 L_1 R_L s^2 + C_1 L_1 r_o s^2 + C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 + C_3 L_1 R_L g_m r_o s^2 + C_3 L_1 R_L s^2 + C_3 L_3 R_L s^2 + C_3 L_3 r_o s^2 + C_3}$$

10.573 INVALID-ORDER-573 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + 1\right)}{C_1 C_3 C_L L_1 L_3 r_o s^5 + C_1 C_3 L_1 L_3 s^4 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 r_o s^3 + C_1 L_1 s^2 + C_3 C_L L_1 L_3 g_m r_o s^4 + C_3 C_L L_1 L_3 s^4 + C_3 C_L L_3 r_o s^3 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 L_3 s^2 + C_3 r_o s}$$

10.574 INVALID-ORDER-574 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 R_L s\,(g}{C_1 C_3 C_L L_1 L_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_L L_1 R_L r_o s^3 + C_1 L_1 R_L s^2 + C_1 L_1 r_o s^2 + C_3 C_L L_1 L_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_L s^4 + C_3 C_L$$

10.575 INVALID-ORDER-575 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\,(g_m r_o + 1)\,(C}{C_1 C_3 C_L L_1 L_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 r_o s^5 + C_1 C_3 C_L L_1 R_L r_o s^4 + C_1 C_3 L_1 L_3 s^4 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L L_1 r_o s^3 + C_1 L_1 s^2 + C_3 C_L L_1 L_3 g_m r_o s^4 + C_3 C_L L_1 L_3 s^4$$

10.576 INVALID-ORDER-576 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\,(g_m r_o + 1)\,(C}{C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_1 L_3 r_o s^5 + C_1 C_3 C_L L_1 L_L r_o s^5 + C_1 C_3 L_1 L_3 s^4 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 r_o s^3 + C_1 L_1 s^2 + C_3 C_L L_1 L_3 g_m r_o s^4 + C_3 C_L L_1 L_3 s^4$$

10.577 INVALID-ORDER-577 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_L s^2\,(g}{C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 L_1 L_3 L_L s^5 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_3 L_1 L_L r_o s^4 + C_1 C_L L_1 L_L r_o s^4 + C_1 L_1 L_L s^3 + C_1 L_1 r_o s^2 + C_3 C_L L_1 L_3 L_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L s^5 + C_3 C_L$$

10.578 INVALID-ORDER-578 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_1 L_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 r_o s^5 + C_1 C_3 C_L L_1 L_L r_o s^5 + C_1 C_3 C_L L_1 R_L r_o s^4 + C_1 C_3 L_1 L_3 s^4 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C$$

10.579 INVALID-ORDER-579 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_L r_o s^6 + C_1 C_3 L_1 L_3 L_L R_L s^5 + C_1 C_3 L_1 L_3 L_L r_o s^5 + C_1 C_3 L_1 L_3 R_L r_o s^4 + C_1 C_3 L_1 L_L R_L r_o s^4 + C_1 C_L L_1 L_L R_L r_o s^4 + C_1 L_1 L_L R_L s^3 + C_1 L_1 L_L r_o s^3 + C_1 L_1 R}$$

10.580 INVALID-ORDER-580 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_1 L_L R_L r_o s^5 + C_1 C_3 L_1 L_3 L_L s^5 + C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_3 L_1 L_L r_o s^4 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_L L}$$

10.581 INVALID-ORDER-581 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_1 L_3 R_L r_o s^5 + C_1 C_3 C_L L_1 L_L R_L r_o s^5 + C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_L L_1 L_L R_L s^4 + C}$$

10.582 INVALID-ORDER-582 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 L_3 R_L s^2 \left(g_m r_o + 1\right)}{C_1 C_3 L_1 L_3 R_L r_o s^4 + C_1 L_1 L_3 R_L s^3 + C_1 L_1 L_3 r_o s^3 + C_1 L_1 R_L r_o s^2 + C_3 L_1 L_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_L s^3 + C_3 L_3 R_L r_o s^2 + L_1 L_3 g_m r_o s^2 + L_1 L_3 s^2 + L_1 R_L g_m r_o s + L_1 R_L s + L}$$

10.583 INVALID-ORDER-583 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 L_3 s^2 \left(g_m r_o + 1\right)}{C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_L L_1 L_3 r_o s^4 + C_1 L_1 L_3 s^3 + C_1 L_1 r_o s^2 + C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 + C_3 L_3 r_o s^2 + C_L L_1 L_3 g_m r_o s^3 + C_L L_1 L_3 s^3 + C_L L_3 r_o s^2 + L_1 g_m r_o s + L_1 s + L_3 s +}$$

10.584 INVALID-ORDER-584 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 L_3 R_L s^2 \left(g_m r_o + 1\right)}{C_1 C_3 L_1 L_3 R_L r_o s^4 + C_1 C_L L_1 L_3 R_L r_o s^4 + C_1 L_1 L_3 R_L s^3 + C_1 L_1 L_3 r_o s^3 + C_1 L_1 R_L r_o s^2 + C_3 L_1 L_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_L s^3 + C_3 L_3 R_L r_o s^2 + C_L L_1 L_3 R_L g_m r_o s^3 + C_L L_1 L_3$$

10.585 INVALID-ORDER-585 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 L_3 s^2 (}{C_1 C_3 C_L L_1 L_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_L L_1 L_3 R_L s^4 + C_1 C_L L_1 L_3 r_o s^4 + C_1 C_L L_1 R_L r_o s^3 + C_1 L_1 L_3 s^3 + C_1 L_1 r_o s^2 + C_3 C_L L_1 L_3 R_L g_m r_o s^4 + C_3 C_L L_1 L_3 R_L s^4 + C_3 C_L$$

10.586 INVALID-ORDER-586 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 L_3 s^2 (g}{C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_L L_1 L_3 L_L s^5 + C_1 C_L L_1 L_3 r_o s^4 + C_1 C_L L_1 L_L r_o s^4 + C_1 L_1 L_3 s^3 + C_1 L_1 r_o s^2 + C_3 C_L L_1 L_3 L_L g_m r_o s^5 + C_3 C_L L_1 L_3 L_L s^5 + C_3 C_L$$

10.587 INVALID-ORDER-587 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_3 L_L s^2 \left(g_m r_o + 1\right)}{C_1 C_3 L_1 L_3 L_L r_o s^4 + C_1 C_L L_1 L_3 L_L r_o s^4 + C_1 L_1 L_3 L_L s^3 + C_1 L_1 L_3 r_o s^2 + C_1 L_1 L_L r_o s^2 + C_3 L_1 L_3 L_L g_m r_o s^3 + C_3 L_1 L_3 L_L s^3 + C_3 L_3 L_L r_o s^2 + C_L L_1 L_3 L_L g_m r_o s^3 + C_L L_1 L_3 L$$

10.588 INVALID-ORDER-588 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_1 L_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_L L_1 L_3 L_L s^5 + C_1 C_L L_1 L_3 R_L s^4 + C_1 C_L L_1 L_3 r_o s^4 + C_1 C_L L_1 L_L r_o s^4 + C_1 C_L L_1 R_L r_o s^3 + C_1 L_1 L_3 s^3 +$$

10.589 INVALID-ORDER-589 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_3 L_L R_L r_o s^4 + C_1 C_L L_1 L_3 L_L R_L r_o s^4 + C_1 L_1 L_3 L_L R_L s^3 + C_1 L_1 L_3 L_L r_o s^3 + C_1 L_1 L_3 R_L r_o s^2 + C_1 L_1 L_L R_L r_o s^2 + C_3 L_1 L_3 L_L R_L g_m r_o s^3 + C_3 L_1 L_3 L_L R_L s^3 + C_3 L_3$$

10.590 INVALID-ORDER-590 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_L r_o s^6 + C_1 C_3 L_1 L_3 L_L r_o s^5 + C_1 C_3 L_1 L_3 R_L r_o s^4 + C_1 C_L L_1 L_3 L_L R_L s^5 + C_1 C_L L_1 L_3 L_L r_o s^5 + C_1 C_L L_1 L_L R_L r_o s^4 + C_1 L_1 L_3 L_L s^4 + C_1 L_1 L_3 R_L s^3 + C_1 L_1 L}$$

10.591 INVALID-ORDER-591 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_L r_o s^6 + C_1 C_3 L_1 L_3 R_L r_o s^4 + C_1 C_L L_1 L_3 L_L R_L s^5 + C_1 C_L L_1 L_3 L_L r_o s^5 + C_1 C_L L_1 L_3 R_L r_o s^4 + C_1 C_L L_1 L_L R_L r_o s^4 + C_1 L_1 L_3 R_L s^3 + C_1 L_1 L_3 r_o s^3 + C_1 L_1 R}$$

10.592 INVALID-ORDER-592 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_L s\left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + C_3 R_3 s + 1\right)}{C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_3 L_1 R_3 R_L s^3 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_3 L_1 R_L r_o s^3 + C_1 L_1 R_L s^2 + C_1 L_1 r_o s^2 + C_3 L_1 L_3 g_m r_o s^3 + C_3 L_1 L_3 s^3 + C_3 L_1 R_3 g_m r_o s^2 + C_3 L_1}$$

10.593 INVALID-ORDER-593 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(g_m r_o + 1\right)\left(C_3 L_3 s^2 + C_3 R_3 s +\right.}{C_1 C_3 C_L L_1 L_3 r_o s^5 + C_1 C_3 C_L L_1 R_3 r_o s^4 + C_1 C_3 L_1 L_3 s^4 + C_1 C_3 L_1 R_3 s^3 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 r_o s^3 + C_1 L_1 s^2 + C_3 C_L L_1 L_3 g_m r_o s^4 + C_3 C_L L_1 L_3 s^4 + C_3 C_L L_1 R_3 g_m r_o s^3 +}$$

10.594 INVALID-ORDER-594 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 R_L r_o s^5 + C_1 C_3 C_L L_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_3 L_1 R_3 R_L s^3 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_L L_1 R_L r_o s^3 + C_1 L_1 R_L s^2 +}$$

10.595 INVALID-ORDER-595 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_1L_3r_os^5 + C_1C_3C_LL_1R_3R_Ls^4 + C_1C_3C_LL_1R_3r_os^4 + C_1C_3C_LL_1R_Lr_os^4 + C_1C_3L_1L_3s^4 + C_1C_3L_1R_3s^3 + C_1C_3L_1r_os^3 + C_1C_LL_1R_Ls^3 + C$$

10.596 INVALID-ORDER-596 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_3r_os^5 + C_1C_3C_LL_1L_LR_3s^5 + C_1C_3C_LL_1L_Lr_os^5 + C_1C_3C_LL_1R_3r_os^4 + C_1C_3L_1L_3s^4 + C_1C_3L_1R_3s^3 + C_1C_3L_1r_os^3 + C_1C_LL_1L_Ls^4 + C_1$$

10.597 INVALID-ORDER-597 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_1L_LR_3r_os^5 + C_1C_3L_1L_3L_Ls^5 + C_1C_3L_1L_3r_os^4 + C_1C_3L_1L_LR_3s^4 + C_1C_3L_1L_Lr_os^4 + C_1C_3L_1R_3r_os^3 + C_1C_LL_1L_Lr_os^4 + C_1L_1L_Ls^3 + C$$

10.598 INVALID-ORDER-598 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_1L_3r_os^5 + C_1C_3C_LL_1L_LR_3s^5 + C_1C_3C_LL_1L_Lr_os^5 + C_1C_3C_LL_1R_3R_Ls^4 + C_1C_3C_LL_1R_3r_os^4 + C_1C_3C_LL_1R_Lr_os^4 +$$

10.599 INVALID-ORDER-599 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_Lr_os^6 + C_1C_3C_LL_1L_LR_3R_Lr_os^5 + C_1C_3L_1L_3L_LR_Ls^5 + C_1C_3L_1L_3L_Lr_os^5 + C_1C_3L_1L_3R_Lr_os^4 + C_1C_3L_1L_LR_3R_Ls^4 + C_1C_3L_1L_LR_3r_os^4 + C_1C_3L_1L_L$$

10.600 INVALID-ORDER-600 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_Ls^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_1L_LR_3R_Ls^5 + C_1C_3C_LL_1L_LR_3r_os^5 + C_1C_3C_LL_1L_LR_Lr_os^5 + C_1C_3L_1L_3L_Ls^5 + C_1C_3L_1L_3R_Ls^4 + C_1C_3L_1L_3r_{o}$$

10.601 INVALID-ORDER-601 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_Ls^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_1L_3R_Lr_os^5 + C_1C_3C_LL_1L_LR_3R_Ls^5 + C_1C_3C_LL_1L_LR_3r_os^5 + C_1C_3C_LL_1L_LR_Lr_os^5 + C_1C_3C_LL_1R_3R_Lr_os^4 + C$$

10.602 INVALID-ORDER-602 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1L_3R_3R_Ls^2\left(g_mr_o+1\right)}{C_1C_3L_1L_3R_3R_Lr_os^4 + C_1L_1L_3R_3R_Ls^3 + C_1L_1L_3R_3r_os^3 + C_1L_1L_3R_Lr_os^3 + C_1L_1R_3R_Lr_os^2 + C_3L_1L_3R_3R_Lg_mr_os^3 + C_3L_1L_3R_3R_Ls^3 + C_3L_3R_3R_Lr_os^2 + L_1L_3R_3g_mr_{o}$$

10.603 INVALID-ORDER-603 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1L_3R_3s^2\left(g_mr_o+1\right)}{C_1C_3L_1L_3R_3r_os^4 + C_1C_LL_1L_3R_3r_os^4 + C_1L_1L_3R_3s^3 + C_1L_1L_3r_os^3 + C_1L_1R_3r_os^2 + C_3L_1L_3R_3g_mr_os^3 + C_3L_1L_3R_3s^3 + C_3L_3R_3r_os^2 + C_LL_1L_3R_3g_mr_os^3 + C_LL_1L_3R_3$$

10.604 INVALID-ORDER-604 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_3L_1L_3R_3R_Lr_os^4 + C_1C_LL_1L_3R_3R_Lr_os^4 + C_1L_1L_3R_3R_Ls^3 + C_1L_1L_3R_3r_os^3 + C_1L_1L_3R_Lr_os^3 + C_1L_1R_3R_Lr_os^2 + C_3L_1L_3R_3R_Lg_mr_os^3 + C_3L_1L_3R_3R_Ls^3 + C_3L_3R_{3}$$

10.605 INVALID-ORDER-605 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_3 r_o s^4 + C_1 C_L L_1 L_3 R_3 R_L s^4 + C_1 C_L L_1 L_3 R_3 r_o s^4 + C_1 C_L L_1 L_3 R_L r_o s^4 + C_1 C_L L_1 R_3 R_L r_o s^3 + C_1 L_1 L_3 R_3 s^3 + C_1 L_1 L_3 r_o s^3 + C_1 L_1 R_3}{}$$

10.606 INVALID-ORDER-606 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_3 r_o s^6 + C_1 C_3 L_1 L_3 R_3 r_o s^4 + C_1 C_L L_1 L_3 L_L R_3 s^5 + C_1 C_L L_1 L_3 L_L r_o s^5 + C_1 C_L L_1 L_3 R_3 r_o s^4 + C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 L_1 L_3 R_3 s^3 + C_1 L_1 L_3 r_o s^3 + C_1 L_1 R_3}{}$$

10.607 INVALID-ORDER-607 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_L R_3 r_o s^4 + C_1 C_L L_1 L_3 L_L R_3 r_o s^4 + C_1 L_1 L_3 L_L R_3 s^3 + C_1 L_1 L_3 L_L r_o s^3 + C_1 L_1 L_3 R_3 r_o s^2 + C_1 L_1 L_L R_3 r_o s^2 + C_3 L_1 L_3 L_L R_3 g_m r_o s^3 + C_3 L_1 L_3 L_L R_3 s^3 + C_3 L_3 L_L}{}$$

10.608 INVALID-ORDER-608 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_3 r_o s^6 + C_1 C_3 C_L L_1 L_3 R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_3 r_o s^4 + C_1 C_L L_1 L_3 L_L R_3 s^5 + C_1 C_L L_1 L_3 L_L r_o s^5 + C_1 C_L L_1 L_3 R_3 R_L s^4 + C_1 C_L L_1 L_3 R_3 r_o s^4 + C_1 C_L L_1 L_3}{}$$

10.609 INVALID-ORDER-609 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_L R_3 R_L r_o s^4 + C_1 C_L L_1 L_3 L_L R_3 R_L r_o s^4 + C_1 L_1 L_3 L_L R_3 R_L s^3 + C_1 L_1 L_3 L_L R_3 r_o s^3 + C_1 L_1 L_3 L_L R_L r_o s^3 + C_1 L_1 L_3 R_3 R_L r_o s^2 + C_1 L_1 L_L R_3 R_L r_o s^2 + C_3 L_1 L_3 L_L}{}$$

10.610 INVALID-ORDER-610 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}+R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3R_Lr_os^6 + C_1C_3L_1L_3L_LR_3r_os^5 + C_1C_3L_1L_3R_3R_Lr_os^4 + C_1C_LL_1L_3L_LR_3R_Ls^5 + C_1C_LL_1L_3L_LR_3r_os^5 + C_1C_LL_1L_3L_LR_Lr_os^5 + C_1C_LL_1L_LR_3R_Lr_os^4}$$

10.611 INVALID-ORDER-611 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3R_Lr_os^6 + C_1C_3L_1L_3R_3R_Lr_os^4 + C_1C_LL_1L_3L_LR_3R_Ls^5 + C_1C_LL_1L_3L_LR_3r_os^5 + C_1C_LL_1L_3L_LR_Lr_os^5 + C_1C_LL_1L_3R_3R_Lr_os^4 + C_1C_LL_1L_LR_3R_Lr_os^4}$$

10.612 INVALID-ORDER-612 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1}+R_3,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1R_L}{C_1C_3L_1L_3R_3R_Ls^4 + C_1C_3L_1L_3R_3r_os^4 + C_1C_3L_1L_3R_Lr_os^4 + C_1L_1L_3R_Ls^3 + C_1L_1L_3r_os^3 + C_1L_1R_3R_Ls^2 + C_1L_1R_3r_os^2 + C_1L_1R_Lr_os^2 + C_3L_1L_3R_3g_mr_os^3 + C_3L_1L_3R}$$

10.613 INVALID-ORDER-613 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1}+R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1s\,(}{C_1C_3C_LL_1L_3R_3r_os^5 + C_1C_3L_1L_3R_3s^4 + C_1C_3L_1L_3r_os^4 + C_1C_LL_1L_3r_os^4 + C_1C_LL_1R_3r_os^3 + C_1L_1L_3s^3 + C_1L_1R_3s^2 + C_1L_1r_os^2 + C_3C_LL_1L_3R_3g_mr_os^4 + C_3C_LL_1L_3R_}$$

10.614 INVALID-ORDER-614 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1}+R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_3R_Lr_os^5 + C_1C_3L_1L_3R_3R_Ls^4 + C_1C_3L_1L_3R_3r_os^4 + C_1C_3L_1L_3R_Lr_os^4 + C_1C_LL_1L_3R_Lr_os^4 + C_1C_LL_1R_3R_Lr_os^3 + C_1L_1L_3R_Ls^3 + C_1L_1L_3r_os^3 + C_1L_1R_3}$$

10.615 INVALID-ORDER-615 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_3R_Ls^5 + C_1C_3C_LL_1L_3R_3r_os^5 + C_1C_3C_LL_1L_3R_Lr_os^5 + C_1C_3L_1L_3R_3s^4 + C_1C_3L_1L_3r_os^4 + C_1C_LL_1L_3R_Ls^4 + C_1C_LL_1L_3r_os^4 + C_1C_LL_1R_3R_Ls^3 + C_1C_L$$

10.616 INVALID-ORDER-616 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3s^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_1L_3R_3r_os^5 + C_1C_3L_1L_3R_3s^4 + C_1C_3L_1L_3r_os^4 + C_1C_LL_1L_3L_Ls^5 + C_1C_LL_1L_3r_os^4 + C_1C_LL_1L_LR_3s^4 + C_1C_LL$$

10.617 INVALID-ORDER-617 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3r_os^6 + C_1C_3L_1L_3L_LR_3s^5 + C_1C_3L_1L_3L_Lr_os^5 + C_1C_3L_1L_3R_3r_os^4 + C_1C_LL_1L_3L_Lr_os^5 + C_1C_LL_1L_LR_3r_os^4 + C_1L_1L_3L_Ls^4 + C_1L_1L_3r_os^3 + C_1L_1L_L$$

10.618 INVALID-ORDER-618 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3s^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_1L_3R_3R_Ls^5 + C_1C_3C_LL_1L_3R_3r_os^5 + C_1C_3C_LL_1L_3R_Lr_os^5 + C_1C_3L_1L_3R_3s^4 + C_1C_3L_1L_3r_os^4 + C_1C_LL_1L_3L_Ls$$

10.619 INVALID-ORDER-619 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3R_Lr_os^6 + C_1C_3L_1L_3L_LR_3R_Ls^5 + C_1C_3L_1L_3L_LR_3r_os^5 + C_1C_3L_1L_3L_LR_Lr_os^5 + C_1C_3L_1L_3R_3R_Lr_os^4 + C_1C_LL_1L_3L_LR_Lr_os^5 + C_1C_LL_1L_LR_3R_Lr_os^4$$

10.620 INVALID-ORDER-620 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3R_Ls^6 + C_1C_3C_LL_1L_3L_LR_3r_os^6 + C_1C_3C_LL_1L_3L_LR_Lr_os^6 + C_1C_3L_1L_3L_LR_3s^5 + C_1C_3L_1L_3L_Lr_os^5 + C_1C_3L_1L_3R_3R_Ls^4 + C_1C_3L_1L_3R_3r_os^4 + C_1C_3$$

10.621 INVALID-ORDER-621 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3R_Ls^6 + C_1C_3C_LL_1L_3L_LR_3r_os^6 + C_1C_3C_LL_1L_3L_LR_Lr_os^6 + C_1C_3C_LL_1L_3R_3R_Lr_os^5 + C_1C_3L_1L_3R_3R_Ls^4 + C_1C_3L_1L_3R_3r_os^4 + C_1C_3L_1L_3R_Lr_os^4 + C$$

