

Filter Summary Report: TIA,simple,Z1,Z5,ZL

Generated by MacAnalog-Symbolix

December 5, 2024

Contents

1 Examined $H(z)$ for TIA simple Z1 Z5 ZL: $\frac{Z_1 Z_L (Z_5 g_m - 1)}{Z_1 Z_5 g_m + 2Z_1 Z_L g_m + Z_1 + Z_5 + Z_L}$

$$H(z) = \frac{Z_1 Z_L (Z_5 g_m - 1)}{Z_1 Z_5 g_m + 2Z_1 Z_L g_m + Z_1 + Z_5 + Z_L}$$

2 HP

3 BP

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

$$H(s) = \frac{L_L R_1 s (R_4 g_m - 1)}{C_L L_L R_1 R_4 g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_4 s^2 + 2L_L R_1 g_m s + L_L s + R_1 R_4 g_m + R_1 + R_4}$$

Parameters:

Q: $\frac{C_L \sqrt{\frac{1}{C_L L_L}} (R_1 R_4 g_m + R_1 + R_4)}{2R_1 g_m + 1}$

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

bandwidth: $\frac{2R_1 g_m + 1}{C_L (R_1 R_4 g_m + R_1 + R_4)}$

K-LP: 0

K-HP: 0

K-BP: $\frac{R_1 (R_4 g_m - 1)}{2R_1 g_m + 1}$

Qz: 0

Wz: None

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

$$H(s) = \frac{L_L R_1 R_L s (R_4 g_m - 1)}{C_L L_L R_1 R_4 R_L g_m s^2 + C_L L_L R_1 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_1 R_4 g_m s + 2L_L R_1 R_L g_m s + L_L R_1 s + L_L R_4 s + L_L R_L s + R_1 R_4 R_L g_m + R_1 R_L + R_4 R_L}$$

Parameters:

Q: $\frac{C_L R_L \sqrt{\frac{1}{C_L L_L}} (R_1 R_4 g_m + R_1 + R_4)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$
 wo: $\sqrt{\frac{1}{C_L L_L}}$
 bandwidth: $\frac{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}{C_L R_L (R_1 R_4 g_m + R_1 + R_4)}$
 K-LP: 0
 K-HP: 0
 K-BP: $\frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$
 QZ: 0
 Wz: None

3.3 BP-3 $Z(s) = \left(\frac{R_1 \left(L_1 s + \frac{1}{C_1 s} \right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 s (R_4 g_m - 1)}{C_L L_1 R_4 g_m s^2 + C_L L_1 s^2 + C_L R_4 s + 2L_1 g_m s + 1}$$

Parameters:

Q: $\frac{C_L L_1 \sqrt{\frac{1}{C_L L_1 (R_4 g_m + 1)}} (R_4 g_m + 1)}{C_L R_4 + 2L_1 g_m}$
 wo: $\sqrt{\frac{1}{C_L L_1 (R_4 g_m + 1)}}$
 bandwidth: $\frac{C_L R_4 + 2L_1 g_m}{C_L L_1 (R_4 g_m + 1)}$
 K-LP: 0
 K-HP: 0
 K-BP: $\frac{L_1 (R_4 g_m - 1)}{C_L R_4 + 2L_1 g_m}$
 QZ: 0
 Wz: None

3.4 BP-4 $Z(s) = \left(\frac{R_1 \left(L_1 s + \frac{1}{C_1 s} \right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_L s (R_4 g_m - 1)}{C_L L_1 R_4 R_L g_m s^2 + C_L L_1 R_L s^2 + C_L R_4 R_L s + L_1 R_4 g_m s + 2L_1 R_L g_m s + L_1 s + R_4 + R_L}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_L L_1 R_L \sqrt{\frac{R_4 + R_L}{C_L L_1 R_L (R_4 g_m + 1)}} (R_4 g_m + 1)}{C_L R_4 R_L + L_1 R_4 g_m + 2L_1 R_L g_m + L_1} \\ \text{wo: } & \sqrt{\frac{R_4 + R_L}{C_L L_1 R_L (R_4 g_m + 1)}} \\ \text{bandwidth: } & \frac{C_L R_4 R_L + L_1 R_4 g_m + 2L_1 R_L g_m + L_1}{C_L L_1 R_L (R_4 g_m + 1)} \\ \text{K-LP: } & 0 \\ \text{K-HP: } & 0 \\ \text{K-BP: } & \frac{L_1 R_L (R_4 g_m - 1)}{C_L R_4 R_L + L_1 R_4 g_m + 2L_1 R_L g_m + L_1} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

$$\mathbf{3.5 \quad BP-5} \quad Z(s) = \left(L_1 s, \quad R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad R_L \right)$$

$$H(s) = \frac{L_1 R_L s (R_4 g_m - 1)}{C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + L_1 R_4 g_m s + 2L_1 R_L g_m s + L_1 s + R_4 + R_L}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_1 \sqrt{\frac{1}{C_1 L_1}} (R_4 + R_L)}{R_4 g_m + 2R_L g_m + 1} \\ \text{wo: } & \sqrt{\frac{1}{C_1 L_1}} \\ \text{bandwidth: } & \frac{R_4 g_m + 2R_L g_m + 1}{C_1 (R_4 + R_L)} \\ \text{K-LP: } & 0 \\ \text{K-HP: } & 0 \\ \text{K-BP: } & \frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2R_L g_m + 1} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

$$\mathbf{3.6 \quad BP-6} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \quad \infty, \quad \infty, \quad \infty, \quad R_L \right)$$

$$H(s) = \frac{L_1 R_1 R_L s (R_4 g_m - 1)}{C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + L_1 R_1 R_4 g_m s + 2L_1 R_1 R_L g_m s + L_1 R_1 s + L_1 R_4 s + L_1 R_L s + R_1 R_4 + R_1 R_L}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_1 R_1 \sqrt{\frac{1}{C_1 L_1}} (R_4 + R_L)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\ \text{wo: } & \sqrt{\frac{1}{C_1 L_1}} \\ \text{bandwidth: } & \frac{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}{C_1 R_1 (R_4 + R_L)} \\ \text{K-LP: } & 0 \\ \text{K-HP: } & 0 \\ \text{K-BP: } & \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

4 LP

4.1 LP-1 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_4 g_m - 1}{C_1 C_L R_4 s^2 + C_1 s + C_L R_4 g_m s + C_L s + 2g_m}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{\sqrt{2} C_1 C_L R_4 \sqrt{\frac{g_m}{C_1 C_L R_4}}}{C_1 + C_L R_4 g_m + C_L} \\ \text{wo: } & \sqrt{2} \sqrt{\frac{g_m}{C_1 C_L R_4}} \\ \text{bandwidth: } & \frac{C_1 + C_L R_4 g_m + C_L}{C_1 C_L R_4} \\ \text{K-LP: } & \frac{R_4 g_m - 1}{2g_m} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & 0 \\ \text{QZ: } & \text{None} \\ \text{Wz: } & \text{None} \end{aligned}$$

4.2 LP-2 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_L (R_4 g_m - 1)}{C_1 C_L R_4 R_L s^2 + C_1 R_4 s + C_1 R_L s + C_L R_4 R_L g_m s + C_L R_L s + R_4 g_m + 2 R_L g_m + 1}$$

Parameters:

Q: $\frac{C_1 C_L R_4 R_L \sqrt{\frac{R_4 g_m + 2 R_L g_m + 1}{C_1 C_L R_4 R_L}}}{C_1 R_4 + C_1 R_L + C_L R_4 R_L g_m + C_L R_L}$
 wo: $\sqrt{\frac{R_4 g_m + 2 R_L g_m + 1}{C_1 C_L R_4 R_L}}$
 bandwidth: $\frac{C_1 R_4 + C_1 R_L + C_L R_4 R_L g_m + C_L R_L}{C_1 C_L R_4 R_L}$
 K-LP: $\frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2 R_L g_m + 1}$
 K-HP: 0
 K-BP: 0
 QZ: None
 WZ: None

4.3 LP-3 $Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (R_4 g_m - 1)}{C_1 C_L R_1 R_4 s^2 + C_1 R_1 s + C_L R_1 R_4 g_m s + C_L R_1 s + C_L R_4 s + 2 R_1 g_m + 1}$$

Parameters:

Q: $\frac{C_1 C_L R_1 R_4 \sqrt{\frac{2 R_1 g_m + 1}{C_1 C_L R_1 R_4}}}{C_1 R_1 + C_L R_1 R_4 g_m + C_L R_1 + C_L R_4}$
 wo: $\sqrt{\frac{2 R_1 g_m + 1}{C_1 C_L R_1 R_4}}$
 bandwidth: $\frac{C_1 R_1 + C_L R_1 R_4 g_m + C_L R_1 + C_L R_4}{C_1 C_L R_1 R_4}$
 K-LP: $\frac{R_1 (R_4 g_m - 1)}{2 R_1 g_m + 1}$
 K-HP: 0
 K-BP: 0
 QZ: None
 WZ: None

4.4 LP-4 $Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_1 R_L (R_4 g_m - 1)}{C_1 C_L R_1 R_4 R_L s^2 + C_1 R_1 R_4 s + C_1 R_1 R_L s + C_L R_1 R_4 R_L g_m s + C_L R_1 R_L s + C_L R_4 R_L s + R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L}$$

Parameters:

Q: $\frac{C_1 C_L R_1 R_4 R_L \sqrt{\frac{R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L}{C_1 C_L R_1 R_4 R_L}}}{C_1 R_1 R_4 + C_1 R_1 R_L + C_L R_1 R_4 R_L g_m + C_L R_1 R_L + C_L R_4 R_L}$
 wo: $\sqrt{\frac{R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L}{C_1 C_L R_1 R_4 R_L}}$
 bandwidth: $\frac{C_1 R_1 R_4 + C_1 R_1 R_L + C_L R_1 R_4 R_L g_m + C_L R_1 R_L + C_L R_4 R_L}{C_1 C_L R_1 R_4 R_L}$
 K-LP: $\frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L}$
 K-HP: 0
 K-BP: 0
 QZ: None
 Wz: None

5 BS

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

$$H(s) = \frac{R_1 (R_4 g_m - 1) (C_L L_L s^2 + 1)}{2 C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_L R_1 R_4 g_m s + C_L R_1 s + C_L R_4 s + 2 R_1 g_m + 1}$$

Parameters:

Q: $\frac{L_L \sqrt{\frac{1}{C_L L_L}} (2 R_1 g_m + 1)}{R_1 R_4 g_m + R_1 + R_4}$
 wo: $\sqrt{\frac{1}{C_L L_L}}$
 bandwidth: $\frac{R_1 R_4 g_m + R_1 + R_4}{L_L (2 R_1 g_m + 1)}$
 K-LP: $\frac{R_1 (R_4 g_m - 1)}{2 R_1 g_m + 1}$
 K-HP: $\frac{R_1 (R_4 g_m - 1)}{2 R_1 g_m + 1}$
 K-BP: 0

QZ: None
WZ: $\sqrt{\frac{1}{C_L L_L}}$

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

$$H(s) = \frac{R_1 R_L (R_4 g_m - 1) (C_L L_L s^2 + 1)}{C_L L_L R_1 R_4 g_m s^2 + 2 C_L L_L R_1 R_L g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_4 s^2 + C_L L_L R_L s^2 + C_L R_1 R_4 R_L g_m s + C_L R_1 R_L s + C_L R_4 R_L s + R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L}$$

Parameters:

Q: $\frac{L_L \sqrt{\frac{1}{C_L L_L}} (R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L)}{R_L (R_1 R_4 g_m + R_1 + R_4)}$
wo: $\sqrt{\frac{1}{C_L L_L}}$
bandwidth: $\frac{R_L (R_1 R_4 g_m + R_1 + R_4)}{L_L (R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L)}$
K-LP: $\frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L}$
K-HP: $\frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L}$
K-BP: 0
QZ: None
WZ: $\sqrt{\frac{1}{C_L L_L}}$

5.3 BS-3 $Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_L (R_4 g_m - 1) (C_1 L_1 s^2 + 1)}{C_1 L_1 R_4 g_m s^2 + 2 C_1 L_1 R_L g_m s^2 + C_1 L_1 s^2 + C_1 R_4 s + C_1 R_L s + R_4 g_m + 2 R_L g_m + 1}$$

Parameters:

Q: $\frac{L_1 \sqrt{\frac{1}{C_1 L_1}} (R_4 g_m + 2 R_L g_m + 1)}{R_4 + R_L}$
wo: $\sqrt{\frac{1}{C_1 L_1}}$
bandwidth: $\frac{R_4 + R_L}{L_1 (R_4 g_m + 2 R_L g_m + 1)}$
K-LP: $\frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2 R_L g_m + 1}$

$$\begin{aligned} \text{K-HP: } & \frac{R_L(R_4g_m-1)}{R_4g_m+2R_Lg_m+1} \\ \text{K-BP: } & 0 \\ \text{QZ: } & \text{None} \\ \text{WZ: } & \sqrt{\frac{1}{C_1L_1}} \end{aligned}$$

$$\mathbf{5.4 \quad BS-4} \quad Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{R_1R_L(R_4g_m-1)(C_1L_1s^2+1)}{C_1L_1R_1R_4g_ms^2 + 2C_1L_1R_1R_Lg_ms^2 + C_1L_1R_1s^2 + C_1L_1R_4s^2 + C_1L_1R_Ls^2 + C_1R_1R_4s + C_1R_1R_Ls + R_1R_4g_m + 2R_1R_Lg_m + R_1 + R_4 + R_L}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{L_1\sqrt{\frac{1}{C_1L_1}}(R_1R_4g_m+2R_1R_Lg_m+R_1+R_4+R_L)}{R_1(R_4+R_L)} \\ \text{wo: } & \sqrt{\frac{1}{C_1L_1}} \\ \text{bandwidth: } & \frac{R_1(R_4+R_L)}{L_1(R_1R_4g_m+2R_1R_Lg_m+R_1+R_4+R_L)} \\ \text{K-LP: } & \frac{R_1R_L(R_4g_m-1)}{R_1R_4g_m+2R_1R_Lg_m+R_1+R_4+R_L} \\ \text{K-HP: } & \frac{R_1R_L(R_4g_m-1)}{R_1R_4g_m+2R_1R_Lg_m+R_1+R_4+R_L} \\ \text{K-BP: } & 0 \\ \text{QZ: } & \text{None} \\ \text{WZ: } & \sqrt{\frac{1}{C_1L_1}} \end{aligned}$$

6 GE

$$\mathbf{6.1 \quad GE-1} \quad Z(s) = \left(R_1, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{R_1(R_4g_m-1)(C_LL_Ls^2+C_LR_Ls+1)}{2C_LL_LR_1g_ms^2 + C_LL_Ls^2 + C_LR_1R_4g_ms + 2C_LR_1R_Lg_ms + C_LR_1s + C_LR_4s + C_LR_Ls + 2R_1g_m + 1}$$

Parameters:

$$\text{Q: } \frac{L_L\sqrt{\frac{1}{C_LL_L}}(2R_1g_m+1)}{R_1R_4g_m+2R_1R_Lg_m+R_1+R_4+R_L}$$

$$\begin{aligned}
\text{wo: } & \sqrt{\frac{1}{C_L L_L}} \\
\text{bandwidth: } & \frac{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}{L_L (2R_1 g_m + 1)} \\
\text{K-LP: } & \frac{R_1 (R_4 g_m - 1)}{2R_1 g_m + 1} \\
\text{K-HP: } & \frac{R_1 (R_4 g_m - 1)}{2R_1 g_m + 1} \\
\text{K-BP: } & \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\
\text{QZ: } & \frac{L_L \sqrt{\frac{1}{C_L L_L}}}{R_L} \\
\text{WZ: } & \sqrt{\frac{1}{C_L L_L}}
\end{aligned}$$

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

$$H(s) = \frac{R_1 (R_4 g_m - 1) (C_L L_L R_L s^2 + L_L s + R_L)}{C_L L_L R_1 R_4 g_m s^2 + 2C_L L_L R_1 R_L g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_4 s^2 + C_L L_L R_L s^2 + 2L_L R_1 g_m s + L_L s + R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{C_L \sqrt{\frac{1}{C_L L_L}} (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}{2R_1 g_m + 1} \\
\text{wo: } & \sqrt{\frac{1}{C_L L_L}} \\
\text{bandwidth: } & \frac{2R_1 g_m + 1}{C_L (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)} \\
\text{K-LP: } & \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\
\text{K-HP: } & \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\
\text{K-BP: } & \frac{R_1 (R_4 g_m - 1)}{2R_1 g_m + 1} \\
\text{QZ: } & C_L R_L \sqrt{\frac{1}{C_L L_L}} \\
\text{WZ: } & \sqrt{\frac{1}{C_L L_L}}
\end{aligned}$$

6.3 GE-3 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_1 R_L (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + R_1 g_m + 1}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{L_4 \sqrt{\frac{1}{C_4 L_4}} (R_1 g_m + 1)}{2R_1 R_L g_m + R_1 + R_L} \\
\text{wo: } & \sqrt{\frac{1}{C_4 L_4}} \\
\text{bandwidth: } & \frac{2R_1 R_L g_m + R_1 + R_L}{L_4 (R_1 g_m + 1)} \\
\text{K-LP: } & \frac{R_1 R_L g_m}{R_1 g_m + 1} \\
\text{K-HP: } & \frac{R_1 R_L g_m}{R_1 g_m + 1} \\
\text{K-BP: } & -\frac{R_1 R_L}{2R_1 R_L g_m + R_1 + R_L} \\
\text{QZ: } & -L_4 g_m \sqrt{\frac{1}{C_4 L_4}} \\
\text{WZ: } & \sqrt{\frac{1}{C_4 L_4}}
\end{aligned}$$

6.4 GE-4 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_1 R_L (-C_4 L_4 s^2 + L_4 g_m s - 1)}{2C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_L s^2 + L_4 R_1 g_m s + L_4 s + 2R_1 R_L g_m + R_1 + R_L}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{C_4 \sqrt{\frac{1}{C_4 L_4}} (2R_1 R_L g_m + R_1 + R_L)}{R_1 g_m + 1} \\
\text{wo: } & \sqrt{\frac{1}{C_4 L_4}} \\
\text{bandwidth: } & \frac{R_1 g_m + 1}{C_4 (2R_1 R_L g_m + R_1 + R_L)} \\
\text{K-LP: } & -\frac{R_1 R_L}{2R_1 R_L g_m + R_1 + R_L} \\
\text{K-HP: } & -\frac{R_1 R_L}{2R_1 R_L g_m + R_1 + R_L} \\
\text{K-BP: } & \frac{R_1 R_L g_m}{R_1 g_m + 1} \\
\text{QZ: } & -\frac{C_4 \sqrt{\frac{1}{C_4 L_4}}}{g_m} \\
\text{WZ: } & \sqrt{\frac{1}{C_4 L_4}}
\end{aligned}$$

6.5 GE-5 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_1 R_L (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_4 R_1 R_4 g_m s + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_4 s + C_4 R_L s + R_1 g_m + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{L_4 \sqrt{\frac{1}{C_4 L_4}} (R_1 g_m + 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\ \text{wo: } & \sqrt{\frac{1}{C_4 L_4}} \\ \text{bandwidth: } & \frac{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}{L_4 (R_1 g_m + 1)} \\ \text{K-LP: } & \frac{R_1 R_L g_m}{R_1 g_m + 1} \\ \text{K-HP: } & \frac{R_1 R_L g_m}{R_1 g_m + 1} \\ \text{K-BP: } & \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\ \text{QZ: } & \frac{L_4 g_m \sqrt{\frac{1}{C_4 L_4}}}{R_4 g_m - 1} \\ \text{WZ: } & \sqrt{\frac{1}{C_4 L_4}} \end{aligned}$$

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

$$H(s) = \frac{R_1 R_L (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{2C_4 L_4 R_1 R_4 R_L g_m s^2 + C_4 L_4 R_1 R_4 s^2 + C_4 L_4 R_4 R_L s^2 + L_4 R_1 R_4 g_m s + 2L_4 R_1 R_L g_m s + L_4 R_1 s + L_4 R_4 s + L_4 R_L s + 2R_1 R_4 R_L g_m + R_1 R_4 + R_4 R_L}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_4 R_4 \sqrt{\frac{1}{C_4 L_4}} (2R_1 R_L g_m + R_1 + R_L)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\ \text{wo: } & \sqrt{\frac{1}{C_4 L_4}} \\ \text{bandwidth: } & \frac{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}{C_4 R_4 (2R_1 R_L g_m + R_1 + R_L)} \\ \text{K-LP: } & -\frac{R_1 R_L}{2R_1 R_L g_m + R_1 + R_L} \\ \text{K-HP: } & -\frac{R_1 R_L}{2R_1 R_L g_m + R_1 + R_L} \\ \text{K-BP: } & \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\ \text{QZ: } & -\frac{C_4 R_4 \sqrt{\frac{1}{C_4 L_4}}}{R_4 g_m - 1} \end{aligned}$$

$$\text{Wz: } \sqrt{\frac{1}{C_4 L_4}}$$

$$\mathbf{6.7 \quad GE-7} \quad Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{R_1 R_L (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + L_4 R_1 g_m s + L_4 s + R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$$

Parameters:

$$\text{Q: } \frac{C_4 \sqrt{\frac{1}{C_4 L_4}} (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}{R_1 g_m + 1}$$

$$\text{wo: } \sqrt{\frac{1}{C_4 L_4}}$$

$$\text{bandwidth: } \frac{R_1 g_m + 1}{C_4 (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}$$

$$\text{K-LP: } \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$$

$$\text{K-HP: } \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$$

$$\text{K-BP: } \frac{R_1 R_L g_m}{R_1 g_m + 1}$$

$$\text{QZ: } \frac{C_4 \sqrt{\frac{1}{C_4 L_4}} (R_4 g_m - 1)}{g_m}$$

$$\text{Wz: } \sqrt{\frac{1}{C_4 L_4}}$$

$$\mathbf{6.8 \quad GE-8} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{R_1 R_L (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1)}{C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + 2C_4 R_1 R_4 R_L g_m s + C_4 R_1 R_4 s + C_4 R_4 R_L s + R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$$

Parameters:

$$\text{Q: } \frac{L_4 \sqrt{\frac{1}{C_4 L_4}} (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}{R_4 (2R_1 R_L g_m + R_1 + R_L)}$$

$$\text{wo: } \sqrt{\frac{1}{C_4 L_4}}$$

$$\text{bandwidth: } \frac{R_4 (2R_1 R_L g_m + R_1 + R_L)}{L_4 (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}$$

$$\text{K-LP: } \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$$

$$\begin{aligned}
\text{K-HP: } & \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\
\text{K-BP: } & -\frac{R_1 R_L}{2R_1 R_L g_m + R_1 + R_L} \\
\text{QZ: } & \frac{L_4 \sqrt{\frac{1}{C_4 L_4}} (-R_4 g_m + 1)}{R_4} \\
\text{WZ: } & \sqrt{\frac{1}{C_4 L_4}}
\end{aligned}$$

6.9 GE-9 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_L (R_4 g_m - 1) (C_1 L_1 s^2 + C_1 R_1 s + 1)}{C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_L g_m s^2 + C_1 L_1 s^2 + C_1 R_1 R_4 g_m s + 2C_1 R_1 R_L g_m s + C_1 R_1 s + C_1 R_4 s + C_1 R_L s + R_4 g_m + 2R_L g_m + 1}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{L_1 \sqrt{\frac{1}{C_1 L_1}} (R_4 g_m + 2R_L g_m + 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\
\text{wo: } & \sqrt{\frac{1}{C_1 L_1}} \\
\text{bandwidth: } & \frac{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}{L_1 (R_4 g_m + 2R_L g_m + 1)} \\
\text{K-LP: } & \frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2R_L g_m + 1} \\
\text{K-HP: } & \frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2R_L g_m + 1} \\
\text{K-BP: } & \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\
\text{QZ: } & \frac{L_1 \sqrt{\frac{1}{C_1 L_1}}}{R_1} \\
\text{WZ: } & \sqrt{\frac{1}{C_1 L_1}}
\end{aligned}$$

6.10 GE-10 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_L (R_4 g_m - 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{C_1 L_1 R_1 R_4 g_m s^2 + 2C_1 L_1 R_1 R_L g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + L_1 R_4 g_m s + 2L_1 R_L g_m s + L_1 s + R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$$

Parameters:

$$\text{Q: } \frac{C_1 \sqrt{\frac{1}{C_1 L_1}} (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}{R_4 g_m + 2R_L g_m + 1}$$

$$\begin{aligned}
\text{wo: } & \sqrt{\frac{1}{C_1 L_1}} \\
\text{bandwidth: } & \frac{R_4 g_m + 2R_L g_m + 1}{C_1 (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)} \\
\text{K-LP: } & \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\
\text{K-HP: } & \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\
\text{K-BP: } & \frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2R_L g_m + 1} \\
\text{Qz: } & C_1 R_1 \sqrt{\frac{1}{C_1 L_1}} \\
\text{Wz: } & \sqrt{\frac{1}{C_1 L_1}}
\end{aligned}$$

7 AP

8 INVALID-NUMER

8.1 INVALID-NUMER-1 $Z(s) = \left(L_1 s, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_1 R_L (-C_4 s + g_m)}{C_4 C_L R_1 R_L s^2 + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + C_L R_1 R_L g_m s + C_L R_L s + R_1 g_m + 1}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{C_4 C_L R_1 R_L \sqrt{\frac{R_1 g_m + 1}{C_4 C_L R_1 R_L}}}{2C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_L + C_L R_1 R_L g_m + C_L R_L} \\
\text{wo: } & \sqrt{\frac{R_1 g_m + 1}{C_4 C_L R_1 R_L}} \\
\text{bandwidth: } & \frac{2C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_L + C_L R_1 R_L g_m + C_L R_L}{C_4 C_L R_1 R_L} \\
\text{K-LP: } & \frac{R_1 R_L g_m}{R_1 g_m + 1} \\
\text{K-HP: } & 0 \\
\text{K-BP: } & -\frac{C_4 R_1 R_L}{2C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_L + C_L R_1 R_L g_m + C_L R_L} \\
\text{Qz: } & 0 \\
\text{Wz: } & \text{None}
\end{aligned}$$

8.2 INVALID-NUMER-2 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (-C_4 R_4 s + R_4 g_m - 1)}{C_4 C_L R_1 R_4 s^2 + 2C_4 R_1 R_4 g_m s + C_4 R_4 s + C_L R_1 R_4 g_m s + C_L R_1 s + C_L R_4 s + 2R_1 g_m + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_4 C_L R_1 R_4 \sqrt{\frac{2R_1 g_m + 1}{C_4 C_L R_1 R_4}}}{2C_4 R_1 R_4 g_m + C_4 R_4 + C_L R_1 R_4 g_m + C_L R_1 + C_L R_4} \\ \text{wo: } & \sqrt{\frac{2R_1 g_m + 1}{C_4 C_L R_1 R_4}} \\ \text{bandwidth: } & \frac{2C_4 R_1 R_4 g_m + C_4 R_4 + C_L R_1 R_4 g_m + C_L R_1 + C_L R_4}{C_4 C_L R_1 R_4} \\ \text{K-LP: } & \frac{R_1 (R_4 g_m - 1)}{2R_1 g_m + 1} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & -\frac{C_4 R_1 R_4}{2C_4 R_1 R_4 g_m + C_4 R_4 + C_L R_1 R_4 g_m + C_L R_1 + C_L R_4} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.3 INVALID-NUMER-3 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_1 R_L (-C_4 R_4 s + R_4 g_m - 1)}{C_4 C_L R_1 R_4 R_L s^2 + 2C_4 R_1 R_4 R_L g_m s + C_4 R_1 R_4 s + C_4 R_4 R_L s + C_L R_1 R_4 R_L g_m s + C_L R_1 R_L s + C_L R_4 R_L s + R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_4 C_L R_1 R_4 R_L \sqrt{\frac{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}{C_4 C_L R_1 R_4 R_L}}}{2C_4 R_1 R_4 R_L g_m + C_4 R_1 R_4 + C_4 R_4 R_L + C_L R_1 R_4 R_L g_m + C_L R_1 R_L + C_L R_4 R_L} \\ \text{wo: } & \sqrt{\frac{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}{C_4 C_L R_1 R_4 R_L}} \\ \text{bandwidth: } & \frac{2C_4 R_1 R_4 R_L g_m + C_4 R_1 R_4 + C_4 R_4 R_L + C_L R_1 R_4 R_L g_m + C_L R_1 R_L + C_L R_4 R_L}{C_4 C_L R_1 R_4 R_L} \\ \text{K-LP: } & \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & -\frac{C_4 R_1 R_4 R_L}{2C_4 R_1 R_4 R_L g_m + C_4 R_1 R_4 + C_4 R_4 R_L + C_L R_1 R_4 R_L g_m + C_L R_1 R_L + C_L R_4 R_L} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.4 INVALID-NUMER-4 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_1 R_L (C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L R_1 R_4 R_L g_m s^2 + C_4 C_L R_1 R_L s^2 + C_4 C_L R_4 R_L s^2 + C_4 R_1 R_4 g_m s + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_4 s + C_4 R_L s + C_L R_1 R_L g_m s + C_L R_L s + R_1 g_m + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_4 C_L R_L \sqrt{\frac{R_1 g_m + 1}{C_4 C_L R_L (R_1 R_4 g_m + R_1 + R_4)}} (R_1 R_4 g_m + R_1 + R_4)}{C_4 R_1 R_4 g_m + 2C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_4 + C_4 R_L + C_L R_1 R_L g_m + C_L R_L} \\ \text{wo: } & \sqrt{\frac{R_1 g_m + 1}{C_4 C_L R_L (R_1 R_4 g_m + R_1 + R_4)}} \\ \text{bandwidth: } & \frac{C_4 R_1 R_4 g_m + 2C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_4 + C_4 R_L + C_L R_1 R_L g_m + C_L R_L}{C_4 C_L R_L (R_1 R_4 g_m + R_1 + R_4)} \\ \text{K-LP: } & \frac{R_1 R_L g_m}{R_1 g_m + 1} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & \frac{C_4 R_1 R_L (R_4 g_m - 1)}{C_4 R_1 R_4 g_m + 2C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_4 + C_4 R_L + C_L R_1 R_L g_m + C_L R_L} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.5 INVALID-NUMER-5 $Z(s) = \left(\frac{R_1 (L_1 s + \frac{1}{C_1 s})}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 s (R_4 g_m - 1) (C_L R_L s + 1)}{C_L L_1 R_4 g_m s^2 + 2C_L L_1 R_L g_m s^2 + C_L L_1 s^2 + C_L R_4 s + C_L R_L s + 2L_1 g_m s + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_L L_1 \sqrt{\frac{1}{C_L L_1 (R_4 g_m + 2R_L g_m + 1)}} (R_4 g_m + 2R_L g_m + 1)}{C_L R_4 + C_L R_L + 2L_1 g_m} \\ \text{wo: } & \sqrt{\frac{1}{C_L L_1 (R_4 g_m + 2R_L g_m + 1)}} \\ \text{bandwidth: } & \frac{C_L R_4 + C_L R_L + 2L_1 g_m}{C_L L_1 (R_4 g_m + 2R_L g_m + 1)} \\ \text{K-LP: } & 0 \\ \text{K-HP: } & \frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2R_L g_m + 1} \\ \text{K-BP: } & \frac{L_1 (R_4 g_m - 1)}{C_L R_4 + C_L R_L + 2L_1 g_m} \\ \text{QZ: } & C_L R_L \sqrt{\frac{1}{C_L L_1 (R_4 g_m + 2R_L g_m + 1)}} \\ \text{Wz: } & \text{None} \end{aligned}$$