10.622 INVALID-ORDER-622 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L}{C_1C_3L_1L_3R_3R_Ls^4 + C_1C_3L_1L_3R_3r_os^4 + C_1C_3L_1L_3R_Lr_os^4 + C_1C_3L_1R_3R_Lr_os^3 + C_1L_1R_3R_Ls^2 + C_1L_1R_3r_os^2 + C_1L_1R_Lr_os^2 + C_3L_1L_3R_3g_mr_os^3 + C_3L_1L_3R_3s^3 + C_3L}$$

10.623 INVALID-ORDER-623 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1R_3s\,(g_mr}{C_1C_3C_LL_1L_3R_3r_os^5 + C_1C_3L_1L_3R_3s^4 + C_1C_3L_1L_3r_os^4 + C_1C_3L_1R_3r_os^3 + C_1C_LL_1R_3r_os^3 + C_1L_1R_3s^2 + C_1L_1r_os^2 + C_3C_LL_1L_3R_3g_mr_os^4 + C_3C_LL_1L_3R_3s^4 + C_3C_LL$$

10.624 INVALID-ORDER-624 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_3R_Lr_os^5 + C_1C_3L_1L_3R_3R_Ls^4 + C_1C_3L_1L_3R_3r_os^4 + C_1C_3L_1L_3R_Lr_os^4 + C_1C_3L_1R_3R_Lr_os^3 + C_1C_LL_1R_3R_Lr_os^3 + C_1L_1R_3R_Ls^2 + C_1L_1R_3r_os^2 + C_1L_1R_$$

10.625 INVALID-ORDER-625 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L+\frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_3 r_o s^5 + C_1 C_3 C_L L_1 L_3 R_L r_o s^5 + C_1 C_3 C_L L_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_L L_1 R_3 R_L s^3 + C}{}$$

10.626 INVALID-ORDER-626 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s+\frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_1 L_3 R_3 r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_L L_1 L_L R_3 s^4 + C_1}{}$$

10.627 INVALID-ORDER-627 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_3 r_o s^6 + C_1 C_3 L_1 L_3 L_L R_3 s^5 + C_1 C_3 L_1 L_3 L_L r_o s^5 + C_1 C_3 L_1 L_3 R_3 r_o s^4 + C_1 C_3 L_1 L_L R_3 r_o s^4 + C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 L_1 L_L R_3 s^3 + C_1 L_1 L_L r_o s^3 + C_1 L_1 R_3}{}$$

10.628 INVALID-ORDER-628 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s+R_L+\frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_3 r_o s^5 + C_1 C_3 C_L L_1 L_3 R_L r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 C_L L_1 R_3 R_L r_o s^4 + C_1}{}$$

10.629 INVALID-ORDER-629 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_3 R_L r_o s^6 + C_1 C_3 L_1 L_3 L_L R_3 R_L s^5 + C_1 C_3 L_1 L_3 L_L R_3 r_o s^5 + C_1 C_3 L_1 L_3 L_L R_L r_o s^5 + C_1 C_3 L_1 L_3 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_L R_3 R_L r_o s^4 + C_1 C_L L_1 L_L R_3 R_L r_o s^4}{}$$

10.630 INVALID-ORDER-630 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}+R_L \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3R_Ls^6 + C_1C_3C_LL_1L_3L_LR_3r_os^6 + C_1C_3C_LL_1L_3L_LR_Lr_os^6 + C_1C_3C_LL_1L_LR_3R_Lr_os^5 + C_1C_3L_1L_3L_LR_3s^5 + C_1C_3L_1L_3L_Lr_os^5 + C_1C_3L_1L_3R_3R_Ls^4 +}$$

10.631 INVALID-ORDER-631 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3R_Ls^6 + C_1C_3C_LL_1L_3L_LR_3r_os^6 + C_1C_3C_LL_1L_3L_LR_Lr_os^6 + C_1C_3C_LL_1L_3R_3R_Lr_os^5 + C_1C_3C_LL_1L_LR_3R_Lr_os^5 + C_1C_3L_1L_3R_3R_Ls^4 + C_1C_3L_1L_3R_3r_}$$

10.632 INVALID-ORDER-632 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_3\left(g_m r_o+1\right)\left(C_1L_1s^2+C_1R_1s+1\right)}{C_1C_LL_1R_3g_mr_os^3 + C_1C_LL_1R_3s^3 + C_1C_LR_1R_3g_mr_os^2 + C_1C_LR_1R_3s^2 + C_1C_LR_3r_os^2 + C_1L_1g_mr_os^2 + C_1L_1s^2 + C_1R_1g_mr_os + C_1R_1s + C_1R_3s + C_1r_os + C_LR_3g_mr_os +}$$

10.633 INVALID-ORDER-633 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1} \right)$

$$H(s) = \frac{R_3R_L\left(g_mr_o+1\right)\left(C_1L_1s^2+\right.}{C_1C_LL_1R_3R_Lg_mr_os^3 + C_1C_LL_1R_3R_Ls^3 + C_1C_LR_1R_3R_Lg_mr_os^2 + C_1C_LR_1R_3R_Ls^2 + C_1C_LR_3R_Lr_os^2 + C_1L_1R_3g_mr_os^2 + C_1L_1R_3s^2 + C_1L_1R_Lg_mr_os^2 + C_1L_1R_Ls^2 + C}$$

10.634 INVALID-ORDER-634 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_3\left(g_mr_o+1\right)\left(C_LR_Ls+1\right)\left(C_1L_1\right.}{C_1C_LL_1R_3g_mr_os^3 + C_1C_LL_1R_3s^3 + C_1C_LL_1R_Lg_mr_os^3 + C_1C_LL_1R_Ls^3 + C_1C_LR_1R_3g_mr_os^2 + C_1C_LR_1R_3s^2 + C_1C_LR_1R_Lg_mr_os^2 + C_1C_LR_1R_Ls^2 + C_1C_LR_3R_Ls^2 + C_1C}$$

10.635 INVALID-ORDER-635 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 \left(g_m r_o + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L}{C_1 C_L L_1 L_L g_m r_o s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_3 s^3 + C_1 C_L L_L R_1 g_m r_o s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_3 s^3 + C_1 C_L L_L r_o s^3 + C_1 C_L R_1 R_3 g_m r_o s^2 + C_1 C}$$

10.636 INVALID-ORDER-636 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L R_3 s \left(g_m r_o + 1\right) \left(C_1 L_1 s}{C_1 C_L L_1 L_L R_3 g_m r_o s^4 + C_1 C_L L_1 L_L R_3 s^4 + C_1 C_L L_L R_1 R_3 g_m r_o s^3 + C_1 C_L L_L R_1 R_3 s^3 + C_1 C_L L_L R_3 r_o s^3 + C_1 L_1 L_L g_m r_o s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_3 g_m r_o s^2 + C_1 L_1 R_3 s^2 + C_1}$$

10.637 INVALID-ORDER-637 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L g_m r_o s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_3 s^3 + C_1 C_L L_1 R_L g_m r_o s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L L_L R_1 g_m r_o s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_3 s^3 + C_1 C}$$

10.638 INVALID-ORDER-638 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_3 R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_3 R_L s^4 + C_1 C_L L_L R_1 R_3 R_L g_m r_o s^3 + C_1 C_L L_L R_1 R_3 R_L s^3 + C_1 C_L L_L R_3 R_L r_o s^3 + C_1 L_1 L_L R_3 g_m r_o s^3 + C_1 L_1 L_L R_3 s^3 + C_1 L_1 L_L R_L g_}$$

10.639 INVALID-ORDER-639 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_3 g_m r_o s^4 + C_1 C_L L_1 L_L R_3 s^4 + C_1 C_L L_1 L_L R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_L R_1 R_3 g_m r_o s^3 + C_1 C_L L_L R_1 R_3 s^3 + C_1 C_L L_L R_1 R_L g_m r_o s^3 + C_1 C_L L_L R_1 R_L s}$$

10.640 INVALID-ORDER-640 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_3 g_m r_o s^4 + C_1 C_L L_1 L_L R_3 s^4 + C_1 C_L L_1 L_L R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_1 R_3 R_L g_m r_o s^3 + C_1 C_L L_1 R_3 R_L s^3 + C_1 C_L L_L R_1 R_3 g_m r_o s^3 + C_1 C_L L_L R_1 R_3 s^3}$$

10.641 INVALID-ORDER-641 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(g_m r_o + 1\right)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{C_1 C_3 L_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_L s^3 + C_1 C_3 R_1 R_L g_m r_o s^2 + C_1 C_3 R_1 R_L s^2 + C_1 C_3 R_L r_o s^2 + C_1 L_1 g_m r_o s^2 + C_1 L_1 s^2 + C_1 R_1 g_m r_o s + C_1 R_1 s + C_1 R_L s + C_1 r_o s + C_3 R_L g_m r_o s +}$$

10.642 INVALID-ORDER-642 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_m r_o + 1\right)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{s\left(C_1 C_3 L_1 g_m r_o s^2 + C_1 C_3 L_1 s^2 + C_1 C_3 R_1 g_m r_o s + C_1 C_3 R_1 s + C_1 C_3 r_o s + C_1 C_L L_1 g_m r_o s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_1 g_m r_o s + C_1 C_L R_1 s + C_1 C_L r_o s + C_1 + C_3 g_m r_o + C_3 + C_}$$

10.643 INVALID-ORDER-643 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_L\left(g_m r_o + 1\right)\left(C_1 L_1 s^2 + C_1 R_1 s +\right.}{C_1 C_3 L_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_L s^3 + C_1 C_3 R_1 R_L g_m r_o s^2 + C_1 C_3 R_1 R_L s^2 + C_1 C_3 R_L r_o s^2 + C_1 C_L L_1 R_L g_m r_o s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L R_1 R_L g_m r_o s^2 + C_1 C_L R_1 R_L s^2 + C_1 C}$$

10.644 INVALID-ORDER-644 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_m r_o + 1\right)\left(C_L R_L s + 1\right)\left(C_1\right.}{s\left(C_1 C_3 C_L L_1 R_L g_m r_o s^3 + C_1 C_3 C_L L_1 R_L s^3 + C_1 C_3 C_L R_1 R_L g_m r_o s^2 + C_1 C_3 C_L R_1 R_L s^2 + C_1 C_3 C_L R_L r_o s^2 + C_1 C_3 L_1 g_m r_o s^2 + C_1 C_3 L_1 s^2 + C_1 C_3 R_1 g_m r_o s + C_1 C_3 R_1 s + C_1\right.}$$

10.645 INVALID-ORDER-645 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(g_m r_o + 1)\left(C_L L_L s^2 + 1\right)\left(C}{s\left(C_1 C_3 C_L L_1 L_L g_m r_o s^4 + C_1 C_3 C_L L_1 L_L s^4 + C_1 C_3 C_L L_L R_1 g_m r_o s^3 + C_1 C_3 C_L L_L R_1 s^3 + C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 L_1 g_m r_o s^2 + C_1 C_3 L_1 s^2 + C_1 C_3 R_1 g_m r_o s + C_1 C_3 R_1 s + C_1 C\right.}$$

10.646 INVALID-ORDER-646 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s\left(g_m r_o + 1\right)\left(C_1 L_1 s^2 + C_1 R_1 s +\right.}{C_1 C_3 L_1 L_L g_m r_o s^4 + C_1 C_3 L_1 L_L s^4 + C_1 C_3 L_L R_1 g_m r_o s^3 + C_1 C_3 L_L R_1 s^3 + C_1 C_3 L_L r_o s^3 + C_1 C_L L_1 L_L g_m r_o s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_L R_1 g_m r_o s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L$$

10.647 INVALID-ORDER-647 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1 C_3 C_L L_1 L_L g_m r_o s^4 + C_1 C_3 C_L L_1 L_L s^4 + C_1 C_3 C_L L_1 R_L g_m r_o s^3 + C_1 C_3 C_L L_1 R_L s^3 + C_1 C_3 C_L L_L R_1 g_m r_o s^3 + C_1 C_3 C_L L_L R_1 s^3 + C_1 C_3 C_L L_L r_o s^3 + C_1 C_3 C_L R_1 R_L g_m r_o s\right.}$$

10.648 INVALID-ORDER-648 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_L R_L g_m r_o s^4 + C_1 C_3 L_1 L_L R_L s^4 + C_1 C_3 L_L R_1 R_L g_m r_o s^3 + C_1 C_3 L_L R_1 R_L s^3 + C_1 C_3 L_L R_L r_o s^3 + C_1 C_L L_1 L_L R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_L R_1 R_L g_m r_o s^3$$

10.649 INVALID-ORDER-649 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_L s^5 + C_1 C_3 C_L L_L R_1 R_L g_m r_o s^4 + C_1 C_3 C_L L_L R_1 R_L s^4 + C_1 C_3 C_L L_L R_L r_o s^4 + C_1 C_3 L_1 L_L g_m r_o s^4 + C_1 C_3 L_1 L_L s^4 + C_1 C_3 L_1 R_L g_m$$

10.650 INVALID-ORDER-650 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_Ls^5 + C_1C_3C_LL_LR_1R_Lg_mr_os^4 + C_1C_3C_LL_LR_1R_Ls^4 + C_1C_3C_LL_LR_Lr_os^4 + C_1C_3L_1R_Lg_mr_os^3 + C_1C_3L_1R_Ls^3 + C_1C_3R_1R_Lg_m}$$

10.651 INVALID-ORDER-651 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_3R_L\left(g_mr_o+1\right)\left(C_1L_1s^2+C\right.}{C_1C_3L_1R_3R_Lg_mr_os^3 + C_1C_3L_1R_3R_Ls^3 + C_1C_3R_1R_3R_Lg_mr_os^2 + C_1C_3R_1R_3R_Ls^2 + C_1C_3R_3R_Lr_os^2 + C_1L_1R_3g_mr_os^2 + C_1L_1R_3s^2 + C_1L_1R_Lg_mr_os^2 + C_1L_1R_Ls^2 + C_1R}$$

10.652 INVALID-ORDER-652 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3\left(g_mr_o+1\right)\left(C_1L_1s^2+C_1R_1s+1\right)}{C_1C_3L_1R_3g_mr_os^3 + C_1C_3L_1R_3s^3 + C_1C_3R_1R_3g_mr_os^2 + C_1C_3R_1R_3s^2 + C_1C_3R_3r_os^2 + C_1C_LL_1R_3g_mr_os^3 + C_1C_LL_1R_3s^3 + C_1C_LR_1R_3g_mr_os^2 + C_1C_LR_1R_3s^2 + C_1C_LR}$$

10.653 INVALID-ORDER-653 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_3L_1R_3R_Lg_mr_os^3 + C_1C_3L_1R_3R_Ls^3 + C_1C_3R_1R_3R_Lg_mr_os^2 + C_1C_3R_1R_3R_Ls^2 + C_1C_3R_3R_Lr_os^2 + C_1C_LL_1R_3R_Lg_mr_os^3 + C_1C_LL_1R_3R_Ls^3 + C_1C_LR_1R_3R_Lg_mr_os^2 +}$$

10.654 INVALID-ORDER-654 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_1R_3R_Ls^4 + C_1C_3C_LR_1R_3R_Lg_mr_os^3 + C_1C_3C_LR_1R_3R_Ls^3 + C_1C_3C_LR_3R_Lr_os^3 + C_1C_3L_1R_3g_mr_os^3 + C_1C_3L_1R_3s^3 + C_1C_3R_1R_3g_mr}$$

10.655 INVALID-ORDER-655 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_3g_mr_os^5 + C_1C_3C_LL_1L_LR_3s^5 + C_1C_3C_LL_LR_1R_3g_mr_os^4 + C_1C_3C_LL_LR_1R_3s^4 + C_1C_3C_LL_LR_3r_os^4 + C_1C_3L_1R_3g_mr_os^3 + C_1C_3L_1R_3s^3 + C_1C_3R_1R_3g_mr_o}$$

10.656 INVALID-ORDER-656 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_3L_1L_LR_3g_mr_os^4 + C_1C_3L_1L_LR_3s^4 + C_1C_3L_LR_1R_3g_mr_os^3 + C_1C_3L_LR_1R_3s^3 + C_1C_3L_LR_3r_os^3 + C_1C_LL_1L_LR_3g_mr_os^4 + C_1C_LL_1L_LR_3s^4 + C_1C_LL_LR_1R_3g_mr_os^3 +}$$

10.657 INVALID-ORDER-657 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_3g_mr_os^5 + C_1C_3C_LL_1L_LR_3s^5 + C_1C_3C_LL_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_1R_3R_Ls^4 + C_1C_3C_LL_LR_1R_3g_mr_os^4 + C_1C_3C_LL_LR_1R_3s^4 + C_1C_3C_LL_LR_3r_os^4 + C_1C}$$

10.658 INVALID-ORDER-658 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3L_1L_LR_3R_Lg_mr_os^4 + C_1C_3L_1L_LR_3R_Ls^4 + C_1C_3L_LR_1R_3R_Lg_mr_os^3 + C_1C_3L_LR_1R_3R_Ls^3 + C_1C_3L_LR_3R_Lr_os^3 + C_1C_LL_1L_LR_3R_Lg_mr_os^4 + C_1C_LL_1L_LR_3R_Ls^4 + C_1}$$

10.659 INVALID-ORDER-659 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_3R_Ls^5 + C_1C_3C_LL_LR_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_LR_1R_3R_Ls^4 + C_1C_3C_LL_LR_3R_Lr_os^4 + C_1C_3L_1L_LR_3g_mr_os^4 + C_1C_3L_1L_LR}$$

10.660 INVALID-ORDER-660 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_3R_Ls^5 + C_1C_3C_LL_LR_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_LR_1R_3R_Ls^4 + C_1C_3C_LL_LR_3R_Lr_os^4 + C_1C_3L_1R_3R_Lg_mr_os^3 + C_1C_3L_1R_3R$$

10.661 INVALID-ORDER-661 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(g_mr_o+1\right)\left(C_3R_3s+1\right)\left(C_1L_1s^2}{C_1C_3L_1R_3g_mr_os^3 + C_1C_3L_1R_3s^3 + C_1C_3L_1R_Lg_mr_os^3 + C_1C_3L_1R_Ls^3 + C_1C_3R_1R_3g_mr_os^2 + C_1C_3R_1R_3s^2 + C_1C_3R_1R_Lg_mr_os^2 + C_1C_3R_1R_Ls^2 + C_1C_3R_3R_Ls^2 + C_1C_3R}$$

10.662 INVALID-ORDER-662 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_mr_o+1\right)\left(C_3R_3s+1\right)\left(C_1L_1}{s\left(C_1C_3C_LL_1R_3g_mr_os^3 + C_1C_3C_LL_1R_3s^3 + C_1C_3C_LR_1R_3g_mr_os^2 + C_1C_3C_LR_1R_3s^2 + C_1C_3C_LR_3r_os^2 + C_1C_3L_1g_mr_os^2 + C_1C_3L_1s^2 + C_1C_3R_1g_mr_os + C_1C_3R_1s + C_1C_3\right.}$$

10.663 INVALID-ORDER-663 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_1R_3R_Ls^4 + C_1C_3C_LR_1R_3R_Lg_mr_os^3 + C_1C_3C_LR_1R_3R_Ls^3 + C_1C_3C_LR_3R_Lr_os^3 + C_1C_3L_1R_3g_mr_os^3 + C_1C_3L_1R_3s^3 + C_1C_3L_1R_Lg_mr$$

10.664 INVALID-ORDER-664 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1C_3C_LL_1R_3g_mr_os^3 + C_1C_3C_LL_1R_3s^3 + C_1C_3C_LL_1R_Lg_mr_os^3 + C_1C_3C_LL_1R_Ls^3 + C_1C_3C_LR_1R_3g_mr_os^2 + C_1C_3C_LR_1R_3s^2 + C_1C_3C_LR_1R_Lg_mr_os^2 + C_1C_3C_LR_1R_Ls\right.}$$

10.665 INVALID-ORDER-665 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1 C_3 C_L L_1 L_L g_m r_o s^4 + C_1 C_3 C_L L_1 L_L s^4 + C_1 C_3 C_L L_1 R_3 g_m r_o s^3 + C_1 C_3 C_L L_1 R_3 s^3 + C_1 C_3 C_L L_L R_1 g_m r_o s^3 + C_1 C_3 C_L L_L R_1 s^3 + C_1 C_3 C_L L_L R_3 s^3 + C_1 C_3 C_L L_L r_o s^3 + C_{1}\right.}$$

10.666 INVALID-ORDER-666 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 s^5 + C_1 C_3 C_L L_L R_1 R_3 g_m r_o s^4 + C_1 C_3 C_L L_L R_1 R_3 s^4 + C_1 C_3 C_L L_L R_3 r_o s^4 + C_1 C_3 L_1 L_L g_m r_o s^4 + C_1 C_3 L_1 L_L s^4 + C_1 C_3 L_1 R_3 g_m r_{o}}$$

10.667 INVALID-ORDER-667 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1 C_3 C_L L_1 L_L g_m r_o s^4 + C_1 C_3 C_L L_1 L_L s^4 + C_1 C_3 C_L L_1 R_3 g_m r_o s^3 + C_1 C_3 C_L L_1 R_3 s^3 + C_1 C_3 C_L L_1 R_L g_m r_o s^3 + C_1 C_3 C_L L_1 R_L s^3 + C_1 C_3 C_L L_L R_1 g_m r_o s^3 + C_1 C_3 C_L L_L R_1 s^{3}\right.}$$

10.668 INVALID-ORDER-668 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 R_L s^5 + C_1 C_3 C_L L_L R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_L R_1 R_3 R_L s^4 + C_1 C_3 C_L L_L R_3 R_L r_o s^4 + C_1 C_3 L_1 L_L R_3 g_m r_o s^4 + C_1 C_3 L_1 L_L R}$$

10.669 INVALID-ORDER-669 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 s^5 + C_1 C_3 C_L L_1 L_L R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_L s^5 + C_1 C_3 C_L L_L R_1 R_3 g_m r_o s^4 + C_1 C_3 C_L L_L R_1 R_3 s^4 + C_1 C_3 C_L L_L R_1 R_L g_m r_o s^{4}}$$

10.670 INVALID-ORDER-670 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_3g_mr_os^5 + C_1C_3C_LL_1L_LR_3s^5 + C_1C_3C_LL_1L_LR_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_Ls^5 + C_1C_3C_LL_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_1R_3R_Ls^4 + C_1C_3C_LL_LR_1R_3g_mr_os^4}$$