8.6 INVALID-NUMER-6 $Z(s) = (\infty, R_2, \infty, \infty, \infty, R_L)$

$$H(s) = \frac{L_1 R_L s (-C_4 s + g_m)}{2C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 R_L s + L_1 g_m s + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_4 L_1 \sqrt{\frac{1}{C_4 L_1 (2R_L g_m + 1)}} (2R_L g_m + 1)}{C_4 R_L + L_1 g_m} \\ \text{wo: } & \sqrt{\frac{1}{C_4 L_1 (2R_L g_m + 1)}} \\ \text{bandwidth: } & \frac{C_4 R_L + L_1 g_m}{C_4 L_1 (2R_L g_m + 1)} \\ \text{K-LP: } & 0 \\ \text{K-HP: } & -\frac{R_L}{2R_L g_m + 1} \\ \text{K-BP: } & \frac{L_1 R_L g_m}{C_4 R_L + L_1 g_m} \\ \text{QZ: } & -\frac{C_4 \sqrt{\frac{1}{C_4 L_1 (2R_L g_m + 1)}}}{g_m} \\ \text{Wz: } & \text{None} \end{aligned}$$

8.7 INVALID-NUMER-7 $Z(s) = \left(\infty, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 (-C_4 s + g_m)}{C_4 C_L L_1 s^2 + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_4 C_L \sqrt{\frac{C_4 + C_L}{C_4 C_L L_1}}}{g_m (2C_4 + C_L)} \\ \text{wo: } & \sqrt{\frac{C_4 + C_L}{C_4 C_L L_1}} \\ \text{bandwidth: } & \frac{g_m (2C_4 + C_L)}{C_4 C_L} \\ \text{K-LP: } & \frac{L_1 g_m}{C_4 + C_L} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & -\frac{C_4}{g_m (2C_4 + C_L)} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.8 INVALID-NUMER-8 $Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{L_1 R_L s (-C_4 R_4 s + R_4 g_m - 1)}{2C_4 L_1 R_4 R_L g_m s^2 + C_4 L_1 R_4 s^2 + C_4 R_4 R_L s + L_1 R_4 g_m s + 2L_1 R_L g_m s + L_1 s + R_4 + R_L}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_4 L_1 R_4 \sqrt{\frac{R_4 + R_L}{C_4 L_1 R_4 (2R_L g_m + 1)}} (2R_L g_m + 1)}{C_4 R_4 R_L + L_1 R_4 g_m + 2L_1 R_L g_m + L_1} \\ \text{wo: } & \sqrt{\frac{R_4 + R_L}{C_4 L_1 R_4 (2R_L g_m + 1)}} \\ \text{bandwidth: } & \frac{C_4 R_4 R_L + L_1 R_4 g_m + 2L_1 R_L g_m + L_1}{C_4 L_1 R_4 (2R_L g_m + 1)} \\ \text{K-LP: } & 0 \\ \text{K-HP: } & -\frac{R_L}{2R_L g_m + 1} \\ \text{K-BP: } & \frac{L_1 R_L (R_4 g_m - 1)}{C_4 R_4 R_L + L_1 R_4 g_m + 2L_1 R_L g_m + L_1} \\ \text{QZ: } & -\frac{C_4 R_4 \sqrt{\frac{R_4 + R_L}{C_4 L_1 R_4 (2R_L g_m + 1)}}}{R_4 g_m - 1} \\ \text{Wz: } & \text{None} \end{aligned}$$

8.9 INVALID-NUMER-9 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{L_1 R_L s (C_4 R_4 g_m s - C_4 s + g_m)}{C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 R_4 s + C_4 R_L s + L_1 g_m s + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_4 L_1 \sqrt{\frac{1}{C_4 L_1 (R_4 g_m + 2R_L g_m + 1)}} (R_4 g_m + 2R_L g_m + 1)}{C_4 R_4 + C_4 R_L + L_1 g_m} \\ \text{wo: } & \sqrt{\frac{1}{C_4 L_1 (R_4 g_m + 2R_L g_m + 1)}} \\ \text{bandwidth: } & \frac{C_4 R_4 + C_4 R_L + L_1 g_m}{C_4 L_1 (R_4 g_m + 2R_L g_m + 1)} \\ \text{K-LP: } & 0 \\ \text{K-HP: } & \frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2R_L g_m + 1} \\ \text{K-BP: } & \frac{L_1 R_L g_m}{C_4 R_4 + C_4 R_L + L_1 g_m} \\ \text{QZ: } & \frac{C_4 \sqrt{\frac{1}{C_4 L_1 (R_4 g_m + 2R_L g_m + 1)}} (R_4 g_m - 1)}{g_m} \\ \text{Wz: } & \text{None} \end{aligned}$$

8.10 INVALID-NUMER-10 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_1 R_4 g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L R_4 s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_4 C_L L_1 \sqrt{\frac{C_4 + C_L}{C_4 C_L L_1 (R_4 g_m + 1)}} (R_4 g_m + 1)}{C_4 C_L R_4 + 2C_4 L_1 g_m + C_L L_1 g_m} \\ \text{wo: } & \sqrt{\frac{C_4 + C_L}{C_4 C_L L_1 (R_4 g_m + 1)}} \\ \text{bandwidth: } & \frac{C_4 C_L R_4 + 2C_4 L_1 g_m + C_L L_1 g_m}{C_4 C_L L_1 (R_4 g_m + 1)} \\ \text{K-LP: } & \frac{L_1 g_m}{C_4 + C_L} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & \frac{C_4 L_1 (R_4 g_m - 1)}{C_4 C_L R_4 + 2C_4 L_1 g_m + C_L L_1 g_m} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

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

$$H(s) = \frac{(R_4 g_m - 1) (C_L R_L s + 1)}{C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 s + C_L R_4 g_m s + 2C_L R_L g_m s + C_L s + 2g_m}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{\sqrt{2} C_1 C_L \sqrt{\frac{g_m}{C_1 C_L (R_4 + R_L)}} (R_4 + R_L)}{C_1 + C_L R_4 g_m + 2C_L R_L g_m + C_L} \\ \text{wo: } & \sqrt{2} \sqrt{\frac{g_m}{C_1 C_L (R_4 + R_L)}} \\ \text{bandwidth: } & \frac{C_1 + C_L R_4 g_m + 2C_L R_L g_m + C_L}{C_1 C_L (R_4 + R_L)} \\ \text{K-LP: } & \frac{R_4 g_m - 1}{2g_m} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & \frac{C_L R_L (R_4 g_m - 1)}{C_1 + C_L R_4 g_m + 2C_L R_L g_m + C_L} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

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

$$H(s) = \frac{R_L (-C_4 s + g_m)}{C_1 C_4 R_L s^2 + C_1 s + 2C_4 R_L g_m s + C_4 s + g_m}$$

Parameters:

Q: $\frac{C_1 C_4 R_L \sqrt{\frac{g_m}{C_1 C_4 R_L}}}{C_1 + 2C_4 R_L g_m + C_4}$
 wo: $\sqrt{\frac{g_m}{C_1 C_4 R_L}}$
 bandwidth: $\frac{C_1 + 2C_4 R_L g_m + C_4}{C_1 C_4 R_L}$
 K-LP: R_L
 K-HP: 0
 K-BP: $-\frac{C_4 R_L}{C_1 + 2C_4 R_L g_m + C_4}$
 QZ: 0
 Wz: None

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

$$H(s) = \frac{R_L (-C_4 s + g_m)}{C_1 C_4 R_L s^2 + C_1 C_L R_L s^2 + C_1 s + C_4 C_L R_L s^2 + 2C_4 R_L g_m s + C_4 s + C_L R_L g_m s + g_m}$$

Parameters:

Q: $\frac{R_L \sqrt{\frac{g_m}{R_L (C_1 C_4 + C_1 C_L + C_4 C_L)}} (C_1 C_4 + C_1 C_L + C_4 C_L)}{C_1 + 2C_4 R_L g_m + C_4 + C_L R_L g_m}$
 wo: $\sqrt{\frac{g_m}{R_L (C_1 C_4 + C_1 C_L + C_4 C_L)}}$
 bandwidth: $\frac{C_1 + 2C_4 R_L g_m + C_4 + C_L R_L g_m}{R_L (C_1 C_4 + C_1 C_L + C_4 C_L)}$
 K-LP: R_L
 K-HP: 0
 K-BP: $-\frac{C_4 R_L}{C_1 + 2C_4 R_L g_m + C_4 + C_L R_L g_m}$
 QZ: 0
 Wz: None

8.14 INVALID-NUMER-14 $Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_L (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 R_4 R_L s^2 + C_1 R_4 s + C_1 R_L s + 2C_4 R_4 R_L g_m s + C_4 R_4 s + R_4 g_m + 2R_L g_m + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_1 C_4 R_4 R_L \sqrt{\frac{R_4 g_m + 2R_L g_m + 1}{C_1 C_4 R_4 R_L}}}{C_1 R_4 + C_1 R_L + 2C_4 R_4 R_L g_m + C_4 R_4} \\ \text{wo: } & \sqrt{\frac{R_4 g_m + 2R_L g_m + 1}{C_1 C_4 R_4 R_L}} \\ \text{bandwidth: } & \frac{C_1 R_4 + C_1 R_L + 2C_4 R_4 R_L g_m + C_4 R_4}{C_1 C_4 R_4 R_L} \\ \text{K-LP: } & \frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2R_L g_m + 1} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & -\frac{C_4 R_4 R_L}{C_1 R_4 + C_1 R_L + 2C_4 R_4 R_L g_m + C_4 R_4} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

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

$$H(s) = \frac{-C_4 R_4 s + R_4 g_m - 1}{C_1 C_4 R_4 s^2 + C_1 C_L R_4 s^2 + C_1 s + C_4 C_L R_4 s^2 + 2C_4 R_4 g_m s + C_L R_4 g_m s + C_L s + 2g_m}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{\sqrt{2} R_4 \sqrt{\frac{g_m}{R_4 (C_1 C_4 + C_1 C_L + C_4 C_L)}} (C_1 C_4 + C_1 C_L + C_4 C_L)}{C_1 + 2C_4 R_4 g_m + C_L R_4 g_m + C_L} \\ \text{wo: } & \sqrt{2} \sqrt{\frac{g_m}{R_4 (C_1 C_4 + C_1 C_L + C_4 C_L)}} \\ \text{bandwidth: } & \frac{C_1 + 2C_4 R_4 g_m + C_L R_4 g_m + C_L}{R_4 (C_1 C_4 + C_1 C_L + C_4 C_L)} \\ \text{K-LP: } & \frac{R_4 g_m - 1}{2g_m} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & -\frac{C_4 R_4}{C_1 + 2C_4 R_4 g_m + C_L R_4 g_m + C_L} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

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

$$H(s) = \frac{R_L (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 R_4 R_L s^2 + C_1 C_L R_4 R_L s^2 + C_1 R_4 s + C_1 R_L s + C_4 C_L R_4 R_L s^2 + 2C_4 R_4 R_L g_m s + C_4 R_4 s + C_L R_4 R_L g_m s + C_L R_L s + R_4 g_m + 2R_L g_m + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{R_4 R_L \sqrt{\frac{R_4 g_m + 2R_L g_m + 1}{R_4 R_L (C_1 C_4 + C_1 C_L + C_4 C_L)}} (C_1 C_4 + C_1 C_L + C_4 C_L)}{C_1 R_4 + C_1 R_L + 2C_4 R_4 R_L g_m + C_4 R_4 + C_L R_4 R_L g_m + C_L R_L} \\ \text{wo: } & \sqrt{\frac{R_4 g_m + 2R_L g_m + 1}{R_4 R_L (C_1 C_4 + C_1 C_L + C_4 C_L)}} \\ \text{bandwidth: } & \frac{C_1 R_4 + C_1 R_L + 2C_4 R_4 R_L g_m + C_4 R_4 + C_L R_4 R_L g_m + C_L R_L}{R_4 R_L (C_1 C_4 + C_1 C_L + C_4 C_L)} \\ \text{K-LP: } & \frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2R_L g_m + 1} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & -\frac{C_4 R_4 R_L}{C_1 R_4 + C_1 R_L + 2C_4 R_4 R_L g_m + C_4 R_4 + C_L R_4 R_L g_m + C_L R_L} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.17 INVALID-NUMER-17 $Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_L (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 s + C_4 R_4 g_m s + 2C_4 R_L g_m s + C_4 s + g_m}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_1 C_4 \sqrt{\frac{g_m}{C_1 C_4 (R_4 + R_L)}} (R_4 + R_L)}{C_1 + C_4 R_4 g_m + 2C_4 R_L g_m + C_4} \\ \text{wo: } & \sqrt{\frac{g_m}{C_1 C_4 (R_4 + R_L)}} \\ \text{bandwidth: } & \frac{C_1 + C_4 R_4 g_m + 2C_4 R_L g_m + C_4}{C_1 C_4 (R_4 + R_L)} \\ \text{K-LP: } & R_L \\ \text{K-HP: } & 0 \\ \text{K-BP: } & \frac{C_4 R_L (R_4 g_m - 1)}{C_1 + C_4 R_4 g_m + 2C_4 R_L g_m + C_4} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.18 INVALID-NUMER-18 $Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (R_4 g_m - 1) (C_L R_L s + 1)}{C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_L R_1 R_4 g_m s + 2 C_L R_1 R_L g_m s + C_L R_1 s + C_L R_4 s + C_L R_L s + 2 R_1 g_m + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_1 C_L R_1 \sqrt{\frac{2 R_1 g_m + 1}{C_1 C_L R_1 (R_4 + R_L)}} (R_4 + R_L)}{C_1 R_1 + C_L R_1 R_4 g_m + 2 C_L R_1 R_L g_m + C_L R_1 + C_L R_4 + C_L R_L} \\ \text{wo: } & \sqrt{\frac{2 R_1 g_m + 1}{C_1 C_L R_1 (R_4 + R_L)}} \\ \text{bandwidth: } & \frac{C_1 R_1 + C_L R_1 R_4 g_m + 2 C_L R_1 R_L g_m + C_L R_1 + C_L R_4 + C_L R_L}{C_1 C_L R_1 (R_4 + R_L)} \\ \text{K-LP: } & \frac{R_1 (R_4 g_m - 1)}{2 R_1 g_m + 1} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & \frac{C_L R_1 R_L (R_4 g_m - 1)}{C_1 R_1 + C_L R_1 R_4 g_m + 2 C_L R_1 R_L g_m + C_L R_1 + C_L R_4 + C_L R_L} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.19 INVALID-NUMER-19 $Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L \right)$

$$H(s) = \frac{R_1 R_L (-C_4 s + g_m)}{C_1 C_4 R_1 R_L s^2 + C_1 R_1 s + 2 C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + R_1 g_m + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_1 C_4 R_1 R_L \sqrt{\frac{R_1 g_m + 1}{C_1 C_4 R_1 R_L}}}{C_1 R_1 + 2 C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_L} \\ \text{wo: } & \sqrt{\frac{R_1 g_m + 1}{C_1 C_4 R_1 R_L}} \\ \text{bandwidth: } & \frac{C_1 R_1 + 2 C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_L}{C_1 C_4 R_1 R_L} \\ \text{K-LP: } & \frac{R_1 R_L g_m}{R_1 g_m + 1} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & -\frac{C_4 R_1 R_L}{C_1 R_1 + 2 C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_L} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.20 INVALID-NUMER-20 $Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_1 R_L (-C_4 s + g_m)}{C_1 C_4 R_1 R_L s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_4 C_L R_1 R_L s^2 + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + C_L R_1 R_L g_m s + C_L R_L s + R_1 g_m + 1}$$

Parameters:

Q: $\frac{R_1 R_L \sqrt{\frac{R_1 g_m + 1}{R_1 R_L (C_1 C_4 + C_1 C_L + C_4 C_L)}} (C_1 C_4 + C_1 C_L + C_4 C_L)}{C_1 R_1 + 2C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_L + C_L R_1 R_L g_m + C_L R_L}$
 wo: $\sqrt{\frac{R_1 g_m + 1}{R_1 R_L (C_1 C_4 + C_1 C_L + C_4 C_L)}}$
 bandwidth: $\frac{C_1 R_1 + 2C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_L + C_L R_1 R_L g_m + C_L R_L}{R_1 R_L (C_1 C_4 + C_1 C_L + C_4 C_L)}$
 K-LP: $\frac{R_1 R_L g_m}{R_1 g_m + 1}$
 K-HP: 0
 K-BP: $-\frac{C_4 R_1 R_L}{C_1 R_1 + 2C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_L + C_L R_1 R_L g_m + C_L R_L}$
 QZ: 0
 Wz: None

8.21 INVALID-NUMER-21 $Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L \right)$

$$H(s) = \frac{R_1 R_L (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 R_1 R_4 R_L s^2 + C_1 R_1 R_4 s + C_1 R_1 R_L s + 2C_4 R_1 R_4 R_L g_m s + C_4 R_1 R_4 s + C_4 R_4 R_L s + R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$$

Parameters:

Q: $\frac{C_1 C_4 R_1 R_4 R_L \sqrt{\frac{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}{C_1 C_4 R_1 R_4 R_L}}}{C_1 R_1 R_4 + C_1 R_1 R_L + 2C_4 R_1 R_4 R_L g_m + C_4 R_1 R_4 + C_4 R_4 R_L}$
 wo: $\sqrt{\frac{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}{C_1 C_4 R_1 R_4 R_L}}$
 bandwidth: $\frac{C_1 R_1 R_4 + C_1 R_1 R_L + 2C_4 R_1 R_4 R_L g_m + C_4 R_1 R_4 + C_4 R_4 R_L}{C_1 C_4 R_1 R_4 R_L}$
 K-LP: $\frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$
 K-HP: 0
 K-BP: $-\frac{C_4 R_1 R_4 R_L}{C_1 R_1 R_4 + C_1 R_1 R_L + 2C_4 R_1 R_4 R_L g_m + C_4 R_1 R_4 + C_4 R_4 R_L}$
 QZ: 0
 Wz: None

8.22 INVALID-NUMER-22 $Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 R_1 R_4 s^2 + C_1 C_L R_1 R_4 s^2 + C_1 R_1 s + C_4 C_L R_1 R_4 s^2 + 2C_4 R_1 R_4 g_m s + C_4 R_4 s + C_L R_1 R_4 g_m s + C_L R_1 s + C_L R_4 s + 2R_1 g_m + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{R_1 R_4 \sqrt{\frac{2R_1 g_m + 1}{R_1 R_4 (C_1 C_4 + C_1 C_L + C_4 C_L)}} (C_1 C_4 + C_1 C_L + C_4 C_L)}{C_1 R_1 + 2C_4 R_1 R_4 g_m + C_4 R_4 + C_L R_1 R_4 g_m + C_L R_1 + C_L R_4} \\ \text{wo: } & \sqrt{\frac{2R_1 g_m + 1}{R_1 R_4 (C_1 C_4 + C_1 C_L + C_4 C_L)}} \\ \text{bandwidth: } & \frac{C_1 R_1 + 2C_4 R_1 R_4 g_m + C_4 R_4 + C_L R_1 R_4 g_m + C_L R_1 + C_L R_4}{R_1 R_4 (C_1 C_4 + C_1 C_L + C_4 C_L)} \\ \text{K-LP: } & \frac{R_1 (R_4 g_m - 1)}{2R_1 g_m + 1} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & -\frac{C_4 R_1 R_4}{C_1 R_1 + 2C_4 R_1 R_4 g_m + C_4 R_4 + C_L R_1 R_4 g_m + C_L R_1 + C_L R_4} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.23 INVALID-NUMER-23 $Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_1 R_L (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 R_1 R_4 R_L s^2 + C_1 C_L R_1 R_4 R_L s^2 + C_1 R_1 R_4 s + C_1 R_1 R_L s + C_4 C_L R_1 R_4 R_L s^2 + 2C_4 R_1 R_4 R_L g_m s + C_4 R_1 R_4 s + C_4 R_4 R_L s + C_L R_1 R_4 R_L g_m s + C_L R_1 R_L s + C_L R_4 R_L s +}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{R_1 R_4 R_L \sqrt{\frac{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}{R_1 R_4 R_L (C_1 C_4 + C_1 C_L + C_4 C_L)}} (C_1 C_4 + C_1 C_L + C_4 C_L)}{C_1 R_1 R_4 + C_1 R_1 R_L + 2C_4 R_1 R_4 R_L g_m + C_4 R_1 R_4 + C_4 R_4 R_L + C_L R_1 R_4 R_L g_m + C_L R_1 R_L + C_L R_4 R_L} \\ \text{wo: } & \sqrt{\frac{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}{R_1 R_4 R_L (C_1 C_4 + C_1 C_L + C_4 C_L)}} \\ \text{bandwidth: } & \frac{C_1 R_1 R_4 + C_1 R_1 R_L + 2C_4 R_1 R_4 R_L g_m + C_4 R_1 R_4 + C_4 R_4 R_L + C_L R_1 R_4 R_L g_m + C_L R_1 R_L + C_L R_4 R_L}{R_1 R_4 R_L (C_1 C_4 + C_1 C_L + C_4 C_L)} \\ \text{K-LP: } & \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & -\frac{C_4 R_1 R_4 R_L}{C_1 R_1 R_4 + C_1 R_1 R_L + 2C_4 R_1 R_4 R_L g_m + C_4 R_1 R_4 + C_4 R_4 R_L + C_L R_1 R_4 R_L g_m + C_L R_1 R_L + C_L R_4 R_L} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.24 INVALID-NUMER-24 $Z(s) = \left(\infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, R_L \right)$

$$H(s) = \frac{R_1 R_L (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 R_L s^2 + C_1 R_1 s + C_4 R_1 R_4 g_m s + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_4 s + C_4 R_L s + R_1 g_m + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_1 C_4 R_1 \sqrt{\frac{R_1 g_m + 1}{C_1 C_4 R_1 (R_4 + R_L)}} (R_4 + R_L)}{C_1 R_1 + C_4 R_1 R_4 g_m + 2C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_4 + C_4 R_L} \\ \text{wo: } & \sqrt{\frac{R_1 g_m + 1}{C_1 C_4 R_1 (R_4 + R_L)}} \\ \text{bandwidth: } & \frac{C_1 R_1 + C_4 R_1 R_4 g_m + 2C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_4 + C_4 R_L}{C_1 C_4 R_1 (R_4 + R_L)} \\ \text{K-LP: } & \frac{R_1 R_L g_m}{R_1 g_m + 1} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & \frac{C_4 R_1 R_L (R_4 g_m - 1)}{C_1 R_1 + C_4 R_1 R_4 g_m + 2C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_4 + C_4 R_L} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.25 INVALID-NUMER-25 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4s}, \frac{1}{C_Ls} \right)$

$$H(s) = \frac{(R_4 g_m - 1) (C_1 R_1 s + 1)}{C_1 C_L R_1 R_4 g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + 2C_1 R_1 g_m s + C_1 s + C_L R_4 g_m s + C_L s + 2g_m}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{\sqrt{2} C_1 C_L \sqrt{\frac{g_m}{C_1 C_L (R_1 R_4 g_m + R_1 + R_4)}} (R_1 R_4 g_m + R_1 + R_4)}{2C_1 R_1 g_m + C_1 + C_L R_4 g_m + C_L} \\ \text{wo: } & \sqrt{2} \sqrt{\frac{g_m}{C_1 C_L (R_1 R_4 g_m + R_1 + R_4)}} \\ \text{bandwidth: } & \frac{2C_1 R_1 g_m + C_1 + C_L R_4 g_m + C_L}{C_1 C_L (R_1 R_4 g_m + R_1 + R_4)} \\ \text{K-LP: } & \frac{R_4 g_m - 1}{2g_m} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & \frac{C_1 R_1 (R_4 g_m - 1)}{2C_1 R_1 g_m + C_1 + C_L R_4 g_m + C_L} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.26 INVALID-NUMER-26 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_L (R_4 g_m - 1) (C_1 R_1 s + 1)}{C_1 C_L R_1 R_4 R_L g_m s^2 + C_1 C_L R_1 R_L s^2 + C_1 C_L R_4 R_L s^2 + C_1 R_1 R_4 g_m s + 2C_1 R_1 R_L g_m s + C_1 R_1 s + C_1 R_4 s + C_1 R_L s + C_L R_4 R_L g_m s + C_L R_L s + R_4 g_m + 2R_L g_m + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_1 C_L R_L \sqrt{\frac{R_4 g_m + 2R_L g_m + 1}{C_1 C_L R_L (R_1 R_4 g_m + R_1 + R_4)}} (R_1 R_4 g_m + R_1 + R_4)}{C_1 R_1 R_4 g_m + 2C_1 R_1 R_L g_m + C_1 R_1 + C_1 R_4 + C_1 R_L + C_L R_4 R_L g_m + C_L R_L} \\ \text{wo: } & \sqrt{\frac{R_4 g_m + 2R_L g_m + 1}{C_1 C_L R_L (R_1 R_4 g_m + R_1 + R_4)}} \\ \text{bandwidth: } & \frac{C_1 R_1 R_4 g_m + 2C_1 R_1 R_L g_m + C_1 R_1 + C_1 R_4 + C_1 R_L + C_L R_4 R_L g_m + C_L R_L}{C_1 C_L R_L (R_1 R_4 g_m + R_1 + R_4)} \\ \text{K-LP: } & \frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2R_L g_m + 1} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & \frac{C_1 R_1 R_L (R_4 g_m - 1)}{C_1 R_1 R_4 g_m + 2C_1 R_1 R_L g_m + C_1 R_1 + C_1 R_4 + C_1 R_L + C_L R_4 R_L g_m + C_L R_L} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.27 INVALID-NUMER-27 $Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (-C_4 s + g_m)}{C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 s^2 + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{\sqrt{\frac{C_4 + C_L}{L_1 (C_1 C_4 + C_1 C_L + C_4 C_L)}} (C_1 C_4 + C_1 C_L + C_4 C_L)}{g_m (2C_4 + C_L)} \\ \text{wo: } & \sqrt{\frac{C_4 + C_L}{L_1 (C_1 C_4 + C_1 C_L + C_4 C_L)}} \\ \text{bandwidth: } & \frac{g_m (2C_4 + C_L)}{C_1 C_4 + C_1 C_L + C_4 C_L} \\ \text{K-LP: } & \frac{L_1 g_m}{C_4 + C_L} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & -\frac{C_4}{g_m (2C_4 + C_L)} \\ \text{QZ: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.28 INVALID-NUMER-28 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 (-C_4 s + g_m)}{C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_1 s^2 + 2C_4 L_1 R_1 g_m s + C_4 L_1 s + C_4 R_1 + C_L L_1 R_1 g_m s + C_L L_1 s + C_L R_1}$$