10.671 INVALID-ORDER-671 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(g_mr_o + 1\right)\left(C_3L_3s^2 + 1\right)\left(C_1L_1s}{C_1C_3L_1L_3g_mr_os^4 + C_1C_3L_1L_3s^4 + C_1C_3L_1R_Lg_mr_os^3 + C_1C_3L_1R_Ls^3 + C_1C_3L_3R_1g_mr_os^3 + C_1C_3L_3R_1s^3 + C_1C_3L_3R_Ls^3 + C_1C_3L_3r_os^3 + C_1C_3R_1R_Lg_mr_os^2 + C_1C_3R_1}$$

10.672 INVALID-ORDER-672 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(g_mr_o + 1\right)\left(C_3L_3s^2 + 1\right)\left(C_1}{s\left(C_1C_3C_LL_1L_3g_mr_os^4 + C_1C_3C_LL_1L_3s^4 + C_1C_3C_LL_3R_1g_mr_os^3 + C_1C_3C_LL_3R_1s^3 + C_1C_3C_LL_3r_os^3 + C_1C_3L_1g_mr_os^2 + C_1C_3L_1s^2 + C_1C_3L_3s^2 + C_1C_3R_1g_mr_os + C_1C_}$$

10.673 INVALID-ORDER-673 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_3R_1R_Lg_mr_os^4 + C_1C_3C_LL_3R_1R_Ls^4 + C_1C_3C_LL_3R_Lr_os^4 + C_1C_3L_1L_3g_mr_os^4 + C_1C_3L_1L_3s^4 + C_1C_3L_1R_Lg_mr_o}$$

10.674 INVALID-ORDER-674 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1C_3C_LL_1L_3g_mr_os^4 + C_1C_3C_LL_1L_3s^4 + C_1C_3C_LL_1R_Lg_mr_os^3 + C_1C_3C_LL_1R_Ls^3 + C_1C_3C_LL_3R_1g_mr_os^3 + C_1C_3C_LL_3R_1s^3 + C_1C_3C_LL_3R_Ls^3 + C_1C_3C_LL_3r_os^3 + C_1C}$$

10.675 INVALID-ORDER-675 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1 C_3 C_L L_1 L_3 g_m r_o s^4 + C_1 C_3 C_L L_1 L_3 s^4 + C_1 C_3 C_L L_1 L_L g_m r_o s^4 + C_1 C_3 C_L L_1 L_L s^4 + C_1 C_3 C_L L_3 L_L s^4 + C_1 C_3 C_L L_3 R_1 g_m r_o s^3 + C_1 C_3 C_L L_3 R_1 s^3 + C_1 C_3 C_L L_3 r_o s^3 + C_1 C\right.}$$

10.676 INVALID-ORDER-676 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_3 L_L R_1 g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3 L_1 L_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 s^4 + C_1 C_3 L_1 L_L g_m r_o s}$$

10.677 INVALID-ORDER-677 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1 C_3 C_L L_1 L_3 g_m r_o s^4 + C_1 C_3 C_L L_1 L_3 s^4 + C_1 C_3 C_L L_1 L_L g_m r_o s^4 + C_1 C_3 C_L L_1 L_L s^4 + C_1 C_3 C_L L_1 R_L g_m r_o s^3 + C_1 C_3 C_L L_1 R_L s^3 + C_1 C_3 C_L L_3 L_L s^4 + C_1 C_3 C_L L_3 R_1 g_m r_o s^3\right.}$$

10.678 INVALID-ORDER-678 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L s^6 + C_1 C_3 C_L L_3 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_L s^5 + C_1 C_3 C_L L_3 L_L R_L r_o s^5 + C_1 C_3 L_1 L_3 L_L g_m r_o s^5 + C_1 C_3 L_1 L_3 L_L}$$

10.679 INVALID-ORDER-679 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_1 L_L R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_L s^5 + C_1 C_3 C_L L_3 L_L R_1 g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 s^5 + C_1 C_3 C_L L_3 L_L R_L s^5 + C_1$$

10.680 INVALID-ORDER-680 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_1L_LR_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_Ls^5 + C_1C_3C_LL_3L_LR_1g_mr_os^5 +}$$

10.681 INVALID-ORDER-681 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_3R_Ls\left(g_mr_o + 1\right)\left(C_1L_1s^2\right.}{C_1C_3L_1L_3R_Lg_mr_os^4 + C_1C_3L_1L_3R_Ls^4 + C_1C_3L_3R_1R_Lg_mr_os^3 + C_1C_3L_3R_1R_Ls^3 + C_1C_3L_3R_Lr_os^3 + C_1L_1L_3g_mr_os^3 + C_1L_1L_3s^3 + C_1L_1R_Lg_mr_os^2 + C_1L_1R_Ls^2 + C_1L_3}$$

10.682 INVALID-ORDER-682 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_3s\left(g_mr_o + 1\right)\left(C_1L_1s^2 + C_1R_1s + 1\right.}{C_1C_3L_1L_3g_mr_os^4 + C_1C_3L_1L_3s^4 + C_1C_3L_3R_1g_mr_os^3 + C_1C_3L_3R_1s^3 + C_1C_3L_3r_os^3 + C_1C_LL_1L_3g_mr_os^4 + C_1C_LL_1L_3s^4 + C_1C_LL_3R_1g_mr_os^3 + C_1C_LL_3R_1s^3 + C_1C_LL_3r}$$

10.683 INVALID-ORDER-683 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{}{C_1C_3L_1L_3R_Lg_mr_os^4 + C_1C_3L_1L_3R_Ls^4 + C_1C_3L_3R_1R_Lg_mr_os^3 + C_1C_3L_3R_1R_Ls^3 + C_1C_3L_3R_Lr_os^3 + C_1C_LL_1L_3R_Lg_mr_os^4 + C_1C_LL_1L_3R_Ls^4 + C_1C_LL_3R_1R_Lg_mr_os^3 +}$$

10.684 INVALID-ORDER-684 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_3R_1R_Lg_mr_os^4 + C_1C_3C_LL_3R_1R_Ls^4 + C_1C_3C_LL_3R_Lr_os^4 + C_1C_3L_1L_3g_mr_os^4 + C_1C_3L_1L_3s^4 + C_1C_3L_3R_1g_mr_o}$$

10.685 INVALID-ORDER-685 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_3L_LR_1g_mr_os^5 + C_1C_3C_LL_3L_LR_1s^5 + C_1C_3C_LL_3L_Lr_os^5 + C_1C_3L_1L_3g_mr_os^4 + C_1C_3L_1L_3s^4 + C_1C_3L_3R_1g_mr_os$$

10.686 INVALID-ORDER-686 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_3L_1L_3L_Lg_mr_os^4 + C_1C_3L_1L_3L_Ls^4 + C_1C_3L_3L_LR_1g_mr_os^3 + C_1C_3L_3L_LR_1s^3 + C_1C_3L_3L_Lr_os^3 + C_1C_LL_1L_3L_Lg_mr_os^4 + C_1C_LL_1L_3L_Ls^4 + C_1C_LL_3L_LR_1g_mr_os^3 + C$$

10.687 INVALID-ORDER-687 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_3L_LR_1g_mr_os^5 + C_1C_3C_LL_3L_LR_1s^5 + C_1C_3C_LL_3L_Lr_os^5 + C_1C$$

10.688 INVALID-ORDER-688 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3L_1L_3L_LR_Lg_mr_os^4 + C_1C_3L_1L_3L_LR_Ls^4 + C_1C_3L_3L_LR_1R_Lg_mr_os^3 + C_1C_3L_3L_LR_1R_Ls^3 + C_1C_3L_3L_LR_Lr_os^3 + C_1C_LL_1L_3L_LR_Lg_mr_os^4 + C_1C_LL_1L_3L_LR_Ls^4 + C_1C$$

10.689 INVALID-ORDER-689 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_Ls^6 + C_1C_3C_LL_3L_LR_1R_Lg_mr_os^5 + C_1C_3C_LL_3L_LR_1R_Ls^5 + C_1C_3C_LL_3L_LR_Lr_os^5 + C_1C_3L_1L_3L_Lg_mr_os^5 + C_1C_3L_1L_3L_L$$

10.690 INVALID-ORDER-690 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L s^6 + C_1 C_3 C_L L_3 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_L s^5 + C_1 C_3 C_L L_3 L_L R_L r_o s^5 + C_1 C_3 L_1 L_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_L}{}$$

10.691 INVALID-ORDER-691 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 s^4 + C_1 C_3 L_1 R_3 g_m r_o s^3 + C_1 C_3 L_1 R_3 s^3 + C_1 C_3 L_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_L s^3 + C_1 C_3 L_3 R_1 g_m r_o s^3 + C_1 C_3 L_3 R_1 s^3 + C_1 C_3 L_3 R_L s^3 + C_1 C_3 L_3}{}$$

10.692 INVALID-ORDER-692 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1 C_3 C_L L_1 L_3 g_m r_o s^4 + C_1 C_3 C_L L_1 L_3 s^4 + C_1 C_3 C_L L_1 R_3 g_m r_o s^3 + C_1 C_3 C_L L_1 R_3 s^3 + C_1 C_3 C_L L_3 R_1 g_m r_o s^3 + C_1 C_3 C_L L_3 R_1 s^3 + C_1 C_3 C_L L_3 r_o s^3 + C_1 C_3 C_L R_1 R_3 g_m r_o s^2 +\right.}$$

10.693 INVALID-ORDER-693 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_L s^5 + C_1 C_3 C_L L_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_1 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_1 R_L g_m r_o s^4 + C_1 C_3 C_L L_3 R_1 R_L s^4 + C_1 C_3 C_L L_3 R_L r_o s^4 + C_1 C}{}$$

10.694 INVALID-ORDER-694 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1 C_3 C_L L_1 L_3 g_m r_o s^4 + C_1 C_3 C_L L_1 L_3 s^4 + C_1 C_3 C_L L_1 R_3 g_m r_o s^3 + C_1 C_3 C_L L_1 R_3 s^3 + C_1 C_3 C_L L_1 R_L g_m r_o s^3 + C_1 C_3 C_L L_1 R_L s^3 + C_1 C_3 C_L L_3 R_1 g_m r_o s^3 + C_1 C_3 C_L L_3 R_1 s^3\right.}$$

10.695 INVALID-ORDER-695 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1 C_3 C_L L_1 L_3 g_m r_o s^4 + C_1 C_3 C_L L_1 L_3 s^4 + C_1 C_3 C_L L_1 L_L g_m r_o s^4 + C_1 C_3 C_L L_1 L_L s^4 + C_1 C_3 C_L L_1 R_3 g_m r_o s^3 + C_1 C_3 C_L L_1 R_3 s^3 + C_1 C_3 C_L L_3 L_L s^4 + C_1 C_3 C_L L_3 R_1 g_m r_o s^3 +\right.}$$

10.696 INVALID-ORDER-696 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_1 L_L R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 s^5 + C_1 C_3 C_L L_3 L_L R_1 g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 s^5 + C_1 C_3 C_L L_3 L_L r_o s^5 + C_1 C_3$$

10.697 INVALID-ORDER-697 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1 C_3 C_L L_1 L_3 g_m r_o s^4 + C_1 C_3 C_L L_1 L_3 s^4 + C_1 C_3 C_L L_1 L_L g_m r_o s^4 + C_1 C_3 C_L L_1 L_L s^4 + C_1 C_3 C_L L_1 R_3 g_m r_o s^3 + C_1 C_3 C_L L_1 R_3 s^3 + C_1 C_3 C_L L_1 R_L g_m r_o s^3 + C_1 C_3 C_L L_1 R_L s^3 \right.}$$

10.698 INVALID-ORDER-698 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L s^6 + C_1 C_3 C_L L_1 L_L R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 R_L s^5 + C_1 C_3 C_L L_3 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_L s^5 + C_1 C_3 C$$

10.699 INVALID-ORDER-699 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_1 L_L R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 s^5 + C_1 C_3 C_L L_1 L_L R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_L s^5 + C_1 C_3 C_L L_3 L_L R_1 g_m r_o s^5 +$$

10.700 INVALID-ORDER-700 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_1 L_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_3 s^5 + C_1 C_3 C_L L_1 L_L R_L g_m r_o s^5 +}{}$$

10.701 INVALID-ORDER-701 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 R_L s^4 + C_1 C_3 L_3 R_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_3 R_1 R_3 R_L s^3 + C_1 C_3 L_3 R_3 R_L r_o s^3 + C_1 L_1 L_3 R_3 g_m r_o s^3 + C_1 L_1 L_3 R_3 s^3 + C_1 L_1 L_3 R_L g_m r_o s}{}$$

10.702 INVALID-ORDER-702 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_3 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_3 R_1 R_3 s^3 + C_1 C_3 L_3 R_3 r_o s^3 + C_1 C_L L_1 L_3 R_3 g_m r_o s^4 + C_1 C_L L_1 L_3 R_3 s^4 + C_1 C_L L_3 R_1 R_3 g_m r_o s^3 + C_1}{}$$

10.703 INVALID-ORDER-703 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 R_L s^4 + C_1 C_3 L_3 R_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_3 R_1 R_3 R_L s^3 + C_1 C_3 L_3 R_3 R_L r_o s^3 + C_1 C_L L_1 L_3 R_3 R_L g_m r_o s^4 + C_1 C_L L_1 L_3 R_3 R_L s^4 + C_1 C}{}$$

10.704 INVALID-ORDER-704 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L L_3 R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_3 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 s^4}{}$$

10.705 INVALID-ORDER-705 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_3 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_3 L_L R_3 r_o s^5 + C_1 C_3 L_1 L_3 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 s^4}{}$$

10.706 INVALID-ORDER-706 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_L R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 L_L R_3 s^4 + C_1 C_3 L_3 L_L R_1 R_3 g_m r_o s^3 + C_1 C_3 L_3 L_L R_1 R_3 s^3 + C_1 C_3 L_3 L_L R_3 r_o s^3 + C_1 C_L L_1 L_3 L_L R_3 g_m r_o s^4 + C_1 C_L L_1 L_3 L_L R_3 s^4 + C_1 C_L}{}$$

10.707 INVALID-ORDER-707 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L L_3 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_3 s^5 + C_1 C_3 C_L}{}$$

10.708 INVALID-ORDER-708 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_L R_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 L_L R_3 R_L s^4 + C_1 C_3 L_3 L_L R_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_3 L_L R_1 R_3 R_L s^3 + C_1 C_3 L_3 L_L R_3 R_L r_o s^3 + C_1 C_L L_1 L_3 L_L R_3 R_L g_m r_o s^4 + C_1 C_L L_1}{}$$

10.709 INVALID-ORDER-709 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_3 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 R_L s^6 + C_1 C_3 C_L L_3 L_L R_1 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_3 L_L R_1 R_3 R_L s^5 + C_1 C_3 C_L L_3 L_L R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 L_L R_3 g_m r_o s^5}{}$$

10.710 INVALID-ORDER-710 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3R_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_3R_Ls^6 + C_1C_3C_LL_3L_LR_1R_3R_Lg_mr_os^5 + C_1C_3C_LL_3L_LR_1R_3R_Ls^5 + C_1C_3C_LL_3L_LR_3R_Lr_os^5 + C_1C_3L_1L_3R_3R_Lg_mr_os^4}$$

10.711 INVALID-ORDER-711 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{}{C_1C_3L_1L_3R_3g_mr_os^4 + C_1C_3L_1L_3R_3s^4 + C_1C_3L_1L_3R_Lg_mr_os^4 + C_1C_3L_1L_3R_Ls^4 + C_1C_3L_3R_1R_3g_mr_os^3 + C_1C_3L_3R_1R_3s^3 + C_1C_3L_3R_1R_Lg_mr_os^3 + C_1C_3L_3R_1R_Ls^3 + C}$$

10.712 INVALID-ORDER-712 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_3g_mr_os^5 + C_1C_3C_LL_1L_3R_3s^5 + C_1C_3C_LL_3R_1R_3g_mr_os^4 + C_1C_3C_LL_3R_1R_3s^4 + C_1C_3C_LL_3R_3r_os^4 + C_1C_3L_1L_3g_mr_os^4 + C_1C_3L_1L_3s^4 + C_1C_3L_3R_1g_mr_os^3}$$

10.713 INVALID-ORDER-713 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_3R_Ls^5 + C_1C_3C_LL_3R_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_3R_1R_3R_Ls^4 + C_1C_3C_LL_3R_3R_Lr_os^4 + C_1C_3L_1L_3R_3g_mr_os^4 + C_1C_3L_1L_3R_3s^}$$

10.714 INVALID-ORDER-714 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_3g_mr_os^5 + C_1C_3C_LL_1L_3R_3s^5 + C_1C_3C_LL_1L_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_3R_1R_3g_mr_os^4 + C_1C_3C_LL_3R_1R_3s^4 + C_1C_3C_LL_3R_1R_Lg_mr_os^4 +}$$

10.715 INVALID-ORDER-715 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_3R_3g_mr_os^5 + C_1C_3C_LL_1L_3R_3s^5 + C_1C_3C_LL_3L_LR_1g_mr_os^5 + C_1C_3C_LL_3L_LR_1s^5 + C_1C_3C_LL_3L_LR_3s^5 + C_1C_3$$

10.716 INVALID-ORDER-716 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_3s^6 + C_1C_3C_LL_3L_LR_1R_3g_mr_os^5 + C_1C_3C_LL_3L_LR_1R_3s^5 + C_1C_3C_LL_3L_LR_3r_os^5 + C_1C_3L_1L_3L_Lg_mr_os^5 + C_1C_3L_1L_3L_Ls^5$$

10.717 INVALID-ORDER-717 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_3R_3g_mr_os^5 + C_1C_3C_LL_1L_3R_3s^5 + C_1C_3C_LL_1L_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_3L_LR_1g_mr_os^5 +$$

10.718 INVALID-ORDER-718 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3R_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_3R_Ls^6 + C_1C_3C_LL_3L_LR_1R_3R_Lg_mr_os^5 + C_1C_3C_LL_3L_LR_1R_3R_Ls^5 + C_1C_3C_LL_3L_LR_3R_Lr_os^5 + C_1C_3L_1L_3L_LR_3g_mr_os^5$$

10.719 INVALID-ORDER-719 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_3s^6 + C_1C_3C_LL_1L_3L_LR_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_Ls^6 + C_1C_3C_LL_3L_LR_1R_3g_mr_os^5 + C_1C_3C_LL_3L_LR_1R_3s^5 + C_1C_3C_L$$

10.720 INVALID-ORDER-720 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L s^6 + C_1 C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L}{}$$

10.721 INVALID-ORDER-721 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3 \left(L_3 s + \frac{1}{C_3 s} \right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_1 L_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_1 R_3 R_L s^3 + C_1 C_3 L_3 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_3 R_1 R_3 s^3 + C}{}$$

10.722 INVALID-ORDER-722 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3 \left(L_3 s + \frac{1}{C_3 s} \right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 s^5 + C_1 C_3 C_L L_3 R_1 R_3 g_m r_o s^4 + C_1 C_3 C_L L_3 R_1 R_3 s^4 + C_1 C_3 C_L L_3 R_3 r_o s^4 + C_1 C_3 L_1 L_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 s^4 + C_1 C_3 L_1 R_3 g_m r_o s^3}{}$$

10.723 INVALID-ORDER-723 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3 \left(L_3 s + \frac{1}{C_3 s} \right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L L_3 R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_3 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_3 s^4}{}$$

10.724 INVALID-ORDER-724 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3 \left(L_3 s + \frac{1}{C_3 s} \right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_L s^5 + C_1 C_3 C_L L_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_1 R_3 R_L s^4 + C_1 C_3 C_L L_3 R_1 R_3 g_m r_o s^4 +}{}$$

10.725 INVALID-ORDER-725 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_3R_3g_mr_os^5 + C_1C_3C_LL_1L_3R_3s^5 + C_1C_3C_LL_1L_LR_3g_mr_os^5 + C_1C_3C_LL_1L_LR_3s^5 + C_1C_3C_LL_3L_LR_1g_mr_os^5 +}$$

10.726 INVALID-ORDER-726 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_3s^6 + C_1C_3C_LL_3L_LR_1R_3g_mr_os^5 + C_1C_3C_LL_3L_LR_1R_3s^5 + C_1C_3C_LL_3L_LR_3r_os^5 + C_1C_3L_1L_3L_Lg_mr_os^5 + C_1C_3L_1L_3L_Ls^5}$$

10.727 INVALID-ORDER-727 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_3R_3g_mr_os^5 + C_1C_3C_LL_1L_3R_3s^5 + C_1C_3C_LL_1L_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_1L_LR_3g_mr_os^5 +}$$

10.728 INVALID-ORDER-728 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3R_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_3R_Ls^6 + C_1C_3C_LL_3L_LR_1R_3R_Lg_mr_os^5 + C_1C_3C_LL_3L_LR_1R_3R_Ls^5 + C_1C_3C_LL_3L_LR_3R_Lr_os^5 + C_1C_3L_1L_3L_LR_3g_mr_os^5}$$

10.729 INVALID-ORDER-729 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_3g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_3s^6 + C_1C_3C_LL_1L_3L_LR_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_Ls^6 + C_1C_3C_LL_1L_LR_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_3R_Ls^5 + C_1C_3C_L}$$

10.730 INVALID-ORDER-730 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L s^6 + C_1 C_3 C_L L_1 L_3 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L}$$

10.731 INVALID-ORDER-731 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 R_3 s\left(g_m r_o + 1\right)}{C_1 C_L L_1 R_1 R_3 r_o s^3 + C_1 L_1 R_1 R_3 s^2 + C_1 L_1 R_1 r_o s^2 + C_L L_1 R_1 R_3 g_m r_o s^2 + C_L L_1 R_1 R_3 s^2 + C_L L_1 R_3 r_o s^2 + C_L R_1 R_3 r_o s + L_1 R_1 g_m r_o s + L_1 R_1 s + L_1 R_3 s + L_1 r_o s + R_1 R_3 + R}$$

10.732 INVALID-ORDER-732 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_1 R_3 R_L s\left(g_m r_o + 1\right)}{C_1 C_L L_1 R_1 R_3 R_L r_o s^3 + C_1 L_1 R_1 R_3 R_L s^2 + C_1 L_1 R_1 R_3 r_o s^2 + C_1 L_1 R_1 R_L r_o s^2 + C_L L_1 R_1 R_3 R_L g_m r_o s^2 + C_L L_1 R_1 R_3 R_L s^2 + C_L L_1 R_3 R_L r_o s^2 + C_L R_1 R_3 R_L r_o s + L_1 R_1 R_3 g_m}$$

10.733 INVALID-ORDER-733 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 R_3 s\left(g_m r_o + 1\right)\left(C_L R_L}{C_1 C_L L_1 R_1 R_3 R_L s^3 + C_1 C_L L_1 R_1 R_3 r_o s^3 + C_1 C_L L_1 R_1 R_L r_o s^3 + C_1 L_1 R_1 R_3 s^2 + C_1 L_1 R_1 r_o s^2 + C_L L_1 R_1 R_3 g_m r_o s^2 + C_L L_1 R_1 R_3 s^2 + C_L L_1 R_1 R_L g_m r_o s^2 + C_L L_1 R_1 R_L s^2 +}$$

10.734 INVALID-ORDER-734 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 R_3 s\left(g_m r_o + 1\right)\left(C_L L_L s\right.}{C_1 C_L L_1 L_L R_1 R_3 s^4 + C_1 C_L L_1 L_L R_1 r_o s^4 + C_1 C_L L_1 R_1 R_3 r_o s^3 + C_1 L_1 R_1 R_3 s^2 + C_1 L_1 R_1 r_o s^2 + C_L L_1 L_L R_1 g_m r_o s^3 + C_L L_1 L_L R_1 s^3 + C_L L_1 L_L R_3 s^3 + C_L L_1 L_L r_o s^3 + C_L L_1}$$

10.735 INVALID-ORDER-735 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L R_1 R_3 s^2 \left(g_m r_o + 1\right)}{C_1 C_L L_1 L_L R_1 R_3 r_o s^4 + C_1 L_1 L_L R_1 R_3 s^3 + C_1 L_1 L_L R_1 r_o s^3 + C_1 L_1 R_1 R_3 r_o s^2 + C_L L_1 L_L R_1 R_3 g_m r_o s^3 + C_L L_1 L_L R_1 R_3 s^3 + C_L L_1 L_L R_3 r_o s^3 + C_L L_L R_1 R_3 r_o s^2 + L_1 L_L R_1 g_m$$

10.736 INVALID-ORDER-736 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_1 R_3 s^4 + C_1 C_L L_1 L_L R_1 r_o s^4 + C_1 C_L L_1 R_1 R_3 R_L s^3 + C_1 C_L L_1 R_1 R_3 r_o s^3 + C_1 C_L L_1 R_1 R_L r_o s^3 + C_1 L_1 R_1 R_3 s^2 + C_1 L_1 R_1 r_o s^2 + C_L L_1 L_L R_1 g_m r_o s^3 + C_L L_1 L_L R_1$$

10.737 INVALID-ORDER-737 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_1 R_3 R_L r_o s^4 + C_1 L_1 L_L R_1 R_3 R_L s^3 + C_1 L_1 L_L R_1 R_3 r_o s^3 + C_1 L_1 L_L R_1 R_L r_o s^3 + C_1 L_1 R_1 R_3 R_L r_o s^2 + C_L L_1 L_L R_1 R_3 R_L g_m r_o s^3 + C_L L_1 L_L R_1 R_3 R_L s^3 + C_L L_1 L_L$$

10.738 INVALID-ORDER-738 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_1 R_3 R_L s^4 + C_1 C_L L_1 L_L R_1 R_3 r_o s^4 + C_1 C_L L_1 L_L R_1 R_L r_o s^4 + C_1 L_1 L_L R_1 R_3 s^3 + C_1 L_1 L_L R_1 r_o s^3 + C_1 L_1 R_1 R_3 R_L s^2 + C_1 L_1 R_1 R_3 r_o s^2 + C_1 L_1 R_1 R_L r_o s^2 + C_L L_1$$

10.739 INVALID-ORDER-739 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_1 R_3 R_L s^4 + C_1 C_L L_1 L_L R_1 R_3 r_o s^4 + C_1 C_L L_1 L_L R_1 R_L r_o s^4 + C_1 C_L L_1 R_1 R_3 R_L r_o s^3 + C_1 L_1 R_1 R_3 R_L s^2 + C_1 L_1 R_1 R_3 r_o s^2 + C_1 L_1 R_1 R_L r_o s^2 + C_L L_1 L_L R_1 R_3 g_m r$$

10.740 INVALID-ORDER-740 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{L_1 R_1 R_L s \left(g_m r_o + 1\right)}{C_1 C_3 L_1 R_1 R_L r_o s^3 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R_1 r_o s^2 + C_3 L_1 R_1 R_L g_m r_o s^2 + C_3 L_1 R_1 R_L s^2 + C_3 L_1 R_L r_o s^2 + C_3 R_1 R_L r_o s + L_1 R_1 g_m r_o s + L_1 R_1 s + L_1 R_L s + L_1 r_o s + R_1 R_L +$$

10.741 INVALID-ORDER-741 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 s \left(g_m r_o + 1\right)}{C_1 C_3 L_1 R_1 r_o s^3 + C_1 C_L L_1 R_1 r_o s^3 + C_1 L_1 R_1 s^2 + C_3 L_1 R_1 g_m r_o s^2 + C_3 L_1 R_1 s^2 + C_3 L_1 r_o s^2 + C_3 R_1 r_o s + C_L L_1 R_1 g_m r_o s^2 + C_L L_1 R_1 s^2 + C_L L_1 r_o s^2 + C_L R_1 r_o s + L_1 s + R_1$$

10.742 INVALID-ORDER-742 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_1 R_L s \left(g_m r_o + 1\right)}{C_1 C_3 L_1 R_1 R_L r_o s^3 + C_1 C_L L_1 R_1 R_L r_o s^3 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R_1 r_o s^2 + C_3 L_1 R_1 R_L g_m r_o s^2 + C_3 L_1 R_1 R_L s^2 + C_3 L_1 R_L r_o s^2 + C_3 R_1 R_L r_o s + C_L L_1 R_1 R_L g_m r_o s^2 + C_L L_1 R_1$$

10.743 INVALID-ORDER-743 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 s \left(g_m r_o + 1\right) \left(C_L R_L s\right.}{C_1 C_3 C_L L_1 R_1 R_L r_o s^4 + C_1 C_3 L_1 R_1 r_o s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 r_o s^3 + C_1 L_1 R_1 s^2 + C_3 C_L L_1 R_1 R_L g_m r_o s^3 + C_3 C_L L_1 R_1 R_L s^3 + C_3 C_L L_1 R_L r_o s^3 + C_3 C_L R_1 R_L r_o s^2}$$

10.744 INVALID-ORDER-744 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 s \left(g_m r_o + 1\right) \left(C_L L_L s^2\right.}{C_1 C_3 C_L L_1 L_L R_1 r_o s^5 + C_1 C_3 L_1 R_1 r_o s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 r_o s^3 + C_1 L_1 R_1 s^2 + C_3 C_L L_1 L_L R_1 g_m r_o s^4 + C_3 C_L L_1 L_L R_1 s^4 + C_3 C_L L_1 L_L r_o s^4 + C_3 C_L L_L R_1 r_o s^3 +$$

10.745 INVALID-ORDER-745 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L R_1 s^2 \left(g_m r_o + 1\right)}{C_1 C_3 L_1 L_L R_1 r_o s^4 + C_1 C_L L_1 L_L R_1 r_o s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 r_o s^2 + C_3 L_1 L_L R_1 g_m r_o s^3 + C_3 L_1 L_L R_1 s^3 + C_3 L_1 L_L r_o s^3 + C_3 L_L R_1 r_o s^2 + C_L L_1 L_L R_1 g_m r_o s^3 + C_L L_1 L_L$$

10.746 INVALID-ORDER-746 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_1 r_o s^5 + C_1 C_3 C_L L_1 R_1 R_L r_o s^4 + C_1 C_3 L_1 R_1 r_o s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 r_o s^3 + C_1 L_1 R_1 s^2 + C_3 C_L L_1 L_L R_1 g_m r_o s^4 + C_3 C_L L_1 L_L}$$

10.747 INVALID-ORDER-747 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_L R_1 R_L r_o s^4 + C_1 C_L L_1 L_L R_1 R_L r_o s^4 + C_1 L_1 L_L R_1 R_L s^3 + C_1 L_1 L_L R_1 r_o s^3 + C_1 L_1 R_1 R_L r_o s^2 + C_3 L_1 L_L R_1 R_L g_m r_o s^3 + C_3 L_1 L_L R_1 R_L s^3 + C_3 L_1 L_L R_L r_o s^3 + C_3 L_1}$$

10.748 INVALID-ORDER-748 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_1 R_L r_o s^5 + C_1 C_3 L_1 L_L R_1 r_o s^4 + C_1 C_3 L_1 R_1 R_L r_o s^3 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 r_o s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R_1 r_o s^2 + C_3 C_L L_1 L_L}$$

10.749 INVALID-ORDER-749 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_1 R_L r_o s^5 + C_1 C_3 L_1 R_1 R_L r_o s^3 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 r_o s^4 + C_1 C_L L_1 R_1 R_L r_o s^3 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R_1 r_o s^2 + C_3 C_L L_1 L_L R_1 R_L g_m r_o s^4 +}$$

10.750 INVALID-ORDER-750 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{L_1 R_1 R_3 R_L s \left(g_m r_o + 1\right)}{C_1 C_3 L_1 R_1 R_3 R_L r_o s^3 + C_1 L_1 R_1 R_3 R_L s^2 + C_1 L_1 R_1 R_3 r_o s^2 + C_1 L_1 R_1 R_L r_o s^2 + C_3 L_1 R_1 R_3 R_L g_m r_o s^2 + C_3 L_1 R_1 R_3 R_L s^2 + C_3 L_1 R_3 R_L r_o s^2 + C_3 R_1 R_3 R_L r_o s + L_1 R_1 R_3 g_m r_o$$

10.751 INVALID-ORDER-751 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 R_3 s \left(g_m r_o + 1\right)}{C_1 C_3 L_1 R_1 R_3 r_o s^3 + C_1 C_L L_1 R_1 R_3 r_o s^3 + C_1 L_1 R_1 R_3 s^2 + C_1 L_1 R_1 r_o s^2 + C_3 L_1 R_1 R_3 g_m r_o s^2 + C_3 L_1 R_1 R_3 s^2 + C_3 L_1 R_3 r_o s^2 + C_3 R_1 R_3 r_o s + C_L L_1 R_1 R_3 g_m r_o s^2 + C_L L_1 R_1 R_3$$

10.752 INVALID-ORDER-752 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{}{C_1 C_3 L_1 R_1 R_3 R_L r_o s^3 + C_1 C_L L_1 R_1 R_3 R_L r_o s^3 + C_1 L_1 R_1 R_3 R_L s^2 + C_1 L_1 R_1 R_3 r_o s^2 + C_1 L_1 R_1 R_L r_o s^2 + C_3 L_1 R_1 R_3 R_L g_m r_o s^2 + C_3 L_1 R_1 R_3 R_L s^2 + C_3 L_1 R_3 R_L r_o s^2 + C_3 R_1 R$$

10.753 INVALID-ORDER-753 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 R_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 R_1 R_3 r_o s^3 + C_1 C_L L_1 R_1 R_3 R_L s^3 + C_1 C_L L_1 R_1 R_3 r_o s^3 + C_1 C_L L_1 R_1 R_L r_o s^3 + C_1 L_1 R_1 R_3 s^2 + C_1 L_1 R_1 r_o s^2 + C_3 C_L L_1 R_1 R_3 R_L g_m r_o s^3 + C$$

10.754 INVALID-ORDER-754 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_1 R_3 r_o s^5 + C_1 C_3 L_1 R_1 R_3 r_o s^3 + C_1 C_L L_1 L_L R_1 R_3 s^4 + C_1 C_L L_1 L_L R_1 r_o s^4 + C_1 C_L L_1 R_1 R_3 r_o s^3 + C_1 L_1 R_1 R_3 s^2 + C_1 L_1 R_1 r_o s^2 + C_3 C_L L_1 L_L R_1 R_3 g_m r_o s^4 + C$$

10.755 INVALID-ORDER-755 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_L R_1 R_3 r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 r_o s^4 + C_1 L_1 L_L R_1 R_3 s^3 + C_1 L_1 L_L R_1 r_o s^3 + C_1 L_1 R_1 R_3 r_o s^2 + C_3 L_1 L_L R_1 R_3 g_m r_o s^3 + C_3 L_1 L_L R_1 R_3 s^3 + C_3 L_1 L_L R_3 r_o s^3 + C_3 L_L R}$$

10.756 INVALID-ORDER-756 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_1 R_3 r_o s^5 + C_1 C_3 C_L L_1 R_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 R_1 R_3 r_o s^3 + C_1 C_L L_1 L_L R_1 R_3 s^4 + C_1 C_L L_1 L_L R_1 r_o s^4 + C_1 C_L L_1 R_1 R_3 R_L s^3 + C_1 C_L L_1 R_1 R_3 r_o s^3 + C_1 C_L L_1 R_1}$$

10.757 INVALID-ORDER-757 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_L R_1 R_3 R_L r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 R_L r_o s^4 + C_1 L_1 L_L R_1 R_3 R_L s^3 + C_1 L_1 L_L R_1 R_3 r_o s^3 + C_1 L_1 R_1 R_3 R_L r_o s^2 + C_3 L_1 L_L R_1 R_3 R_L g_m r_o s^3 + C_3 L_1}$$

10.758 INVALID-ORDER-758 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_1 R_3 R_L r_o s^5 + C_1 C_3 L_1 L_L R_1 R_3 r_o s^4 + C_1 C_3 L_1 R_1 R_3 R_L r_o s^3 + C_1 C_L L_1 L_L R_1 R_3 R_L s^4 + C_1 C_L L_1 L_L R_1 R_3 r_o s^4 + C_1 C_L L_1 L_L R_1 R_L r_o s^4 + C_1 L_1 L_L R_1 R_3 s^3 + C}$$

10.759 INVALID-ORDER-759 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_1 R_3 R_L r_o s^5 + C_1 C_3 L_1 R_1 R_3 R_L r_o s^3 + C_1 C_L L_1 L_L R_1 R_3 R_L s^4 + C_1 C_L L_1 L_L R_1 R_3 r_o s^4 + C_1 C_L L_1 L_L R_1 R_L r_o s^4 + C_1 C_L L_1 R_1 R_3 R_L r_o s^3 + C_1 L_1 R_1 R_3 R_L s^2 + C}$$

10.760 INVALID-ORDER-760 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{L_1 R_1 R_L s \left(g_m r_o + 1\right) \left(C_3 R_3 s +}{C_1 C_3 L_1 R_1 R_3 R_L s^3 + C_1 C_3 L_1 R_1 R_3 r_o s^3 + C_1 C_3 L_1 R_1 R_L r_o s^3 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R_1 r_o s^2 + C_3 L_1 R_1 R_3 g_m r_o s^2 + C_3 L_1 R_1 R_3 s^2 + C_3 L_1 R_1 R_L g_m r_o s^2 + C_3 L_1 R_1 R_L s^2 + C_3}$$

10.761 INVALID-ORDER-761 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 s \left(g_m r_o + 1\right) \left(C_3 R_3 s +}{C_1 C_3 C_L L_1 R_1 R_3 r_o s^4 + C_1 C_3 L_1 R_1 R_3 s^3 + C_1 C_3 L_1 R_1 r_o s^3 + C_1 C_L L_1 R_1 r_o s^3 + C_1 L_1 R_1 s^2 + C_3 C_L L_1 R_1 R_3 g_m r_o s^3 + C_3 C_L L_1 R_1 R_3 s^3 + C_3 C_L L_1 R_3 r_o s^3 + C_3 C_L R_1 R_3 r_o s^2 +}$$

10.762 INVALID-ORDER-762 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 R_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 R_1 R_3 R_L s^3 + C_1 C_3 L_1 R_1 R_3 r_o s^3 + C_1 C_3 L_1 R_1 R_L r_o s^3 + C_1 C_L L_1 R_1 R_L r_o s^3 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R_1 r_o s^2 + C_3 C_L L_1 R_1 R_3 R_L g_m r_o s^3 + C}$$

10.763 INVALID-ORDER-763 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_1 R_1 R_3 r_o s^4 + C_1 C_3 C_L L_1 R_1 R_L r_o s^4 + C_1 C_3 L_1 R_1 R_3 s^3 + C_1 C_3 L_1 R_1 r_o s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 r_o s^3 + C_1 L_1 R_1 s^2 + C_3 C_L L_1 R_1}$$

10.764 INVALID-ORDER-764 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_L R_1 r_o s^5 + C_1 C_3 C_L L_1 R_1 R_3 r_o s^4 + C_1 C_3 L_1 R_1 R_3 s^3 + C_1 C_3 L_1 R_1 r_o s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 r_o s^3 + C_1 L_1 R_1 s^2 + C_3 C_L L_1 L_L}$$

10.765 INVALID-ORDER-765 $Z(s) = \left(\frac{1}{C_1 s+\frac{1}{R_1}+\frac{1}{L_1 s}},\ \infty,\ R_3+\frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{C_1C_3C_LL_1L_LR_1R_3r_os^5 + C_1C_3L_1L_LR_1R_3s^4 + C_1C_3L_1L_LR_1r_os^4 + C_1C_3L_1R_1R_3r_os^3 + C_1C_LL_1L_LR_1r_os^4 + C_1L_1L_LR_1s^3 + C_1L_1R_1r_os^2 + C_3C_LL_1L_LR_1R_3g_mr_os^4 + C_3}{}$$

10.766 INVALID-ORDER-766 $Z(s) = \left(\frac{1}{C_1 s+\frac{1}{R_1}+\frac{1}{L_1 s}},\ \infty,\ R_3+\frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s+R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1C_3C_LL_1L_LR_1R_3s^5 + C_1C_3C_LL_1L_LR_1r_os^5 + C_1C_3C_LL_1R_1R_3R_Ls^4 + C_1C_3C_LL_1R_1R_3r_os^4 + C_1C_3C_LL_1R_1R_Lr_os^4 + C_1C_3L_1R_1R_3s^3 + C_1C_3L_1R_1r_os^3 + C_1C_LL_1L_LR_}{}$$

10.767 INVALID-ORDER-767 $Z(s) = \left(\frac{1}{C_1 s+\frac{1}{R_1}+\frac{1}{L_1 s}},\ \infty,\ R_3+\frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{C_1C_3C_LL_1L_LR_1R_3R_Lr_os^5 + C_1C_3L_1L_LR_1R_3R_Ls^4 + C_1C_3L_1L_LR_1R_3r_os^4 + C_1C_3L_1L_LR_1R_Lr_os^4 + C_1C_3L_1R_1R_3R_Lr_os^3 + C_1C_LL_1L_LR_1R_Lr_os^4 + C_1L_1L_LR_1R_Ls^3 + C}{}$$

10.768 INVALID-ORDER-768 $Z(s) = \left(\frac{1}{C_1 s+\frac{1}{R_1}+\frac{1}{L_1 s}},\ \infty,\ R_3+\frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}+R_L\right)$

$$H(s) = \frac{C_1C_3C_LL_1L_LR_1R_3R_Ls^5 + C_1C_3C_LL_1L_LR_1R_3r_os^5 + C_1C_3C_LL_1L_LR_1R_Lr_os^5 + C_1C_3L_1L_LR_1R_3s^4 + C_1C_3L_1L_LR_1r_os^4 + C_1C_3L_1R_1R_3R_Ls^3 + C_1C_3L_1R_1R_3r_os^3 + C_1C_}{}$$

10.769 INVALID-ORDER-769 $Z(s) = \left(\frac{1}{C_1 s+\frac{1}{R_1}+\frac{1}{L_1 s}},\ \infty,\ R_3+\frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{C_1C_3C_LL_1L_LR_1R_3R_Ls^5 + C_1C_3C_LL_1L_LR_1R_3r_os^5 + C_1C_3C_LL_1L_LR_1R_Lr_os^5 + C_1C_3C_LL_1R_1R_3R_Lr_os^4 + C_1C_3L_1R_1R_3R_Ls^3 + C_1C_3L_1R_1R_3r_os^3 + C_1C_3L_1R_1R_Lr_os^3 +}{}$$

10.770 INVALID-ORDER-770 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{L_1 R_1 R_L s \left(g_m r_o + 1\right) \left(C_3 L_3 s^2 \right.}{C_1 C_3 L_1 L_3 R_1 R_L s^4 + C_1 C_3 L_1 L_3 R_1 r_o s^4 + C_1 C_3 L_1 R_1 R_L r_o s^3 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R_1 r_o s^2 + C_3 L_1 L_3 R_1 g_m r_o s^3 + C_3 L_1 L_3 R_1 s^3 + C_3 L_1 L_3 R_L s^3 + C_3 L_1 L_3 r_o s^3 + C_3 L_1 R_1 R$$

10.771 INVALID-ORDER-771 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 s \left(g_m r_o + 1\right) \left(C_3 L_3 s^2 + \right.}{C_1 C_3 C_L L_1 L_3 R_1 r_o s^5 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 R_1 r_o s^3 + C_1 C_L L_1 R_1 r_o s^3 + C_1 L_1 R_1 s^2 + C_3 C_L L_1 L_3 R_1 g_m r_o s^4 + C_3 C_L L_1 L_3 R_1 s^4 + C_3 C_L L_1 L_3 r_o s^4 + C_3 C_L L_3 R_1 r_o s^3 + C$$

10.772 INVALID-ORDER-772 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 R_1 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_L s^4 + C_1 C_3 L_1 L_3 R_1 r_o s^4 + C_1 C_3 L_1 R_1 R_L r_o s^3 + C_1 C_L L_1 R_1 R_L r_o s^3 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R_1 r_o s^2 + C_3 C_L L_1 L_3 R_1 R_L g_m r_o s^4 + C$$

10.773 INVALID-ORDER-773 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 R_1 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_1 r_o s^5 + C_1 C_3 C_L L_1 R_1 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 R_1 r_o s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 r_o s^3 + C_1 L_1 R_1 s^2 + C_3 C_L L_1 L_3 R$$

10.774 INVALID-ORDER-774 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 s^6 + C_1 C_3 C_L L_1 L_3 R_1 r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 r_o s^5 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 R_1 r_o s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 r_o s^3 + C_1 L_1 R_1 s^2 + C_3 C_L L_1 L_3 L$$