Parameters:

$$\text{Q: } \frac{R_1 \sqrt{\frac{C_4 + C_L}{L_1 (C_1 C_4 + C_1 C_L + C_4 C_L)}} (C_1 C_4 + C_1 C_L + C_4 C_L)}{2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L}$$

$$\text{wo: } \sqrt{\frac{C_4 + C_L}{L_1 (C_1 C_4 + C_1 C_L + C_4 C_L)}}$$

$$\text{bandwidth: } \frac{2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L}{R_1 (C_1 C_4 + C_1 C_L + C_4 C_L)}$$

$$\text{K-LP: } \frac{L_1 g_m}{C_4 + C_L}$$

$$\text{K-HP: } 0$$

$$\text{K-BP: } -\frac{C_4 R_1}{2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L}$$

$$\text{QZ: } 0$$

$$\text{Wz: None}$$

9 INVALID-WZ

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

$$H(s) = -\frac{R_1 (C_L R_L s + 1) (C_4 R_4 s - R_4 g_m + 1)}{2C_4 C_L R_1 R_4 R_L g_m s^2 + C_4 C_L R_1 R_4 s^2 + C_4 C_L R_4 R_L s^2 + 2C_4 R_1 R_4 g_m s + C_4 R_4 s + C_L R_1 R_4 g_m s + 2C_L R_1 R_L g_m s + C_L R_1 s + C_L R_4 s + C_L R_L s + 2R_1 g_m + 1}$$

Parameters:

$$\text{Q: } \frac{C_4 C_L R_4 \sqrt{\frac{2R_1 g_m + 1}{C_4 C_L R_4 (2R_1 R_L g_m + R_1 + R_L)}} (2R_1 R_L g_m + R_1 + R_L)}{2C_4 R_1 R_4 g_m + C_4 R_4 + C_L R_1 R_4 g_m + 2C_L R_1 R_L g_m + C_L R_1 + C_L R_4 + C_L R_L}$$

$$\text{wo: } \sqrt{\frac{2R_1 g_m + 1}{C_4 C_L R_4 (2R_1 R_L g_m + R_1 + R_L)}}$$

$$\text{bandwidth: } \frac{2C_4 R_1 R_4 g_m + C_4 R_4 + C_L R_1 R_4 g_m + 2C_L R_1 R_L g_m + C_L R_1 + C_L R_4 + C_L R_L}{C_4 C_L R_4 (2R_1 R_L g_m + R_1 + R_L)}$$

$$\text{K-LP: } \frac{R_1 (R_4 g_m - 1)}{2R_1 g_m + 1}$$

$$\text{K-HP: } -\frac{R_1 R_L}{2R_1 R_L g_m + R_1 + R_L}$$

$$\text{K-BP: } \frac{R_1 (-C_4 R_4 + C_L R_4 R_L g_m - C_L R_L)}{2C_4 R_1 R_4 g_m + C_4 R_4 + C_L R_1 R_4 g_m + 2C_L R_1 R_L g_m + C_L R_1 + C_L R_4 + C_L R_L}$$

$$\begin{aligned} \text{QZ: } & \frac{C_4 C_L R_4 R_L \sqrt{\frac{2R_1 g_m + 1}{C_4 C_L R_4 (2R_1 R_L g_m + R_1 + R_L)}}}{C_4 R_4 - C_L R_4 R_L g_m + C_L R_L} \\ \text{WZ: } & \sqrt{\frac{-R_4 g_m + 1}{C_4 C_L R_4 R_L}} \end{aligned}$$

9.2 INVALID-WZ-2 $Z(s) = \left(\infty, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 (C_4 s - g_m) (C_L R_L s + 1)}{2C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L R_L s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_4 C_L L_1 \sqrt{\frac{C_4 + C_L}{C_4 C_L L_1 (2R_L g_m + 1)}} (2R_L g_m + 1)}{C_4 C_L R_L + 2C_4 L_1 g_m + C_L L_1 g_m} \\ \text{wo: } & \sqrt{\frac{C_4 + C_L}{C_4 C_L L_1 (2R_L g_m + 1)}} \\ \text{bandwidth: } & \frac{C_4 C_L R_L + 2C_4 L_1 g_m + C_L L_1 g_m}{C_4 C_L L_1 (2R_L g_m + 1)} \\ \text{K-LP: } & \frac{L_1 g_m}{C_4 + C_L} \\ \text{K-HP: } & -\frac{R_L}{2R_L g_m + 1} \\ \text{K-BP: } & \frac{L_1 (-C_4 + C_L R_L g_m)}{C_4 C_L R_L + 2C_4 L_1 g_m + C_L L_1 g_m} \\ \text{QZ: } & \frac{C_4 C_L R_L \sqrt{\frac{C_4 + C_L}{C_4 C_L L_1 (2R_L g_m + 1)}}}{C_4 - C_L R_L g_m} \\ \text{WZ: } & \sqrt{-\frac{g_m}{C_4 C_L R_L}} \end{aligned}$$

9.3 INVALID-WZ-3 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_L R_L s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_1 R_4 g_m s^2 + 2C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L R_4 s + C_4 C_L R_L s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_4 C_L L_1 \sqrt{\frac{C_4 + C_L}{C_4 C_L L_1 (R_4 g_m + 2R_L g_m + 1)}} (R_4 g_m + 2R_L g_m + 1)}{C_4 C_L R_4 + C_4 C_L R_L + 2C_4 L_1 g_m + C_L L_1 g_m} \\ \text{wo: } & \sqrt{\frac{C_4 + C_L}{C_4 C_L L_1 (R_4 g_m + 2R_L g_m + 1)}} \end{aligned}$$

$$\text{bandwidth: } \frac{C_4 C_L R_4 + C_4 C_L R_L + 2C_4 L_1 g_m + C_L L_1 g_m}{C_4 C_L L_1 (R_4 g_m + 2R_L g_m + 1)}$$

$$\text{K-LP: } \frac{L_1 g_m}{C_4 + C_L}$$

$$\text{K-HP: } \frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2R_L g_m + 1}$$

$$\text{K-BP: } \frac{L_1 (C_4 R_4 g_m - C_4 + C_L R_L g_m)}{C_4 C_L R_4 + C_4 C_L R_L + 2C_4 L_1 g_m + C_L L_1 g_m}$$

$$\text{QZ: } \frac{C_4 C_L R_L \sqrt{\frac{C_4 + C_L}{C_4 C_L L_1 (R_4 g_m + 2R_L g_m + 1)}} (R_4 g_m - 1)}{C_4 R_4 g_m - C_4 + C_L R_L g_m}$$

$$\text{WZ: } \sqrt{\frac{g_m}{C_4 C_L R_L (R_4 g_m - 1)}}$$

$$\mathbf{9.4 \quad INVALID-WZ-4} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(R_4 g_m - 1) (C_1 R_1 s + 1) (C_L R_L s + 1)}{C_1 C_L R_1 R_4 g_m s^2 + 2C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + 2C_1 R_1 g_m s + C_1 s + C_L R_4 g_m s + 2C_L R_L g_m s + C_L s + 2g_m}$$

Parameters:

$$\text{Q: } \frac{\sqrt{2} C_1 C_L \sqrt{\frac{g_m}{C_1 C_L (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}} (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}{2C_1 R_1 g_m + C_1 + C_L R_4 g_m + 2C_L R_L g_m + C_L}$$

$$\text{wo: } \sqrt{2} \sqrt{\frac{g_m}{C_1 C_L (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}}$$

$$\text{bandwidth: } \frac{2C_1 R_1 g_m + C_1 + C_L R_4 g_m + 2C_L R_L g_m + C_L}{C_1 C_L (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}$$

$$\text{K-LP: } \frac{R_4 g_m - 1}{2g_m}$$

$$\text{K-HP: } \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$$

$$\text{K-BP: } \frac{C_1 R_1 R_4 g_m - C_1 R_1 + C_L R_4 R_L g_m - C_L R_L}{2C_1 R_1 g_m + C_1 + C_L R_4 g_m + 2C_L R_L g_m + C_L}$$

$$\text{QZ: } \frac{\sqrt{2} C_1 C_L R_1 R_L \sqrt{\frac{g_m}{C_1 C_L (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}}}{C_1 R_1 + C_L R_L}$$

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

$$\mathbf{9.5 \quad INVALID-WZ-5} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_L \right)$$

$$H(s) = -\frac{R_L (C_4 s - g_m) (C_1 R_1 s + 1)}{2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_L s^2 + C_1 R_1 g_m s + C_1 s + 2C_4 R_L g_m s + C_4 s + g_m}$$

Parameters:

$$\begin{aligned}
Q: & \frac{C_1 C_4 \sqrt{\frac{g_m}{C_1 C_4 (2R_1 R_L g_m + R_1 + R_L)}} (2R_1 R_L g_m + R_1 + R_L)}{C_1 R_1 g_m + C_1 + 2C_4 R_L g_m + C_4} \\
wo: & \sqrt{\frac{g_m}{C_1 C_4 (2R_1 R_L g_m + R_1 + R_L)}} \\
bandwidth: & \frac{C_1 R_1 g_m + C_1 + 2C_4 R_L g_m + C_4}{C_1 C_4 (2R_1 R_L g_m + R_1 + R_L)} \\
K-LP: & R_L \\
K-HP: & -\frac{R_1 R_L}{2R_1 R_L g_m + R_1 + R_L} \\
K-BP: & \frac{R_L (C_1 R_1 g_m - C_4)}{C_1 R_1 g_m + C_1 + 2C_4 R_L g_m + C_4} \\
QZ: & -\frac{C_1 C_4 R_1 \sqrt{\frac{g_m}{C_1 C_4 (2R_1 R_L g_m + R_1 + R_L)}}}{C_1 R_1 g_m - C_4} \\
Wz: & \sqrt{-\frac{g_m}{C_1 C_4 R_1}}
\end{aligned}$$

9.6 INVALID-WZ-6 $Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, R_L \right)$

$$H(s) = -\frac{R_L (C_1 R_1 s + 1) (C_4 R_4 s - R_4 g_m + 1)}{2C_1 C_4 R_1 R_4 R_L g_m s^2 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_4 R_L s^2 + C_1 R_1 R_4 g_m s + 2C_1 R_1 R_L g_m s + C_1 R_1 s + C_1 R_4 s + C_1 R_L s + 2C_4 R_4 R_L g_m s + C_4 R_4 s + R_4 g_m + 2R_L g_m + 1}$$

Parameters:

$$\begin{aligned}
Q: & \frac{C_1 C_4 R_4 \sqrt{\frac{R_4 g_m + 2R_L g_m + 1}{C_1 C_4 R_4 (2R_1 R_L g_m + R_1 + R_L)}} (2R_1 R_L g_m + R_1 + R_L)}{C_1 R_1 R_4 g_m + 2C_1 R_1 R_L g_m + C_1 R_1 + C_1 R_4 + C_1 R_L + 2C_4 R_4 R_L g_m + C_4 R_4} \\
wo: & \sqrt{\frac{R_4 g_m + 2R_L g_m + 1}{C_1 C_4 R_4 (2R_1 R_L g_m + R_1 + R_L)}} \\
bandwidth: & \frac{C_1 R_1 R_4 g_m + 2C_1 R_1 R_L g_m + C_1 R_1 + C_1 R_4 + C_1 R_L + 2C_4 R_4 R_L g_m + C_4 R_4}{C_1 C_4 R_4 (2R_1 R_L g_m + R_1 + R_L)} \\
K-LP: & \frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2R_L g_m + 1} \\
K-HP: & -\frac{R_1 R_L}{2R_1 R_L g_m + R_1 + R_L} \\
K-BP: & \frac{R_L (C_1 R_1 R_4 g_m - C_1 R_1 - C_4 R_4)}{C_1 R_1 R_4 g_m + 2C_1 R_1 R_L g_m + C_1 R_1 + C_1 R_4 + C_1 R_L + 2C_4 R_4 R_L g_m + C_4 R_4} \\
QZ: & \frac{C_1 C_4 R_1 R_4 \sqrt{\frac{R_4 g_m + 2R_L g_m + 1}{C_1 C_4 R_4 (2R_1 R_L g_m + R_1 + R_L)}}}{-C_1 R_1 R_4 g_m + C_1 R_1 + C_4 R_4} \\
Wz: & \sqrt{\frac{-R_4 g_m + 1}{C_1 C_4 R_1 R_4}}
\end{aligned}$$

9.7 INVALID-WZ-7 $Z(s) = \left(\infty, \infty, \infty, \infty, L_4s + \frac{1}{C_4s}, R_L \right)$

$$H(s) = \frac{R_L (C_1 R_1 s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 R_1 g_m s + C_1 s + C_4 R_4 g_m s + 2C_4 R_L g_m s + C_4 s + g_m}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_1 C_4 \sqrt{\frac{g_m}{C_1 C_4 (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}} (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}{C_1 R_1 g_m + C_1 + C_4 R_4 g_m + 2C_4 R_L g_m + C_4} \\ \text{wo: } & \sqrt{\frac{g_m}{C_1 C_4 (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}} \\ \text{bandwidth: } & \frac{C_1 R_1 g_m + C_1 + C_4 R_4 g_m + 2C_4 R_L g_m + C_4}{C_1 C_4 (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)} \\ \text{K-LP: } & R_L \\ \text{K-HP: } & \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L} \\ \text{K-BP: } & \frac{R_L (C_1 R_1 g_m + C_4 R_4 g_m - C_4)}{C_1 R_1 g_m + C_1 + C_4 R_4 g_m + 2C_4 R_L g_m + C_4} \\ \text{QZ: } & \frac{C_1 C_4 R_1 \sqrt{\frac{g_m}{C_1 C_4 (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}} (R_4 g_m - 1)}{C_1 R_1 g_m + C_4 R_4 g_m - C_4} \\ \text{WZ: } & \sqrt{\frac{g_m}{C_1 C_4 R_1 (R_4 g_m - 1)}} \end{aligned}$$

10 INVALID-ORDER

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

$$H(s) = \frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$$

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

$$H(s) = \frac{R_1 (R_4 g_m - 1)}{C_L R_1 R_4 g_m s + C_L R_1 s + C_L R_4 s + 2R_1 g_m + 1}$$

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

$$H(s) = \frac{R_1 R_L (R_4 g_m - 1)}{C_L R_1 R_4 R_L g_m s + C_L R_1 R_L s + C_L R_4 R_L s + R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L}$$

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

$$H(s) = \frac{R_1 (R_4 g_m - 1) (C_L R_L s + 1)}{C_L R_1 R_4 g_m s + 2 C_L R_1 R_L g_m s + C_L R_1 s + C_L R_4 s + C_L R_L s + 2 R_1 g_m + 1}$$

10.5 INVALID-ORDER-5 $Z(s) = (L_1 s, \infty, \infty, \infty, \infty, R_L)$

$$H(s) = \frac{R_1 R_L (-C_4 s + g_m)}{2 C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + R_1 g_m + 1}$$

10.6 INVALID-ORDER-6 $Z(s) = \left(L_1 s, \infty, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (-C_4 s + g_m)}{s (C_4 C_L R_1 s + 2 C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.7 INVALID-ORDER-7 $Z(s) = \left(L_1 s, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_4 s - g_m) (C_L R_L s + 1)}{s (2 C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_L s + 2 C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.8 INVALID-ORDER-8 $Z(s) = \left(L_1 s, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_4 s - g_m) (C_L L_L s^2 + 1)}{s (2 C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 s + 2 C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.9 INVALID-ORDER-9 $Z(s) = \left(L_1 s, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L R_1 s (-C_4 s + g_m)}{C_4 C_L L_L R_1 s^3 + 2C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + C_4 R_1 s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

10.10 INVALID-ORDER-10 $Z(s) = \left(L_1 s, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_4 s - g_m) (C_L L_L s^2 + C_L R_L s + 1)}{s (2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + 2C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_L s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.11 INVALID-ORDER-11 $Z(s) = \left(L_1 s, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_L R_1 R_L s (-C_4 s + g_m)}{C_4 C_L L_L R_1 R_L s^3 + 2C_4 L_L R_1 R_L g_m s^2 + C_4 L_L R_1 s^2 + C_4 L_L R_L s^2 + C_4 R_1 R_L s + C_L L_L R_1 R_L g_m s^2 + C_L L_L R_L s^2 + L_L R_1 g_m s + L_L s + R_1 R_L g_m + R_L}$$

10.12 INVALID-ORDER-12 $Z(s) = \left(L_1 s, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{R_1 (C_4 s - g_m) (C_L L_L R_L s^2 + L_L s + R_L)}{2C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_L s^3 + 2C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

10.13 INVALID-ORDER-13 $Z(s) = \left(L_1 s, \infty, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{R_1 R_L (C_4 s - g_m) (C_L L_L s^2 + 1)}{2C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_L s^3 + C_4 C_L R_1 R_L s^2 + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_L R_1 R_L g_m s + C_L R_L s + R_1 g_m}$$

10.14 INVALID-ORDER-14 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_1 R_L (-C_4 R_4 s + R_4 g_m - 1)}{2C_4 R_1 R_4 R_L g_m s + C_4 R_1 R_4 s + C_4 R_4 R_L s + R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$$

10.15 INVALID-ORDER-15 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_L L_L s^2 + 1) (C_4 R_4 s - R_4 g_m + 1)}{2C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L R_1 R_4 s^2 + 2C_4 R_1 R_4 g_m s + C_4 R_4 s + 2C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_L R_1 R_4 g_m s + C_L R_1 s + C_L R_4 s + 2R_1 g_m + 1}$$

10.16 INVALID-ORDER-16 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L R_1 s (-C_4 R_4 s + R_4 g_m - 1)}{C_4 C_L L_L R_1 R_4 s^3 + 2C_4 L_L R_1 R_4 g_m s^2 + C_4 L_L R_4 s^2 + C_4 R_1 R_4 s + C_L L_L R_1 R_4 g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_4 s^2 + 2L_L R_1 g_m s + L_L s + R_1 R_4 g_m + R_1 + R_4}$$

10.17 INVALID-ORDER-17 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_4 R_4 s - R_4 g_m + 1) (C_L L_L s^2 + C_L R_L s + 1)}{2C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_4 s^3 + 2C_4 C_L R_1 R_4 R_L g_m s^2 + C_4 C_L R_1 R_4 s^2 + C_4 C_L R_4 R_L s^2 + 2C_4 R_1 R_4 g_m s + C_4 R_4 s + 2C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_L R_1 R_4 g_m s + 2C_L R_1 s + C_L R_4 s + 2R_1 g_m + 1}$$

10.18 INVALID-ORDER-18 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_L R_1 R_L s (-C_4 R_4 s + R_4 g_m - 1)}{C_4 C_L L_L R_1 R_4 R_L s^3 + 2C_4 L_L R_1 R_4 R_L g_m s^2 + C_4 L_L R_1 R_4 s^2 + C_4 L_L R_4 R_L s^2 + C_4 R_1 R_4 R_L s + C_L L_L R_1 R_4 R_L g_m s^2 + C_L L_L R_1 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_1 R_4 g_m s + 2L_L R_1 s + L_L R_4 s + 2R_1 g_m + 1}$$

10.19 INVALID-ORDER-19 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{R_1 (C_4 R_4 s - R_4 g_m + 1) (C_L L_L R_L s^2 + L_L s + R_L)}{2C_4 C_L L_L R_1 R_4 R_L g_m s^3 + C_4 C_L L_L R_1 R_4 s^3 + C_4 C_L L_L R_4 R_L s^3 + 2C_4 L_L R_1 R_4 g_m s^2 + C_4 L_L R_4 s^2 + 2C_4 R_1 R_4 R_L g_m s + C_4 R_1 R_4 s + C_4 R_4 R_L s + C_L L_L R_1 R_4 g_m s^2 + 2C_L L_L R_1 s + C_L R_4 s + 2R_1 g_m + 1}$$

10.20 INVALID-ORDER-20 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = - \frac{R_1 R_L (C_L L_L s^2 + 1) (C_4 R_4 s - R_4 g_m + 1)}{2C_4 C_L L_L R_1 R_4 R_L g_m s^3 + C_4 C_L L_L R_1 R_4 s^3 + C_4 C_L L_L R_4 R_L s^3 + C_4 C_L R_1 R_4 R_L s^2 + 2C_4 R_1 R_4 R_L g_m s + C_4 R_1 R_4 s + C_4 R_4 R_L s + C_L L_L R_1 R_4 g_m s^2 + 2C_L L_L R_1 R_L g_m s^2 +}$$

10.21 INVALID-ORDER-21 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_1 R_L (C_4 R_4 g_m s - C_4 s + g_m)}{C_4 R_1 R_4 g_m s + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_4 s + C_4 R_L s + R_1 g_m + 1}$$

10.22 INVALID-ORDER-22 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_4 R_4 g_m s - C_4 s + g_m)}{s (C_4 C_L R_1 R_4 g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.23 INVALID-ORDER-23 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_L R_L s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{s (C_4 C_L R_1 R_4 g_m s + 2C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + C_4 C_L R_L s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.24 INVALID-ORDER-24 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_L L_L s^2 + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{s (2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 R_4 g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.25 INVALID-ORDER-25 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L R_1 s (C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + 2C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + C_4 R_1 R_4 g_m s + C_4 R_1 s + C_4 R_4 s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

10.26 INVALID-ORDER-26 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{s (2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 R_4 g_m s + 2C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + C_4 C_L R_L s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.27 INVALID-ORDER-27 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_L R_1 R_L s (C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_L R_1 R_4 R_L g_m s^3 + C_4 C_L L_L R_1 R_L s^3 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_1 R_4 g_m s^2 + 2C_4 L_L R_1 R_L g_m s^2 + C_4 L_L R_1 s^2 + C_4 L_L R_4 s^2 + C_4 L_L R_L s^2 + C_4 R_1 R_4 R_L g_m s + C_4 R_1 R_L s + C_4 R_4 s + C_4 g_m}$$

10.28 INVALID-ORDER-28 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{R_1 (C_4 R_4 g_m s - C_4 s + g_m) (C_L L_L R_L s^2 + L_L s + R_L)}{C_4 C_L L_L R_1 R_4 g_m s^3 + 2C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L L_L R_L s^3 + 2C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + C_4 R_1 R_4 g_m s + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_4 s + C_4 g_m}$$

10.29 INVALID-ORDER-29 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \infty, \infty, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{R_1 R_L (C_L L_L s^2 + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_L R_1 R_4 g_m s^3 + 2C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L L_L R_L s^3 + C_4 C_L R_1 R_4 R_L g_m s^2 + C_4 C_L R_1 R_L s^2 + C_4 C_L R_4 R_L s^2 + C_4 R_1 R_4 g_m s + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_4 s + C_4 g_m}$$

10.30 INVALID-ORDER-30 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_4 L_4 g_m s^2 - C_4 s + g_m)}{s (C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_1 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.31 INVALID-ORDER-31 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_1 R_L (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_L s^3 + C_4 C_L R_1 R_L s^2 + C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + C_L R_1 R_L g_m s + C_L R_L s + R_1 g_m + 1}$$

10.32 INVALID-ORDER-32 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_L R_L s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{s (C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + 2C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_L s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.33 INVALID-ORDER-33 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_L L_L s^2 + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{s (C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + 2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.34 INVALID-ORDER-34 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L R_1 s (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_1 s^3 + C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + C_4 R_1 s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

10.35 INVALID-ORDER-35 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{s (C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + 2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + 2C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_L s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

$$\mathbf{10.36 \quad INVALID-ORDER-36} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{L_L R_1 R_L s (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_1 R_L s^3 + C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_1 R_L g_m s^2 + C_4 L_L R_1 s^2 + C_4 L_L R_L s^2 + C_4 L_L s^2 + C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 L_L g_m + C_4}$$

$$\mathbf{10.37 \quad INVALID-ORDER-37} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 g_m s^2 - C_4 s + g_m) (C_L L_L R_L s^2 + L_L s + R_L)}{C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_L s^3 + C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2 C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + 2 C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 L_L g_m + C_4}$$

$$\mathbf{10.38 \quad INVALID-ORDER-38} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{R_1 R_L (C_L L_L s^2 + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_L s^3 + 2 C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_L s^3 + C_4 C_L R_1 R_L s^2 + C_4 L_4 R_1 g_m s^2 + C_4 L_4 R_L s^2 + C_4 L_L R_1 g_m s + C_4 L_L s + C_4 R_1 R_L g_m + C_4 R_1 s + C_4 L_L g_m + C_4}$$

$$\mathbf{10.39 \quad INVALID-ORDER-39} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{R_1 (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_4 C_L L_4 R_1 s^3 + 2 C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 g_m s^2 + C_L L_4 s^2 + C_L R_1 s + 2 R_1 g_m + 1}$$

$$\mathbf{10.40 \quad INVALID-ORDER-40} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{R_1 R_L (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_4 C_L L_4 R_1 R_L s^3 + 2 C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_L s^2 + C_L L_4 R_1 R_L g_m s^2 + C_L L_4 R_L s^2 + C_L R_1 R_L s + L_4 R_1 g_m s + L_4 s + 2 R_1 R_L g_m + R_1 + R_L}$$

$$10.41 \quad \text{INVALID-ORDER-41} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{R_1 (C_L R_L s + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{2C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_L s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 g_m s^2 + C_L L_4 s^2 + 2C_L R_1 R_L g_m s + C_L R_1 s + C_L R_L s + 2R_1 g_m + 1}$$

$$10.42 \quad \text{INVALID-ORDER-42} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{R_1 (C_L L_L s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 g_m s^2 + C_L L_4 s^2 + 2C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_L R_1 s + 2R_1 g_m + 1}$$

$$10.43 \quad \text{INVALID-ORDER-43} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_L R_1 s (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_4 C_L L_4 L_L R_1 s^4 + 2C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_1 s^2 + C_L L_4 L_L R_1 g_m s^3 + C_L L_4 L_L s^3 + C_L L_L R_1 s^2 + L_4 R_1 g_m s + L_4 s + 2L_L R_1 g_m s + L_L s + R_1}$$

$$10.44 \quad \text{INVALID-ORDER-44} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{R_1 (C_4 L_4 s^2 - L_4 g_m s + 1) (C_L L_L s^2 + C_L R_L s + 1)}{2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + 2C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_L s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 g_m s^2 + C_L L_4 s^2 + 2C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_L R_1 s + 2R_1 g_m + 1}$$

$$10.45 \quad \text{INVALID-ORDER-45} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{L_L R_1 R_L s (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_4 C_L L_4 L_L R_1 R_L s^4 + 2C_4 L_4 L_L R_1 R_L g_m s^3 + C_4 L_4 L_L R_1 s^3 + C_4 L_4 L_L R_L s^3 + C_4 L_4 R_1 R_L s^2 + C_L L_4 L_L R_1 R_L g_m s^3 + C_L L_4 L_L R_L s^3 + C_L L_L R_1 R_L s^2 + L_4 L_L R_1 g_m s^2 + L_4 L_L s^2 + L_4 R_1 g_m s + L_4 s + 2L_L R_1 g_m s + L_L s + R_1}$$

10.46 INVALID-ORDER-46 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{R_1 (C_4 L_4 s^2 - L_4 g_m s + 1) (C_L L_L R_L s^2 + L_L s + R_L)}{2C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_L s^4 + 2C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + 2C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_L s^2 + C_L L_4 L_L R_1 g_m s^3 + C_L L_4 L_L R_L s^3 + C_L L_4 L_L R_1 s^3 + C_L L_4 L_L R_L s^2 + C_L L_4 L_L R_1 s^2 + C_L L_4 L_L R_1 s + C_L L_4 L_L R_1}$$

10.47 INVALID-ORDER-47 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{R_1 R_L (C_L L_L s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s + 2C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_4 R_1 R_L s^3 + 2C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_L s^2 + C_L L_4 L_L R_1 g_m s^3 + C_L L_4 L_L s^3 + C_L L_4 L_L R_1 s^2 + C_L L_4 L_L R_L s^2 + C_L L_4 L_L R_1 s + C_L L_4 L_L R_L)}{2C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_4 R_1 R_L s^3 + 2C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_L s^2 + C_L L_4 L_L R_1 g_m s^3 + C_L L_4 L_L s^3 + C_L L_4 L_L R_1 s^2 + C_L L_4 L_L R_L s^2 + C_L L_4 L_L R_1 s + C_L L_4 L_L R_L}$$

10.48 INVALID-ORDER-48 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{s (C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_1 R_4 g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.49 INVALID-ORDER-49 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_1 R_L (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_L s^3 + C_4 C_L R_1 R_4 R_L g_m s^2 + C_4 C_L R_1 R_L s^2 + C_4 C_L R_4 R_L s^2 + C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_4 R_1 R_4 g_m s + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_4 s +}$$