10.775 INVALID-ORDER-775 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 r_o s^6 + C_1 C_3 L_1 L_3 L_L R_1 s^5 + C_1 C_3 L_1 L_3 R_1 r_o s^4 + C_1 C_3 L_1 L_L R_1 r_o s^4 + C_1 C_L L_1 L_L R_1 r_o s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 r_o s^2 + C_3 C_L L_1 L_3 L_L R_1 g_m r_o s^5 + C_3}{}$$

10.776 INVALID-ORDER-776 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_1 r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 r_o s^5 + C_1 C_3 C_L L_1 R_1 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 R_1 r_o s^3 + C_1 C_L L_1 L_L R_1}{}$$

10.777 INVALID-ORDER-777 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_L r_o s^6 + C_1 C_3 L_1 L_3 L_L R_1 R_L s^5 + C_1 C_3 L_1 L_3 L_L R_1 r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_L r_o s^4 + C_1 C_3 L_1 L_L R_1 R_L r_o s^4 + C_1 C_L L_1 L_L R_1 R_L r_o s^4 + C_1 L_1 L_L R_1 R_L s^3 + C_1}{}$$

10.778 INVALID-ORDER-778 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 r_o s^6 + C_1 C_3 C_L L_1 L_L R_1 R_L r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 s^5 + C_1 C_3 L_1 L_3 R_1 R_L s^4 + C_1 C_3 L_1 L_3 R_1 r_o s^4 + C_1 C_3 L_1 L_L R_1 r_o s^4 + C_1 C_3}{}$$

10.779 INVALID-ORDER-779 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_L r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_L s^4 + C_1 C_3 L_1 L_3 R_1 r_o s^4 + C_1 C_3 L_1 R_1 R_L r_o s^3 +}{}$$

10.780 INVALID-ORDER-780 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{L_1 L_3 R_1 R_L s^2 \left(g_m r_o + 1\right)}{C_1 C_3 L_1 L_3 R_1 R_L r_o s^4 + C_1 L_1 L_3 R_1 R_L s^3 + C_1 L_1 L_3 R_1 r_o s^3 + C_1 L_1 R_1 R_L r_o s^2 + C_3 L_1 L_3 R_1 R_L g_m r_o s^3 + C_3 L_1 L_3 R_1 R_L s^3 + C_3 L_1 L_3 R_L r_o s^3 + C_3 L_3 R_1 R_L r_o s^2 + L_1 L_3 R_1 g_m r_o$$

10.781 INVALID-ORDER-781 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 L_3 R_1 s^2 \left(g_m r_o + 1\right)}{C_1 C_3 L_1 L_3 R_1 r_o s^4 + C_1 C_L L_1 L_3 R_1 r_o s^4 + C_1 L_1 L_3 R_1 s^3 + C_1 L_1 R_1 r_o s^2 + C_3 L_1 L_3 R_1 g_m r_o s^3 + C_3 L_1 L_3 R_1 s^3 + C_3 L_1 L_3 r_o s^3 + C_3 L_3 R_1 r_o s^2 + C_L L_1 L_3 R_1 g_m r_o s^3 + C_L L_1 L_3 R_1$$

10.782 INVALID-ORDER-782 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_3 R_1 R_L r_o s^4 + C_1 C_L L_1 L_3 R_1 R_L r_o s^4 + C_1 L_1 L_3 R_1 R_L s^3 + C_1 L_1 L_3 R_1 r_o s^3 + C_1 L_1 R_1 R_L r_o s^2 + C_3 L_1 L_3 R_1 R_L g_m r_o s^3 + C_3 L_1 L_3 R_1 R_L s^3 + C_3 L_1 L_3 R_L r_o s^3 + C_3 L_3 R_1$$

10.783 INVALID-ORDER-783 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 R_1 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_1 r_o s^4 + C_1 C_L L_1 L_3 R_1 R_L s^4 + C_1 C_L L_1 L_3 R_1 r_o s^4 + C_1 C_L L_1 R_1 R_L r_o s^3 + C_1 L_1 L_3 R_1 s^3 + C_1 L_1 R_1 r_o s^2 + C_3 C_L L_1 L_3 R_1 R_L g_m r_o s^4 + C_3$$

10.784 INVALID-ORDER-784 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 r_o s^6 + C_1 C_3 L_1 L_3 R_1 r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 s^5 + C_1 C_L L_1 L_3 R_1 r_o s^4 + C_1 C_L L_1 L_L R_1 r_o s^4 + C_1 L_1 L_3 R_1 s^3 + C_1 L_1 R_1 r_o s^2 + C_3 C_L L_1 L_3 L_L R_1 g_m r_o s^5 + C_3$$

10.785 INVALID-ORDER-785 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_3 L_L R_1 r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 r_o s^4 + C_1 L_1 L_3 L_L R_1 s^3 + C_1 L_1 L_3 R_1 r_o s^2 + C_1 L_1 L_L R_1 r_o s^2 + C_3 L_1 L_3 L_L R_1 g_m r_o s^3 + C_3 L_1 L_3 L_L R_1 s^3 + C_3 L_1 L_3 L_L r_o s^3 + C_3 L_3 L_L$$

10.786 INVALID-ORDER-786 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_1 r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 s^5 + C_1 C_L L_1 L_3 R_1 R_L s^4 + C_1 C_L L_1 L_3 R_1 r_o s^4 + C_1 C_L L_1 L_L R_1 r_o s^4 + C_1 C_L L_1 R_1$$

10.787 INVALID-ORDER-787 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_3 L_L R_1 R_L r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_L r_o s^4 + C_1 L_1 L_3 L_L R_1 R_L s^3 + C_1 L_1 L_3 L_L R_1 r_o s^3 + C_1 L_1 L_3 R_1 R_L r_o s^2 + C_1 L_1 L_L R_1 R_L r_o s^2 + C_3 L_1 L_3 L_L R_1 R_L g_m r_o s^3 + C_3 L_1$$

10.788 INVALID-ORDER-788 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 R_L r_o s^6 + C_1 C_3 L_1 L_3 L_L R_1 r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_L r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_L s^5 + C_1 C_L L_1 L_3 L_L R_1 r_o s^5 + C_1 C_L L_1 L_L R_1 R_L r_o s^4 + C_1 L_1 L_3 L_L R_1 s^4 + C_1$$

10.789 INVALID-ORDER-789 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 R_L r_o s^6 + C_1 C_3 L_1 L_3 R_1 R_L r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_L s^5 + C_1 C_L L_1 L_3 L_L R_1 r_o s^5 + C_1 C_L L_1 L_3 R_1 R_L r_o s^4 + C_1 C_L L_1 L_L R_1 R_L r_o s^4 + C_1 L_1 L_3 R_1 R_L s^3 + C$$

10.790 INVALID-ORDER-790 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 R_L s^4 + C_1 C_3 L_1 L_3 R_1 r_o s^4 + C_1 C_3 L_1 R_1 R_3 R_L s^3 + C_1 C_3 L_1 R_1 R_3 r_o s^3 + C_1 C_3 L_1 R_1 R_L r_o s^3 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R_1 r_o s^2 + C_3 L_1 L_3 R_1 g_m r_o s^3 + C_3 L_1 L_3 R_1 s^3}{}$$

10.791 INVALID-ORDER-791 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 r_o s^5 + C_1 C_3 C_L L_1 R_1 R_3 r_o s^4 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 R_1 R_3 s^3 + C_1 C_3 L_1 R_1 r_o s^3 + C_1 C_L L_1 R_1 r_o s^3 + C_1 L_1 R_1 s^2 + C_3 C_L L_1 L_3 R_1 g_m r_o s^4 + C_3 C_L L_1 L_3 R_1}{}$$

10.792 INVALID-ORDER-792 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 R_L r_o s^5 + C_1 C_3 C_L L_1 R_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_L s^4 + C_1 C_3 L_1 L_3 R_1 r_o s^4 + C_1 C_3 L_1 R_1 R_3 R_L s^3 + C_1 C_3 L_1 R_1 R_3 r_o s^3 + C_1 C_3 L_1 R_1 R_L r_o s^3 + C_1 C_L L_1 R_1}{}$$

10.793 INVALID-ORDER-793 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_1 r_o s^5 + C_1 C_3 C_L L_1 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_1 R_1 R_3 r_o s^4 + C_1 C_3 C_L L_1 R_1 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 R_1 R_3 s^3 + C_1 C_3 L_1 R_1 r_o}{}$$

10.794 INVALID-ORDER-794 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 s^6 + C_1 C_3 C_L L_1 L_3 R_1 r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_L R_1 r_o s^5 + C_1 C_3 C_L L_1 R_1 R_3 r_o s^4 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 R_1 R_3 s^3 + C_1 C_3 L_1 R_1 r_o s}{}$$

10.795 INVALID-ORDER-795 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 r_o s^6 + C_1 C_3 C_L L_1 L_L R_1 R_3 r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 s^5 + C_1 C_3 L_1 L_3 R_1 r_o s^4 + C_1 C_3 L_1 L_L R_1 R_3 s^4 + C_1 C_3 L_1 L_L R_1 r_o s^4 + C_1 C_3 L_1 R_1 R_3 r_o s^3 + C_1 C_L L_1 L_L R}{}$$

10.796 INVALID-ORDER-796 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_1 r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_L R_1 r_o s^5 + C_1 C_3 C_L L_1 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_1 R_1 R_3 r_o s^4 + C}{}$$

10.797 INVALID-ORDER-797 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_L r_o s^6 + C_1 C_3 C_L L_1 L_L R_1 R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 R_L s^5 + C_1 C_3 L_1 L_3 L_L R_1 r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_L r_o s^4 + C_1 C_3 L_1 L_L R_1 R_3 R_L s^4 + C_1 C_3 L_1 L_L R_1 R}{}$$

10.798 INVALID-ORDER-798 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 r_o s^6 + C_1 C_3 C_L L_1 L_L R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 s^5 + C_1 C_3 L_1 L_3 R_1}{}$$

10.799 INVALID-ORDER-799 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_L r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L r_o s^5 + C_1 C_3 C_L}{}$$

10.800 INVALID-ORDER-800 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 R_3 R_L r_o s^4 + C_1 L_1 L_3 R_1 R_3 R_L s^3 + C_1 L_1 L_3 R_1 R_3 r_o s^3 + C_1 L_1 L_3 R_1 R_L r_o s^3 + C_1 L_1 R_1 R_3 R_L r_o s^2 + C_3 L_1 L_3 R_1 R_3 R_L g_m r_o s^3 + C_3 L_1 L_3 R_1 R_3 R_L s^3 + C_3 L_1 L_3 R_3 R}{}$$

10.801 INVALID-ORDER-801 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 R_3 r_o s^4 + C_1 C_L L_1 L_3 R_1 R_3 r_o s^4 + C_1 L_1 L_3 R_1 R_3 s^3 + C_1 L_1 L_3 R_1 r_o s^3 + C_1 L_1 R_1 R_3 r_o s^2 + C_3 L_1 L_3 R_1 R_3 g_m r_o s^3 + C_3 L_1 L_3 R_1 R_3 s^3 + C_3 L_1 L_3 R_3 r_o s^3 + C_3 L_3 R_1 R}{}$$

10.802 INVALID-ORDER-802 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 R_3 R_L r_o s^4 + C_1 C_L L_1 L_3 R_1 R_3 R_L r_o s^4 + C_1 L_1 L_3 R_1 R_3 R_L s^3 + C_1 L_1 L_3 R_1 R_3 r_o s^3 + C_1 L_1 L_3 R_1 R_L r_o s^3 + C_1 L_1 R_1 R_3 R_L r_o s^2 + C_3 L_1 L_3 R_1 R_3 R_L g_m r_o s^3 + C_3 L_1 L}{}$$

10.803 INVALID-ORDER-803 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_3 r_o s^4 + C_1 C_L L_1 L_3 R_1 R_3 R_L s^4 + C_1 C_L L_1 L_3 R_1 R_3 r_o s^4 + C_1 C_L L_1 L_3 R_1 R_L r_o s^4 + C_1 C_L L_1 R_1 R_3 R_L r_o s^3 + C_1 L_1 L_3 R_1 R_3 s^3 + C_1}{}$$

10.804 INVALID-ORDER-804 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 r_o s^6 + C_1 C_3 L_1 L_3 R_1 R_3 r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_3 s^5 + C_1 C_L L_1 L_3 L_L R_1 r_o s^5 + C_1 C_L L_1 L_3 R_1 R_3 r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 r_o s^4 + C_1 L_1 L_3 R_1 R_3 s^3 + C_1 L}{}$$

10.805 INVALID-ORDER-805 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_3 L_L R_1 R_3 r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_3 r_o s^4 + C_1 L_1 L_3 L_L R_1 R_3 s^3 + C_1 L_1 L_3 L_L R_1 r_o s^3 + C_1 L_1 L_3 R_1 R_3 r_o s^2 + C_1 L_1 L_L R_1 R_3 r_o s^2 + C_3 L_1 L_3 L_L R_1 R_3 g_m r_o s^3 + C_3 L_1 L_3}$$

10.806 INVALID-ORDER-806 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_3 r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_3 s^5 + C_1 C_L L_1 L_3 L_L R_1 r_o s^5 + C_1 C_L L_1 L_3 R_1 R_3 R_L s^4 + C_1 C_L L_1 L_3 R_1 R_3}$$

10.807 INVALID-ORDER-807 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_3 L_L R_1 R_3 R_L r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_3 R_L r_o s^4 + C_1 L_1 L_3 L_L R_1 R_3 R_L s^3 + C_1 L_1 L_3 L_L R_1 R_3 r_o s^3 + C_1 L_1 L_3 L_L R_1 R_L r_o s^3 + C_1 L_1 L_3 R_1 R_3 R_L r_o s^2 + C_1 L_1 L_L R_1 R_3 R_L}$$

10.808 INVALID-ORDER-808 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L r_o s^6 + C_1 C_3 L_1 L_3 L_L R_1 R_3 r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_3 R_L r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_3 R_L s^5 + C_1 C_L L_1 L_3 L_L R_1 R_3 r_o s^5 + C_1 C_L L_1 L_3 L_L R_1 R_L r_o s^5 + C_1 C}$$

10.809 INVALID-ORDER-809 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L r_o s^6 + C_1 C_3 L_1 L_3 R_1 R_3 R_L r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_3 R_L s^5 + C_1 C_L L_1 L_3 L_L R_1 R_3 r_o s^5 + C_1 C_L L_1 L_3 L_L R_1 R_L r_o s^5 + C_1 C_L L_1 L_3 R_1 R_3 R_L r_o s^4 + C_1 C}$$

10.810 INVALID-ORDER-810 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{}{C_1C_3L_1L_3R_1R_3R_Ls^4 + C_1C_3L_1L_3R_1R_3r_os^4 + C_1C_3L_1L_3R_1R_Lr_os^4 + C_1L_1L_3R_1R_Ls^3 + C_1L_1L_3R_1r_os^3 + C_1L_1R_1R_3R_Ls^2 + C_1L_1R_1R_3r_os^2 + C_1L_1R_1R_Lr_os^2 + C_3L_1L_3$$

10.811 INVALID-ORDER-811 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1R_3r_os^5 + C_1C_3L_1L_3R_1R_3s^4 + C_1C_3L_1L_3R_1r_os^4 + C_1C_LL_1L_3R_1r_os^4 + C_1C_LL_1R_1R_3r_os^3 + C_1L_1L_3R_1s^3 + C_1L_1R_1R_3s^2 + C_1L_1R_1r_os^2 + C_3C_LL_1L_3R_1$$

10.812 INVALID-ORDER-812 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1R_3R_Lr_os^5 + C_1C_3L_1L_3R_1R_3R_Ls^4 + C_1C_3L_1L_3R_1R_3r_os^4 + C_1C_3L_1L_3R_1R_Lr_os^4 + C_1C_LL_1L_3R_1R_Lr_os^4 + C_1C_LL_1R_1R_3R_Lr_os^3 + C_1L_1L_3R_1R_Ls^3 + C_1$$

10.813 INVALID-ORDER-813 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1R_3R_Ls^5 + C_1C_3C_LL_1L_3R_1R_3r_os^5 + C_1C_3C_LL_1L_3R_1R_Lr_os^5 + C_1C_3L_1L_3R_1R_3s^4 + C_1C_3L_1L_3R_1r_os^4 + C_1C_LL_1L_3R_1R_Ls^4 + C_1C_LL_1L_3R_1r_os^4 + C_1C_L$$

10.814 INVALID-ORDER-814 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1R_3s^6 + C_1C_3C_LL_1L_3L_LR_1r_os^6 + C_1C_3C_LL_1L_3R_1R_3r_os^5 + C_1C_3L_1L_3R_1R_3s^4 + C_1C_3L_1L_3R_1r_os^4 + C_1C_LL_1L_3L_LR_1s^5 + C_1C_LL_1L_3R_1r_os^4 + C_1C_LL$$

10.815 INVALID-ORDER-815 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 r_o s^6 + C_1 C_3 L_1 L_3 L_L R_1 R_3 s^5 + C_1 C_3 L_1 L_3 L_L R_1 r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_3 r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 r_o s^5 + C_1 C_L L_1 L_L R_1 R_3 r_o s^4 + C_1 L_1 L_3 L_L R_1 s^4 + C_1 L}$$

10.816 INVALID-ORDER-816 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_3 s^4 + C_1 C_3 L_1 L_3 R_1 r_o}$$

10.817 INVALID-ORDER-817 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L r_o s^6 + C_1 C_3 L_1 L_3 L_L R_1 R_3 R_L s^5 + C_1 C_3 L_1 L_3 L_L R_1 R_3 r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_3 R_L r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_L r_o s^5 + C_1 C_L}$$

10.818 INVALID-ORDER-818 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_L r_o s^6 + C_1 C_3 L_1 L_3 L_L R_1 R_3 s^5 + C_1 C_3 L_1 L_3 L_L R_1 r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_3 R_L s^4 + C_1 C_3 L_1 L}$$

10.819 INVALID-ORDER-819 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_L r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_3 R_L s^4 + C_1 C_3 L_1 L_3 R_1 R_3 r_o s^4 + C_1 C}$$

10.820 INVALID-ORDER-820 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{}{C_1C_3L_1L_3R_1R_3R_Ls^4 + C_1C_3L_1L_3R_1R_3r_os^4 + C_1C_3L_1L_3R_1R_Lr_os^4 + C_1C_3L_1R_1R_3R_Lr_os^3 + C_1L_1R_1R_3R_Ls^2 + C_1L_1R_1R_3r_os^2 + C_1L_1R_1R_Lr_os^2 + C_3L_1L_3R_1R_3g_mr_os^3}$$

10.821 INVALID-ORDER-821 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1R_3r_os^5 + C_1C_3L_1L_3R_1R_3s^4 + C_1C_3L_1L_3R_1r_os^4 + C_1C_3L_1R_1R_3r_os^3 + C_1C_LL_1R_1R_3r_os^3 + C_1L_1R_1R_3s^2 + C_1L_1R_1r_os^2 + C_3C_LL_1L_3R_1R_3g_mr_os^4 + C_3C}$$

10.822 INVALID-ORDER-822 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1R_3R_Lr_os^5 + C_1C_3L_1L_3R_1R_3R_Ls^4 + C_1C_3L_1L_3R_1R_3r_os^4 + C_1C_3L_1L_3R_1R_Lr_os^4 + C_1C_3L_1R_1R_3R_Lr_os^3 + C_1C_LL_1R_1R_3R_Lr_os^3 + C_1L_1R_1R_3R_Ls^2 + C_1}$$

10.823 INVALID-ORDER-823 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1R_3R_Ls^5 + C_1C_3C_LL_1L_3R_1R_3r_os^5 + C_1C_3C_LL_1L_3R_1R_Lr_os^5 + C_1C_3C_LL_1R_1R_3R_Lr_os^4 + C_1C_3L_1L_3R_1R_3s^4 + C_1C_3L_1L_3R_1r_os^4 + C_1C_3L_1R_1R_3r_os^3 + C}$$

10.824 INVALID-ORDER-824 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1R_3s^6 + C_1C_3C_LL_1L_3L_LR_1r_os^6 + C_1C_3C_LL_1L_3R_1R_3r_os^5 + C_1C_3C_LL_1L_LR_1R_3r_os^5 + C_1C_3L_1L_3R_1R_3s^4 + C_1C_3L_1L_3R_1r_os^4 + C_1C_3L_1R_1R_3r_os^3 + C}$$

10.825 INVALID-ORDER-825 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 r_o s^6 + C_1 C_3 L_1 L_3 L_L R_1 R_3 s^5 + C_1 C_3 L_1 L_3 L_L R_1 r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_3 r_o s^4 + C_1 C_3 L_1 L_L R_1 R_3 r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 r_o s^4 + C_1 L_1 L_L R_1 R_3 s^3 + C_1 L}{}$$

10.826 INVALID-ORDER-826 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_L r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 r_o s^5 + C_1 C_3 C_L L}{}$$

10.827 INVALID-ORDER-827 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L r_o s^6 + C_1 C_3 L_1 L_3 L_L R_1 R_3 R_L s^5 + C_1 C_3 L_1 L_3 L_L R_1 R_3 r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_L R_1 R_3 R_L r_o s^4 + C_1 C_L}{}$$

10.828 INVALID-ORDER-828 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_L r_o s^6 + C_1 C_3 C_L L_1 L_L R_1 R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 R_3 s^5 + C_1 C_3 L_1 L_3 L_L R_1 r_o s^5 + C_1 C}{}$$

10.829 INVALID-ORDER-829 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_L r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_3 R_L s^4 +}{}$$

10.830 INVALID-ORDER-830 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_3 \left(g_m r_o + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1 C_L L_1 R_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_1 R_3 s^3 + C_1 C_L L_1 R_3 r_o s^3 + C_1 L_1 R_1 g_m r_o s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_3 s^2 + C_1 L_1 r_o s^2 + C_L L_1 R_3 g_m r_o s^2 + C_L L_1 R_3 s^2 + C_L R_1 R_3 g_m r_o s + C_L R_1 R_3 s + C_L L_1 r_o s + C_L R_1 R_3 + L_1 r_o s + R_1 R_3 + R_1 r_o}$$

10.831 INVALID-ORDER-831 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_3 \left(g_m r_o + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1 C_L L_1 R_1 R_3 R_L g_m r_o s^3 + C_1 C_L L_1 R_1 R_3 R_L s^3 + C_1 C_L L_1 R_3 R_L r_o s^3 + C_1 L_1 R_1 R_3 g_m r_o s^2 + C_1 L_1 R_1 R_3 s^2 + C_1 L_1 R_1 R_L g_m r_o s^2 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R_3 R_L s^2 + C_1 L_1 R_3 r_o s^2 + C_1 L_1 R_L r_o s^2 + C_L L_1 R_3 R_L g_m r_o s^2 + C_L L_1 R_3 R_L s^2 + C_L R_1 R_3 R_L g_m r_o s + C_L R_1 R_3 R_L s + C_L L_1 R_L r_o s + C_L R_1 R_3 R_L + L_1 R_L r_o s + R_1 R_3 R_L + R_1 R_L r_o}$$

10.832 INVALID-ORDER-832 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_L L_1 s^2 \left(g_m r_o + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1 C_L L_1 R_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_1 R_3 s^3 + C_1 C_L L_1 R_1 R_L g_m r_o s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_3 R_L s^3 + C_1 C_L L_1 R_3 r_o s^3 + C_1 C_L L_1 R_L r_o s^3 + C_1 L_1 R_1 g_m r_o s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_3 s^2 + C_1 L_1 r_o s^2 + C_L L_1 R_3 g_m r_o s^2 + C_L L_1 R_3 s^2 + C_L L_1 R_L g_m r_o s^2 + C_L L_1 R_L s^2 + C_L R_1 R_3 g_m r_o s + C_L R_1 R_3 s + C_L L_1 r_o s + C_L R_1 R_3 + C_L R_1 R_L g_m r_o s + C_L R_1 R_L s + C_L R_1 R_L + L_1 r_o s + R_1 R_3 + R_1 R_L g_m r_o + R_1 R_L + R_1 r_o}$$

10.833 INVALID-ORDER-833 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_L s^2 \left(g_m r_o + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1 C_L L_1 L_L R_1 g_m r_o s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_3 s^4 + C_1 C_L L_1 L_L r_o s^4 + C_1 C_L L_1 R_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_1 R_3 s^3 + C_1 C_L L_1 R_3 r_o s^3 + C_1 L_1 R_1 g_m r_o s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_3 s^2 + C_1 L_1 r_o s^2 + C_L L_1 R_3 g_m r_o s^2 + C_L L_1 R_3 s^2 + C_L R_1 R_3 g_m r_o s + C_L R_1 R_3 s + C_L L_1 r_o s + C_L R_1 R_3 + L_1 r_o s + R_1 R_3 + R_1 r_o}$$

10.834 INVALID-ORDER-834 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{C_L L_L s^2 \left(g_m r_o + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1 C_L L_1 L_L R_1 R_3 g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 s^4 + C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 L_1 L_L R_1 g_m r_o s^3 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 L_L R_3 s^3 + C_1 L_1 L_L r_o s^3 + C_1 L_1 R_1 R_3 g_m r_o s^2 + C_1 L_1 R_1 R_3 s^2 + C_1 L_1 R_3 r_o s^2 + C_1 L_1 R_1 r_o s^2 + C_L L_1 R_3 r_o s^3 + C_L R_1 R_3 g_m r_o s + C_L R_1 R_3 s + C_L L_1 r_o s + C_L R_1 R_3 + L_1 r_o s + R_1 R_3 + R_1 r_o}$$

10.835 INVALID-ORDER-835 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_L s^2 \left(g_m r_o + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1 C_L L_1 L_L R_1 g_m r_o s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_3 s^4 + C_1 C_L L_1 L_L r_o s^4 + C_1 C_L L_1 R_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_1 R_3 s^3 + C_1 C_L L_1 R_1 R_L g_m r_o s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C$$

10.836 INVALID-ORDER-836 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_1 R_3 R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 R_L s^4 + C_1 C_L L_1 L_L R_3 R_L r_o s^4 + C_1 L_1 L_L R_1 R_3 g_m r_o s^3 + C_1 L_1 L_L R_1 R_3 s^3 + C_1 L_1 L_L R_1 R_L g_m r_o s^3 + C_1 L_1 L_L R_1 R_L s^3 + C_1 L_1$$

10.837 INVALID-ORDER-837 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_1 R_3 g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 s^4 + C_1 C_L L_1 L_L R_1 R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_3 R_L s^4 + C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 C_L L_1 L_L R_L r_o s^4 + C_1 L_1 L_L$$

10.838 INVALID-ORDER-838 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_1 R_3 g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 s^4 + C_1 C_L L_1 L_L R_1 R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_3 R_L s^4 + C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 C_L L_1 L_L R_L r_o s^4 + C_1 C_L L_1$$

10.839 INVALID-ORDER-839 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{R_L\left(g_m r_o + 1\right)\left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1 C_3 L_1 R_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_1 R_L s^3 + C_1 C_3 L_1 R_L r_o s^3 + C_1 L_1 R_1 g_m r_o s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_L s^2 + C_1 L_1 r_o s^2 + C_3 L_1 R_L g_m r_o s^2 + C_3 L_1 R_L s^2 + C_3 R_1 R_L g_m r_o s + C_3 R$$

10.840 INVALID-ORDER-840 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{\left(g_m r_o + 1\right)\left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1 C_3 L_1 R_1 g_m r_o s^3 + C_1 C_3 L_1 R_1 s^3 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 R_1 g_m r_o s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 r_o s^3 + C_1 L_1 s^2 + C_3 L_1 g_m r_o s^2 + C_3 L_1 s^2 + C_3 R_1 g_m r_o s + C_3 R_1 s + C_3 r_o s +$$

10.841 INVALID-ORDER-841 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_L (}{C_1 C_3 L_1 R_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_1 R_L s^3 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_L L_1 R_1 R_L g_m r_o s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_L r_o s^3 + C_1 L_1 R_1 g_m r_o s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_L s^2 + C_1}$$

10.842 INVALID-ORDER-842 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 R_1 R_L g_m r_o s^4 + C_1 C_3 C_L L_1 R_1 R_L s^4 + C_1 C_3 C_L L_1 R_L r_o s^4 + C_1 C_3 L_1 R_1 g_m r_o s^3 + C_1 C_3 L_1 R_1 s^3 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 R_1 g_m r_o s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_L s}$$

10.843 INVALID-ORDER-843 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_1 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 s^5 + C_1 C_3 C_L L_1 L_L r_o s^5 + C_1 C_3 L_1 R_1 g_m r_o s^3 + C_1 C_3 L_1 R_1 s^3 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_1 g_m r_o s^3 + C_1 C_L L_1 R_1 s}$$

10.844 INVALID-ORDER-844 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L}{C_1 C_3 L_1 L_L R_1 g_m r_o s^4 + C_1 C_3 L_1 L_L R_1 s^4 + C_1 C_3 L_1 L_L r_o s^4 + C_1 C_L L_1 L_L R_1 g_m r_o s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L r_o s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_1 g_m r_o s^2 + C_1 L_1 R_1 s^2 + C_1 L}$$

10.845 INVALID-ORDER-845 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_1 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 s^5 + C_1 C_3 C_L L_1 L_L r_o s^5 + C_1 C_3 C_L L_1 R_1 R_L g_m r_o s^4 + C_1 C_3 C_L L_1 R_1 R_L s^4 + C_1 C_3 C_L L_1 R_L r_o s^4 + C_1 C_3 L_1 R_1 g_m r_o s^3 + C_1 C_3 L_1 R_1}$$

10.846 INVALID-ORDER-846 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_L R_1 R_L g_m r_o s^4 + C_1 C_3 L_1 L_L R_1 R_L s^4 + C_1 C_3 L_1 L_L R_L r_o s^4 + C_1 C_L L_1 L_L R_1 R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_L r_o s^4 + C_1 L_1 L_L R_1 g_m r_o s^3 + C_1 L_1 L_L$$

10.847 INVALID-ORDER-847 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L s^5 + C_1 C_3 C_L L_1 L_L R_L r_o s^5 + C_1 C_3 L_1 L_L R_1 g_m r_o s^4 + C_1 C_3 L_1 L_L R_1 s^4 + C_1 C_3 L_1 L_L r_o s^4 + C_1 C_3 L_1 R_1 R_L g_m r_o s^3 + C_1 C_3 L_1$$

10.848 INVALID-ORDER-848 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L s^5 + C_1 C_3 C_L L_1 L_L R_L r_o s^5 + C_1 C_3 L_1 R_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_1 R_L s^3 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_L L_1 L_L R_1 g_m r_o s^4 + C_1 C_L L$$

10.849 INVALID-ORDER-849 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{}{C_1 C_3 L_1 R_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_1 R_1 R_3 R_L s^3 + C_1 C_3 L_1 R_3 R_L r_o s^3 + C_1 L_1 R_1 R_3 g_m r_o s^2 + C_1 L_1 R_1 R_3 s^2 + C_1 L_1 R_1 R_L g_m r_o s^2 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R_3 R_L s^2 + C_1 L_1 R_3 r_o s$$

10.850 INVALID-ORDER-850 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_3 \left(g_m r}{C_1 C_3 L_1 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_1 R_1 R_3 s^3 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_L L_1 R_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_1 R_3 s^3 + C_1 C_L L_1 R_3 r_o s^3 + C_1 L_1 R_1 g_m r_o s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_3 s^2 + C_1 L_1$$

10.851 INVALID-ORDER-851 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1 C_3 L_1 R_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_1 R_1 R_3 R_L s^3 + C_1 C_3 L_1 R_3 R_L r_o s^3 + C_1 C_L L_1 R_1 R_3 R_L g_m r_o s^3 + C_1 C_L L_1 R_1 R_3 R_L s^3 + C_1 C_L L_1 R_3 R_L r_o s^3 + C_1 L_1 R_1 R_3 g_m r_o s^2 + C_1 L_1 R_1 R_3}$$

10.852 INVALID-ORDER-852 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_1 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_1 R_1 R_3 s^3 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_L L_1 R_1 R_3 g_m r_o s^3 + C_1 C_L L_1}$$

10.853 INVALID-ORDER-853 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 L_1 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_1 R_1 R_3 s^3 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_L L_1 L_L R_1 g_m r_o s^4 + C_1 C_L L_1 L}$$

10.854 INVALID-ORDER-854 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_L R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_L R_1 R_3 s^4 + C_1 C_3 L_1 L_L R_3 r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 s^4 + C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 L_1 L_L R_1 g_m r_o s^3 + C_1 L_1 L_L R_1}$$

10.855 INVALID-ORDER-855 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 C_L L_1 R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_1 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 R_1 R_3 g}$$

10.856 INVALID-ORDER-856 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1C_3L_1L_LR_1R_3R_Lg_mr_os^4 + C_1C_3L_1L_LR_1R_3R_Ls^4 + C_1C_3L_1L_LR_3R_Lr_os^4 + C_1C_LL_1L_LR_1R_3R_Lg_mr_os^4 + C_1C_LL_1L_LR_1R_3R_Ls^4 + C_1C_LL_1L_LR_3R_Lr_os^4 + C_1L_1L_LR_1R_3$$

10.857 INVALID-ORDER-857 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_1R_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_1R_3R_Ls^5 + C_1C_3C_LL_1L_LR_3R_Lr_os^5 + C_1C_3L_1L_LR_1R_3g_mr_os^4 + C_1C_3L_1L_LR_1R_3s^4 + C_1C_3L_1L_LR_3r_os^4 + C_1C_3L_1R_1R_3R$$

10.858 INVALID-ORDER-858 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_1R_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_1R_3R_Ls^5 + C_1C_3C_LL_1L_LR_3R_Lr_os^5 + C_1C_3L_1R_1R_3R_Lg_mr_os^3 + C_1C_3L_1R_1R_3R_Ls^3 + C_1C_3L_1R_3R_Lr_os^3 + C_1C_LL_1L_LR_1$$

10.859 INVALID-ORDER-859 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{}{C_1C_3L_1R_1R_3g_mr_os^3 + C_1C_3L_1R_1R_3s^3 + C_1C_3L_1R_1R_Lg_mr_os^3 + C_1C_3L_1R_1R_Ls^3 + C_1C_3L_1R_3R_Ls^3 + C_1C_3L_1R_3r_os^3 + C_1C_3L_1R_Lr_os^3 + C_1L_1R_1g_mr_os^2 + C_1L_1R_1s^2 +$$

10.860 INVALID-ORDER-860 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1R_1R_3g_mr_os^4 + C_1C_3C_LL_1R_1R_3s^4 + C_1C_3C_LL_1R_3r_os^4 + C_1C_3L_1R_1g_mr_os^3 + C_1C_3L_1R_1s^3 + C_1C_3L_1R_3s^3 + C_1C_3L_1r_os^3 + C_1C_LL_1R_1g_mr_os^3 + C_1C_LL_1R_1s^3$$

10.861 INVALID-ORDER-861 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1R_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_1R_1R_3R_Ls^4 + C_1C_3C_LL_1R_3R_Lr_os^4 + C_1C_3L_1R_1R_3g_mr_os^3 + C_1C_3L_1R_1R_3s^3 + C_1C_3L_1R_1R_Lg_mr_os^3 + C_1C_3L_1R_1R_Ls^3 + C_1C_3L_1$$

10.862 INVALID-ORDER-862 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1R_1R_3g_mr_os^4 + C_1C_3C_LL_1R_1R_3s^4 + C_1C_3C_LL_1R_1R_Lg_mr_os^4 + C_1C_3C_LL_1R_1R_Ls^4 + C_1C_3C_LL_1R_3R_Ls^4 + C_1C_3C_LL_1R_3r_os^4 + C_1C_3C_LL_1R_Lr_os^4 + C_1C_3L_1R$$

10.863 INVALID-ORDER-863 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_1g_mr_os^5 + C_1C_3C_LL_1L_LR_1s^5 + C_1C_3C_LL_1L_LR_3s^5 + C_1C_3C_LL_1L_Lr_os^5 + C_1C_3C_LL_1R_1R_3g_mr_os^4 + C_1C_3C_LL_1R_1R_3s^4 + C_1C_3C_LL_1R_3r_os^4 + C_1C_3L_1R_1$$

10.864 INVALID-ORDER-864 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_1R_3g_mr_os^5 + C_1C_3C_LL_1L_LR_1R_3s^5 + C_1C_3C_LL_1L_LR_3r_os^5 + C_1C_3L_1L_LR_1g_mr_os^4 + C_1C_3L_1L_LR_1s^4 + C_1C_3L_1L_LR_3s^4 + C_1C_3L_1L_Lr_os^4 + C_1C_3L_1R_1R_3$$

10.865 INVALID-ORDER-865 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_1g_mr_os^5 + C_1C_3C_LL_1L_LR_1s^5 + C_1C_3C_LL_1L_LR_3s^5 + C_1C_3C_LL_1L_Lr_os^5 + C_1C_3C_LL_1R_1R_3g_mr_os^4 + C_1C_3C_LL_1R_1R_3s^4 + C_1C_3C_LL_1R_1R_Lg_mr_os^4 + C_1C$$

10.866 INVALID-ORDER-866 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_L R_1 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 R_L r_o s^5 + C_1 C_3 L_1 L_L R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_L R_1 R_3 s^4 + C_1 C_3 L_1 L_L R_1 R_L g_m r_o s^4 + C_1 C_3 L_1 L}{}$$

10.867 INVALID-ORDER-867 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 C_L L_1 L_}{}$$

10.868 INVALID-ORDER-868 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 C_L L_1 L_}{}$$

10.869 INVALID-ORDER-869 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_3 L_1 R_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_1 R_L s^3 + C_1 C_3 L_1 R_L r_o s^3 + C_1 L_1 R_1 g_m r_o s^2 + C_1 L_1 R_1 s^2 + C}{}$$

10.870 INVALID-ORDER-870 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 s^5 + C_1 C_3 C_L L_1 L_3 r_o s^5 + C_1 C_3 L_1 L_3 s^4 + C_1 C_3 L_1 R_1 g_m r_o s^3 + C_1 C_3 L_1 R_1 s^3 + C_1 C_3 L_1 r_o s^3 + C_1 C_L L_1 R_1 g_m r_o s^3 + C_1 C_L L_1 R_1 s^3 +}{}$$

10.871 INVALID-ORDER-871 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_1R_Ls^5 + C_1C_3C_LL_1L_3R_Lr_os^5 + C_1C_3L_1L_3R_1g_mr_os^4 + C_1C_3L_1L_3R_1s^4 + C_1C_3L_1L_3R_Ls^4 + C_1C_3L_1L_3r_os^4 + C_1C_3L_1R_1R_Lg$$

10.872 INVALID-ORDER-872 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1g_mr_os^5 + C_1C_3C_LL_1L_3R_1s^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_1L_3r_os^5 + C_1C_3C_LL_1R_1R_Lg_mr_os^4 + C_1C_3C_LL_1R_1R_Ls^4 + C_1C_3C_LL_1R_Lr_os^4 + C_1C_3L_1L_3$$

10.873 INVALID-ORDER-873 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_3R_1g_mr_os^5 + C_1C_3C_LL_1L_3R_1s^5 + C_1C_3C_LL_1L_3r_os^5 + C_1C_3C_LL_1L_LR_1g_mr_os^5 + C_1C_3C_LL_1L_LR_1s^5 + C_1C_3C_LL_1L_Lr_os^5 + C_1C_3L_1L_3s$$

10.874 INVALID-ORDER-874 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1s^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3L_1L_3L_Ls^5 + C_1C_3L_1L_3R_1g_mr_os^4 + C_1C_3L_1L_3R_1s^4 + C_1C_3L_1L_3r_os^4 + C_1C_3L_1L_LR_1g_m$$

10.875 INVALID-ORDER-875 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_3R_1g_mr_os^5 + C_1C_3C_LL_1L_3R_1s^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_1L_3r_os^5 + C_1C_3C_LL_1L_LR_1g_mr_os^5 + C_1C_3C_LL_1L_LR_1s^5 + C_1C_3C_LL_1$$

10.876 INVALID-ORDER-876 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1R_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_Ls^6 + C_1C_3C_LL_1L_3L_LR_Lr_os^6 + C_1C_3L_1L_3L_LR_1g_mr_os^5 + C_1C_3L_1L_3L_LR_1s^5 + C_1C_3L_1L_3L_LR_Ls^5 + C_1C_3L_1L_3L_Lr$$

10.877 INVALID-ORDER-877 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1s^6 + C_1C_3C_LL_1L_3L_LR_Ls^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_1L_LR_1R_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_1R_Ls^5 + C_1C_3C_LL_1L_L$$

10.878 INVALID-ORDER-878 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1s^6 + C_1C_3C_LL_1L_3L_LR_Ls^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_1L_3R_1R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_1R_Ls^5 + C_1C_3C_LL_1L_3R$$

10.879 INVALID-ORDER-879 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{}{C_1C_3L_1L_3R_1R_Lg_mr_os^4 + C_1C_3L_1L_3R_1R_Ls^4 + C_1C_3L_1L_3R_Lr_os^4 + C_1L_1L_3R_1g_mr_os^3 + C_1L_1L_3R_1s^3 + C_1L_1L_3R_Ls^3 + C_1L_1L_3r_os^3 + C_1L_1R_1R_Lg_mr_os^2 + C_1L_1R_1R_Ls^2$$

10.880 INVALID-ORDER-880 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_3 s\,(g}{C_1C_3L_1L_3R_1g_mr_os^4 + C_1C_3L_1L_3R_1s^4 + C_1C_3L_1L_3r_os^4 + C_1C_LL_1L_3R_1g_mr_os^4 + C_1C_LL_1L_3R_1s^4 + C_1C_LL_1L_3r_os^4 + C_1L_1L_3s^3 + C_1L_1R_1g_mr_os^2 + C_1L_1R_1s^2 + C_1L_1r_o}$$

10.881 INVALID-ORDER-881 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_3L_1L_3R_1R_Lg_mr_os^4 + C_1C_3L_1L_3R_1R_Ls^4 + C_1C_3L_1L_3R_Lr_os^4 + C_1C_LL_1L_3R_1R_Lg_mr_os^4 + C_1C_LL_1L_3R_1R_Ls^4 + C_1C_LL_1L_3R_Lr_os^4 + C_1L_1L_3R_1g_mr_os^3 + C_1L_1L_3R_1s$$

10.882 INVALID-ORDER-882 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_1R_Ls^5 + C_1C_3C_LL_1L_3R_Lr_os^5 + C_1C_3L_1L_3R_1g_mr_os^4 + C_1C_3L_1L_3R_1s^4 + C_1C_3L_1L_3r_os^4 + C_1C_LL_1L_3R_1g_mr_os^4 + C_1C_LL_1L$$

10.883 INVALID-ORDER-883 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1s^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3L_1L_3R_1g_mr_os^4 + C_1C_3L_1L_3R_1s^4 + C_1C_3L_1L_3r_os^4 + C_1C_LL_1L_3L_Ls^5 + C_1C_LL_1L_3R_1g$$

10.884 INVALID-ORDER-884 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_3L_1L_3L_LR_1g_mr_os^4 + C_1C_3L_1L_3L_LR_1s^4 + C_1C_3L_1L_3L_Lr_os^4 + C_1C_LL_1L_3L_LR_1g_mr_os^4 + C_1C_LL_1L_3L_LR_1s^4 + C_1C_LL_1L_3L_Lr_os^4 + C_1L_1L_3L_Ls^3 + C_1L_1L_3R_1g_mr_os^2$$

10.885 INVALID-ORDER-885 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1s^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_1L_3R_1R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_1R_Ls^5 + C_1C_3C_LL_1L_3R_Lr_os^5 + C_1C_3L_1L_3R_1g_m$$

10.886 INVALID-ORDER-886 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1C_3L_1L_3L_LR_1R_Lg_mr_os^4 + C_1C_3L_1L_3L_LR_1R_Ls^4 + C_1C_3L_1L_3L_LR_Lr_os^4 + C_1C_LL_1L_3L_LR_1R_Lg_mr_os^4 + C_1C_LL_1L_3L_LR_1R_Ls^4 + C_1C_LL_1L_3L_LR_Lr_os^4 + C_1L_1L_3L_LR_1g$$

10.887 INVALID-ORDER-887 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1R_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_Ls^6 + C_1C_3C_LL_1L_3L_LR_Lr_os^6 + C_1C_3L_1L_3L_LR_1g_mr_os^5 + C_1C_3L_1L_3L_LR_1s^5 + C_1C_3L_1L_3L_Lr_os^5 + C_1C_3L_1L_3R_1R_$$