10.50 INVALID-ORDER-50 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_L R_L s + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{s (C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_1 R_4 g_m s + 2 C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + C_4 C_L R_L s + 2 C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.51 INVALID-ORDER-51 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_L L_L s^2 + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{s (C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + 2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 R_4 g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.52 INVALID-ORDER-52 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L R_1 s (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + C_4 R_1 R_4 g_m s + C_4 R_1 s + C_4 R_4 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L}$$

10.53 INVALID-ORDER-53 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{s (C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + 2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 R_4 g_m s + 2C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + C_4 C_L R_L s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.54 INVALID-ORDER-54 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_L R_1 R_L s (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_1 R_4 R_L g_m s^3 + C_4 C_L L_L R_1 R_L s^3 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_L s^2 + C_4 R_1 R_4 g_m s + C_4 R_1 s + C_4 R_4 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L}$$

10.55 INVALID-ORDER-55 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{R_1 (C_L L_L R_L s^2 + L_L s + R_L) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_1 R_4 g_m s^3 + 2C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L L_L R_L s^3 + C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 L_L R_1 g_m s + C_4 L_L s + C_4 R_1 R_4 g_m s + C_4 R_1 s + C_4 R_4 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L}$$

10.56 INVALID-ORDER-56 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{R_1 R_L (C_L s + 1)}{C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_L s^3 + C_4 C_L L_L R_1 R_L g_m s^3 + 2 C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L L_L R_L s^3 -$$

10.57 INVALID-ORDER-57 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{C_4 C_L L_4 R_1 R_4 s^3 + 2 C_4 L_4 R_1 R_4 g_m s^2 + C_4 L_4 R_4 s^2 + C_L L_4 R_1 R_4 g_m s^2 + C_L L_4 R_1 s^2 + C_L L_4 R_4 s^2 + C_L R_1 R_4 s + 2 L_4 R_1 g_m s + L_4 s + 2 R_1 R_4 g_m + R_4}$$

10.58 INVALID-ORDER-58 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_1 R_L (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{C_4 C_L L_4 R_1 R_4 R_L s^3 + 2C_4 L_4 R_1 R_4 R_L g_m s^2 + C_4 L_4 R_1 R_4 s^2 + C_4 L_4 R_4 R_L s^2 + C_L L_4 R_1 R_4 R_L g_m s^2 + C_L L_4 R_1 R_L s^2 + C_L L_4 R_4 R_L s^2 + C_L R_1 R_4 R_L s + L_4 R_1 R_4 g_m s + 2L_4 R_1 R_4}$$

10.59 INVALID-ORDER-59 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_L R_L s + 1) (C_4 L_4 R_4 s^2 - L_4 R_4 g_m s + L_4 s + R_4)}{2C_4 C_L L_4 R_1 R_4 R_L g_m s^3 + C_4 C_L L_4 R_1 R_4 s^3 + C_4 C_L L_4 R_4 R_L s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + C_4 L_4 R_4 s^2 + C_L L_4 R_1 R_4 g_m s^2 + 2C_L L_4 R_1 R_L g_m s^2 + C_L L_4 R_1 s^2 + C_L L_4 R_4 s^2 + C_L L_4 R_4 s + C_L R_4}$$

10.60 INVALID-ORDER-60 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_L L_L s^2 + 1) (C_4 L_4 R_4 s^2 - L_4 R_4 g_m s + L_4 s + R_4)}{2C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_1 R_4 s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + C_4 L_4 R_4 s^2 + 2C_L L_4 L_L R_1 g_m s^3 + C_L L_4 L_L s^3 + C_L L_4 R_1 R_4 g_m s^2 + C_L L_4 R_1 s^2 + C_L L_4 R_4 s + C_L R_4}$$

10.61 INVALID-ORDER-61 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L R_1 s (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{C_4 C_L L_4 L_L R_1 R_4 s^4 + 2C_4 L_4 L_L R_1 R_4 g_m s^3 + C_4 L_4 L_L R_4 s^3 + C_4 L_4 R_1 R_4 s^2 + C_L L_4 L_L R_1 R_4 g_m s^3 + C_L L_4 L_L R_1 s^3 + C_L L_4 L_L R_4 s^3 + C_L L_L R_1 R_4 s^2 + 2L_4 L_L R_1 g_m s^2 + L_4 L_L$$

10.62 INVALID-ORDER-62 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1(C_L L_L s^2 + C_L L_R)}{2C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L_4 L_L R_4 s^4 + 2C_4 C_L L_4 R_1 R_4 R_L g_m s^3 + C_4 C_L L_4 R_1 R_4 s^3 + C_4 C_L L_4 R_4 R_L s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + C_4 L_4 R_4 s^2 + 2C_L L_4 L_L R_1 g_m s^3 + C_L L_4 L_L R_1 s^3}$$

10.63 INVALID-ORDER-63 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L + \frac{1}{L_L s}}} \right)$

$$H(s) = \frac{L_L R_1 R_L s}{C_4 C_L L_4 L_L R_1 R_4 R_L s^4 + 2C_4 L_4 L_L R_1 R_4 R_L g_m s^3 + C_4 L_4 L_L R_1 R_4 s^3 + C_4 L_4 L_L R_4 R_L s^3 + C_4 L_4 R_1 R_4 R_L s^2 + C_L L_4 L_L R_1 R_4 R_L g_m s^3 + C_L L_4 L_L R_1 R_L s^3 + C_L L_4 L_L R_4 R_L s^3 -}$$

10.64 INVALID-ORDER-64 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{2C_4 C_L L_4 L_L R_1 R_4 R_L q_m s^4 + C_4 C_L L_4 L_L R_1 R_4 s^4 + C_4 C_L L_4 L_L R_4 R_L s^4 + 2C_4 L_4 L_L R_1 R_4 q_m s^3 + C_4 L_4 L_L R_4 s^3 + 2C_4 L_4 R_1 R_4 R_L q_m s^2 + C_4 L_4 R_1 R_4 s^2 + C_4 L_4 R_4 R_L s^2 + C_4 L_4 R_4}{(s^2 + \gamma)^2}$$

10.65 INVALID-ORDER-65 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{2C_4C_LL_4L_LR_1R_4R_Lg_ms^4 + C_4C_LL_4L_LR_1R_4s^4 + C_4C_LL_4L_LR_4R_Ls^4 + C_4C_LL_4R_1R_4R_Ls^3 + 2C_4L_4R_1R_4R_Lg_ms^2 + C_4L_4R_1R_4s^2 + C_4L_4R_4R_Ls^2 + C_LL_4L_LR_1R_4g_ms^2}{2C_4C_LL_4L_LR_1R_4R_Lg_ms^4 + C_4C_LL_4L_LR_1R_4s^4 + C_4C_LL_4L_LR_4R_Ls^4 + C_4C_LL_4R_1R_4R_Ls^3 + 2C_4L_4R_1R_4R_Lg_ms^2 + C_4L_4R_1R_4s^2 + C_4L_4R_4R_Ls^2 + C_LL_4L_LR_1R_4g_ms^2}$$

$$10.66 \quad \text{INVALID-ORDER-66} \quad Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_4 C_L L_4 R_1 R_4 g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 g_m s^2 + C_L L_4 s^2 + C_L R_1 R_4 g_m s + C_L R_1 s + C_L R_4 s + 2R_1 g_m + 1}$$

$$10.67 \quad \text{INVALID-ORDER-67} \quad Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{R_1 R_L (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_4 C_L L_4 R_1 R_4 R_L g_m s^3 + C_4 C_L L_4 R_1 R_L s^3 + C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + C_L L_4 R_1 R_L g_m s^2 + C_L L_4 R_L s^2}$$

$$10.68 \quad \text{INVALID-ORDER-68} \quad Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{R_1 (C_L R_L s + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_4 C_L L_4 R_1 R_4 g_m s^3 + 2C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L L_4 R_L s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 g_m s^2 + C_L L_4 s^2 + C_L R_1 R_4 g_m s + 2C_L R_1 s}$$

$$10.69 \quad \text{INVALID-ORDER-69} \quad Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{R_1 (C_L L_L s^2 + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 R_4 g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 g_m s^2 + C_L L_4 s^2 + 2C_L L_L R_1 g_m s^2 + C_L L_L s^2}$$

$$10.70 \quad \text{INVALID-ORDER-70} \quad Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_L R_1 s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_1 R_4 g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_L L_4 L_L R_1 g_m s^3 + C_L L_4 L_L s^3}$$

$$10.71 \quad \text{INVALID-ORDER-71} \quad Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{R_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + 1)}{2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 R_4 g_m s^3 + 2C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L L_4 R_L s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 g_m s + C_L L_4 R_L s + C_L s}$$

$$10.72 \quad \text{INVALID-ORDER-72} \quad Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{R_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + 1)}{C_4 C_L L_4 L_L R_1 R_4 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 R_L s^4 + C_4 C_L L_4 L_L R_4 R_L s^4 + C_4 L_4 L_L R_1 R_4 g_m s^3 + 2C_4 L_4 L_L R_1 R_L g_m s^3 + C_4 L_4 L_L R_1 s^3 + C_4 L_4 L_L R_4 s^3 + C_4 L_4 L_L R_L s^3 + C_L L_4 R_1 g_m s + C_L L_4 R_L s + C_L s}$$

$$10.73 \quad \text{INVALID-ORDER-73} \quad Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{R_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + 1)}{C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + 2C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 L_L R_L s^4 + 2C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_1 s^2 + C_L L_4 R_1 g_m s + C_L L_4 R_L s + C_L s}$$

$$10.74 \quad \text{INVALID-ORDER-74} \quad Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{R_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + 1)}{C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + 2C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_4 R_1 R_4 R_L g_m s^3 + C_4 C_L L_4 R_1 R_L s^3 + C_4 C_L L_4 R_4 R_L s^3 + C_L L_4 R_1 g_m s + C_L L_4 R_L s + C_L s}$$

$$10.75 \quad \text{INVALID-ORDER-75} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1)}{C_4 C_L L_4 R_1 R_4 g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L R_1 R_4 s^2 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 R_1 R_4 g_m s + C_4 R_4 s + C_L R_1 R_4 g_m s + C_L R_1 s + C_L R_4 s + 2R_1 g_m + 1}$$

$$\mathbf{10.76 \quad INVALID-ORDER-76} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{R_1 R_L (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1)}{C_4 C_L L_4 R_1 R_4 R_L g_m s^3 + C_4 C_L L_4 R_1 R_L s^3 + C_4 C_L L_4 R_4 R_L s^3 + C_4 C_L R_1 R_4 R_L s^2 + C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + 2C_4 R_1 R_4 s^2 + C_4 R_1 R_L s^2 + C_4 R_1 s^2 + C_4 R_4 s^2 + C_4 R_L s^2 + C_4 s^2}$$

$$\mathbf{10.77 \quad INVALID-ORDER-77} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{R_1 (C_L R_L s + 1) (-C_4 L_4 R_4 g_m s^2 + C_4 L_4 s^2 + C_4 R_4 s - R_4 g_m + 1)}{C_4 C_L L_4 R_1 R_4 g_m s^3 + 2C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L R_1 R_4 R_L g_m s^2 + C_4 C_L R_1 R_4 s^2 + C_4 C_L R_4 R_L s^2 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + C_4 R_1 R_4 s^2 + C_4 R_1 R_L s^2 + C_4 R_1 s^2 + C_4 R_4 s^2 + C_4 R_L s^2 + C_4 s^2}$$

$$\mathbf{10.78 \quad INVALID-ORDER-78} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{R_1 (C_L L_L s^2 + 1) (-C_4 L_4 R_4 g_m s^2 + C_4 L_4 s^2 + C_4 R_4 s - R_4 g_m + 1)}{2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 R_4 g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + 2C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L R_1 R_4 s^2 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + C_4 R_1 R_4 s^2 + C_4 R_1 R_L s^2 + C_4 R_1 s^2 + C_4 R_4 s^2 + C_4 R_L s^2 + C_4 s^2}$$

$$\mathbf{10.79 \quad INVALID-ORDER-79} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_L R_1 s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1)}{C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_L R_1 R_4 s^3 + 2C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_1 R_4 g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + 2C_4 L_L R_1 R_4 s^2 + C_4 L_L R_1 s^2 + C_4 L_L R_4 s^2 + C_4 R_1 R_4 s^2 + C_4 R_1 R_L s^2 + C_4 R_1 s^2 + C_4 R_4 s^2 + C_4 R_L s^2 + C_4 s^2}$$

$$\mathbf{10.80 \quad INVALID-ORDER-80} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{R_1 (C_L L_L s^2 + 1) (-C_4 L_4 R_4 g_m s^2 + C_4 L_4 s^2 + C_4 R_4 s - R_4 g_m + 1)}{2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 R_4 g_m s^3 + 2C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L R_1 R_4 s^2 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + C_4 R_1 R_4 s^2 + C_4 R_1 R_L s^2 + C_4 R_1 s^2 + C_4 R_4 s^2 + C_4 R_L s^2 + C_4 s^2}$$

$$10.81 \quad \text{INVALID-ORDER-81} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{C_4 C_L L_4 L_L R_1 R_4 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 R_L s^4 + C_4 C_L L_4 L_L R_4 R_L s^4 + C_4 C_L L_L R_1 R_4 R_L s^3 + C_4 L_4 L_L R_1 R_4 g_m s^3 + 2 C_4 L_4 L_L R_1 R_L g_m s^3 + C_4 L_4 L_L R_1 s^3 + C_4 L_4 L_L R_4 s^3 + C_4 L_4 L_L R_L s^3 + C_4 L_4 L_L R_1 s^3 + C_4 L_4 L_L R_4 s^3 + C_4 L_4 L_L R_L s^3}{C_4 C_L L_4 L_L R_1 R_4 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 R_L s^4 + C_4 C_L L_4 L_L R_4 R_L s^4 + C_4 C_L L_L R_1 R_4 R_L s^3 + C_4 L_4 L_L R_1 R_4 g_m s^3 + 2 C_4 L_4 L_L R_1 R_L g_m s^3 + C_4 L_4 L_L R_1 s^3 + C_4 L_4 L_L R_4 s^3 + C_4 L_4 L_L R_L s^3 + C_4 L_4 L_L R_1 s^3 + C_4 L_4 L_L R_4 s^3 + C_4 L_4 L_L R_L s^3}$$

$$10.82 \quad \text{INVALID-ORDER-82} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = - \frac{C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + 2 C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 L_L R_L s^4 + 2 C_4 C_L L_L R_1 R_4 R_L g_m s^3 + C_4 C_L L_L R_1 R_4 s^3 + C_4 C_L L_L R_4 R_L s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L L_L R_L s^3}{C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + 2 C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 L_L R_L s^4 + 2 C_4 C_L L_L R_1 R_4 R_L g_m s^3 + C_4 C_L L_L R_1 R_4 s^3 + C_4 C_L L_L R_4 R_L s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L L_L R_L s^3}$$

$$10.83 \quad \text{INVALID-ORDER-83} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = - \frac{C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + 2 C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_4 R_1 R_4 R_L g_m s^3 + C_4 C_L L_4 R_1 R_L s^3 + C_4 C_L L_4 R_4 R_L s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L L_4 R_L s^3}{C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + 2 C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_4 R_1 R_4 R_L g_m s^3 + C_4 C_L L_4 R_1 R_L s^3 + C_4 C_L L_4 R_4 R_L s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L L_4 R_L s^3}$$

$$10.84 \quad \text{INVALID-ORDER-84} \quad Z(s) = \left(\frac{R_1 \left(L_1 s + \frac{1}{C_1 s} \right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{L_1 R_L s (R_4 g_m - 1)}{L_1 R_4 g_m s + 2 L_1 R_L g_m s + L_1 s + R_4 + R_L}$$

$$10.85 \quad \text{INVALID-ORDER-85} \quad Z(s) = \left(\frac{R_1 \left(L_1 s + \frac{1}{C_1 s} \right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 s (R_4 g_m - 1) (C_L L_L s^2 + 1)}{2 C_L L_1 L_L g_m s^3 + C_L L_1 R_4 g_m s^2 + C_L L_1 s^2 + C_L L_L s^2 + C_L R_4 s + 2 L_1 g_m s + 1}$$

10.86 INVALID-ORDER-86 $Z(s) = \left(\frac{R_1 \left(L_1 s + \frac{1}{C_1 s} \right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L s^2 (R_4 g_m - 1)}{C_L L_1 L_L R_4 g_m s^3 + C_L L_1 L_L s^3 + C_L L_L R_4 s^2 + 2 L_1 L_L g_m s^2 + L_1 R_4 g_m s + L_1 s + L_L s + R_4}$$

10.87 INVALID-ORDER-87 $Z(s) = \left(\frac{R_1 \left(L_1 s + \frac{1}{C_1 s} \right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 s (R_4 g_m - 1) (C_L L_L s^2 + C_L R_L s + 1)}{2 C_L L_1 L_L g_m s^3 + C_L L_1 R_4 g_m s^2 + 2 C_L L_1 R_L g_m s^2 + C_L L_1 s^2 + C_L L_L s^2 + C_L R_4 s + C_L R_L s + 2 L_1 g_m s + 1}$$

10.88 INVALID-ORDER-88 $Z(s) = \left(\frac{R_1 \left(L_1 s + \frac{1}{C_1 s} \right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_1 L_L R_L s^2 (R_4 g_m - 1)}{C_L L_1 L_L R_4 R_L g_m s^3 + C_L L_1 L_L R_L s^3 + C_L L_L R_4 R_L s^2 + L_1 L_L R_4 g_m s^2 + 2 L_1 L_L R_L g_m s^2 + L_1 L_L s^2 + L_1 R_4 R_L g_m s + L_1 R_L s + L_L R_4 s + L_L R_L s + R_4 R_L}$$

10.89 INVALID-ORDER-89 $Z(s) = \left(\frac{R_1 \left(L_1 s + \frac{1}{C_1 s} \right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{L_1 s (R_4 g_m - 1) (C_L L_L R_L s^2 + L_L s + R_L)}{C_L L_1 L_L R_4 g_m s^3 + 2 C_L L_1 L_L R_L g_m s^3 + C_L L_1 L_L s^3 + C_L L_L R_4 s^2 + C_L L_L R_L s^2 + 2 L_1 L_L g_m s^2 + L_1 R_4 g_m s + 2 L_1 R_L g_m s + L_1 s + L_L s + R_4 + R_L}$$

10.90 INVALID-ORDER-90 $Z(s) = \left(\frac{R_1 \left(L_1 s + \frac{1}{C_1 s} \right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{L_1 R_L s (R_4 g_m - 1) (C_L L_L s^2 + 1)}{C_L L_1 L_L R_4 g_m s^3 + 2 C_L L_1 L_L R_L g_m s^3 + C_L L_1 L_L s^3 + C_L L_1 R_4 R_L g_m s^2 + C_L L_1 R_L s^2 + C_L L_L R_4 s^2 + C_L L_L R_L s^2 + C_L R_4 R_L s + L_1 R_4 g_m s + 2 L_1 R_L g_m s + L_1 s + R_4 + R_L}$$

10.91 INVALID-ORDER-91 $Z(s) = \left(\infty, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_L s (-C_4 s + g_m)}{C_4 C_L L_1 R_L s^3 + 2C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 R_L s + C_L L_1 R_L g_m s^2 + C_L R_L s + L_1 g_m s + 1}$$

10.92 INVALID-ORDER-92 $Z(s) = \left(\infty, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 (C_4 s - g_m) (C_L L_L s^2 + 1)}{2C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 s^2 + C_4 C_L L_L s^2 + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.93 INVALID-ORDER-93 $Z(s) = \left(\infty, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L s^2 (-C_4 s + g_m)}{C_4 C_L L_1 L_L s^4 + 2C_4 L_1 L_L g_m s^3 + C_4 L_1 s^2 + C_4 L_L s^2 + C_L L_1 L_L g_m s^3 + C_L L_L s^2 + L_1 g_m s + 1}$$

10.94 INVALID-ORDER-94 $Z(s) = \left(\infty, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 (C_4 s - g_m) (C_L L_L s^2 + C_L R_L s + 1)}{2C_4 C_L L_1 L_L g_m s^3 + 2C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_L s^2 + C_4 C_L R_L s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.95 INVALID-ORDER-95 $Z(s) = \left(\infty, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_1 L_L R_L s^2 (-C_4 s + g_m)}{C_4 C_L L_1 L_L R_L s^4 + 2C_4 L_1 L_L R_L g_m s^3 + C_4 L_1 L_L s^3 + C_4 L_1 R_L s^2 + C_4 L_L R_L s^2 + C_L L_1 L_L R_L g_m s^3 + C_L L_L R_L s^2 + L_1 L_L g_m s^2 + L_1 R_L g_m s + L_L s + R_L}$$

10.96 INVALID-ORDER-96 $Z(s) = \left(\infty, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{L_1 s (C_4 s - g_m) (C_L L_L R_L s^2 + L_L s + R_L)}{2C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_L R_L s^3 + 2C_4 L_1 L_L g_m s^3 + 2C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 L_L s^2 + C_4 R_L s + C_L L_1 L_L g_m s^3 + C_L L_L s^2 + L_1 g_m s + 1}$$

$$10.97 \quad \text{INVALID-ORDER-97} \quad Z(s) = \left(\infty, R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{L_1 R_L s (C_4 s - g_m) (C_L L_L s^2 + 1)}{2C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_1 R_L s^3 + C_4 C_L L_L R_L s^3 + 2C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 R_L s + C_L L_1 L_L g_m s^3 + C_L L_1 R_L g_m s^2 + C_L L_L s^2 + C_L R_L s + L_1 g_m}$$

$$10.98 \quad \text{INVALID-ORDER-98} \quad Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 s (-C_4 R_4 s + R_4 g_m - 1)}{C_4 C_L L_1 R_4 s^3 + 2C_4 L_1 R_4 g_m s^2 + C_4 R_4 s + C_L L_1 R_4 g_m s^2 + C_L L_1 s^2 + C_L R_4 s + 2L_1 g_m s + 1}$$

$$10.99 \quad \text{INVALID-ORDER-99} \quad Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{L_1 R_L s (-C_4 R_4 s + R_4 g_m - 1)}{C_4 C_L L_1 R_4 R_L s^3 + 2C_4 L_1 R_4 R_L g_m s^2 + C_4 L_1 R_4 s^2 + C_4 R_4 R_L s + C_L L_1 R_4 R_L g_m s^2 + C_L L_1 R_L s^2 + C_L R_4 R_L s + L_1 R_4 g_m s + 2L_1 R_L g_m s + L_1 s + R_4 + R_L}$$

$$10.100 \quad \text{INVALID-ORDER-100} \quad Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{L_1 s (C_L R_L s + 1) (C_4 R_4 s - R_4 g_m + 1)}{2C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_4 s^3 + C_4 C_L R_4 R_L s^2 + 2C_4 L_1 R_4 g_m s^2 + C_4 R_4 s + C_L L_1 R_4 g_m s^2 + 2C_L L_1 R_L g_m s^2 + C_L L_1 s^2 + C_L R_4 s + C_L R_L s + 2L_1 g_m s + 1}$$

$$10.101 \quad \text{INVALID-ORDER-101} \quad Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{L_1 s (C_L L_L s^2 + 1) (C_4 R_4 s - R_4 g_m + 1)}{2C_4 C_L L_1 L_L R_4 g_m s^4 + C_4 C_L L_1 R_4 s^3 + C_4 C_L L_L R_4 s^3 + 2C_4 L_1 R_4 g_m s^2 + C_4 R_4 s + 2C_L L_1 L_L g_m s^3 + C_L L_1 R_4 g_m s^2 + C_L L_1 s^2 + C_L L_L s^2 + C_L R_4 s + 2L_1 g_m s + 1}$$

$$10.102 \quad \text{INVALID-ORDER-102} \quad Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_1 L_L s^2 (-C_4 R_4 s + R_4 g_m - 1)}{C_4 C_L L_1 L_L R_4 s^4 + 2C_4 L_1 L_L R_4 g_m s^3 + C_4 L_1 R_4 s^2 + C_4 L_L R_4 s^2 + C_L L_1 L_L R_4 g_m s^3 + C_L L_1 L_L s^3 + C_L L_L R_4 s^2 + 2L_1 L_L g_m s^2 + L_1 R_4 g_m s + L_1 s + L_L s + R_4}$$

$$10.103 \quad \text{INVALID-ORDER-103} \quad Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{L_1 s (C_4 R_4 s - R_4 g_m + 1) (C_L L_L s^2 + C_L R_L s + 1)}{2C_4 C_L L_1 L_L R_4 g_m s^4 + 2C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_4 s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L R_4 R_L s^2 + 2C_4 L_1 R_4 g_m s^2 + C_4 R_4 s + 2C_L L_1 L_L g_m s^3 + C_L L_1 R_4 g_m s^2 + 2C_L L_1 R_L g_m s + 1}$$

$$10.104 \quad \text{INVALID-ORDER-104} \quad Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{L_1 L_L R_L s^2 (-C_4 R_4 s + R_4 g_m - 1)}{C_4 C_L L_1 L_L R_4 R_L s^4 + 2C_4 L_1 L_L R_4 R_L g_m s^3 + C_4 L_1 L_L R_4 s^3 + C_4 L_1 R_4 R_L s^2 + C_4 L_L R_4 R_L s^2 + C_L L_1 L_L R_4 R_L g_m s^3 + C_L L_1 L_L R_L s^3 + C_L L_L R_4 R_L s^2 + L_1 L_L R_4 g_m s^2 + 2L_1 L_L R_L g_m s + 1}$$

$$10.105 \quad \text{INVALID-ORDER-105} \quad Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = -\frac{L_1 s (C_4 R_4 s - R_4 g_m + 1) (C_L L_L R_L s^2 + L_L s + R_L)}{2C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_4 s^4 + C_4 C_L L_L R_4 R_L s^3 + 2C_4 L_1 L_L R_4 g_m s^3 + 2C_4 L_1 R_4 R_L g_m s^2 + C_4 L_1 R_4 s^2 + C_4 L_L R_4 s^2 + C_4 R_4 R_L s + C_L L_1 L_L R_4 g_m s^3 + 2C_L L_1 L_L R_L g_m s^2 + 2C_L L_1 L_L R_L g_m s + 1}$$

$$10.106 \quad \text{INVALID-ORDER-106} \quad Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{L_1 R_L s (C_L L_L s^2 + 1) (C_4 R_4 s - R_4 g_m + 1)}{2C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_4 s^4 + C_4 C_L L_1 R_4 R_L s^3 + C_4 C_L L_L R_4 R_L s^3 + 2C_4 L_1 R_4 R_L g_m s^2 + C_4 L_1 R_4 s^2 + C_4 R_4 R_L s + C_L L_1 L_L R_4 g_m s^3 + 2C_L L_1 L_L R_L g_m s^2 + 2C_L L_1 L_L R_L g_m s + 1}$$

$$10.107 \quad \text{INVALID-ORDER-107} \quad Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{L_1 R_L s (C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 R_4 s + C_4 R_L s + C_L L_1 R_L g_m s^2 + C_L R_L s + L_1 g_m s + 1}$$

10.108 INVALID-ORDER-108 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_L L_L s^2 + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{2C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.109 INVALID-ORDER-109 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L s^2 (C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_1 L_L R_4 g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2C_4 L_1 L_L g_m s^3 + C_4 L_1 R_4 g_m s^2 + C_4 L_1 s^2 + C_4 L_L s^2 + C_4 R_4 s + C_L L_1 L_L g_m s^3 + C_L L_L s^2 + L_1 g_m s + 1}$$

10.110 INVALID-ORDER-110 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{2C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + 2C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_L s^2 + C_4 C_L R_4 s + C_4 C_L R_L s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.111 INVALID-ORDER-111 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_1 L_L R_L s^2 (C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_L s^4 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_1 L_L R_4 g_m s^3 + 2C_4 L_1 L_L R_L g_m s^3 + C_4 L_1 L_L s^3 + C_4 L_1 R_4 R_L g_m s^2 + C_4 L_1 R_L s^2 + C_4 L_L R_4 s^2 + C_4 L_L R_L s^2 + C_4 R_4 s + C_L L_1 R_L g_m s^3 + C_L R_L s^2 + L_1 R_L g_m s + 1}$$

10.112 INVALID-ORDER-112 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{L_1 s (C_4 R_4 g_m s - C_4 s + g_m) (C_L L_L R_L s^2 + L_L s + R_L)}{C_4 C_L L_1 L_L R_4 g_m s^4 + 2C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_L R_4 s^3 + C_4 C_L L_L R_L s^3 + 2C_4 L_1 L_L g_m s^3 + C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 L_L s^2 + C_4 R_4 s + C_L L_1 R_L g_m s^3 + C_L R_L s^2 + L_1 R_L g_m s + 1}$$

$$10.113 \quad \text{INVALID-ORDER-113} \quad Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{L_1 R_L s (C_L L_L s^2 + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_1 L_L R_4 g_m s^4 + 2 C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_L s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L L_L R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_1 R_4 g_m s^2 + 2 C_4 L_1 R_4 s^2 + C_4 L_1 R_L g_m s^2 + C_4 L_1 R_L s^2 + C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 R_L s + L_1 g_m s + 1}$$

$$10.114 \quad \text{INVALID-ORDER-114} \quad Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{L_1 R_L s (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 R_L s + L_1 g_m s + 1}$$

$$10.115 \quad \text{INVALID-ORDER-115} \quad Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_4 C_L L_1 L_4 g_m s^3 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + 2 C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

$$10.116 \quad \text{INVALID-ORDER-116} \quad Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{L_1 R_L s (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 R_L s^3 + C_4 C_L L_4 R_L s^3 + C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 R_L s + C_L L_1 R_L g_m s^2 + C_L R_L s + L_1 g_m s + 1}$$

$$10.117 \quad \text{INVALID-ORDER-117} \quad Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 (C_L R_L s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_4 C_L L_1 L_4 g_m s^3 + 2 C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_L s + 2 C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.118 INVALID-ORDER-118 $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_L L_L s^2 + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_4 C_L L_1 L_4 g_m s^3 + 2C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L L_L s^2 + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.119 INVALID-ORDER-119 $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L s^2 (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_4 L_L s^4 + C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 L_L g_m s^3 + C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 L_L s^2 + C_L L_1 L_L g_m s^3 + C_L L_L s^2 + L_1 g_m s + 1}$$

10.120 INVALID-ORDER-120 $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_4 C_L L_1 L_4 g_m s^3 + 2C_4 C_L L_1 L_L g_m s^3 + 2C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L L_L s^2 + C_4 C_L R_L s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.121 INVALID-ORDER-121 $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_1 L_L R_L s^2 (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_L R_L s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 L_1 L_4 L_L g_m s^4 + C_4 L_1 L_4 R_L g_m s^3 + 2C_4 L_1 L_L R_L g_m s^3 + C_4 L_1 L_L s^3 + C_4 L_1 R_L s^2 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2}$$

10.122 INVALID-ORDER-122 $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{L_1 s (C_4 L_4 g_m s^2 - C_4 s + g_m) (C_L L_L R_L s^2 + L_L s + R_L)}{C_4 C_L L_1 L_4 L_L g_m s^5 + 2C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_L s^3 + C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 L_L g_m s^3 + 2C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 L_L s^2}$$

$$10.123 \quad \text{INVALID-ORDER-123} \quad Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{L_1 R_L s (C_L L_L s^2 + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 R_L g_m s^4 + 2 C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_1 R_L s^3 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + C_4 C_L L_L R_L s^3 + C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 L_4 s^3 + C_4 L_1 L_4 R_L s^2 + C_4 L_1 L_4 g_m s^2 + 2 L_1 R_L g_m s + L_1 s + L_4 s + R_L}$$

$$10.124 \quad \text{INVALID-ORDER-124} \quad Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{L_1 R_L s (-C_4 L_4 s^2 + L_4 g_m s - 1)}{2 C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_4 R_L s^2 + L_1 L_4 g_m s^2 + 2 L_1 R_L g_m s + L_1 s + L_4 s + R_L}$$

$$10.125 \quad \text{INVALID-ORDER-125} \quad Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 s (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_4 C_L L_1 L_4 s^4 + 2 C_4 L_1 L_4 g_m s^3 + C_4 L_4 s^2 + C_L L_1 L_4 g_m s^3 + C_L L_1 s^2 + C_L L_4 s^2 + 2 L_1 g_m s + 1}$$

$$10.126 \quad \text{INVALID-ORDER-126} \quad Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{L_1 R_L s (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_4 C_L L_1 L_4 R_L s^4 + 2 C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_4 R_L s^2 + C_L L_1 L_4 R_L g_m s^3 + C_L L_1 R_L s^2 + C_L L_4 R_L s^2 + L_1 L_4 g_m s^2 + 2 L_1 R_L g_m s + L_1 s + L_4 s + R_L}$$

$$10.127 \quad \text{INVALID-ORDER-127} \quad Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = - \frac{L_1 s (C_L R_L s + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{2 C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 L_4 s^4 + C_4 C_L L_4 R_L s^3 + 2 C_4 L_1 L_4 g_m s^3 + C_4 L_4 s^2 + C_L L_1 L_4 g_m s^3 + 2 C_L L_1 R_L g_m s^2 + C_L L_1 s^2 + C_L L_4 s^2 + C_L R_L s + 2 L_1 g_m s + 1}$$

10.128 INVALID-ORDER-128 $Z(s) = \left(\infty, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls} \right)$

$$H(s) = -\frac{L_1s (C_LL_Ls^2 + 1) (C_4L_4s^2 - L_4g_ms + 1)}{2C_4C_LL_1L_4L_Lg_ms^5 + C_4C_LL_1L_4s^4 + C_4C_LL_4L_Ls^4 + 2C_4L_1L_4g_ms^3 + C_4L_4s^2 + C_LL_1L_4g_ms^3 + 2C_LL_1L_Lg_ms^3 + C_LL_1s^2 + C_LL_4s^2 + C_LL_Ls^2 + 2L_1g_ms + 1}$$

10.129 INVALID-ORDER-129 $Z(s) = \left(\infty, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} \right)$

$$H(s) = \frac{L_1L_Ls (-C_4L_4s^2 + L_4g_ms - 1)}{C_4C_LL_1L_4L_Ls^4 + 2C_4L_1L_4L_Lg_ms^3 + C_4L_1L_4s^2 + C_4L_4L_Ls^2 + C_LL_1L_4L_Lg_ms^3 + C_LL_1L_Ls^2 + C_LL_4L_Ls^2 + L_1L_4g_ms + 2L_1L_Lg_ms + L_1 + L_4 + L_L}$$

10.130 INVALID-ORDER-130 $Z(s) = \left(\infty, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls} \right)$

$$H(s) = -\frac{L_1s (C_4L_4s^2 - L_4g_ms + 1) (C_LL_Ls^2 + C_LR_Ls + 1)}{2C_4C_LL_1L_4L_Lg_ms^5 + 2C_4C_LL_1L_4R_Lg_ms^4 + C_4C_LL_1L_4s^4 + C_4C_LL_4L_Ls^4 + C_4C_LL_4R_Ls^3 + 2C_4L_1L_4g_ms^3 + C_4L_4s^2 + C_LL_1L_4g_ms^3 + 2C_LL_1L_Lg_ms^3 + 2C_LL_1R_Lg_ms^3 + C_LL_1s^2 + C_LL_4s^2 + C_LL_Ls^2 + L_1L_4g_ms + 2L_1L_Lg_ms + L_1 + L_4 + R_L}$$

10.131 INVALID-ORDER-131 $Z(s) = \left(\infty, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}} \right)$

$$H(s) = \frac{L_1L_LR_Ls (-C_4L_4s^2 + L_4g_ms - 1)}{C_4C_LL_1L_4L_LR_Ls^4 + 2C_4L_1L_4L_LR_Lg_ms^3 + C_4L_1L_4L_Ls^3 + C_4L_1L_4R_Ls^2 + C_4L_4L_LR_Ls^2 + C_LL_1L_4L_LR_Lg_ms^3 + C_LL_1L_LR_Ls^2 + C_LL_4L_LR_Ls^2 + L_1L_4L_LR_Lg_ms^2 + L_1L_4R_Lg_ms + L_1L_4s^2 + L_1L_LR_Ls^2 + L_1L_Lg_ms + L_1 + L_4 + R_L}$$

10.132 INVALID-ORDER-132 $Z(s) = \left(\infty, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L \right)$

$$H(s) = -\frac{L_1s (C_4L_4s^2 - L_4g_ms + 1) (C_LL_LR_Ls^2 + L_Ls + R_L)}{2C_4C_LL_1L_4L_LR_Lg_ms^5 + C_4C_LL_1L_4L_Ls^5 + C_4C_LL_4L_LR_Ls^4 + 2C_4L_1L_4L_LR_Lg_ms^4 + 2C_4L_1L_4R_Lg_ms^3 + C_4L_1L_4s^3 + C_4L_4L_Ls^3 + C_4L_4R_Ls^2 + C_LL_1L_4L_LR_Lg_ms^4 + 2C_LL_1L_LR_Lg_ms^3 + C_LL_1s^2 + C_LL_4s^2 + C_LL_Ls^2 + L_1L_4g_ms + 2L_1L_LR_Lg_ms + L_1L_Lg_ms + L_1 + L_4 + R_L}$$

10.133 INVALID-ORDER-133 $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{L_1 R_L s (C_L L_L s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s - 2C_4 L_1 L_4 R_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_1 L_4 R_L s^4 + C_4 C_L L_4 L_L R_L s^4 + 2C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_4 R_L s^2 + C_L L_1 L_4 L_L g_m s^4 + C_L L_1 L_4 R_L g_m s^3 + 2C_4 L_1 L_4 L_L s^2 + C_4 L_1 L_4 R_L s + C_L L_1 L_4 s)}{2C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_1 L_4 R_L s^4 + C_4 C_L L_4 L_L R_L s^4 + 2C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_4 R_L s^2 + C_L L_1 L_4 L_L g_m s^4 + C_L L_1 L_4 R_L g_m s^3 + 2C_4 L_1 L_4 L_L s^2 + C_4 L_1 L_4 R_L s + C_L L_1 L_4 s}$$

10.134 INVALID-ORDER-134 $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{L_1 R_L s (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_4 L_1 L_4 q_m s^3 + C_4 L_1 R_4 q_m s^2 + 2 C_4 L_1 R_L q_m s^2 + C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 R_4 s + C_4 R_L s + L_1 q_m s + 1}$$

10.135 INVALID-ORDER-135 $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_1 L_4 q_m s^3 + C_4 C_L L_1 R_4 q_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2C_4 L_1 q_m s + C_4 + C_L L_1 q_m s + C_L}$$

10.136 INVALID-ORDER-136 $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_L s (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_L s^3 + C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_1 L_4 g_m s^3 + C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 R_4 s}$$

10.137 INVALID-ORDER-137 $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_L R_L s + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_1 L_4 g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + 2 C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_4 s + C_4 C_L R_L s + 2 C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.138 INVALID-ORDER-138 $Z(s) = \left(\infty, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls} \right)$

$$H(s) = \frac{L_1 (C_L L_L s^2 + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_1 L_4 g_m s^3 + 2C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.139 INVALID-ORDER-139 $Z(s) = \left(\infty, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L s^2 (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_L R_4 g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 L_L g_m s^3 + C_4 L_1 R_4 g_m s^2 + C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 L_L s^2}$$

10.140 INVALID-ORDER-140 $Z(s) = \left(\infty, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls} \right)$

$$H(s) = \frac{L_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_1 L_4 g_m s^3 + 2C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + 2C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L L_L s^2 + C_4 C_L R_4 s + C_4 C_L R_L s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s}$$

10.141 INVALID-ORDER-141 $Z(s) = \left(\infty, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_1 L_L R_L s^2}{C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_L s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_1 L_4 L_L g_m s^4 + C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_L R_4 g_m s^3 + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s}$$

10.142 INVALID-ORDER-142 $Z(s) = \left(\infty, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{L_1 s (C_L L_L R_L s^2 + L_L s + R_L) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_L R_4 g_m s^4 + 2C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + C_4 C_L L_L R_L s^3 + C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 L_L g_m s^3 + C_4 L_1 R_4 g_m s^2 + C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 L_L s^2}$$

$$10.143 \quad \text{INVALID-ORDER-143} \quad Z(s) = \left(\infty, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{L_1 R_L s (C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_4 g_m s^4 + 2 C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_L s^3 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + C_4 C_L L_4 R_L s^2 + C_4 C_L L_4 R_L s + C_4 C_L L_4 R_L)}{C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_4 g_m s^4 + 2 C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_L s^3 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + C_4 C_L L_4 R_L s^2 + C_4 C_L L_4 R_L s + C_4 C_L L_4 R_L}$$

$$10.144 \quad \text{INVALID-ORDER-144} \quad Z(s) = \left(\infty, \quad \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \quad \infty, \quad \infty, \quad \infty, \quad R_L \right)$$

$$H(s) = \frac{L_1 R_L s (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{2 C_4 L_1 L_4 R_4 R_L g_m s^3 + C_4 L_1 L_4 R_4 s^3 + C_4 L_4 R_4 R_L s^2 + L_1 L_4 R_4 g_m s^2 + 2 L_1 L_4 R_L g_m s^2 + L_1 L_4 s^2 + 2 L_1 R_4 R_L g_m s + L_1 R_4 s + L_4 R_4 s + L_4 R_L s + R_4 R_L}$$

$$10.145 \quad \text{INVALID-ORDER-145} \quad Z(s) = \left(\infty, \quad \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \quad \infty, \quad \infty, \quad \infty, \quad \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 s (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{C_4 C_L L_1 L_4 R_4 s^4 + 2 C_4 L_1 L_4 R_4 g_m s^3 + C_4 L_4 R_4 s^2 + C_L L_1 L_4 R_4 g_m s^3 + C_L L_1 L_4 s^3 + C_L L_1 R_4 s^2 + C_L L_4 R_4 s^2 + 2 L_1 L_4 g_m s^2 + 2 L_1 R_4 g_m s + L_4 s + R_4}$$

$$10.146 \quad \text{INVALID-ORDER-146} \quad Z(s) = \left(\infty, \quad \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{L_1 R_L s (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{C_4 C_L L_1 L_4 R_4 R_L s^4 + 2 C_4 L_1 L_4 R_4 R_L g_m s^3 + C_4 L_1 L_4 R_4 s^3 + C_4 L_4 R_4 R_L s^2 + C_L L_1 L_4 R_4 R_L g_m s^3 + C_L L_1 L_4 R_L s^3 + C_L L_1 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_1 L_4 R_4 g_m s^2 + 2 L_1 L_4 R_4 g_m s + L_4 s + R_4}$$

$$10.147 \quad \text{INVALID-ORDER-147} \quad Z(s) = \left(\infty, \quad \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \quad \infty, \quad \infty, \quad \infty, \quad R_L + \frac{1}{C_L s} \right)$$

$$H(s) = - \frac{L_1 s (C_L R_L s + 1) (C_4 L_4 R_4 s^2 - L_4 R_4 g_m s + L_4 s + R_4)}{2 C_4 C_L L_1 L_4 R_4 R_L g_m s^4 + C_4 C_L L_1 L_4 R_4 s^4 + C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_1 L_4 R_4 g_m s^3 + C_4 L_4 R_4 s^2 + C_L L_1 L_4 R_4 g_m s^3 + 2 C_L L_1 L_4 R_L g_m s^3 + C_L L_1 L_4 s^3 + 2 C_L L_1 R_4 R_L g_m s^2 + C_L L_1 R_4 s^2 + C_L L_4 R_4 s^2 + 2 L_1 L_4 g_m s + L_4 s + R_4}$$

10.148 INVALID-ORDER-148 $Z(s) = \left(\infty, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 s (C_L L_L s^2 + 1) (C_4 L_4 R_4 s^2 - L_4 R_4 g_m s + L_4 s + R_4)}{2C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + C_4 C_L L_1 L_4 R_4 s^4 + C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_1 L_4 R_4 g_m s^3 + C_4 L_4 R_4 s^2 + 2C_L L_1 L_4 L_L g_m s^4 + C_L L_1 L_4 R_4 g_m s^3 + C_L L_1 L_4 s^3 + 2C_L L_1 L_L R_4 g_m s^3 +}$$

10.149 INVALID-ORDER-149 $Z(s) = \left(\infty, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L s (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{C_4 C_L L_1 L_4 L_L R_4 s^4 + 2C_4 L_1 L_4 L_L R_4 g_m s^3 + C_4 L_1 L_4 R_4 s^2 + C_4 L_4 L_L R_4 s^2 + C_L L_1 L_4 L_L R_4 g_m s^3 + C_L L_1 L_4 L_L s^3 + C_L L_1 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2L_1 L_4 L_L g_m s^2 + L_1 L_4 R_4 s + L_1 R_4}$$

10.150 INVALID-ORDER-150 $Z(s) = \left(\infty, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 s (C_L L_L s^2 + 2C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + 2C_4 C_L L_1 L_4 R_4 R_L g_m s^4 + C_4 C_L L_1 L_4 R_4 s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_L s^3 + 2C_4 L_1 L_4 R_4 g_m s^3 + C_4 L_4 R_4 s^2 + 2C_L L_1 L_4 L_L g_m s^4 + C_L L_1 L_4 L_L R_4 s^3 + C_L L_1 L_4 R_4 R_L s^2 + C_L L_1 L_4 g_m s^2 + C_L L_1 R_4 R_L s + C_L R_4 g_m)}{2C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + 2C_4 C_L L_1 L_4 R_4 R_L g_m s^4 + C_4 C_L L_1 L_4 R_4 s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_L s^3 + 2C_4 L_1 L_4 R_4 g_m s^3 + C_4 L_4 R_4 s^2 + 2C_L L_1 L_4 L_L g_m s^4 + C_L L_1 L_4 L_L R_4 s^3 + C_L L_1 L_4 R_4 R_L s^2 + C_L L_1 L_4 g_m s^2 + C_L L_1 R_4 R_L s + C_L R_4 g_m}$$

10.151 INVALID-ORDER-151 $Z(s) = \left(\infty, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_1 L_L R_L s (-C_L R_L s^4 + C_L L_1 L_L R_L R_L s^3 + C_L L_1 L_L R_L R_L s^2 + C_L L_1 L_L R_L R_L s + C_L L_1 L_L R_L R_L)}{C_4 C_L L_1 L_4 L_L R_4 R_L s^4 + 2 C_4 L_1 L_4 L_L R_4 R_L g_m s^3 + C_4 L_1 L_4 L_L R_4 s^3 + C_4 L_1 L_4 R_4 R_L s^2 + C_4 L_4 L_L R_4 R_L s^2 + C_L L_1 L_4 L_L R_4 R_L g_m s^3 + C_L L_1 L_4 L_L R_L s^3 + C_L L_1 L_L R_4 R_L s^2 + C_L L_1 L_L R_L R_L s + C_L R_L R_L}$$

10.152 INVALID-ORDER-152 $Z(s) = \left(\infty, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{2C_4C_LL_1L_4L_LR_4R_Lg_ms^5 + C_4C_LL_1L_4L_LR_4s^5 + C_4C_LL_4L_LR_4R_Ls^4 + 2C_4L_1L_4L_LR_4g_ms^4 + 2C_4L_1L_4R_4R_Lg_ms^3 + C_4L_1L_4R_4s^3 + C_4L_4L_LR_4s^3 + C_4L_4R_4R_Ls^2 + C_L}{2C_4C_LL_1L_4L_LR_4R_Lg_ms^5 + C_4C_LL_1L_4L_LR_4s^5 + C_4C_LL_4L_LR_4R_Ls^4 + 2C_4L_1L_4L_LR_4g_ms^4 + 2C_4L_1L_4R_4R_Lg_ms^3 + C_4L_1L_4R_4s^3 + C_4L_4L_LR_4s^3 + C_4L_4R_4R_Ls^2 + C_L}$$

$$10.153 \quad \text{INVALID-ORDER-153} \quad Z(s) = \left(\infty, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = - \frac{2C_4 C_L L_1 L_4 L_L R_4 R_L g_m s^5 + C_4 C_L L_1 L_4 L_L R_4 s^5 + C_4 C_L L_1 L_4 R_4 R_L s^4 + C_4 C_L L_4 L_L R_4 R_L s^4 + 2C_4 L_1 L_4 R_4 R_L g_m s^3 + C_4 L_1 L_4 R_4 s^3 + C_4 L_4 R_4 R_L s^2 + C_L L_1 L_4 L_L R_4 g_m s^4}{2C_4 C_L L_1 L_4 L_L R_4 R_L g_m s^5 + C_4 C_L L_1 L_4 L_L R_4 s^5 + C_4 C_L L_1 L_4 R_4 R_L s^4 + C_4 C_L L_4 L_L R_4 R_L s^4 + 2C_4 L_1 L_4 R_4 R_L g_m s^3 + C_4 L_1 L_4 R_4 s^3 + C_4 L_4 R_4 R_L s^2 + C_L L_1 L_4 L_L R_4 g_m s^4}$$

$$10.154 \quad \text{INVALID-ORDER-154} \quad Z(s) = \left(\infty, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{L_1 R_L s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + L_1 L_4 g_m s^2 + L_1 R_4 g_m s + 2L_1 R_L g_m s + L_1 s + L_4 s + R_4 + R_L}$$

$$10.155 \quad \text{INVALID-ORDER-155} \quad Z(s) = \left(\infty, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_4 C_L L_1 L_4 R_4 g_m s^4 + C_4 C_L L_1 L_4 s^4 + C_4 C_L L_4 R_4 s^3 + 2C_4 L_1 L_4 g_m s^3 + C_4 L_4 s^2 + C_L L_1 L_4 g_m s^3 + C_L L_1 R_4 g_m s^2 + C_L L_1 s^2 + C_L L_4 s^2 + C_L R_4 s + 2L_1 g_m s + 1}$$

$$10.156 \quad \text{INVALID-ORDER-156} \quad Z(s) = \left(\infty, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{L_1 R_L s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_4 C_L L_1 L_4 R_4 R_L g_m s^4 + C_4 C_L L_1 L_4 R_L s^4 + C_4 C_L L_4 R_4 R_L s^3 + C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + C_L L_1 L_4 R_L g_m s^3 + C_L L_1 R_4 R_L g_m s^2 + C_L L_1 s^2 + C_L L_4 s^2 + C_L R_4 s + 2L_1 g_m s + 1}$$

$$10.157 \quad \text{INVALID-ORDER-157} \quad Z(s) = \left(\infty, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 s (C_L R_L s + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_4 C_L L_1 L_4 R_4 g_m s^4 + 2C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 L_4 s^4 + C_4 C_L L_4 R_4 s^3 + C_4 C_L L_4 R_L s^3 + 2C_4 L_1 L_4 g_m s^3 + C_4 L_4 s^2 + C_L L_1 L_4 g_m s^3 + C_L L_1 R_4 g_m s^2 + 2C_L L_1 R_L g_m s^2 + C_L L_1 s^2 + C_L L_4 s^2 + C_L R_4 s + 2L_1 g_m s + 1}$$

$$10.158 \quad \text{INVALID-ORDER-158} \quad Z(s) = \left(\infty, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 s (C_L L_L s^2 + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{2C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 R_4 g_m s^4 + C_4 C_L L_1 L_4 s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2C_4 L_1 L_4 g_m s^3 + C_4 L_4 s^2 + C_L L_1 L_4 g_m s^3 + 2C_L L_1 L_L g_m s^3 + C_L L_1 R_4 g_m s^2 + C_L L_1 L_L R_4 g_m s + C_L L_1 L_L s^2 + C_L L_1 R_4 s + C_L L_1 s}$$

$$10.159 \quad \text{INVALID-ORDER-159} \quad Z(s) = \left(\infty, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_1 L_L s^2 (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_1 L_4 L_L g_m s^4 + C_4 L_1 L_4 R_4 g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + C_L L_1 L_4 L_L g_m s^4 + C_L L_1 L_L R_4 g_m s + C_L L_1 L_L s^2 + C_L L_1 R_4 s + C_L L_1 s}$$

$$10.160 \quad \text{INVALID-ORDER-160} \quad Z(s) = \left(\infty, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 s (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{2C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 R_4 g_m s^4 + 2C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 L_4 s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + C_4 C_L L_4 R_L s^3 + 2C_4 L_1 L_4 g_m s^3 + C_4 L_4 s^2 + C_L L_1 L_4 g_m s^3 + C_L L_1 L_L R_4 g_m s + C_L L_1 L_L s^2 + C_L L_1 R_4 s + C_L L_1 s}$$

$$10.161 \quad \text{INVALID-ORDER-161} \quad Z(s) = \left(\infty, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{L_1 s (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_4 C_L L_1 L_4 L_L R_4 R_L g_m s^5 + C_4 C_L L_1 L_4 L_L R_L s^5 + C_4 C_L L_4 L_L R_4 R_L s^4 + C_4 L_1 L_4 L_L R_4 g_m s^4 + 2C_4 L_1 L_4 L_L R_L g_m s^4 + C_4 L_1 L_4 L_L s^4 + C_4 L_1 L_4 R_4 R_L g_m s^3 + C_4 L_1 L_4 R_L s^3 + C_4 L_1 L_L R_4 g_m s^3 + C_L L_1 L_L R_4 g_m s + C_L L_1 L_L s^2 + C_L L_1 R_4 s + C_L L_1 s}$$

$$10.162 \quad \text{INVALID-ORDER-162} \quad Z(s) = \left(\infty, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{L_1 s (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + 2C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 L_L R_L s^4 + 2C_4 L_1 L_4 L_L g_m s^4 + C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_L R_4 g_m s^3 + C_L L_1 L_L R_4 g_m s + C_L L_1 L_L s^2 + C_L L_1 R_4 s + C_L L_1 s}$$

$$10.163 \quad \text{INVALID-ORDER-163} \quad Z(s) = \left(\infty, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + 2C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_1 L_4 R_4 R_L g_m s^4 + C_4 C_L L_1 L_4 R_L s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_4 R_4 R_L s^3 +$$

$$10.164 \quad \text{INVALID-ORDER-164} \quad Z(s) = (\infty, \infty, R_3, \infty, \infty, R_L)$$

$$H(s) = \frac{L_1 R_L s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1)}{C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + 2C_4 L_1 R_4 R_L g_m s^2 + C_4 L_1 R_4 s^2 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + C_4 R_4 R_L s + L_1 R_4 g_m s + 2L_1 R_L g_m s + L_1 s + R_4 + R_L}$$

$$10.165 \quad \text{INVALID-ORDER-165} \quad Z(s) = \left(\infty, \infty, R_3, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1)}{C_4 C_L L_1 L_4 R_4 g_m s^4 + C_4 C_L L_1 L_4 s^4 + C_4 C_L L_1 R_4 s^3 + C_4 C_L L_4 R_4 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 + C_4 L_4 s^2 + C_4 R_4 s + C_L L_1 R_4 g_m s^2 + C_L L_1 s^2 + C_L R_4 s + 2L_1 g_m s +$$

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

$$H(s) = \frac{L_1 R_L s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1)}{C_4 C_L L_1 L_4 R_4 R_L g_m s^4 + C_4 C_L L_1 L_4 R_L s^4 + C_4 C_L L_1 R_4 R_L s^3 + C_4 C_L L_4 R_4 R_L s^3 + C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + 2C_4 L_1 R_4 R_L g_m s^2 + C_4 L_1 R_4 s^2 + C_4 L_4 s^2 + C_4 R_4 s + C_L L_1 R_4 g_m s^2 + C_L L_1 s^2 + C_L R_4 s + 2L_1 g_m s +$$

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

$$H(s) = -\frac{L_1 s (C_L R_L s + 1) (-C_4 L_4 R_4 g_m s^2 + C_4 L_4 s^2 + C_4 R_4 s - R_4 g_m - 1)}{C_4 C_L L_1 L_4 R_4 g_m s^4 + 2C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 L_4 s^4 + 2C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_4 s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 + C_4 L_4 s^2 + C_4 R_4 s + C_L L_1 R_4 g_m s^2 + C_L L_1 s^2 + C_L R_4 s + 2L_1 g_m s +$$

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

$$H(s) = -\frac{L_1 s (C_L L_L s^2 + 1) (-C_4 L_4 R_4 g_m s^2 + C_4 L_4 s^2 + C_4 R_4 s - R_4 g_m)}{2C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 R_4 g_m s^4 + C_4 C_L L_1 L_4 s^4 + 2C_4 C_L L_1 L_L R_4 g_m s^4 + C_4 C_L L_1 R_4 s^3 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + C_4 C_L L_L R_4 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 L_4 R_4 s^2 + C_4 L_1 L_4 s^2 + C_4 L_1 R_4 s + C_4 L_1 g_m}$$

$$10.169 \quad \text{INVALID-ORDER-169} \quad Z(s) = \left(\infty, \infty, R_3, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_1 L_L s^2 (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m)}{C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_1 L_L R_4 s^4 + C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_1 L_4 L_L g_m s^4 + C_4 L_1 L_4 R_4 g_m s^3 + C_4 L_1 L_4 s^3 + 2C_4 L_1 L_L R_4 g_m s^3 + C_4 L_1 R_4 s^2 + C_4 L_1 g_m}$$

$$10.170 \quad \text{INVALID-ORDER-170} \quad Z(s) = \left(\infty, \infty, R_3, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{L_1 s (C_L L_L s^2 + 1)}{2C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 R_4 g_m s^4 + 2C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 L_4 s^4 + 2C_4 C_L L_1 L_L R_4 g_m s^4 + 2C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_4 s^3 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + C_4 C_L L_L R_4 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 L_4 R_4 s^2 + C_4 L_1 L_4 s^2 + C_4 L_1 R_4 s + C_4 L_1 g_m}$$