10.888 INVALID-ORDER-888 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1R_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_Ls^6 + C_1C_3C_LL_1L_3L_LR_Lr_os^6 + C_1C_3L_1L_3R_1R_Lg_mr_os^4 + C_1C_3L_1L_3R_1R_Ls^4 + C_1C_3L_1L_3R_Lr_os^4 + C_1C_LL_1L_3L_LR$$

10.889 INVALID-ORDER-889 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{}{C_1C_3L_1L_3R_1g_mr_os^4 + C_1C_3L_1L_3R_1s^4 + C_1C_3L_1L_3R_Ls^4 + C_1C_3L_1L_3r_os^4 + C_1C_3L_1R_1R_3g_mr_os^3 + C_1C_3L_1R_1R_3s^3 + C_1C_3L_1R_1R_Lg_mr_os^3 + C_1C_3L_1R_1R_Ls^3 + C_1C_3L_1$$

10.890 INVALID-ORDER-890 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1g_mr_os^5 + C_1C_3C_LL_1L_3R_1s^5 + C_1C_3C_LL_1L_3r_os^5 + C_1C_3C_LL_1R_1R_3g_mr_os^4 + C_1C_3C_LL_1R_1R_3s^4 + C_1C_3C_LL_1R_3r_os^4 + C_1C_3L_1L_3s^4 + C_1C_3L_1R_1g_mr_os^3$$

10.891 INVALID-ORDER-891 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_1R_Ls^5 + C_1C_3C_LL_1L_3R_Lr_os^5 + C_1C_3C_LL_1R_1R_3R_Lg_mr_os^4 + C_1C_3C_LL_1R_1R_3R_Ls^4 + C_1C_3C_LL_1R_3R_Lr_os^4 + C_1C_3L_1L_3R_1g}$$

10.892 INVALID-ORDER-892 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1g_mr_os^5 + C_1C_3C_LL_1L_3R_1s^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_1L_3r_os^5 + C_1C_3C_LL_1R_1R_3g_mr_os^4 + C_1C_3C_LL_1R_1R_3s^4 + C_1C_3C_LL_1R_1R_Lg_mr_os^4 + C_1C_3}$$

10.893 INVALID-ORDER-893 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_3R_1g_mr_os^5 + C_1C_3C_LL_1L_3R_1s^5 + C_1C_3C_LL_1L_3r_os^5 + C_1C_3C_LL_1L_LR_1g_mr_os^5 + C_1C_3C_LL_1L_LR_1s^5 + C_1C_3C_LL_1L_LR_3s^5 + C_1C_3C_LL_}$$

10.894 INVALID-ORDER-894 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1s^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_1L_LR_1R_3g_mr_os^5 + C_1C_3C_LL_1L_LR_1R_3s^5 + C_1C_3C_LL_1L_LR_3r_os^5 + C_1C_3L_1L_3L_Ls^5}$$

10.895 INVALID-ORDER-895 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_3R_1g_mr_os^5 + C_1C_3C_LL_1L_3R_1s^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_1L_3r_os^5 + C_1C_3C_LL_1L_LR_1g_mr_os^5 + C_1C_3C_LL_1L_LR_1s^5 + C_1C_3C_LL_}$$

10.896 INVALID-ORDER-896 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1R_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_Ls^6 + C_1C_3C_LL_1L_3L_LR_Lr_os^6 + C_1C_3C_LL_1L_LR_1R_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_LR_1R_3R_Ls^5 + C_1C_3C_LL_1L_LR_3R_Lr_os^5}$$

10.897 INVALID-ORDER-897 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1s^6 + C_1C_3C_LL_1L_3L_LR_Ls^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_1L_LR_1R_3g_mr_os^5 + C_1C_3C_LL_1L_LR_1R_3s^5 + C_1C_3C_LL_1L_L}$$

10.898 INVALID-ORDER-898 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1s^6 + C_1C_3C_LL_1L_3L_LR_Ls^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_1L_3R_1R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_1R_Ls^5 + C_1C_3C_LL_1L_3R}$$

10.899 INVALID-ORDER-899 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{}{C_1C_3L_1L_3R_1R_3R_Lg_mr_os^4 + C_1C_3L_1L_3R_1R_3R_Ls^4 + C_1C_3L_1L_3R_3R_Lr_os^4 + C_1L_1L_3R_1R_3g_mr_os^3 + C_1L_1L_3R_1R_3s^3 + C_1L_1L_3R_1R_Lg_mr_os^3 + C_1L_1L_3R_1R_Ls^3 + C_1L_1L_3R}$$

10.900 INVALID-ORDER-900 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3L_1L_3R_1R_3g_mr_os^4 + C_1C_3L_1L_3R_1R_3s^4 + C_1C_3L_1L_3R_3r_os^4 + C_1C_LL_1L_3R_1R_3g_mr_os^4 + C_1C_LL_1L_3R_1R_3s^4 + C_1C_LL_1L_3R_3r_os^4 + C_1L_1L_3R_1g_mr_os^3 + C_1L_1L_3R_1s^3}$$

10.901 INVALID-ORDER-901 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1} \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3 R_L s^4 + C_1 C_3 L_1 L_3 R_3 R_L r_o s^4 + C_1 C_L L_1 L_3 R_1 R_3 R_L g_m r_o s^4 + C_1 C_L L_1 L_3 R_1 R_3 R_L s^4 + C_1 C_L L_1 L_3 R_3 R_L r_o s^4 + C_1 L_1 L_3 R_1 R_3 g_}{}$$

10.902 INVALID-ORDER-902 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3 s^4 + C_1 C_3 L_1 L_3 R_3 r_o s^4 + C_1 C_L L_1 L_3 R_1 R_3}{}$$

10.903 INVALID-ORDER-903 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 r_o s^6 + C_1 C_3 L_1 L_3 R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3 s^4 + C_1 C_3 L_1 L_3 R_3 r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 g}{}$$

10.904 INVALID-ORDER-904 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_L R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 L_L R_1 R_3 s^4 + C_1 C_3 L_1 L_3 L_L R_3 r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_3 g_m r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_3 s^4 + C_1 C_L L_1 L_3 L_L R_3 r_o s^4 + C_1 L_1 L_3 L_L R_1 g_m}{}$$

10.905 INVALID-ORDER-905 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L r_o s^5 +}{}$$

10.906 INVALID-ORDER-906 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_L R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 L_L R_1 R_3 R_L s^4 + C_1 C_3 L_1 L_3 L_L R_3 R_L r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_3 R_L g_m r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_3 R_L s^4 + C_1 C_L L_1 L_3 L_L R_3 R_L r_o s^4}{}$$

10.907 INVALID-ORDER-907 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 R_L r_o s^6 + C_1 C_3 L_1 L_3 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 R_3 s^5 + C_1 C_3 L_1 L_3 L_L R_3 r_o s^5 +}{}$$

10.908 INVALID-ORDER-908 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 R_L r_o s^6 + C_1 C_3 L_1 L_3 R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3 R_L s^4 + C_1 C_3 L_1 L_3 R_3 R_L r_o s^4 +}{}$$

10.909 INVALID-ORDER-909 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3 s^4 + C_1 C_3 L_1 L_3 R_1 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_L s^4 + C_1 C_3 L_1 L_3 R_3 R_L s^4 + C_1 C_3 L_1 L_3 R_3 r_o s^4 + C_1 C_3 L_1 L_3 R_L r_o s^4 + C_1 L_1 L_3 R_1 g_m}{}$$

10.910 INVALID-ORDER-910 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R_3 r_o s^5 + C_1 C_3 L_1 L_3 R_1 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_L L_1 L_3 R_1 g_m}{}$$

10.911 INVALID-ORDER-911 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3 s^4 + C_1 C_3 L_1 L_3 R_1 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3}{}$$

10.912 INVALID-ORDER-912 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_3 r_o s^5 + C_1 C_3 C_L L_1 L_3 R}{}$$

10.913 INVALID-ORDER-913 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R}{}$$

10.914 INVALID-ORDER-914 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 r_o s^6 + C_1 C_3 L_1 L_3 L_L R_1 g_m r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 s^5 + C_1 C_3 L_1 L_3 L_L R_3 s^5 + C_1 C_3 L_1 L_3 L_L r_o}{}$$

10.915 INVALID-ORDER-915 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R}{}$$

10.916 INVALID-ORDER-916 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1R_3R_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_3R_Ls^6 + C_1C_3C_LL_1L_3L_LR_3R_Lr_os^6 + C_1C_3L_1L_3L_LR_1R_3g_mr_os^5 + C_1C_3L_1L_3L_LR_1R_3s^5 + C_1C_3L_1L_3L_LR_1R_Lg_m}$$

10.917 INVALID-ORDER-917 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1R_3g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_3s^6 + C_1C_3C_LL_1L_3L_LR_1R_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_Ls^6 + C_1C_3C_LL_1L_3L_LR_3R_Ls^6 + C_1C_3C_LL_1L_3L_LR_3r_os^6}$$

10.918 INVALID-ORDER-918 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1R_3g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_3s^6 + C_1C_3C_LL_1L_3L_LR_1R_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_Ls^6 + C_1C_3C_LL_1L_3L_LR_3R_Ls^6 + C_1C_3C_LL_1L_3L_LR_3r_os^6}$$

10.919 INVALID-ORDER-919 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{}{C_1C_3L_1L_3R_1R_3g_mr_os^4 + C_1C_3L_1L_3R_1R_3s^4 + C_1C_3L_1L_3R_1R_Lg_mr_os^4 + C_1C_3L_1L_3R_1R_Ls^4 + C_1C_3L_1L_3R_3R_Ls^4 + C_1C_3L_1L_3R_3r_os^4 + C_1C_3L_1L_3R_Lr_os^4 + C_1C_3L_1R_1R}$$

10.920 INVALID-ORDER-920 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1R_3g_mr_os^5 + C_1C_3C_LL_1L_3R_1R_3s^5 + C_1C_3C_LL_1L_3R_3r_os^5 + C_1C_3L_1L_3R_1g_mr_os^4 + C_1C_3L_1L_3R_1s^4 + C_1C_3L_1L_3R_3s^4 + C_1C_3L_1L_3r_os^4 + C_1C_3L_1R_1R_3g_m}$$

10.921 INVALID-ORDER-921 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1R_3R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_1R_3R_Ls^5 + C_1C_3C_LL_1L_3R_3R_Lr_os^5 + C_1C_3L_1L_3R_1R_3g_mr_os^4 + C_1C_3L_1L_3R_1R_3s^4 + C_1C_3L_1L_3R_1R_Lg_mr_os^4 + C_1C_3L_1L_3$$

10.922 INVALID-ORDER-922 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1R_3g_mr_os^5 + C_1C_3C_LL_1L_3R_1R_3s^5 + C_1C_3C_LL_1L_3R_1R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_1R_Ls^5 + C_1C_3C_LL_1L_3R_3R_Ls^5 + C_1C_3C_LL_1L_3R_3r_os^5 + C_1C_3C_LL_1L_3R$$

10.923 INVALID-ORDER-923 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1s^6 + C_1C_3C_LL_1L_3L_LR_3s^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_1L_3R_1R_3g_mr_os^5 + C_1C_3C_LL_1L_3R_1R_3s^5 + C_1C_3C_LL_1L_3R$$

10.924 INVALID-ORDER-924 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1R_3g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_3s^6 + C_1C_3C_LL_1L_3L_LR_3r_os^6 + C_1C_3L_1L_3L_LR_1g_mr_os^5 + C_1C_3L_1L_3L_LR_1s^5 + C_1C_3L_1L_3L_LR_3s^5 + C_1C_3L_1L_3L_Lr_o$$

10.925 INVALID-ORDER-925 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1s^6 + C_1C_3C_LL_1L_3L_LR_3s^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_1L_3R_1R_3g_mr_os^5 + C_1C_3C_LL_1L_3R_1R_3s^5 + C_1C_3C_LL_1L_3R$$

10.926 INVALID-ORDER-926 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1R_3R_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_3R_Ls^6 + C_1C_3C_LL_1L_3L_LR_3R_Lr_os^6 + C_1C_3L_1L_3L_LR_1R_3g_mr_os^5 + C_1C_3L_1L_3L_LR_1R_3s^5 + C_1C_3L_1L_3L_LR_1R_Lg_m}$$

10.927 INVALID-ORDER-927 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1R_3g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_3s^6 + C_1C_3C_LL_1L_3L_LR_1R_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_Ls^6 + C_1C_3C_LL_1L_3L_LR_3R_Ls^6 + C_1C_3C_LL_1L_3L_LR_3r_os^6}$$

10.928 INVALID-ORDER-928 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1R_3g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_3s^6 + C_1C_3C_LL_1L_3L_LR_1R_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_Ls^6 + C_1C_3C_LL_1L_3L_LR_3R_Ls^6 + C_1C_3C_LL_1L_3L_LR_3r_os^6}$$

10.929 INVALID-ORDER-929 $Z(s) = \left(\frac{R_1\left(L_1 s+\frac{1}{C_1 s}\right)}{L_1 s+R_1+\frac{1}{C_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1R_3\left(g_mr_o+1\right)\left(C_1L_1s^2+1\right)}{C_1C_LL_1R_1R_3g_mr_os^3 + C_1C_LL_1R_1R_3s^3 + C_1C_LL_1R_3r_os^3 + C_1C_LR_1R_3r_os^2 + C_1L_1R_1g_mr_os^2 + C_1L_1R_1s^2 + C_1L_1R_3s^2 + C_1L_1r_os^2 + C_1R_1R_3s + C_1R_1r_os + C_LR_1R_3g_m}$$

10.930 INVALID-ORDER-930 $Z(s) = \left(\frac{R_1\left(L_1 s+\frac{1}{C_1 s}\right)}{L_1 s+R_1+\frac{1}{C_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1} \right)$

$$H(s) = \frac{}{C_1C_LL_1R_1R_3R_Lg_mr_os^3 + C_1C_LL_1R_1R_3R_Ls^3 + C_1C_LL_1R_3R_Lr_os^3 + C_1C_LR_1R_3R_Lr_os^2 + C_1L_1R_1R_3g_mr_os^2 + C_1L_1R_1R_3s^2 + C_1L_1R_1R_Lg_mr_os^2 + C_1L_1R_1R_Ls^2 + C_1L_1}$$

10.931 INVALID-ORDER-931 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_L L_1 R_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_1 R_3 s^3 + C_1 C_L L_1 R_1 R_L g_m r_o s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_3 R_L s^3 + C_1 C_L L_1 R_3 r_o s^3 + C_1 C_L L_1 R_L r_o s^3 + C_1 C_L R_1 R_3 R_L s^2 + C_1 C_L R_1}{}$$

10.932 INVALID-ORDER-932 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_L L_1 L_L R_1 g_m r_o s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_3 s^4 + C_1 C_L L_1 L_L r_o s^4 + C_1 C_L L_1 R_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_1 R_3 s^3 + C_1 C_L L_1 R_3 r_o s^3 + C_1 C_L L_L R_1 R_3 s^3 + C_1 C_L L_L R}{}$$

10.933 INVALID-ORDER-933 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_L L_1 L_L R_1 R_3 g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 s^4 + C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 C_L L_L R_1 R_3 r_o s^3 + C_1 L_1 L_L R_1 g_m r_o s^3 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 L_L R_3 s^3 + C_1 L_1 L_L r_o s^3 + C_1 L_1 R_1 R_3}{}$$

10.934 INVALID-ORDER-934 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_L L_1 L_L R_1 g_m r_o s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_3 s^4 + C_1 C_L L_1 L_L r_o s^4 + C_1 C_L L_1 R_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_1 R_3 s^3 + C_1 C_L L_1 R_1 R_L g_m r_o s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C}{}$$

10.935 INVALID-ORDER-935 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_L L_1 L_L R_1 R_3 R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 R_L s^4 + C_1 C_L L_1 L_L R_3 R_L r_o s^4 + C_1 C_L L_L R_1 R_3 R_L r_o s^3 + C_1 L_1 L_L R_1 R_3 g_m r_o s^3 + C_1 L_1 L_L R_1 R_3 s^3 + C_1 L_1 L_L R_1 R_L g_m r_o s^3 + C}{}$$

10.936 INVALID-ORDER-936 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_1 R_3 g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 s^4 + C_1 C_L L_1 L_L R_1 R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_3 R_L s^4 + C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 C_L L_1 L_L R_L r_o s^4 + C_1 C_L L_1$$

10.937 INVALID-ORDER-937 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_1 R_3 g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 s^4 + C_1 C_L L_1 L_L R_1 R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_3 R_L s^4 + C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 C_L L_1 L_L R_L r_o s^4 + C_1 C_L L_1$$

10.938 INVALID-ORDER-938 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{R_1 R_L \left(g_m r_o + 1\right)\left(C_1 L_1 s^2 + 1\right)}{C_1 C_3 L_1 R_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_1 R_L s^3 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_3 R_1 R_L r_o s^2 + C_1 L_1 R_1 g_m r_o s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_L s^2 + C_1 L_1 r_o s^2 + C_1 R_1 R_L s + C_1 R_1 r_o s + C_3 R_1 R_L g_m$$

10.939 INVALID-ORDER-939 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 \left(g_m r_o + 1\right)\left(C_1 L_1 s^2 + 1\right)}{C_1 C_3 L_1 R_1 g_m r_o s^3 + C_1 C_3 L_1 R_1 s^3 + C_1 C_3 L_1 r_o s^3 + C_1 C_3 R_1 r_o s^2 + C_1 C_L L_1 R_1 g_m r_o s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 r_o s^3 + C_1 C_L R_1 r_o s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_3 R_1 g_m r_o s + C$$

10.940 INVALID-ORDER-940 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_1 R_L \left(g_m r\right.}{C_1 C_3 L_1 R_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_1 R_L s^3 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_3 R_1 R_L r_o s^2 + C_1 C_L L_1 R_1 R_L g_m r_o s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_L r_o s^3 + C_1 C_L R_1 R_L r_o s^2 + C_1 L_1 R_1 g_m$$

10.941 INVALID-ORDER-941 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1R_1R_Lg_mr_os^4 + C_1C_3C_LL_1R_1R_Ls^4 + C_1C_3C_LL_1R_Lr_os^4 + C_1C_3C_LR_1R_Lr_os^3 + C_1C_3L_1R_1g_mr_os^3 + C_1C_3L_1R_1s^3 + C_1C_3L_1r_os^3 + C_1C_3R_1r_os^2 + C_1C_LL_1R_1g_}$$

10.942 INVALID-ORDER-942 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_1g_mr_os^5 + C_1C_3C_LL_1L_LR_1s^5 + C_1C_3C_LL_1L_Lr_os^5 + C_1C_3C_LL_LR_1r_os^4 + C_1C_3L_1R_1g_mr_os^3 + C_1C_3L_1R_1s^3 + C_1C_3L_1r_os^3 + C_1C_3R_1r_os^2 + C_1C_LL_1L_Ls^4}$$

10.943 INVALID-ORDER-943 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_LR_1s(g}{C_1C_3L_1L_LR_1g_mr_os^4 + C_1C_3L_1L_LR_1s^4 + C_1C_3L_1L_Lr_os^4 + C_1C_3L_LR_1r_os^3 + C_1C_LL_1L_LR_1g_mr_os^4 + C_1C_LL_1L_LR_1s^4 + C_1C_LL_1L_Lr_os^4 + C_1C_LL_LR_1r_os^3 + C_1L_1L_Ls^3 +}$$

10.944 INVALID-ORDER-944 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_LR_1g_mr_os^5 + C_1C_3C_LL_1L_LR_1s^5 + C_1C_3C_LL_1L_Lr_os^5 + C_1C_3C_LL_1R_1R_Lg_mr_os^4 + C_1C_3C_LL_1R_1R_Ls^4 + C_1C_3C_LL_1R_Lr_os^4 + C_1C_3C_LL_LR_1r_os^4 + C_1C_3C_LR}$$

10.945 INVALID-ORDER-945 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1C_3L_1L_LR_1R_Lg_mr_os^4 + C_1C_3L_1L_LR_1R_Ls^4 + C_1C_3L_1L_LR_Lr_os^4 + C_1C_3L_LR_1R_Lr_os^3 + C_1C_LL_1L_LR_1R_Lg_mr_os^4 + C_1C_LL_1L_LR_1R_Ls^4 + C_1C_LL_1L_LR_Lr_os^4 + C_1C_LL_L}$$

10.946 INVALID-ORDER-946 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L s^5 + C_1 C_3 C_L L_1 L_L R_L r_o s^5 + C_1 C_3 C_L L_L R_1 R_L r_o s^4 + C_1 C_3 L_1 L_L R_1 g_m r_o s^4 + C_1 C_3 L_1 L_L R_1 s^4 + C_1 C_3 L_1 L_L r_o s^4 + C_1 C_3 L}{}$$

10.947 INVALID-ORDER-947 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L s^5 + C_1 C_3 C_L L_1 L_L R_L r_o s^5 + C_1 C_3 C_L L_L R_1 R_L r_o s^4 + C_1 C_3 L_1 R_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_1 R_L s^3 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_3 R}{}$$

10.948 INVALID-ORDER-948 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{R}{C_1 C_3 L_1 R_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_1 R_1 R_3 R_L s^3 + C_1 C_3 L_1 R_3 R_L r_o s^3 + C_1 C_3 R_1 R_3 R_L r_o s^2 + C_1 L_1 R_1 R_3 g_m r_o s^2 + C_1 L_1 R_1 R_3 s^2 + C_1 L_1 R_1 R_L g_m r_o s^2 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R}{}$$

10.949 INVALID-ORDER-949 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 R_3 \left(g_m r_o + \right.}{C_1 C_3 L_1 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_1 R_1 R_3 s^3 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_3 R_1 R_3 r_o s^2 + C_1 C_L L_1 R_1 R_3 g_m r_o s^3 + C_1 C_L L_1 R_1 R_3 s^3 + C_1 C_L L_1 R_3 r_o s^3 + C_1 C_L R_1 R_3 r_o s^2 + C_1 L_1 R_1 g_m r_o s}$$

10.950 INVALID-ORDER-950 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_3 L_1 R_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_1 R_1 R_3 R_L s^3 + C_1 C_3 L_1 R_3 R_L r_o s^3 + C_1 C_3 R_1 R_3 R_L r_o s^2 + C_1 C_L L_1 R_1 R_3 R_L g_m r_o s^3 + C_1 C_L L_1 R_1 R_3 R_L s^3 + C_1 C_L L_1 R_3 R_L r_o s^3 + C_1 C_L R_1 R}{}$$