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

$$H(s) = \frac{1}{C_4 C_L L_1 L_4 L_L R_4 R_L g_m s^5 + C_4 C_L L_1 L_4 L_L R_L s^5 + C_4 C_L L_1 L_L R_4 R_L s^4 + C_4 C_L L_4 L_L R_4 R_L s^4 + C_4 L_1 L_4 L_L R_4 g_m s^4 + 2C_4 L_1 L_4 L_L R_L g_m s^4 + C_4 L_1 L_4 L_L s^4 + C_4 L_1 L_4 R_4 R_L g_m s^3 + C_4 L_1 L_4 R_4 s^3 + C_4 L_1 L_L R_4 R_L s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 L_4 R_4 s^2 + C_4 L_1 L_4 s^2 + C_4 L_1 R_4 s + C_4 L_1 g_m}$$

$$10.172 \quad \text{INVALID-ORDER-172} \quad Z(s) = \left(\infty, \infty, R_3, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = -\frac{1}{C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + 2C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + 2C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_4 s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_4 R_L s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 L_4 R_4 s^2 + C_4 L_1 L_4 s^2 + C_4 L_1 R_4 s + C_4 L_1 g_m}$$

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

$$H(s) = -\frac{C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + 2 C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_1 L_4 R_4 R_L g_m s^4 + C_4 C_L L_1 L_4 R_L s^4 + 2 C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_4 s^4 + C_4 C_L L_1 R_4 R_L g_m s^4 + C_4 C_L L_1 R_4 s^4 + C_4 C_L L_1 s^4}{C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + 2 C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_1 L_4 R_4 R_L g_m s^4 + C_4 C_L L_1 L_4 R_L s^4 + 2 C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_4 s^4 + C_4 C_L L_1 R_4 R_L g_m s^4 + C_4 C_L L_1 R_4 s^4 + C_4 C_L L_1 s^4}.$$

10.174 INVALID-ORDER-174 $Z(s) = \left(\infty, \infty, \frac{1}{C_{3s}}, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_L (R_4 g_m - 1)}{C_1 R_4 s + C_1 R_L s + R_4 g_m + 2R_L g_m + 1}$$

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

$$H(s) = \frac{(R_4 g_m - 1)(C_L L_L s^2 + 1)}{C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + C_1 s + 2 C_L L_L g_m s^2 + C_L R_4 g_m s + C_L s + 2 g_m}$$

10.176 INVALID-ORDER-176 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L s (R_4 g_m - 1)}{C_1 C_L L_L R_4 s^3 + C_1 L_L s^2 + C_1 R_4 s + C_L L_L R_4 g_m s^2 + C_L L_L s^2 + 2L_L g_m s + R_4 g_m + 1}$$

10.177 INVALID-ORDER-177 $Z(s) = \left(\infty, \infty, \frac{1}{C_{3s}}, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(R_4 g_m - 1)(C_L L_L s^2 + C_L R_L s + 1)}{C_1 C_L L_L s^3 + C_1 C_L R_L s^2 + C_1 s + 2C_L L_L g_m s^2 + C_L R_4 g_m s + 2C_L R_L g_m s + C_L s + 2g_m}$$

$$10.178 \quad \text{INVALID-ORDER-178} \quad Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{L_L R_L s (R_4 g_m - 1)}{C_1 C_L L_L R_4 R_L s^3 + C_1 L_L R_4 s^2 + C_1 L_L R_L s^2 + C_1 R_4 R_L s + C_L L_L R_4 R_L g_m s^2 + C_L L_L R_L s^2 + L_L R_4 g_m s + 2 L_L R_L g_m s + L_L s + R_4 R_L g_m + R_L}$$

$$10.179 \quad \text{INVALID-ORDER-179} \quad Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{(R_4 g_m - 1) (C_L L_L R_L s^2 + L_L s + R_L)}{C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 L_L s^2 + C_1 R_4 s + C_1 R_L s + C_L L_L R_4 g_m s^2 + 2 C_L L_L R_L g_m s^2 + C_L L_L s^2 + 2 L_L g_m s + R_4 g_m + 2 R_L g_m + 1}$$

$$10.180 \quad \text{INVALID-ORDER-180} \quad Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{R_L (R_4 g_m - 1) (C_L L_L s^2 + 1)}{C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 C_L R_4 R_L s^2 + C_1 R_4 s + C_1 R_L s + C_L L_L R_4 g_m s^2 + 2 C_L L_L R_L g_m s^2 + C_L L_L s^2 + C_L R_4 R_L g_m s + C_L R_L s + R_4 g_m + 2 R_L g_m + 1}$$

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

$$H(s) = \frac{-C_4 s + g_m}{s (C_1 C_4 s + C_1 C_L s + C_4 C_L s + 2 C_4 g_m + C_L g_m)}$$

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

$$H(s) = -\frac{(C_4 s - g_m) (C_L R_L s + 1)}{s (C_1 C_4 C_L R_L s^2 + C_1 C_4 s + C_1 C_L s + 2 C_4 C_L R_L g_m s + C_4 C_L s + 2 C_4 g_m + C_L g_m)}$$

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

$$H(s) = -\frac{(C_4 s - g_m)(C_L L_L s^2 + 1)}{s(C_1 C_4 C_L L_L s^3 + C_1 C_4 s + C_1 C_L s + 2C_4 C_L L_L g_m s^2 + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

10.184 INVALID-ORDER-184 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L s(-C_4 s + g_m)}{C_1 C_4 L_L s^3 + C_1 C_L L_L s^3 + C_1 s + C_4 C_L L_L s^3 + 2C_4 L_L g_m s^2 + C_4 s + C_L L_L g_m s^2 + g_m}$$

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

$$H(s) = -\frac{(C_4 s - g_m)(C_L L_L s^2 + C_L R_L s + 1)}{s(C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_L s^2 + C_1 C_4 s + C_1 C_L s + 2C_4 C_L L_L g_m s^2 + 2C_4 C_L R_L g_m s + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

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

$$H(s) = \frac{L_L R_L s(-C_4 s + g_m)}{C_1 C_4 L_L R_L s^3 + C_1 C_L L_L R_L s^3 + C_1 L_L s^2 + C_1 R_L s + C_4 C_L L_L R_L s^3 + 2C_4 L_L R_L g_m s^2 + C_4 L_L s^2 + C_4 R_L s + C_L L_L R_L g_m s^2 + L_L g_m s + R_L g_m}$$

10.187 INVALID-ORDER-187 $Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{(C_4 s - g_m)(C_L L_L R_L s^2 + L_L s + R_L)}{C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 L_L s^3 + C_1 C_4 R_L s^2 + C_1 C_L L_L s^3 + C_1 s + 2C_4 C_L L_L R_L g_m s^3 + C_4 C_L L_L s^3 + 2C_4 L_L g_m s^2 + 2C_4 R_L g_m s + C_4 s + C_L L_L g_m s^2 + g_m}$$

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

$$H(s) = - \frac{R_L (C_4 s - g_m) (C_L L_L s^2 + 1)}{C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 R_L s^2 + C_1 C_L L_L s^3 + C_1 C_L R_L s^2 + C_1 s + 2C_4 C_L L_L R_L g_m s^3 + C_4 C_L L_L s^3 + C_4 C_L R_L s^2 + 2C_4 R_L g_m s + C_4 s + C_L L_L g_m s^2 + C_L R_L g_m s + g_m}$$

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

$$H(s) = - \frac{(C_L R_L s + 1) (C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 R_4 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 s + 2C_4 C_L R_4 R_L g_m s^2 + C_4 C_L R_4 s^2 + 2C_4 R_4 g_m s + C_L R_4 g_m s + 2C_L R_L g_m s + C_L s + 2g_m}$$

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

$$H(s) = - \frac{(C_L L_L s^2 + 1) (C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 R_4 s^2 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + C_1 s + 2C_4 C_L L_L R_4 g_m s^3 + C_4 C_L R_4 s^2 + 2C_4 R_4 g_m s + 2C_L L_L g_m s^2 + C_L R_4 g_m s + C_L s + 2g_m}$$

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

$$H(s) = \frac{L_L s (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 L_L R_4 s^3 + C_1 C_L L_L R_4 s^3 + C_1 L_L s^2 + C_1 R_4 s + C_4 C_L L_L R_4 s^3 + 2C_4 L_L R_4 g_m s^2 + C_4 R_4 s + C_L L_L R_4 g_m s^2 + C_L L_L s^2 + 2L_L g_m s + R_4 g_m + 1}$$

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

$$H(s) = - \frac{(C_4 R_4 s - R_4 g_m + 1) (C_L L_L s^2 + C_L R_L s + 1)}{C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 R_4 s^2 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 s + 2C_4 C_L L_L R_4 g_m s^3 + 2C_4 C_L R_4 R_L g_m s^2 + C_4 C_L R_4 s^2 + 2C_4 R_4 g_m s + 2C_L L_L g_m s^2 + C_L R_4 g_m s + C_L s + 2g_m}$$

$$10.193 \quad \text{INVALID-ORDER-193} \quad Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{L_L R_L s (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 L_L R_4 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_L R_4 s^2 + C_1 L_L R_L s^2 + C_1 R_4 R_L s + C_4 C_L L_L R_4 R_L s^3 + 2C_4 L_L R_4 R_L g_m s^2 + C_4 L_L R_4 s^2 + C_4 R_4 R_L s + C_L L_L R_4 R_L g_m s^2 + C_L L_L R_4 R_L s^2}$$

$$10.194 \quad \text{INVALID-ORDER-194} \quad Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = -\frac{(C_4 R_4 s - R_4 g_m + 1)(C_L L_L R_L s^2 + L_L s + R_L)}{C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_L R_4 s^3 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 L_L s^2 + C_1 R_4 s + C_1 R_L s + 2C_4 C_L L_L R_4 R_L g_m s^3 + C_4 C_L L_L R_4 s^3 + 2C_4 L_L R_4 g_m s^2}$$

$$10.195 \quad \text{INVALID-ORDER-195} \quad Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{R_L (C_L L_L s^2 + 1)(C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 C_L R_4 R_L s^2 + C_1 R_4 s + C_1 R_L s + 2C_4 C_L L_L R_4 R_L g_m s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L R_4 R_L s^2 + 2C_4 L_L R_4 g_m s^2}$$

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

$$H(s) = \frac{C_4 R_4 g_m s - C_4 s + g_m}{s(C_1 C_4 C_L R_4 s^2 + C_1 C_4 s + C_1 C_L s + C_4 C_L R_4 g_m s + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

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

$$H(s) = \frac{R_L (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_L R_L s^2 + C_1 s + C_4 C_L R_4 R_L g_m s^2 + C_4 C_L R_L s^2 + C_4 R_4 g_m s + 2C_4 R_L g_m s + C_4 s + C_L R_L g_m s + g_m}$$

10.198 INVALID-ORDER-198 $Z(s) = \left(\infty, \infty, L_3s + \frac{1}{C_3s}, \infty, \infty, R_L + \frac{1}{C_Ls} \right)$

$$H(s) = \frac{(C_LR_Ls + 1)(C_4R_4g_ms - C_4s + g_m)}{s(C_1C_4C_LR_4s^2 + C_1C_4C_LR_Ls^2 + C_1C_4s + C_1C_Ls + C_4C_LR_4g_ms + 2C_4C_LR_Lg_ms + C_4C_Ls + 2C_4g_m + C_Lg_m)}$$

10.199 INVALID-ORDER-199 $Z(s) = \left(\infty, \infty, L_3s + \frac{1}{C_3s}, \infty, \infty, L_Ls + \frac{1}{C_Ls} \right)$

$$H(s) = \frac{(C_LL_Ls^2 + 1)(C_4R_4g_ms - C_4s + g_m)}{s(C_1C_4C_LL_Ls^3 + C_1C_4C_LR_4s^2 + C_1C_4s + C_1C_Ls + 2C_4C_LL_Lg_ms^2 + C_4C_LR_4g_ms + C_4C_Ls + 2C_4g_m + C_Lg_m)}$$

10.200 INVALID-ORDER-200 $Z(s) = \left(\infty, \infty, L_3s + \frac{1}{C_3s}, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} \right)$

$$H(s) = \frac{L_Ls(C_4R_4g_ms - C_4s + g_m)}{C_1C_4C_LL_LR_4s^4 + C_1C_4L_Ls^3 + C_1C_4R_4s^2 + C_1C_LL_Ls^3 + C_1s + C_4C_LL_LR_4g_ms^3 + C_4C_LL_Ls^3 + 2C_4L_Lg_ms^2 + C_4R_4g_ms + C_4s + C_LL_Lg_ms^2 + g_m}$$

10.201 INVALID-ORDER-201 $Z(s) = \left(\infty, \infty, L_3s + \frac{1}{C_3s}, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls} \right)$

$$H(s) = \frac{(C_LL_Ls^2 + C_LR_Ls + 1)(C_4R_4g_ms - C_4s + g_m)}{s(C_1C_4C_LL_Ls^3 + C_1C_4C_LR_4s^2 + C_1C_4C_LR_Ls^2 + C_1C_4s + C_1C_Ls + 2C_4C_LL_Lg_ms^2 + C_4C_LR_4g_ms + 2C_4C_LR_Lg_ms + C_4C_Ls + 2C_4g_m + C_Lg_m)}$$

10.202 INVALID-ORDER-202 $Z(s) = \left(\infty, \infty, L_3s + \frac{1}{C_3s}, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}} \right)$

$$H(s) = \frac{L_LR_Ls(C_4R_4g_ms - C_4s + g_m)}{C_1C_4C_LL_LR_4R_Ls^4 + C_1C_4L_LR_4s^3 + C_1C_4L_LR_Ls^3 + C_1C_4R_4R_Ls^2 + C_1C_LL_LR_Ls^3 + C_1L_Ls^2 + C_1R_Ls + C_4C_LL_LR_4R_Lg_ms^3 + C_4C_LL_LR_Ls^3 + C_4L_LR_4g_ms^2 + 2C_4L_LR_Lg_ms}$$

10.203 INVALID-ORDER-203 $Z(s) = \left(\infty, \infty, L_3s + \frac{1}{C_3s}, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L \right)$

$$H(s) = \frac{(C_4R_4g_ms - C_4s + g_m)(C_LL_LR_Ls^2 + L_Ls + R_L)}{C_1C_4C_LL_LR_4s^4 + C_1C_4C_LL_LR_Ls^4 + C_1C_4L_Ls^3 + C_1C_4R_4s^2 + C_1C_4R_Ls^2 + C_1C_LL_Ls^3 + C_1s + C_4C_LL_LR_4g_ms^3 + 2C_4C_LL_LR_Lg_ms^3 + C_4C_LL_Ls^3 + 2C_4L_LR_Lg_ms^2 + C_4L_LR_Lg_ms}$$

10.204 INVALID-ORDER-204 $Z(s) = \left(\infty, \infty, L_3s + \frac{1}{C_3s}, \infty, \infty, \frac{R_L \left(L_Ls + \frac{1}{C_Ls} \right)}{L_Ls + R_L + \frac{1}{C_Ls}} \right)$

$$H(s) = \frac{R_L (C_L L_L s^2 + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_L L_L s^3 + C_1 C_L R_L s^2 + C_1 s + C_4 C_L L_L R_4 g_m s^3 + 2 C_4 C_L L_L R_L g_m s^3 + C_4 C_L L_L s^3}$$

10.205 INVALID-ORDER-205 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3 L_3 s^2 + 1}, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_L (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 L_4 s^3 + C_1 C_4 R_L s^2 + C_1 s + C_4 L_4 g_m s^2 + 2 C_4 R_L g_m s + C_4 s + g_m}$$

10.206 INVALID-ORDER-206 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3 L_3 s^2 + 1}, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_4 L_4 g_m s^2 - C_4 s + g_m}{s (C_1 C_4 C_L L_4 s^3 + C_1 C_4 s + C_1 C_L s + C_4 C_L L_4 g_m s^2 + C_4 C_L s + 2 C_4 g_m + C_L g_m)}$$

10.207 INVALID-ORDER-207 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3 L_3 s^2 + 1}, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_L (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 L_4 s^3 + C_1 C_4 R_L s^2 + C_1 C_L R_L s^2 + C_1 s + C_4 C_L L_4 R_L g_m s^3 + C_4 C_L R_L s^2 + C_4 L_4 g_m s^2 + 2 C_4 R_L g_m s + C_4 s + C_L R_L g_m s + g_m}$$

10.208 INVALID-ORDER-208 $Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3 L_3 s^2 + 1}, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_L R_L s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{s (C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L R_L s^2 + C_1 C_4 s + C_1 C_L s + C_4 C_L L_4 g_m s^2 + 2 C_4 C_L R_L g_m s + C_4 C_L s + 2 C_4 g_m + C_L g_m)}$$

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

$$H(s) = \frac{(C_L L_L s^2 + 1)(C_4 L_4 g_m s^2 - C_4 s + g_m)}{s(C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 s + C_1 C_L s + C_4 C_L L_4 g_m s^2 + 2C_4 C_L L_L g_m s^2 + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

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

$$H(s) = \frac{L_L s (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 L_4 s^3 + C_1 C_4 L_L s^3 + C_1 C_L L_L s^3 + C_1 s + C_4 C_L L_4 L_L g_m s^4 + C_4 C_L L_L s^3 + C_4 L_4 g_m s^2 + 2C_4 L_L g_m s^2 + C_4 s + C_L L_L g_m s^2 + g_m}$$

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

$$H(s) = \frac{(C_L L_L s^2 + C_L R_L s + 1)(C_4 L_4 g_m s^2 - C_4 s + g_m)}{s(C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_L s^2 + C_1 C_4 s + C_1 C_L s + C_4 C_L L_4 g_m s^2 + 2C_4 C_L L_L g_m s^2 + 2C_4 C_L R_L g_m s + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

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

$$H(s) = \frac{L_L R_L s (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_L s^3 + C_1 C_4 L_L R_L s^3 + C_1 C_L L_L R_L s^3 + C_1 L_L s^2 + C_1 R_L s + C_4 C_L L_4 L_L R_L g_m s^4 + C_4 C_L L_L R_L s^3 + C_4 L_4 L_L g_m s^3 + C_4 L_4 R_L s^2 + C_4 L_4 g_m s + C_4 R_L}$$

10.213 INVALID-ORDER-213 $Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{(C_4 L_4 g_m s^2 - C_4 s + g_m)(C_L L_L R_L s^2 + L_L s + R_L)}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 L_4 s^3 + C_1 C_4 L_L s^3 + C_1 C_4 R_L s^2 + C_1 C_L L_L s^3 + C_1 s + C_4 C_L L_4 L_L g_m s^4 + 2C_4 C_L L_L R_L g_m s^3 + C_4 C_L L_L s^3 + C_4 L_4 g_m s^2 + 2C_4 L_L g_m s + 2C_4 R_L}$$

$$10.214 \quad \text{INVALID-ORDER-214} \quad Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{R_L (C_L L_L s^2 + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 L_4 s^3 + C_1 C_4 R_L s^2 + C_1 C_L L_L s^3 + C_1 C_L R_L s^2 + C_1 s + C_4 C_L L_4 L_L g_m s^4 + C_4 C_L L_4 R_L g_m s^3 + 2 C_4 C_L L_L R_L g_m s^2 + C_4 C_L L_L s + g_m}$$

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

$$H(s) = \frac{R_L (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_1 C_4 L_4 R_L s^3 + C_1 L_4 s^2 + C_1 R_L s + 2 C_4 L_4 R_L g_m s^2 + C_4 L_4 s^2 + L_4 g_m s + 2 R_L g_m + 1}$$

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

$$H(s) = \frac{-C_4 L_4 s^2 + L_4 g_m s - 1}{C_1 C_4 L_4 s^3 + C_1 C_L L_4 s^3 + C_1 s + C_4 C_L L_4 s^3 + 2 C_4 L_4 g_m s^2 + C_L L_4 g_m s^2 + C_L s + 2 g_m}$$

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

$$H(s) = \frac{R_L (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 R_L s^3 + C_1 L_4 s^2 + C_1 R_L s + C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 R_L g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_L g_m s^2 + C_L R_L s + L_4 g_m s + 2 R_L g_m + 1}$$

$$10.218 \quad \text{INVALID-ORDER-218} \quad Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{(C_L R_L s + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_4 s^3 + C_1 C_L R_L s^2 + C_1 s + 2 C_4 C_L L_4 R_L g_m s^3 + C_4 C_L L_4 s^3 + 2 C_4 L_4 g_m s^2 + C_L L_4 g_m s^2 + 2 C_L R_L g_m s + C_L s + 2 g_m}$$

$$10.219 \quad \text{INVALID-ORDER-219} \quad Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, L_Ls + \frac{1}{C_Ls} \right)$$

$$H(s) = -\frac{(C_LL_Ls^2 + 1)(C_4L_4s^2 - L_4g_ms + 1)}{C_1C_4C_LL_4L_Ls^5 + C_1C_4L_4s^3 + C_1C_LL_4s^3 + C_1C_LL_Ls^3 + C_1s + 2C_4C_LL_4L_Lg_ms^4 + C_4C_LL_4s^3 + 2C_4L_4g_ms^2 + C_LL_4g_ms^2 + 2C_LL_Lg_ms^2 + C_Ls + 2g_m}$$

$$10.220 \quad \text{INVALID-ORDER-220} \quad Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} \right)$$

$$H(s) = \frac{L_Ls(-C_4L_4s^2 + L_4g_ms - 1)}{C_1C_4L_4L_Ls^4 + C_1C_LL_4L_Ls^4 + C_1L_4s^2 + C_1L_Ls^2 + C_4C_LL_4L_Ls^4 + 2C_4L_4L_Lg_ms^3 + C_4L_4s^2 + C_LL_4L_Lg_ms^3 + C_LL_Ls^2 + L_4g_ms + 2L_Lg_ms + 1}$$

$$10.221 \quad \text{INVALID-ORDER-221} \quad Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls} \right)$$

$$H(s) = -\frac{(C_4L_4s^2 - L_4g_ms + 1)(C_LL_Ls^2 + C_LR_Ls + 1)}{C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4R_Ls^4 + C_1C_4L_4s^3 + C_1C_LL_4s^3 + C_1C_LL_Ls^3 + C_1C_LR_Ls^2 + C_1s + 2C_4C_LL_4L_Lg_ms^4 + 2C_4C_LL_4R_Lg_ms^3 + C_4C_LL_4s^3 + 2C_4L_4g_ms^2 + C_LR_Ls^2 + C_LL_Lg_ms^2 + C_LR_Lg_ms^2 + C_LR_Ls + 2g_m}$$

$$10.222 \quad \text{INVALID-ORDER-222} \quad Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}} \right)$$

$$H(s) = \frac{L_LR_Ls(-C_4L_4s^2 + L_4g_ms - 1)}{C_1C_4L_4L_LR_Ls^4 + C_1C_LL_4L_LR_Ls^4 + C_1L_4L_Ls^3 + C_1L_4R_Ls^2 + C_1L_LR_Ls^2 + C_4C_LL_4L_LR_Ls^4 + 2C_4L_4L_LR_Lg_ms^3 + C_4L_4L_Ls^3 + C_4L_4R_Ls^2 + C_LL_4L_LR_Lg_ms^3 + C_LL_Ls^2 + L_4g_ms + 2L_LR_Lg_ms + 1}$$

$$10.223 \quad \text{INVALID-ORDER-223} \quad Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L \right)$$

$$H(s) = -\frac{(C_4L_4s^2 - L_4g_ms + 1)(C_LL_LR_Ls^2 + L_Ls + R_L)}{C_1C_4C_LL_4L_LR_Ls^5 + C_1C_4L_4L_Ls^4 + C_1C_4L_4R_Ls^3 + C_1C_LL_4L_Ls^4 + C_1C_LL_LR_Ls^3 + C_1L_4s^2 + C_1L_Ls^2 + C_1R_Ls + 2C_4C_LL_4L_LR_Lg_ms^4 + C_4C_LL_4L_Ls^4 + 2C_4L_4L_LR_Lg_ms^3 + C_4L_4R_Ls^2 + C_LL_4L_LR_Lg_ms^2 + C_LR_Ls + 2g_m}$$

10.224 INVALID-ORDER-224 $Z(s) = \left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \frac{R_L \left(L_Ls + \frac{1}{C_Ls} \right)}{L_Ls + R_L + \frac{1}{C_Ls}} \right)$

$$H(s) = -\frac{R_L (C_L L_L s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 L_L s^4 + C_1 C_L L_4 R_L s^3 + C_1 C_L L_L R_L s^3 + C_1 L_4 s^2 + C_1 R_L s + 2C_4 C_L L_4 L_L R_L g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m}$$

10.225 INVALID-ORDER-225 $Z(s) = \left(\infty, \infty, \frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_L (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 s + C_4 L_4 g_m s^2 + C_4 R_4 g_m s + 2C_4 R_L g_m s + C_4 s + g_m}$$

10.226 INVALID-ORDER-226 $Z(s) = \left(\infty, \infty, \frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \infty, \infty, \frac{1}{C_Ls} \right)$

$$H(s) = \frac{C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m}{s (C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 s + C_1 C_L s + C_4 C_L L_4 g_m s^2 + C_4 C_L R_4 g_m s + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

10.227 INVALID-ORDER-227 $Z(s) = \left(\infty, \infty, \frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_L (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_L R_L s^2 + C_1 s + C_4 C_L L_4 R_L g_m s^3 + C_4 C_L R_4 R_L g_m s^2 + C_4 C_L R_L s^2 + C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m}$$

10.228 INVALID-ORDER-228 $Z(s) = \left(\infty, \infty, \frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \infty, \infty, R_L + \frac{1}{C_Ls} \right)$

$$H(s) = \frac{(C_L R_L s + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + C_1 C_4 s + C_1 C_L s + C_4 C_L L_4 g_m s^2 + C_4 C_L R_4 g_m s + 2C_4 C_L R_L g_m s + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

$$10.229 \quad \text{INVALID-ORDER-229} \quad Z(s) = \left(\infty, \infty, \frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \infty, \infty, L_Ls + \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{(C_LL_Ls^2 + 1)(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m)}{s(C_1C_4C_LL_4s^3 + C_1C_4C_LL_Ls^3 + C_1C_4C_LR_4s^2 + C_1C_4s + C_1C_Ls + C_4C_LL_4g_ms^2 + 2C_4C_LL_Lg_ms^2 + C_4C_LR_4g_ms + C_4C_Ls + 2C_4g_m + C_Lg_m)}$$

$$10.230 \quad \text{INVALID-ORDER-230} \quad Z(s) = \left(\infty, \infty, \frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} \right)$$

$$H(s) = \frac{L_Ls(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m)}{C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_LR_4s^4 + C_1C_4L_4s^3 + C_1C_4L_Ls^3 + C_1C_4R_4s^2 + C_1C_LL_Ls^3 + C_1s + C_4C_LL_4L_Lg_ms^4 + C_4C_LL_LR_4g_ms^3 + C_4C_LL_Ls^3 + C_4L_4g_ms^2 + 2C_4L_Lg_m}$$

$$10.231 \quad \text{INVALID-ORDER-231} \quad Z(s) = \left(\infty, \infty, \frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{(C_LL_Ls^2 + C_LR_Ls + 1)(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m)}{s(C_1C_4C_LL_4s^3 + C_1C_4C_LL_Ls^3 + C_1C_4C_LR_4s^2 + C_1C_4C_LR_Ls^2 + C_1C_4s + C_1C_Ls + C_4C_LL_4g_ms^2 + 2C_4C_LL_Lg_ms^2 + C_4C_LR_4g_ms + 2C_4C_LR_Lg_ms + C_4C_Ls + 2C_4g_m + C_Lg_m)}$$

$$10.232 \quad \text{INVALID-ORDER-232} \quad Z(s) = \left(\infty, \infty, \frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}} \right)$$

$$H(s) = \frac{L_LR_Ls(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m)}{C_1C_4C_LL_4L_LR_Ls^5 + C_1C_4C_LL_LR_4R_Ls^4 + C_1C_4L_4L_Ls^4 + C_1C_4L_4R_Ls^3 + C_1C_4L_LR_4s^3 + C_1C_4L_LR_Ls^3 + C_1C_4R_4R_Ls^2 + C_1C_LL_LR_Ls^3 + C_1L_Ls^2 + C_1R_Ls + C_4C_LL_4L_LR_Ls^4 + C_4C_LL_LR_4R_Ls^3 + C_4C_LL_LR_Ls^3 + C_4L_4R_Ls^2 + 2C_4L_LR_Ls^2 + C_4L_LR_Ls^2 + C_4R_4R_Ls + 2C_4R_LR_Ls + C_4R_Ls + 2C_4g_m + C_Lg_m}$$

$$10.233 \quad \text{INVALID-ORDER-233} \quad Z(s) = \left(\infty, \infty, \frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L \right)$$

$$H(s) = \frac{(C_LL_LR_Ls^2 + L_Ls + R_L)(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m)}{C_1C_4C_LL_4L_LR_Ls^5 + C_1C_4C_LL_LR_4R_Ls^4 + C_1C_4C_LL_LR_Ls^4 + C_1C_4L_4s^3 + C_1C_4L_Ls^3 + C_1C_4R_4s^2 + C_1C_4R_Ls^2 + C_1C_LL_Ls^3 + C_1s + C_4C_LL_4L_LR_Lg_ms^4 + C_4C_LL_LR_4R_Lg_ms^3 + 2C_4C_LL_LR_Lg_ms^2 + C_4C_LL_LR_Ls^2 + C_4L_4R_Ls^2 + 2C_4L_LR_Ls^2 + C_4L_LR_Ls^2 + C_4R_4R_Ls + 2C_4R_LR_Ls + C_4R_Ls + 2C_4g_m + C_Lg_m}$$

$$10.234 \quad \text{INVALID-ORDER-234} \quad Z(s) = \left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{R_L (C_L L_L s^2}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_L L_L s^3 + C_1 C_L R_L s^2 + C_1 s + C_1}$$