10.951 INVALID-ORDER-951 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_1 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_1 R_3 R_L r_o s^4 + C_1 C_3 C_L R_1 R_3 R_L r_o s^3 + C_1 C_3 L_1 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_1 R_1 R_3 s^3 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_3 R_1}{}$$

10.952 INVALID-ORDER-952 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 C_L L_L R_1 R_3 r_o s^4 + C_1 C_3 L_1 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_1 R_1 R_3 s^3 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_3 R_1}{}$$

10.953 INVALID-ORDER-953 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_L R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_L R_1 R_3 s^4 + C_1 C_3 L_1 L_L R_3 r_o s^4 + C_1 C_3 L_L R_1 R_3 r_o s^3 + C_1 C_L L_1 L_L R_1 R_3 g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 s^4 + C_1 C_L L_1 L_L R_3 r_o s^4 + C_1 C_L L_L R_1}{}$$

10.954 INVALID-ORDER-954 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 C_L L_1 R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_1 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_1 R_3 R_L r_o s^4 + C_1 C_3 C_L L_L R_1}{}$$

10.955 INVALID-ORDER-955 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_L R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_L R_1 R_3 R_L s^4 + C_1 C_3 L_1 L_L R_3 R_L r_o s^4 + C_1 C_3 L_L R_1 R_3 R_L r_o s^3 + C_1 C_L L_1 L_L R_1 R_3 R_L g_m r_o s^4 + C_1 C_L L_1 L_L R_1 R_3 R_L s^4 + C_1 C_L L_1 L_L R_3}{}$$

10.956 INVALID-ORDER-956 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_L R_1 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 R_L r_o s^5 + C_1 C_3 C_L L_L R_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_L R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_L R_1 R_3 s^4 + C_1 C_3 L_1}{}$$

10.957 INVALID-ORDER-957 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_L R_1 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 R_L r_o s^5 + C_1 C_3 C_L L_L R_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 R_1 R_3 R_L g_m r_o s^3 + C_1 C_3 L_1 R_1 R_3 R_L s^3 + C_1 C_3 L_1}{}$$

10.958 INVALID-ORDER-958 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{C_1 C_3 L_1 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_1 R_1 R_3 s^3 + C_1 C_3 L_1 R_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_1 R_L s^3 + C_1 C_3 L_1 R_3 R_L s^3 + C_1 C_3 L_1 R_3 r_o s^3 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_3 R_1 R_3 R_L s^2 + C_1 C_3 R_1 R_3 r}{}$$

10.959 INVALID-ORDER-959 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 R_1 R_3 g_m r_o s^4 + C_1 C_3 C_L L_1 R_1 R_3 s^4 + C_1 C_3 C_L L_1 R_3 r_o s^4 + C_1 C_3 C_L R_1 R_3 r_o s^3 + C_1 C_3 L_1 R_1 g_m r_o s^3 + C_1 C_3 L_1 R_1 s^3 + C_1 C_3 L_1 R_3 s^3 + C_1 C_3 L_1 r_o s^3 + C_1 C_3 R_1 R_3 s^2}{}$$

10.960 INVALID-ORDER-960 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_1 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_1 R_3 R_L r_o s^4 + C_1 C_3 C_L R_1 R_3 R_L r_o s^3 + C_1 C_3 L_1 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_1 R_1 R_3 s^3 + C_1 C_3 L_1 R_1 R_L g_m r_o s^3 + C_1}{}$$

10.961 INVALID-ORDER-961 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 R_1 R_3 g_m r_o s^4 + C_1 C_3 C_L L_1 R_1 R_3 s^4 + C_1 C_3 C_L L_1 R_1 R_L g_m r_o s^4 + C_1 C_3 C_L L_1 R_1 R_L s^4 + C_1 C_3 C_L L_1 R_3 R_L s^4 + C_1 C_3 C_L L_1 R_3 r_o s^4 + C_1 C_3 C_L L_1 R_L r_o s^4 + C_1 C_3 C_L R}{}$$

10.962 INVALID-ORDER-962 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_L R_1 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 s^5 + C_1 C_3 C_L L_1 L_L R_3 s^5 + C_1 C_3 C_L L_1 L_L r_o s^5 + C_1 C_3 C_L L_1 R_1 R_3 g_m r_o s^4 + C_1 C_3 C_L L_1 R_1 R_3 s^4 + C_1 C_3 C_L L_1 R_3 r_o s^4 + C_1 C_3 C_L L}{}$$

10.963 INVALID-ORDER-963 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 C_L L_L R_1 R_3 r_o s^4 + C_1 C_3 L_1 L_L R_1 g_m r_o s^4 + C_1 C_3 L_1 L_L R_1 s^4 + C_1 C_3 L_1 L_L R_3 s^4 + C_1 C_3 L_1}{}$$

10.964 INVALID-ORDER-964 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_L R_1 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 s^5 + C_1 C_3 C_L L_1 L_L R_3 s^5 + C_1 C_3 C_L L_1 L_L r_o s^5 + C_1 C_3 C_L L_1 R_1 R_3 g_m r_o s^4 + C_1 C_3 C_L L_1 R_1 R_3 s^4 + C_1 C_3 C_L L_1 R_1 R_L g_m r_o s^4 + C_1 C}{}$$

10.965 INVALID-ORDER-965 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_L R_1 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 R_L r_o s^5 + C_1 C_3 C_L L_L R_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_L R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_L R_1 R_3 s^4 + C_1 C_3 L_1}{}$$

10.966 INVALID-ORDER-966 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 C_L L_1 L_L}{}$$

10.967 INVALID-ORDER-967 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 C_L L_1 L_L}{}$$

10.968 INVALID-ORDER-968 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_3 L_1 R_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_1 R_L s^3 + C_1 C_3 L_1 R_L r_o s^3 + C_1 C_3 L_3 R_1 R_L s^3 + C_1 C_3 L_3 R_1 r_o}{}$$

10.969 INVALID-ORDER-969 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 s^5 + C_1 C_3 C_L L_1 L_3 r_o s^5 + C_1 C_3 C_L L_3 R_1 r_o s^4 + C_1 C_3 L_1 L_3 s^4 + C_1 C_3 L_1 R_1 g_m r_o s^3 + C_1 C_3 L_1 R_1 s^3 + C_1 C_3 L_1 r_o s^3 + C_1 C_3 L_3 R_1 s^3 -}{}$$

10.970 INVALID-ORDER-970 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_L r_o s^5 + C_1 C_3 C_L L_3 R_1 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_1 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_1}{}$$

10.971 INVALID-ORDER-971 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3R_1g_mr_os^5 + C_1C_3C_LL_1L_3R_1s^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_1L_3r_os^5 + C_1C_3C_LL_1R_1R_Lg_mr_os^4 + C_1C_3C_LL_1R_1R_Ls^4 + C_1C_3C_LL_1R_Lr_os^4 + C_1C_3C_LL_3$$

10.972 INVALID-ORDER-972 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_3R_1g_mr_os^5 + C_1C_3C_LL_1L_3R_1s^5 + C_1C_3C_LL_1L_3r_os^5 + C_1C_3C_LL_1L_LR_1g_mr_os^5 + C_1C_3C_LL_1L_LR_1s^5 + C_1C_3C_LL_1L_Lr_os^5 + C_1C_3C_LL_3$$

10.973 INVALID-ORDER-973 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1s^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_3L_LR_1r_os^5 + C_1C_3L_1L_3L_Ls^5 + C_1C_3L_1L_3R_1g_mr_os^4 + C_1C_3L_1L_3R_1s^4 + C_1C_3L_1L$$

10.974 INVALID-ORDER-974 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_Ls^6 + C_1C_3C_LL_1L_3R_1g_mr_os^5 + C_1C_3C_LL_1L_3R_1s^5 + C_1C_3C_LL_1L_3R_Ls^5 + C_1C_3C_LL_1L_3r_os^5 + C_1C_3C_LL_1L_LR_1g_mr_os^5 + C_1C_3C_LL_1L_LR_1s^5 + C_1C_3C_LL_1$$

10.975 INVALID-ORDER-975 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1R_Lg_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1R_Ls^6 + C_1C_3C_LL_1L_3L_LR_Lr_os^6 + C_1C_3C_LL_3L_LR_1R_Lr_os^5 + C_1C_3L_1L_3L_LR_1g_mr_os^5 + C_1C_3L_1L_3L_LR_1s^5 + C_1C_3L_1L$$

10.976 INVALID-ORDER-976 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_1 L_L R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_L s^5 + C_1 C_3 C_L L_1 L_L}$$

10.977 INVALID-ORDER-977 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_L s^5 + C_1 C_3 C_L L_1 L_3 R}$$

10.978 INVALID-ORDER-978 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_3 R_1 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_L s^4 + C_1 C_3 L_1 L_3 R_L r_o s^4 + C_1 C_3 L_3 R_1 R_L r_o s^3 + C_1 L_1 L_3 R_1 g_m r_o s^3 + C_1 L_1 L_3 R_1 s^3 + C_1 L_1 L_3 R_L s^3 + C_1 L_1 L_3 r_o s^3 + C_1 L_1 R_1 R_L g_m}$$

10.979 INVALID-ORDER-979 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_3 R_1 s\,(g_m r}{C_1 C_3 L_1 L_3 R_1 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_3 L_3 R_1 r_o s^3 + C_1 C_L L_1 L_3 R_1 g_m r_o s^4 + C_1 C_L L_1 L_3 R_1 s^4 + C_1 C_L L_1 L_3 r_o s^4 + C_1 C_L L_3 R_1 r_o s^3 + C_1 L_1 L_3 s^3 + C}$$

10.980 INVALID-ORDER-980 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_3 R_1 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_L s^4 + C_1 C_3 L_1 L_3 R_L r_o s^4 + C_1 C_3 L_3 R_1 R_L r_o s^3 + C_1 C_L L_1 L_3 R_1 R_L g_m r_o s^4 + C_1 C_L L_1 L_3 R_1 R_L s^4 + C_1 C_L L_1 L_3 R_L r_o s^4 + C_1 C_L L_3 R_1}$$

10.981 INVALID-ORDER-981 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_L r_o s^5 + C_1 C_3 C_L L_3 R_1 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_1 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_3 L_3 R$

10.982 INVALID-ORDER-982 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 s^6 + C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_3 L_L R_1 r_o s^5 + C_1 C_3 L_1 L_3 R_1 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_3 L_3 R_$

10.983 INVALID-ORDER-983 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$H(s) = \frac{}{C_1 C_3 L_1 L_3 L_L R_1 g_m r_o s^4 + C_1 C_3 L_1 L_3 L_L R_1 s^4 + C_1 C_3 L_1 L_3 L_L r_o s^4 + C_1 C_3 L_3 L_L R_1 r_o s^3 + C_1 C_L L_1 L_3 L_L R_1 g_m r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 s^4 + C_1 C_L L_1 L_3 L_L r_o s^4 + C_1 C_L L_3 L_L R$

10.984 INVALID-ORDER-984 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 s^6 + C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_L r_o s^5 + C_1 C_3 C_L L_3 L_L R$

10.985 INVALID-ORDER-985 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$H(s) = \frac{}{C_1 C_3 L_1 L_3 L_L R_1 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 L_L R_1 R_L s^4 + C_1 C_3 L_1 L_3 L_L R_L r_o s^4 + C_1 C_3 L_3 L_L R_1 R_L r_o s^3 + C_1 C_L L_1 L_3 L_L R_1 R_L g_m r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_L s^4 + C_1 C_L L_1 L_3 L_L$

10.986 INVALID-ORDER-986 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L r_o s^6 + C_1 C_3 C_L L_3 L_L R_1 R_L r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 g_m r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 s^5 + C_1 C_3 L_1 L}{}$

10.987 INVALID-ORDER-987 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L r_o s^6 + C_1 C_3 C_L L_3 L_L R_1 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_L s^4 + C_1 C_3 L_1 L}{}$

10.988 INVALID-ORDER-988 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L \right)$

$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 L_3 R_L s^4 + C_1 C_3 L_1 L_3 r_o s^4 + C_1 C_3 L_1 R_1 R_3 g_m r_o s^3 + C_1 C_3 L_1 R_1 R_3 s^3 + C_1 C_3 L_1 R_1 R_L g_m r_o s^3 + C_1 C_3 L_1 R_1 R_L s^3 + C_1 C_3 L_1}{}$

10.989 INVALID-ORDER-989 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 s^5 + C_1 C_3 C_L L_1 L_3 r_o s^5 + C_1 C_3 C_L L_1 R_1 R_3 g_m r_o s^4 + C_1 C_3 C_L L_1 R_1 R_3 s^4 + C_1 C_3 C_L L_1 R_3 r_o s^4 + C_1 C_3 C_L L_3 R_1 r_o s^4 + C_1 C_3 C_L R_1 R}{}$

10.990 INVALID-ORDER-990 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_L r_o s^5 + C_1 C_3 C_L L_1 R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 C_L L_1 R_1 R_3 R_L s^4 + C_1 C_3 C_L L_1 R_3 R_L r_o s^4 + C_1 C_3 C_L L_3 R_1}{}$

10.991 INVALID-ORDER-991 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 s^5 + C_1 C_3 C_L L_1 L_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 r_o s^5 + C_1 C_3 C_L L_1 R_1 R_3 g_m r_o s^4 + C_1 C_3 C_L L_1 R_1 R_3 s^4 + C_1 C_3 C_L L_1 R_1 R_L g_m r_o s^4 + C_1 C_3}{}$$

10.992 INVALID-ORDER-992 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_1 L_3 R_1 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 s^5 + C_1 C_3 C_L L_1 L_3 r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 s^5 + C_1 C_3 C_L L_1 L_L R_3 s^5 + C_1 C_3 C_L L_}{}$$

10.993 INVALID-ORDER-993 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 s^6 + C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_1 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_L R_3 r_o s^5 + C_1 C_3 C_L L_3 L_L R}{}$$

10.994 INVALID-ORDER-994 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L s^6 + C_1 C_3 C_L L_1 L_3 R_1 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 s^5 + C_1 C_3 C_L L_1 L_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 s^5 + C_1 C_3 C_L L_}{}$$

10.995 INVALID-ORDER-995 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_L r_o s^6 + C_1 C_3 C_L L_1 L_L R_1 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_L R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_L R_3 R_L r_o s^5}{}$$

10.996 INVALID-ORDER-996 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1s^6 + C_1C_3C_LL_1L_3L_LR_Ls^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_1L_LR_1R_3g_mr_os^5 + C_1C_3C_LL_1L_LR_1R_3s^5 + C_1C_3C_LL_1L_L$$

10.997 INVALID-ORDER-997 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1C_3C_LL_1L_3L_LR_1g_mr_os^6 + C_1C_3C_LL_1L_3L_LR_1s^6 + C_1C_3C_LL_1L_3L_LR_Ls^6 + C_1C_3C_LL_1L_3L_Lr_os^6 + C_1C_3C_LL_1L_3R_1R_Lg_mr_os^5 + C_1C_3C_LL_1L_3R_1R_Ls^5 + C_1C_3C_LL_1L_3R$$

10.998 INVALID-ORDER-998 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{}{C_1C_3L_1L_3R_1R_3R_Lg_mr_os^4 + C_1C_3L_1L_3R_1R_3R_Ls^4 + C_1C_3L_1L_3R_3R_Lr_os^4 + C_1C_3L_3R_1R_3R_Lr_os^3 + C_1L_1L_3R_1R_3g_mr_os^3 + C_1L_1L_3R_1R_3s^3 + C_1L_1L_3R_1R_Lg_mr_os^3 + C_1L$$

10.999 INVALID-ORDER-999 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1C_3L_1L_3R_1R_3g_mr_os^4 + C_1C_3L_1L_3R_1R_3s^4 + C_1C_3L_1L_3R_3r_os^4 + C_1C_3L_3R_1R_3r_os^3 + C_1C_LL_1L_3R_1R_3g_mr_os^4 + C_1C_LL_1L_3R_1R_3s^4 + C_1C_LL_1L_3R_3r_os^4 + C_1C_LL_3R_1R_3$$

10.1000 INVALID-ORDER-1000 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{}{C_1C_3L_1L_3R_1R_3R_Lg_mr_os^4 + C_1C_3L_1L_3R_1R_3R_Ls^4 + C_1C_3L_1L_3R_3R_Lr_os^4 + C_1C_3L_3R_1R_3R_Lr_os^3 + C_1C_LL_1L_3R_1R_3R_Lg_mr_os^4 + C_1C_LL_1L_3R_1R_3R_Ls^4 + C_1C_LL_1L_3R_3R$$

10.1001 INVALID-ORDER-1001 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L r_o s^5 + C_1 C_3 C_L L_3 R_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3 s^4 + C_1 C_3 L_1 L_3}{}$$

10.1002 INVALID-ORDER-1002 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 r_o s^6 + C_1 C_3 C_L L_3 L_L R_1 R_3 r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3 s^4 + C_1 C_3 L_1 L_3}{}$$

10.1003 INVALID-ORDER-1003 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_L R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 L_L R_1 R_3 s^4 + C_1 C_3 L_1 L_3 L_L R_3 r_o s^4 + C_1 C_3 L_3 L_L R_1 R_3 r_o s^3 + C_1 C_L L_1 L_3 L_L R_1 R_3 g_m r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_3 s^4 + C_1 C_L L_1 L_3 L_L R_3}{}$$

10.1004 INVALID-ORDER-1004 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L r_o s^5 +}{}$$

10.1005 INVALID-ORDER-1005 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_L R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 L_L R_1 R_3 R_L s^4 + C_1 C_3 L_1 L_3 L_L R_3 R_L r_o s^4 + C_1 C_3 L_3 L_L R_1 R_3 R_L r_o s^3 + C_1 C_L L_1 L_3 L_L R_1 R_3 R_L g_m r_o s^4 + C_1 C_L L_1 L_3 L_L R_1 R_3 R_L s^4}{}$$

10.1006 INVALID-ORDER-1006 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 R_L r_o s^6 + C_1 C_3 C_L L_3 L_L R_1 R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1}{}$$

10.1007 INVALID-ORDER-1007 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 R_L r_o s^6 + C_1 C_3 C_L L_3 L_L R_1 R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 R_1 R_3 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3}{}$$

10.1008 INVALID-ORDER-1008 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3 s^4 + C_1 C_3 L_1 L_3 R_1 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_L s^4 + C_1 C_3 L_1 L_3 R_3 R_L s^4 + C_1 C_3 L_1 L_3 R_3 r_o s^4 + C_1 C_3 L_1 L_3 R_L r_o s^4 + C_1 C_3 L_3 R_1 R}{}$$

10.1009 INVALID-ORDER-1009 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R_3 r_o s^5 + C_1 C_3 C_L L_3 R_1 R_3 r_o s^4 + C_1 C_3 L_1 L_3 R_1 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_1 L_3}{}$$

10.1010 INVALID-ORDER-1010 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L r_o s^5 + C_1 C_3 C_L L_3 R_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3 s^4 + C_1 C_3 L_1 L_3}{}$$

10.1011 INVALID-ORDER-1011 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_3 r_o s^5 + C_1 C_3 C_L L_1 L_3 R}{}$$

10.1012 INVALID-ORDER-1012 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R}{}$$

10.1013 INVALID-ORDER-1013 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 r_o s^6 + C_1 C_3 C_L L_3 L_L R_1 R_3 r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 g_m r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 s^5 + C_1 C_3 L_1 L_3}{}$$

10.1014 INVALID-ORDER-1014 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R}{}$$

10.1015 INVALID-ORDER-1015 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 R_L r_o s^6 + C_1 C_3 C_L L_3 L_L R_1 R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1}{}$$

10.1016 INVALID-ORDER-1016 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 r_o s^6}$$

10.1017 INVALID-ORDER-1017 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 r_o s^6}$$

10.1018 INVALID-ORDER-1018 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{}{C_1 C_3 L_1 L_3 R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3 s^4 + C_1 C_3 L_1 L_3 R_1 R_L g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_L s^4 + C_1 C_3 L_1 L_3 R_3 R_L s^4 + C_1 C_3 L_1 L_3 R_3 r_o s^4 + C_1 C_3 L_1 L_3 R_L r_o s^4 + C_1 C_3 L_1 R_1 R}$$

10.1019 INVALID-ORDER-1019 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R_3 r_o s^5 + C_1 C_3 C_L L_3 R_1 R_3 r_o s^4 + C_1 C_3 L_1 L_3 R_1 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 s^4 + C_1 C_3 L_1 L_3 R_3 s^4 + C_1 C_3 L_1 L_3}$$

10.1020 INVALID-ORDER-1020 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L r_o s^5 + C_1 C_3 C_L L_3 R_1 R_3 R_L r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3 g_m r_o s^4 + C_1 C_3 L_1 L_3 R_1 R_3 s^4 + C_1 C_3 L_1 L_3}$$

10.1021 INVALID-ORDER-1021 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_L g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_3 R_L s^5 + C_1 C_3 C_L L_1 L_3 R_3 r_o s^5 + C_1 C_3 C_L L_1 L_3 R}$$

10.1022 INVALID-ORDER-1022 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R}$$

10.1023 INVALID-ORDER-1023 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 r_o s^6 + C_1 C_3 C_L L_3 L_L R_1 R_3 r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 g_m r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 s^5 + C_1 C_3 L_1 L_3}$$

10.1024 INVALID-ORDER-1024 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L r_o s^6 + C_1 C_3 C_L L_1 L_3 R_1 R_3 g_m r_o s^5 + C_1 C_3 C_L L_1 L_3 R_1 R_3 s^5 + C_1 C_3 C_L L_1 L_3 R}$$

10.1025 INVALID-ORDER-1025 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 R_L r_o s^6 + C_1 C_3 C_L L_3 L_L R_1 R_3 R_L r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1 R_3 g_m r_o s^5 + C_1 C_3 L_1 L_3 L_L R_1}$$

10.1026 INVALID-ORDER-1026 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 r_o s^6}$$

10.1027 INVALID-ORDER-1027 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_3 s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_L g_m r_o s^6 + C_1 C_3 C_L L_1 L_3 L_L R_1 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 R_L s^6 + C_1 C_3 C_L L_1 L_3 L_L R_3 r_o s^6}$$