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

$$H(s) = \frac{R_L (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{C_1 C_4 L_4 R_4 R_L s^3 + C_1 L_4 R_4 s^2 + C_1 L_4 R_L s^2 + C_1 R_4 R_L s + 2C_4 L_4 R_4 R_L g_m s^2 + C_4 L_4 R_4 s^2 + L_4 R_4 g_m s + 2L_4 R_L g_m s + L_4 s + 2R_4 R_L g_m + R_4}$$

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

$$H(s) = \frac{-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4}{C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_4 R_4 s^3 + C_1 L_4 s^2 + C_1 R_4 s + C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 R_4 g_m s^2 + C_L L_4 R_4 g_m s^2 + C_L L_4 s^2 + C_L R_4 s + 2L_4 g_m s + 2R_4 g_m}$$

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

$$H(s) = \frac{R_L (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_L L_4 R_4 R_L s^3 + C_1 L_4 R_4 s^2 + C_1 L_4 R_L s^2 + C_1 R_4 R_L s + C_4 C_L L_4 R_4 R_L s^3 + 2C_4 L_4 R_4 R_L g_m s^2 + C_4 L_4 R_4 s^2 + C_L L_4 R_4 R_L g_m s^2 + C_L L_4 R_L s^2 + C_L R_4 R_L}$$

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

$$H(s) = -\frac{(C_L R_L s + 1) (C_4 L_4 R_4 s^2 - L_4 R_4 g_m s + L_4 s + R_4)}{C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_4 R_4 s^3 + C_1 C_L L_4 R_L s^3 + C_1 C_L R_4 R_L s^2 + C_1 L_4 s^2 + C_1 R_4 s + 2C_4 C_L L_4 R_4 R_L g_m s^3 + C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 R_4 g_m s^2 + C_L L_4}$$

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

$$H(s) = -\frac{(C_L L_L s^2 + 1)(C_4 L_4 R_4 s^2 - L_4 R_4 g_m s + L_4 s + R_4)}{C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_4 L_L s^4 + C_1 C_L L_4 R_4 s^3 + C_1 C_L L_L R_4 s^3 + C_1 L_4 s^2 + C_1 R_4 s + 2C_4 C_L L_4 L_L R_4 g_m s^4 + C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 R_4 g_m s^2 + 2C_L L_4 R_4 s}$$

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

$$H(s) = \frac{L_L s (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{C_1 C_4 L_4 L_L R_4 s^4 + C_1 C_L L_4 L_L R_4 s^4 + C_1 L_4 L_L s^3 + C_1 L_4 R_4 s^2 + C_1 L_L R_4 s^2 + C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_4 L_L R_4 g_m s^3 + C_4 L_4 R_4 s^2 + C_L L_4 L_L R_4 g_m s^3 + C_L L_4 L_L s^3 + C_L L_L R_4 s}$$

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

$$H(s) = -\frac{(C_L L_L s^2 + C_L R_L)}{C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_4 L_L s^4 + C_1 C_L L_4 R_4 s^3 + C_1 C_L L_4 R_L s^3 + C_1 C_L L_L R_4 s^3 + C_1 C_L R_4 R_L s^2 + C_1 L_4 s^2 + C_1 R_4 s + 2C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_4 L_L R_4 g_m s^3 + C_4 L_4 L_L R_4 s^3 + C_4 L_4 R_4 s^2 + C_L L_4 L_L R_4 g_m s^3 + C_L L_4 L_L s^3 + C_L L_L R_4 s}$$

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

$$H(s) = \frac{L_L R_L s (-C_4 L_4 R_4 s^2)}{C_1 C_4 L_4 L_L R_4 R_L s^4 + C_1 C_L L_4 L_L R_4 R_L s^4 + C_1 L_4 L_L R_4 s^3 + C_1 L_4 L_L R_L s^3 + C_1 L_4 R_4 R_L s^2 + C_1 L_L R_4 R_L s^2 + C_4 C_L L_4 L_L R_4 R_L s^4 + 2C_4 L_4 L_L R_4 R_L g_m s^3 + C_4 L_4 L_L R_4 s^3 + C_4 L_4 R_4 s^2 + C_L L_4 L_L R_4 g_m s^3 + C_L L_4 L_L s^3 + C_L L_L R_4 s}$$

10.243 INVALID-ORDER-243 $Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{L_L R_L s (-C_4 L_4 R_4 s^2)}{C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 L_4 L_L R_4 s^4 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_L L_4 L_L R_4 s^4 + C_1 C_L L_4 L_L R_L s^4 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_4 L_L s^3 + C_1 L_4 R_4 s^2 + C_1 L_4 R_L s^2 + C_1 L_L R_4 s}$$

10.244 INVALID-ORDER-244 $Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_L L_4 L_L R_4 s^4 + C_1 C_L L_4 L_L R_L s^4 + C_1 C_L L_4 R_4 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_4 R_4 s^2 + C_1 L_4 R_L s^2 + C_1 R_4 R_L s + 2 C_4 C_L L_L}{C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_L L_4 L_L R_4 s^4 + C_1 C_L L_4 L_L R_L s^4 + C_1 C_L L_4 R_4 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_4 R_4 s^2 + C_1 L_4 R_L s^2 + C_1 R_4 R_L s + 2 C_4 C_L L_L}$$

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

$$H(s) = \frac{R_L (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 L_4 s^2 + C_1 R_4 s + C_1 R_L s + C_4 L_4 R_4 g_m s^2 + 2 C_4 L_4 R_L g_m s^2 + C_4 L_4 s^2 + L_4 g_m s + R_4 g_m + 2 R_L g_m + 1}$$

10.246 INVALID-ORDER-246 $Z(s) = \left(\infty, \infty, \frac{R_3 \left(L_3 s + \frac{1}{C_3 s} \right)}{L_3 s + R_3 + \frac{1}{C_3 s}}, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1}{C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_4 s^3 + C_1 C_L R_4 s^2 + C_1 s + C_4 C_L L_4 R_4 g_m s^3 + C_4 C_L L_4 s^3 + 2 C_4 L_4 g_m s^2 + C_L L_4 g_m s^2 + C_L R_4 g_m s + C_L s + 2 g_m}$$

10.247 INVALID-ORDER-247 $Z(s) = \left(\infty, \infty, \frac{R_3 \left(L_3 s + \frac{1}{C_3 s} \right)}{L_3 s + R_3 + \frac{1}{C_3 s}}, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_L (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 R_L s^3 + C_1 C_L R_4 R_L s^2 + C_1 L_4 s^2 + C_1 R_4 s + C_1 R_L s + C_4 C_L L_4 R_4 R_L g_m s^3 + C_4 C_L L_4 R_L s^3 + C_4 L_4 R_4 g_m s^2 +}$$

10.248 INVALID-ORDER-248 $Z(s) = \left(\infty, \infty, \frac{R_3 \left(L_3 s + \frac{1}{C_3 s} \right)}{L_3 s + R_3 + \frac{1}{C_3 s}}, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_L R_L s + 1)(C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_4 s^3 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 s + C_4 C_L L_4 R_4 g_m s^3 + 2C_4 C_L L_4 R_L g_m s^3 + C_4 C_L L_4 s^3 + 2C_4 L_4 g_m s^2 + C_L L_4}$$

$$\mathbf{10.249 \quad INVALID-ORDER-249} \quad Z(s) = \left(\infty, \infty, \frac{R_3 \left(L_3 s + \frac{1}{C_3 s} \right)}{L_3 s + R_3 + \frac{1}{C_3 s}}, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_L L_L s^2 + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_4 s^3 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + C_1 s + 2 C_4 C_L L_4 L_L g_m s^4 + C_4 C_L L_4 R_4 g_m s^3 + C_4 C_L L_4 s^3 + 2 C_4 L_4 g_m s^2 + C_L L_4 s}$$

$$\mathbf{10.250 \quad INVALID-ORDER-250} \quad Z(s) = \left(\infty, \infty, \frac{R_3 \left(L_3 s + \frac{1}{C_3 s} \right)}{L_3 s + R_3 + \frac{1}{C_3 s}}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_L s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_4 L_L s^4 + C_1 C_L L_L R_4 s^3 + C_1 L_4 s^2 + C_1 L_L s^2 + C_1 R_4 s + C_4 C_L L_4 L_L R_4 g_m s^4 + C_4 C_L L_4 L_L s^4 + 2 C_4 L_4 L_L g_m s^3 + C_4 L_4 R_4 g_m s^2 + C_4 L_4 s^2 + C_4 R_4 s}$$

$$\mathbf{10.251 \quad INVALID-ORDER-251} \quad Z(s) = \left(\infty, \infty, \frac{R_3 \left(L_3 s + \frac{1}{C_3 s} \right)}{L_3 s + R_3 + \frac{1}{C_3 s}}, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_4 s^3 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 s + 2 C_4 C_L L_4 L_L g_m s^4 + C_4 C_L L_4 R_4 g_m s^3 + C_4 C_L L_4 R_L g_m s^3 + C_4 L_4 g_m s^2 + C_4 R_4 g_m s + C_4 R_L g_m s}$$

$$\mathbf{10.252 \quad INVALID-ORDER-252} \quad Z(s) = \left(\infty, \infty, \frac{R_3 \left(L_3 s + \frac{1}{C_3 s} \right)}{L_3 s + R_3 + \frac{1}{C_3 s}}, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{(C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 L_4 L_L R_4 s^4 + C_1 C_4 L_4 L_L R_L s^4 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_L L_4 L_L R_L s^4 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_4 L_L s^3 + C_1 L_4 R_L s^2 + C_1 L_L R_4 s^2 + C_1 L_L R_L s}$$

$$\mathbf{10.253 \quad INVALID-ORDER-253} \quad Z(s) = \left(\infty, \infty, \frac{R_3 \left(L_3 s + \frac{1}{C_3 s} \right)}{L_3 s + R_3 + \frac{1}{C_3 s}}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{(C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 L_L s^4 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 L_4 s^2 + C_1 L_L s^2 + C_1 R_4 s + C_1 R_L s}$$

10.254 INVALID-ORDER-254 $Z(s) = \left(\infty, \infty, \frac{R_3 \left(L_3 s + \frac{1}{C_3 s} \right)}{L_3 s + R_3 + \frac{1}{C_3 s}}, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 L_L s^4 + C_1 C_L L_4 R_L s^3 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 C_L L_L R_L s^3}{C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 L_L s^4 + C_1 C_L L_4 R_L s^3 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 C_L L_L R_L s^3}$$

10.255 INVALID-ORDER-255 $Z(s) = (\infty, \infty, \infty, R_4, \infty, R_L)$

$$H(s) = \frac{R_L (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_4 R_4 R_L s^2 + C_1 R_4 s + C_1 R_L s + C_4 L_4 R_4 g_m s^2 + 2 C_4 L_4 R_L g_m s^2 + C_4 L_4 s^2 + 2 C_4 R_4 R_L g_m s + C_4 R_4 s + R_4 g_m + 2 R_L g_m + 1}$$

10.256 INVALID-ORDER-256 $Z(s) = \left(\infty, \infty, \infty, R_4, \infty, \frac{1}{C_{Ls}} \right)$

$$H(s) = \frac{C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1}{C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + C_1 C_L R_4 s^2 + C_1 s + C_4 C_L L_4 R_4 g_m s^3 + C_4 C_L L_4 s^3 + C_4 C_L R_4 s^2 + 2C_4 L_4 g_m s^2 + 2C_4 R_4 g_m s + C_L R_4 g_m s + C_L s + 2g_m}$$

10.257 INVALID-ORDER-257 $Z(s) = \left(\infty, \infty, \infty, R_4, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_L (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_4 R_4 R_L s^2 + C_1 C_L R_4 R_L s^2 + C_1 R_4 s + C_1 R_L s + C_4 C_L L_4 R_4 R_L g_m s^3 + C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_4 R_4 g_m}$$

10.258 INVALID-ORDER-258 $Z(s) = \left(\infty, \infty, \infty, R_4, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_L R_L s + 1)(-C_4 L_4 R_4 g_m s^2 + C_4 L_4 s^2 + C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 s + C_4 C_L L_4 R_4 g_m s^3 + 2C_4 C_L L_4 R_L g_m s^3 + C_4 C_L L_4 s^3 +}$$

10.259 INVALID-ORDER-259 $Z(s) = \left(\infty, \infty, \infty, R_4, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = - \frac{(C_L L_L s^2 + 1) (-C_4 L_4 R_4 g_m s^2 + C_4 L_4 s^2 + C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + C_1 s + 2C_4 C_L L_4 L_L g_m s^4 + C_4 C_L L_4 R_4 g_m s^3 + C_4 C_L L_4 s^3 +}$$

10.260 INVALID-ORDER-260 $Z(s) = \left(\infty, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_L R_4 s^3 + C_1 C_L L_L R_4 s^3 + C_1 L_L s^2 + C_1 R_4 s + C_4 C_L L_4 L_L R_4 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2C_4 L_4 L_L s^3 +}$$

10.261 INVALID-ORDER-261 $Z(s) = \left(\infty, \infty, \infty, R_4, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = - \frac{(C_L L_L s^2 + C_L R_L)}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 s +}$$

10.262 INVALID-ORDER-262 $Z(s) = \left(\infty, \infty, \infty, R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 L_4 L_L R_4 s^4 + C_1 C_4 L_4 L_L R_L s^4 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_4 L_L R_4 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_L R_4 s^2 + C_1 L_L R_L s^2 + C_1 R_4 R_L s + C_4 C_L L_4 L_L s^3 + C_4 C_L L_4 R_4 s^2 + C_4 C_L L_L R_4 s^2 + C_4 C_L R_4 s^2 + C_4 C_L R_L s^2 + C_4 s +}$$

10.263 INVALID-ORDER-263 $Z(s) = \left(\infty, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = - \frac{C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_4 L_L R_4 s^3 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_L R_4 s^3 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 s +}$$

$$\text{10.264} \quad \text{INVALID-ORDER-264} \quad Z(s) = \left(\infty, \infty, \infty, R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 +$$

10.265 INVALID-ORDER-265 $Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L \right)$

$$H(s) = \frac{R_1 R_L (R_4 g_m - 1)}{C_1 R_1 R_4 s + C_1 R_1 R_L s + R_1 R_4 q_m + 2 R_1 R_L q_m + R_1 + R_4 + R_L}$$

10.266 INVALID-ORDER-266 $Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1(R_4g_m - 1)(C_L L_L s^2 + 1)}{C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 R_1 s + 2C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_L R_1 R_4 g_m s + C_L R_1 s + C_L R_4 s + 2R_1 g_m + 1}$$

10.267 INVALID-ORDER-267 $Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_A s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L R_1 s (R_4 g_m - 1)}{C_1 C_L L_L R_1 R_4 s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_4 s + C_L L_L R_1 R_4 g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_4 s^2 + 2 L_L R_1 g_m s + L_L s + R_1 R_4 g_m + R_1 + R_4}$$

10.268 INVALID-ORDER-268 $Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (R_4 g_m - 1) (C_L L_L s^2 + C_L R_L s + 1)}{C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + 2 C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_L R_1 R_4 g_m s + 2 C_L R_1 R_L g_m s + C_L R_1 s + C_L R_4 s + C_L R_L s + 2 R_1 g_m + 1}$$

10.269 INVALID-ORDER-269 $Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_L R_1 R_L s (R_4 g_m - 1)}{C_1 C_L L_L R_1 R_4 R_L s^3 + C_1 L_L R_1 R_4 s^2 + C_1 L_L R_1 R_L s^2 + C_1 R_1 R_4 R_L s + C_L L_L R_1 R_4 R_L g_m s^2 + C_L L_L R_1 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_1 R_4 g_m s + 2 L_L R_1 R_L g_m s + L_L R_1 s + L_L}$$

10.270 INVALID-ORDER-270 $Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{R_1 (R_4 g_m - 1) (C_L L_L R_L s^2 + L_L s + R_L)}{C_1 C_L L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_4 s + C_1 R_1 R_L s + C_L L_L R_1 R_4 g_m s^2 + 2 C_L L_L R_1 R_L g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_4 s^2 + C_L L_L R_L s^2 + 2 L_L R_1 g_m s}$$

10.271 INVALID-ORDER-271 $Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{R_1 R_L (R_4 g_m - 1) (C_L L_L s^2 + 1)}{C_1 C_L L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L R_1 R_4 R_L s^2 + C_1 R_1 R_4 s + C_1 R_1 R_L s + C_L L_L R_1 R_4 g_m s^2 + 2 C_L L_L R_1 R_L g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_4 s^2 + C_L L_L R_L s^2 + C_L R_1}$$

10.272 INVALID-ORDER-272 $Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (-C_4 s + g_m)}{s (C_1 C_4 R_1 s + C_1 C_L R_1 s + C_4 C_L R_1 s + 2 C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.273 INVALID-ORDER-273 $Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_4 s - g_m) (C_L R_L s + 1)}{s (C_1 C_4 C_L R_1 R_L s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + 2 C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_L s + 2 C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.274 INVALID-ORDER-274 $Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_4 s - g_m) (C_L L_L s^2 + 1)}{s (C_1 C_4 C_L L_L R_1 s^3 + C_1 C_4 R_1 s + C_1 C_L R_1 s + 2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.275 INVALID-ORDER-275 $Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L R_1 s (-C_4 s + g_m)}{C_1 C_4 L_L R_1 s^3 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + C_4 C_L L_L R_1 s^3 + 2C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + C_4 R_1 s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

10.276 INVALID-ORDER-276 $Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_4 s - g_m) (C_L L_L s^2 + C_L R_L s + 1)}{s (C_1 C_4 C_L L_L R_1 s^3 + C_1 C_4 C_L R_1 R_L s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + 2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + 2C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_L s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m)}$$

10.277 INVALID-ORDER-277 $Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_L R_1 R_L s (-C_4 s + g_m)}{C_1 C_4 L_L R_1 R_L s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_L s + C_4 C_L L_L R_1 R_L s^3 + 2C_4 L_L R_1 R_L g_m s^2 + C_4 L_L R_1 s^2 + C_4 L_L R_L s^2 + C_4 R_1 R_L s + C_L L_L R_1 R_L g_m s^2 + C_L L_L}$$

10.278 INVALID-ORDER-278 $Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{R_1 (C_4 s - g_m) (C_L L_L R_L s^2 + L_L s + R_L)}{C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 L_L R_1 s^3 + C_1 C_4 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + 2C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_L s^3 + 2C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + 2C_4}$$

$$10.279 \quad \text{INVALID-ORDER-279} \quad Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = - \frac{R_1 R_L (C_4 s - g_m) (C_L L_L s^2 + 1)}{C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + 2C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_L s^3 + C_4 C_L R_1 R_L s^2 + 2C_4 R_1 R_L g_m s}$$

$$10.280 \quad \text{INVALID-ORDER-280} \quad Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = - \frac{R_1 (C_L R_L s + 1) (C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + 2C_4 C_L R_1 R_4 R_L g_m s^2 + C_4 C_L R_1 R_4 s^2 + C_4 C_L R_4 R_L s^2 + 2C_4 R_1 R_4 g_m s + C_4 R_4 s + C_L R_1 s}$$

$$10.281 \quad \text{INVALID-ORDER-281} \quad Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = - \frac{R_1 (C_L L_L s^2 + 1) (C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 R_1 s + 2C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L R_1 R_4 s^2 + 2C_4 R_1 R_4 g_m s + C_4 R_4 s + 2C_L L_L R_1 s}$$

$$10.282 \quad \text{INVALID-ORDER-282} \quad Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_L R_1 s (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_4 s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_4 s + C_4 C_L L_L R_1 R_4 s^3 + 2C_4 L_L R_1 R_4 g_m s^2 + C_4 L_L R_4 s^2 + C_4 R_1 R_4 s + C_L L_L R_1 R_4 g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_4 s}$$

$$10.283 \quad \text{INVALID-ORDER-283} \quad Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = - \frac{R_1 (C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + 2C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_4 s^3 + 2C_4 C_L R_1 s}$$

$$10.284 \quad \text{INVALID-ORDER-284} \quad Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{L_L R_1 R_L s (-C_4 R_4 s}{C_1 C_4 L_L R_1 R_4 R_L s^3 + C_1 C_L L_L R_1 R_4 R_L s^3 + C_1 L_L R_1 R_4 s^2 + C_1 L_L R_1 R_L s^2 + C_1 R_1 R_4 R_L s + C_4 C_L L_L R_1 R_4 R_L s^3 + 2C_4 L_L R_1 R_4 R_L g_m s^2 + C_4 L_L R_1 R_4 s^2 + C_4 L_L R_4 R_L s^2 +$$

$$10.285 \quad \text{INVALID-ORDER-285} \quad Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + C_1 C_4 L_L R_1 R_4 s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 C_L L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_4 s + C_1 R_1 R_L s + 2C_4 C_L L_L R_1 R_4 R_L g_m s^3 + C_4$$

$$10.286 \quad \text{INVALID-ORDER-286} \quad Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 C_L L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L R_1 R_4 R_L s^2 + C_1 R_1 R_4 s + C_1 R_1 R_L s + 2C_4 C_L L_L R_1 R_4 R_L g_m s^3 + C_4 C_L L_L R_1 R_4 s$$

$$10.287 \quad \text{INVALID-ORDER-287} \quad Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{R_1 (C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L R_1 R_4 s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + C_4 C_L R_1 R_4 g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

$$10.288 \quad \text{INVALID-ORDER-288} \quad Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{R_1 R_L (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 R_L s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_4 C_L R_1 R_4 R_L g_m s^2 + C_4 C_L R_1 R_L s^2 + C_4 C_L R_4 R_L s^2 + C_4 R_1 R_4 g_m s + 2C_4 R_1 R_L g_m s + C_4}$$

$$10.289 \quad \text{INVALID-ORDER-289} \quad Z(s) = \left(\infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, R_L + \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{R_1 (C_L R_L s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L R_1 R_4 s^2 + C_1 C_4 C_L R_1 R_L s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + C_4 C_L R_1 R_4 g_m s + 2C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + C_4 C_L R_L s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L R_4 s + C_L R_L s)}$$

$$10.290 \quad \text{INVALID-ORDER-290} \quad Z(s) = \left(\infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, L_Ls + \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{R_1 (C_L L_L s^2 + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_L R_1 s^3 + C_1 C_4 C_L R_1 R_4 s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + 2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 R_4 g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L R_4 s + C_L R_L s)}$$

$$10.291 \quad \text{INVALID-ORDER-291} \quad Z(s) = \left(\infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_L R_1 s (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 L_L R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + 2C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + C_4 R_1 R_4 s + C_4 R_L s + C_4 R_4 s}$$

$$10.292 \quad \text{INVALID-ORDER-292} \quad Z(s) = \left(\infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, L_Ls + R_L + \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{R_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_L R_1 s^3 + C_1 C_4 C_L R_1 R_4 s^2 + C_1 C_4 C_L R_1 R_L s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + 2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 R_4 g_m s + 2C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + C_4 C_L R_L s)}$$

$$10.293 \quad \text{INVALID-ORDER-293} \quad Z(s) = \left(\infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{R_1 (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + C_1 C_4 L_L R_1 R_4 s^3 + C_1 C_4 L_L R_1 R_L s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 C_L L_L R_1 R_L s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_L s + C_4 C_L L_L R_1 R_4 R_L g_m s^3 + C_4 C_L L_L R_1 R_L s^3 + C_4 C_L R_1 R_4 R_L s^2 + C_4 C_L R_1 R_L s + C_4 C_L R_4 s + C_4 C_L R_L s}$$

$$10.294 \quad \text{INVALID-ORDER-294} \quad Z(s) = \left(\infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{R_1 (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 L_L R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + C_4 C_L L_L R_1 R_4 g_m s^3 + 2C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L R_1 R_4 s^2 + C_4 C_L R_1 R_L s + C_4 C_L R_4 s + C_4 C_L R_L s}$$

10.295 INVALID-ORDER-295 $Z(s) = \left(\infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{R_L(L_Ls + \frac{1}{C_Ls})}{L_Ls + R_L + \frac{1}{C_Ls}} \right)$

$$H(s) = \frac{C_1C_4C_LL_LR_1R_4s^4 + C_1C_4C_LL_LR_1R_Ls^4 + C_1C_4C_LR_1R_4R_Ls^3 + C_1C_4R_1R_4s^2 + C_1C_4R_1R_Ls^2 + C_1C_LL_R_1s^3 + C_1C_LR_1R_Ls^2 + C_1R_1s + C_4C_LL_R_1R_4g_ms^3 + 2C_4C_LR_1R_4g_ms^2 + C_4C_LR_1R_Lg_ms + C_4C_LR_1s + C_4C_LR_Ls + R_1g_m + 1}{C_1C_4C_LL_LR_1R_4s^4 + C_1C_4C_LL_LR_1R_Ls^4 + C_1C_4C_LR_1R_4R_Ls^3 + C_1C_4R_1R_4s^2 + C_1C_4R_1R_Ls^2 + C_1C_LL_R_1s^3 + C_1C_LR_1R_Ls^2 + C_1R_1s + C_4C_LL_R_1R_4g_ms^3 + 2C_4C_LR_1R_4g_ms^2 + C_4C_LR_1R_Lg_ms + C_4C_LR_1s + C_4C_LR_Ls + R_1g_m + 1}$$

10.296 INVALID-ORDER-296 $Z(s) = \left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, R_L \right)$

$$H(s) = \frac{R_1R_L(C_4L_4g_ms^2 - C_4s + g_m)}{C_1C_4L_4R_1s^3 + C_1C_4R_1R_Ls^2 + C_1R_1s + C_4L_4R_1g_ms^2 + C_4L_4s^2 + 2C_4R_1R_Lg_ms + C_4R_1s + C_4R_Ls + R_1g_m + 1}$$

10.297 INVALID-ORDER-297 $Z(s) = \left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, \frac{1}{C_Ls} \right)$

$$H(s) = \frac{R_1(C_4L_4g_ms^2 - C_4s + g_m)}{s(C_1C_4C_LL_4R_1s^3 + C_1C_4R_1s + C_1C_LR_1s + C_4C_LL_4R_1g_ms^2 + C_4C_LL_4s^2 + C_4C_LR_1s + 2C_4R_1g_m + C_4 + C_LR_1g_m + C_L)}$$

10.298 INVALID-ORDER-298 $Z(s) = \left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, \frac{R_L}{C_LR_Ls+1} \right)$

$$H(s) = \frac{R_1R_L(C_4L_4g_ms^2 - C_4s + g_m)}{C_1C_4C_LL_4R_1R_Ls^4 + C_1C_4L_4R_1s^3 + C_1C_4R_1R_Ls^2 + C_1C_LR_1R_Ls^2 + C_1R_1s + C_4C_LL_4R_1R_Lg_ms^3 + C_4C_LL_4R_Ls^3 + C_4C_LR_1R_Ls^2 + C_4L_4R_1g_ms^2 + C_4L_4s^2 + 2C_4R_1R_Lg_ms + C_4C_LR_1s + C_4C_LR_Ls + R_1g_m + 1}$$

10.299 INVALID-ORDER-299 $Z(s) = \left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, R_L + \frac{1}{C_Ls} \right)$

$$H(s) = \frac{R_1(C_LR_Ls + 1)(C_4L_4g_ms^2 - C_4s + g_m)}{s(C_1C_4C_LL_4R_1s^3 + C_1C_4C_LR_1R_Ls^2 + C_1C_4R_1s + C_1C_LR_1s + C_4C_LL_4R_1g_ms^2 + C_4C_LL_4s^2 + 2C_4C_LR_1R_Lg_ms + C_4C_LR_1s + C_4C_LR_Ls + 2C_4R_1g_m + C_4 + C_LR_1g_m + 1)}$$

10.300 INVALID-ORDER-300 $Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_L L_L s^2 + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{s (C_1 C_4 C_L L_4 R_1 s^3 + C_1 C_4 C_L L_L R_1 s^3 + C_1 C_4 R_1 s + C_1 C_L R_1 s + C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + 2 C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 s + 2 C_4 R_1 g_m + C_4 + C_L R_1 g_m)}$$

10.301 INVALID-ORDER-301 $Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L R_1 s (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_L R_1 s^3 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_1 s^3 + C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2 C_4 L_L R_1 g_m s + C_4 R_1 g_m + C_4}$$

10.302 INVALID-ORDER-302 $Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{s (C_1 C_4 C_L L_4 R_1 s^3 + C_1 C_4 C_L L_L R_1 s^3 + C_1 C_4 C_L R_1 R_L s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + 2 C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + 2 C_4 C_L R_1 R_L g_m s + C_4 R_1 g_m + C_4)}$$

10.303 INVALID-ORDER-303 $Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{R_1 (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_4 L_L R_1 R_L s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_L s + C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_1 R_L g_m s^2 + C_4 C_L L_L s^2 + 2 C_4 C_L R_1 R_L g_m s + C_4 R_1 g_m + C_4}$$

10.304 INVALID-ORDER-304 $Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{R_1 (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_L R_1 s^3 + C_1 C_4 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + 2 C_4 C_L R_1 R_L g_m s + C_4 R_1 g_m + C_4}$$

$$10.305 \quad \text{INVALID-ORDER-305} \quad Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 R_1 R_L s^3 + C_4 C_L L_L R_1 R_L s^2 + C_4 C_L R_1 R_L s + C_4 R_1}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 R_1 R_L s^3 + C_4 C_L L_L R_1 R_L s^2 + C_4 C_L R_1 R_L s + C_4 R_1}$$

$$10.306 \quad \text{INVALID-ORDER-306} \quad Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L \right)$$

$$H(s) = \frac{R_1 R_L (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_1 C_4 L_4 R_1 R_L s^3 + C_1 L_4 R_1 s^2 + C_1 R_1 R_L s + 2C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_L s^2 + L_4 R_1 g_m s + L_4 s + 2R_1 R_L g_m + R_1 + R_L}$$

$$10.307 \quad \text{INVALID-ORDER-307} \quad Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{R_1 (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_4 R_1 s^3 + C_1 R_1 s + C_4 C_L L_4 R_1 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 g_m s^2 + C_L L_4 s^2 + C_L R_1 s + 2R_1 g_m + 1}$$

$$10.308 \quad \text{INVALID-ORDER-308} \quad Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{R_1 R_L (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_L L_4 R_1 R_L s^3 + C_1 L_4 R_1 s^2 + C_1 R_1 R_L s + C_4 C_L L_4 R_1 R_L s^3 + 2C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_L s^2 + C_L L_4 R_1 R_L g_m s^2 + C_L L_4 R_L s^2 + C_L R_1 R_L s + 2R_1 g_m + 1}$$

$$10.309 \quad \text{INVALID-ORDER-309} \quad Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{R_1 (C_L R_L s + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_4 R_1 s^3 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + 2C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_L s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 R_L g_m s^2 + C_L L_4 R_L s^2 + C_L R_1 R_L s + 2R_1 g_m + 1}$$

10.310 INVALID-ORDER-310 $Z(s) = \left(\infty, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, L_Ls + \frac{1}{C_Ls} \right)$

$$H(s) = -\frac{R_1 (C_L L_L s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_4 R_1 s^3 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + 2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 L_L s^3 + C_L L_L R_1 s^2 + C_L L_L R_1 s}$$

10.311 INVALID-ORDER-311 $Z(s) = \left(\infty, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L R_1 s (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_L L_4 L_L R_1 s^4 + C_1 L_4 R_1 s^2 + C_1 L_L R_1 s^2 + C_4 C_L L_4 L_L R_1 s^4 + 2C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_1 s^2 + C_L L_4 L_L R_1 g_m s^3 + C_L L_4 L_L s^3 + C_L L_L R_1 s^2 + C_L L_L R_1 s}$$

10.312 INVALID-ORDER-312 $Z(s) = \left(\infty, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, L_Ls + R_L + \frac{1}{C_Ls} \right)$

$$H(s) = -\frac{R_1 (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_4 R_1 s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + 2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + 2C_4 C_L L_4 R_1 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 L_L s^3 + C_L L_L R_1 s^2 + C_L L_L R_1 s}$$

10.313 INVALID-ORDER-313 $Z(s) = \left(\infty, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}} \right)$

$$H(s) = \frac{L_L R_1 R_L s (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_1 C_4 L_4 L_L R_1 R_L s^4 + C_1 C_L L_4 L_L R_1 R_L s^4 + C_1 L_4 L_L R_1 s^3 + C_1 L_4 R_1 R_L s^2 + C_1 L_L R_1 R_L s^2 + C_4 C_L L_4 L_L R_1 R_L s^4 + 2C_4 L_4 L_L R_1 R_L g_m s^3 + C_4 L_4 L_L R_1 s^3 + C_4 L_4 L_L R_L s^3 + C_4 L_4 R_1 s^2 + C_4 L_4 s^2 + C_L L_4 L_L R_1 s^2 + C_L L_L R_1 s^2 + C_L R_1 s + 2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + 2C_4 C_L L_4 R_1 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 L_L s^3 + C_L L_L R_1 s^2 + C_L L_L R_1 s}$$

10.314 INVALID-ORDER-314 $Z(s) = \left(\infty, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{R_1 (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_L R_1 R_L s^3 + C_1 L_4 R_1 s^2 + C_1 L_L R_1 s^2 + C_1 R_1 R_L s + 2C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L s^4 + 2C_4 C_L L_4 R_1 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 L_L R_1 s^2 + C_L L_L R_1 s^2 + C_L R_1 s + 2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + 2C_4 C_L L_4 R_1 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 L_L s^3 + C_L L_L R_1 s^2 + C_L L_L R_1 s}$$

$$\mathbf{10.315 \quad INVALID-ORDER-315} \quad Z(s) = \left(\infty, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{R_L \left(L_Ls + \frac{1}{C_Ls} \right)}{L_Ls + R_L + \frac{1}{C_Ls}} \right)$$

$$H(s) = - \frac{C_1C_4C_LL_4L_LR_1R_Ls^5 + C_1C_4L_4R_1R_Ls^3 + C_1C_LL_4L_LR_1s^4 + C_1C_LL_4R_1R_Ls^3 + C_1C_LL_LR_1R_Ls^3 + C_1L_4R_1s^2 + C_1R_1R_Ls + 2C_4C_LL_4L_LR_1R_Lg_ms^4 + C_4C_LL_4L_LR_1s^3}{C_1C_4C_LL_4L_LR_1R_Ls^5 + C_1C_4L_4R_1R_Ls^3 + C_1C_LL_4L_LR_1s^4 + C_1C_LL_4R_1R_Ls^3 + C_1C_LL_LR_1R_Ls^3 + C_1L_4R_1s^2 + C_1R_1R_Ls + 2C_4C_LL_4L_LR_1R_Lg_ms^4 + C_4C_LL_4L_LR_1s^3}$$

$$\mathbf{10.316 \quad INVALID-ORDER-316} \quad Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, R_L \right)$$

$$H(s) = \frac{R_1R_L (C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m)}{C_1C_4L_4R_1s^3 + C_1C_4R_1R_4s^2 + C_1C_4R_1R_Ls^2 + C_1R_1s + C_4L_4R_1g_ms^2 + C_4L_4s^2 + C_4R_1R_4g_ms + 2C_4R_1R_Lg_ms + C_4R_1s + C_4R_4s + C_4R_Ls + R_1g_m + 1}$$

$$\mathbf{10.317 \quad INVALID-ORDER-317} \quad Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{R_1 (C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m)}{s(C_1C_4C_LL_4R_1s^3 + C_1C_4C_LR_1R_4s^2 + C_1C_4R_1s + C_1C_LR_1s + C_4C_LL_4R_1g_ms^2 + C_4C_LL_4s^2 + C_4C_LR_1R_4g_ms + C_4C_LR_1s + C_4C_LR_4s + 2C_4R_1g_m + C_4 + C_LR_1g_m + C)}$$

$$\mathbf{10.318 \quad INVALID-ORDER-318} \quad Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, \frac{R_L}{C_LR_Ls + 1} \right)$$

$$H(s) = \frac{R_1R_L (C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m)}{C_1C_4C_LL_4R_1R_Ls^4 + C_1C_4C_LR_1R_4R_Ls^3 + C_1C_4L_4R_1s^3 + C_1C_4R_1R_4s^2 + C_1C_4R_1R_Ls^2 + C_1C_LR_1R_Ls^2 + C_1R_1s + C_4C_LL_4R_1R_Lg_ms^3 + C_4C_LL_4R_Ls^3 + C_4C_LR_1R_4R_Ls^2 + C_4C_LR_1R_4s^2 + C_4C_LR_1R_Ls^2 + C_4C_LR_1s + C_4C_LR_4s + 2C_4R_1g_m + C_4 + C_LR_1g_m + C}$$

$$\mathbf{10.319 \quad INVALID-ORDER-319} \quad Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, R_L + \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{R_1 (C_LR_Ls + 1) (C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m)}{s(C_1C_4C_LL_4R_1s^3 + C_1C_4C_LR_1R_4s^2 + C_1C_4C_LR_1R_Ls^2 + C_1C_4R_1s + C_1C_LR_1s + C_4C_LL_4R_1g_ms^2 + C_4C_LL_4s^2 + C_4C_LR_1R_4g_ms + 2C_4C_LR_1R_Lg_ms + C_4C_LR_1s + C_4C_LR_4s + 2C_4R_1g_m + C_4 + C_LR_1g_m + C)}$$

$$\mathbf{10.320 \quad INVALID-ORDER-320} \quad Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, L_Ls + \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{R_1 (C_L L_L s^2 + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_4 R_1 s^3 + C_1 C_4 C_L L_L R_1 s^3 + C_1 C_4 C_L R_1 R_4 s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + 2 C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 R_4 g_m s + C_4 C_L R_1 s)}$$

$$\mathbf{10.321 \quad INVALID-ORDER-321} \quad Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_L R_1 s (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_L R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_1 s^3}$$

$$\mathbf{10.322 \quad INVALID-ORDER-322} \quad Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, L_Ls + R_L + \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{R_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_4 R_1 s^3 + C_1 C_4 C_L L_L R_1 s^3 + C_1 C_4 C_L R_1 R_4 s^2 + C_1 C_4 C_L R_1 R_L s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + 2 C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 R_4 g_m s + C_4 C_L R_1 s)}$$

$$\mathbf{10.323 \quad INVALID-ORDER-323} \quad Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}} \right)$$

$$H(s) = \frac{L_L R_1 s (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_4 L_L R_1 R_4 s^3 + C_1 C_4 L_L R_1 R_L s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 C_L L_L R_1 R_L s^3 + C_1 L_L R_1 s}$$

$$\mathbf{10.324 \quad INVALID-ORDER-324} \quad Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{L_L R_1 s (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_L R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_1 s^3}$$

$$\mathbf{10.325 \quad INVALID-ORDER-325} \quad Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 R_L s^2 + C_1 C_L L_L R_1 s}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 R_L s^2 + C_1 C_L L_L R_1 s}$$

$$\mathbf{10.326 \quad INVALID-ORDER-326} \quad Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L \right)$$

$$H(s) = \frac{R_1 R_L (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{C_1 C_4 L_4 R_1 R_4 R_L s^3 + C_1 L_4 R_1 R_4 s^2 + C_1 L_4 R_1 R_L s^2 + C_1 R_1 R_4 R_L s + 2C_4 L_4 R_1 R_4 R_L g_m s^2 + C_4 L_4 R_1 R_4 s^2 + C_4 L_4 R_4 R_L s^2 + L_4 R_1 R_4 g_m s + 2L_4 R_1 R_L g_m s + L_4 R_1 s + L_4 R_4}$$

$$\mathbf{10.327 \quad INVALID-ORDER-327} \quad Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{R_1 (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_L L_4 R_1 R_4 s^3 + C_1 L_4 R_1 s^2 + C_1 R_1 R_4 s + C_4 C_L L_4 R_1 R_4 s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + C_4 L_4 R_4 s^2 + C_L L_4 R_1 R_4 g_m s^2 + C_L L_4 R_1 s^2 + C_L L_4 R_4 s^2 + C_L R_1 R_4 s}$$

$$\mathbf{10.328 \quad INVALID-ORDER-328} \quad Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{R_1 R_L (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{C_1 C_4 L_4 R_1 R_4 R_L s^3 + C_1 C_L L_4 R_1 R_4 R_L s^3 + C_1 L_4 R_1 R_4 s^2 + C_1 L_4 R_1 R_L s^2 + C_1 R_1 R_4 R_L s + C_4 C_L L_4 R_1 R_4 R_L s^3 + 2C_4 L_4 R_1 R_4 R_L g_m s^2 + C_4 L_4 R_1 R_4 s^2 + C_4 L_4 R_4 R_L s^2 + C_L L_4 R_1 R_4 g_m s^2 + C_L L_4 R_1 s^2 + C_L L_4 R_4 s^2 + C_L R_1 R_4 s}$$

$$\mathbf{10.329 \quad INVALID-ORDER-329} \quad Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{R_1}{C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_L L_4 R_1 R_4 s^3 + C_1 C_L L_4 R_1 R_L s^3 + C_1 C_L R_1 R_4 R_L s^2 + C_1 L_4 R_1 s^2 + C_1 R_1 R_4 s + 2C_4 C_L L_4 R_1 R_4 R_L g_m s^3 + C_4 C_L L_4 R_1 R_4 s^3}$$

10.330 INVALID-ORDER-330 $Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_4 R_1 R_4 s^3 + C_1 C_L L_L R_1 R_4 s^3 + C_1 L_4 R_1 s^2 + C_1 R_1 R_4 s + 2 C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L_4 L_L R_4 s^4)}{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_4 R_1 R_4 s^3 + C_1 C_L L_L R_1 R_4 s^3 + C_1 L_4 R_1 s^2 + C_1 R_1 R_4 s + 2 C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L_4 L_L R_4 s^4}$$

10.331 INVALID-ORDER-331 $Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L R_1 s (-C_4 L_4 R_4 s^2 + L_4 R_4)}{C_1 C_4 L_4 L_L R_1 R_4 s^4 + C_1 C_L L_4 L_L R_1 R_4 s^4 + C_1 L_4 L_L R_1 s^3 + C_1 L_4 R_1 R_4 s^2 + C_1 L_L R_1 R_4 s^2 + C_4 C_L L_4 L_L R_1 R_4 s^4 + 2C_4 L_4 L_L R_1 R_4 q_m s^3 + C_4 L_4 L_L R_4 s^3 + C_4 L_4 R_1 R_4 s^2 + C_L}$$

10.332 INVALID-ORDER-332 $Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_4 R_1 R_4 s^3 + C_1 C_L L_4 R_1 R_L s^3 + C_1 C_L L_L R_1 R_4 s^3 + C_1 C_L R_1 R_4 R_L s^2 + C_1 L_4 R_1 R_4 R_L s^2 + C_1 L_4 R_1 R_4 R_L s^2 + C_1 L_4 R_1 R_4 R_L s^2}{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_4 R_1 R_4 s^3 + C_1 C_L L_4 R_1 R_L s^3 + C_1 C_L L_L R_1 R_4 s^3 + C_1 C_L R_1 R_4 R_L s^2 + C_1 L_4 R_1 R_4 R_L s^2 + C_1 L_4 R_1 R_4 R_L s^2 + C_1 L_4 R_1 R_4 R_L s^2}$$

10.333 INVALID-ORDER-333 $Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_4 L_4 L_L R_1 R_4 R_L s^4 + C_1 C_L L_4 L_L R_1 R_4 R_L s^4 + C_1 L_4 L_L R_1 R_4 s^3 + C_1 L_4 L_L R_1 R_L s^3 + C_1 L_4 R_1 R_4 R_L s^2 + C_1 L_L R_1 R_4 R_L s^2 + C_4 C_L L_4 L_L R_1 R_4 R_L s^4 + 2C_4 L_4 L_L R_1 R_4 R_L g}{C_1 C_4 L_4 L_L R_1 R_4 R_L s^4 + C_1 C_L L_4 L_L R_1 R_4 R_L s^4 + C_1 L_4 L_L R_1 R_4 s^3 + C_1 L_4 L_L R_1 R_L s^3 + C_1 L_4 R_1 R_4 R_L s^2 + C_1 L_L R_1 R_4 R_L s^2 + C_4 C_L L_4 L_L R_1 R_4 R_L s^4 + 2C_4 L_4 L_L R_1 R_4 R_L g}$$

10.334 INVALID-ORDER-334 $Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_4 L_L R_1 R_4 s^4 + C_1 C_4 L_4 R_1 R_4 R_L s^3 + C_1 C_L L_4 L_L R_1 R_4 s^4 + C_1 C_L L_4 L_L R_1 R_L s^4 + C_1 C_L L_L R_1 R_4 R_L s^3 + C_1 L_4 L_L R_1 s^3 + C_1 L_4 R_1 R_4 s^2 +$$

$$\mathbf{10.335 \quad INVALID-ORDER-335} \quad Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = - \frac{C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_4 R_1 R_4 R_L s^3 + C_1 C_L L_4 L_L R_1 R_4 s^4 + C_1 C_L L_4 L_L R_1 R_L s^4 + C_1 C_L L_4 R_1 R_4 R_L s^3 + C_1 C_L L_L R_1 R_4 R_L s^3 + C_1 L_4 R_1 R_4 s^2 + C_1 L_4 R_1 R_L s^2 +$$

$$\mathbf{10.336 \quad INVALID-ORDER-336} \quad Z(s) = \left(\infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L \right)$$

$$H(s) = \frac{R_1 R_L (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 L_4 R_1 s^2 + C_1 R_1 R_4 s + C_1 R_1 R_L s + C_4 L_4 R_1 R_4 g_m s^2 + 2 C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + L_4 R_1 g_m s + L_4 s +$$

$$\mathbf{10.337 \quad INVALID-ORDER-337} \quad Z(s) = \left(\infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_4 R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 R_1 s + C_4 C_L L_4 R_1 R_4 g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 g_m s +$$

$$\mathbf{10.338 \quad INVALID-ORDER-338} \quad Z(s) = \left(\infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_L L_4 R_1 R_L s^3 + C_1 C_L R_1 R_4 R_L s^2 + C_1 L_4 R_1 s^2 + C_1 R_1 R_4 s + C_1 R_1 R_L s + C_4 C_L L_4 R_1 R_4 R_L g_m s^3 + C_4 C_L L_4 R_1 R_4 s^3 +$$

$$\mathbf{10.339 \quad INVALID-ORDER-339} \quad Z(s) = \left(\infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{R_1 (C_L R_L s + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_4 R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_4 C_L L_4 R_1 R_4 g_m s^3 + 2 C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_1 R_4 s^3 +$$

10.340 INVALID-ORDER-340 $Z(s) = \left(\infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_L L_L s^2 + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 R_4 g_m)}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_4 R_1 s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 R_1 s + 2 C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 R_4}$$

10.341 INVALID-ORDER-341 $Z(s) = \left(\infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_L R_1 R_4 s^3 + C_1 L_4 R_1 s^2 + C_1 L_L R_1 s^2 + C_1 R_1 R_4 s + C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L_4 L_L R_1 R_4 s^3 + C_4 C_L L_4 L_L R_1 R_4 s^2 + C_4 C_L L_4 L_L R_1 R_4 s + C_4 C_L L_4 L_L R_1 R_4}{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_L R_1 R_4 s^3 + C_1 L_4 R_1 s^2 + C_1 L_L R_1 s^2 + C_1 R_1 R_4 s + C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L_4 L_L R_1 R_4 s^3 + C_4 C_L L_4 L_L R_1 R_4 s^2 + C_4 C_L L_4 L_L R_1 R_4 s + C_4 C_L L_4 L_L R_1 R_4}$$

10.342 INVALID-ORDER-342 $Z(s) = \left(\infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_4 R_1 s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + 2 C_4 C_L L_4 L_L R_1}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_4 R_1 s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + 2 C_4 C_L L_4 L_L R_1}$$

10.343 INVALID-ORDER-343 $Z(s) = \left(\infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_4 L_L R_1 R_4 s^4 + C_1 C_4 L_4 L_L R_1 R_L s^4 + C_1 C_4 L_4 R_1 R_4 R_L s^3 + C_1 C_L L_4 L_L R_1 R_L s^4 + C_1 C_L L_L R_1 R_4 R_L s^3 + C_1 L_4 L_L R_1 s^3 + C_1 L_4 R_1 R_L s^2 + C_1 L_4 R_1 s}{C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + C_1 C_4 C_L L_4 L_L R_1 R_4 s^4 + C_1 C_4 C_L L_4 L_L R_1 R_L s^4 + C_1 C_4 C_L L_4 R_1 R_4 R_L s^3 + C_1 C_L L_4 L_L R_1 R_4 R_L s^3 + C_1 C_L L_L R_1 R_4 R_L s^3 + C_1 L_4 L_L R_1 s^3 + C_1 L_4 R_1 R_L s^2 + C_1 L_4 R_1 s}$$

10.344 INVALID-ORDER-344 $Z(s) = \left(\infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 L_4 R$$

$$\mathbf{10.345 \quad INVALID-ORDER-345} \quad Z(s) = \left(\infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_4 R_1 R_L s^3 + C_1 C_L L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_L s^3}{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_4 R_1 R_L s^3 + C_1 C_L L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_L s^3}$$

$$\mathbf{10.346 \quad INVALID-ORDER-346} \quad Z(s) = (\infty, \infty, \infty, \infty, R_4, R_L)$$

$$H(s) = \frac{R_1 R_L (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 R_1 R_4 s + C_1 R_1 R_L s + C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + 2C_4 R_1 R_4 R_L s^2 + C_4 R_1 R_L s^2 + C_4 R_4 R_L s^2 + C_4 R_L s^2 + C_4 s^2}$$

$$\mathbf{10.347 \quad INVALID-ORDER-347} \quad Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L R_1 R_4 s^2 + C_1 R_1 s + C_4 C_L L_4 R_1 R_4 g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L R_1 R_4 s^2 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + C_4 R_1 R_4 s^2 + C_4 R_1 R_L s^2 + C_4 R_4 R_L s^2 + C_4 s^2}$$

$$\mathbf{10.348 \quad INVALID-ORDER-348} \quad Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 C_L R_1 R_4 R_L s^2 + C_1 R_1 R_4 s + C_1 R_1 R_L s + C_4 C_L L_4 R_1 R_4 R_L g_m s^3 + C_4 C_L L_4 R_1 R_L s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L R_1 R_4 s^2 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + C_4 R_1 R_4 s^2 + C_4 R_1 R_L s^2 + C_4 R_4 R_L s^2 + C_4 s^2}{C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 C_L R_1 R_4 R_L s^2 + C_1 R_1 R_4 s + C_1 R_1 R_L s + C_4 C_L L_4 R_1 R_4 R_L g_m s^3 + C_4 C_L L_4 R_1 R_L s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L R_1 R_4 s^2 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + C_4 R_1 R_4 s^2 + C_4 R_1 R_L s^2 + C_4 R_4 R_L s^2 + C_4 s^2}$$

$$\mathbf{10.349 \quad INVALID-ORDER-349} \quad Z(s) = \left(\infty, \infty, \infty, \infty, R_4, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_4 C_L L_4 R_1 R_4 g_m s^3 + 2C_4 C_L L_4 R_1 R_L s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L R_1 R_4 s^2 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + C_4 R_1 R_4 s^2 + C_4 R_1 R_L s^2 + C_4 R_4 R_L s^2 + C_4 s^2}{C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_4 C_L L_4 R_1 R_4 g_m s^3 + 2C_4 C_L L_4 R_1 R_L s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L R_1 R_4 s^2 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + C_4 R_1 R_4 s^2 + C_4 R_1 R_L s^2 + C_4 R_4 R_L s^2 + C_4 s^2}$$

10.350 INVALID-ORDER-350 $Z(s) = \left(\infty, \infty, \infty, \infty, R_4, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 R_1 s + 2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L R_1 g_m^2 s^5}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 R_1 s + 2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L R_1 g_m^2 s^5}$$

10.351 INVALID-ORDER-351 $Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_4 s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_4 s + C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_1 R_4 s^4}{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_4 s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_4 s + C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_1 R_4 s^4}$$

10.352 INVALID-ORDER-352 $Z(s) = \left(\infty, \infty, \infty, \infty, R_4, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4}$$

10.353 INVALID-ORDER-353 $Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_4 L_L R_1 R_4 s^4 + C_1 C_4 L_4 L_L R_1 R_L s^4 + C_1 C_4 L_4 R_1 R_4 R_L s^3 + C_1 C_4 L_L R_1 R_4 R_L s^3 + C_1 C_L L_L R_1 R_4 R_L s^3 + C_1 L_L R_1 R_4 s^2 + C_1 L_L R_1 R_L s^2 + C_1 L_L R_1 s^2 + C_1 L_L R_1 s + C_1 L_L R_1}{C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_4 L_L R_1 R_4 s^4 + C_1 C_4 L_4 L_L R_1 R_L s^4 + C_1 C_4 L_4 R_1 R_4 R_L s^3 + C_1 C_4 L_L R_1 R_4 R_L s^3 + C_1 C_L L_L R_1 R_4 R_L s^3 + C_1 L_L R_1 R_4 s^2 + C_1 L_L R_1 R_L s^2 + C_1 L_L R_1 s^2 + C_1 L_L R_1 s + C_1 L_L R_1}$$

10.354 INVALID-ORDER-354 $Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_4 L_L R_1 R_4 s^3 + C_1 C_4 R_1 R_4 R_L s^2 +$$

10.355 INVALID-ORDER-355 $Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 C_L L_L R_1 R_4 s}{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 C_L L_L R_1 R_4 s}$$

10.356 INVALID-ORDER-356 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, R_L \right)$

$$H(s) = \frac{R_L(R_4 g_m - 1)(C_1 R_1 s + 1)}{C_1 R_1 R_4 g_m s + 2C_1 R_1 R_L g_m s + C_1 R_1 s + C_1 R_4 s + C_1 R_L s + R_4 g_m + 2R_L g_m + 1}$$

10.357 INVALID-ORDER-357 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_{4s}}, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(R_4 g_m - 1)(C_1 R_1 s + 1)(C_L L_L s^2 + 1)}{2C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s^3 + C_1 C_L R_1 R_4 g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_L L_L g_m s^2 + C_L R_4 g_m s + C_L s + 2g_m}$$

10.358 INVALID-ORDER-358 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_{4s}}, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L s (R_4 g_m - 1) (C_1 R_1 s + 1)}{C_1 C_L L_L R_1 R_4 g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_4 s^3 + 2 C_1 L_L R_1 g_m s^2 + C_1 L_L s^2 + C_1 R_1 R_4 g_m s + C_1 R_1 s + C_1 R_4 s + C_L L_L R_4 g_m s^2 + C_L L_L s^2 + 2 L_L g_m s + R_4 g_m + 1}$$

10.359 INVALID-ORDER-359 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(R_4 g_m - 1)(C_1 R_1 s + 1)(C_L L_L s^2 + C_L R_L s + 1)}{2C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s^3 + C_1 C_L R_1 R_4 g_m s^2 + 2C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_L L_L g_m s^2 + C_L R_4 g_m s + 2C_L R_L g_m}$$

$$10.360 \quad \text{INVALID-ORDER-360} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{L_L R_L s (R_4 g_m - 1) (C_1 R_1 s + 1)}{C_1 C_L L_L R_1 R_4 R_L g_m s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_L R_1 R_4 g_m s^2 + 2 C_1 L_L R_1 R_L g_m s^2 + C_1 L_L R_1 s^2 + C_1 L_L R_4 s^2 + C_1 L_L R_L s^2 + C_1 R_1 R_4 R_L g_m s + C_1 R_1 R_L s}$$

$$10.361 \quad \text{INVALID-ORDER-361} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{(R_4 g_m - 1) (C_1 R_1 s + 1) (C_L L_L R_L s^2 + L_L s + R_L)}{C_1 C_L L_L R_1 R_4 g_m s^3 + 2 C_1 C_L L_L R_1 R_L g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + 2 C_1 L_L R_1 g_m s^2 + C_1 L_L s^2 + C_1 R_1 R_4 g_m s + 2 C_1 R_1 R_L g_m s + C_1 R_1 s + C_1 R_4 s}$$

$$10.362 \quad \text{INVALID-ORDER-362} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{R_L (R_4 g_m - 1) (C_1 R_1 s + 1) (C_L L_L s^2 + L_L s + R_L)}{C_1 C_L L_L R_1 R_4 g_m s^3 + 2 C_1 C_L L_L R_1 R_L g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 C_L R_1 R_4 R_L g_m s^2 + C_1 C_L R_1 R_L s^2 + C_1 C_L R_4 R_L s^2 + C_1 R_1 R_4 g_m s + 2 C_1 R_1 R_L g_m s + C_1 R_1 s + C_1 R_4 s}$$

$$10.363 \quad \text{INVALID-ORDER-363} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{(C_4 s - g_m) (C_1 R_1 s + 1)}{s (C_1 C_4 C_L R_1 s^2 + 2 C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L s + C_4 C_L s + 2 C_4 g_m + C_L g_m)}$$

$$10.364 \quad \text{INVALID-ORDER-364} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = -\frac{R_L (C_4 s - g_m) (C_1 R_1 s + 1)}{C_1 C_4 C_L R_1 R_L s^3 + 2 C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_L s^2 + C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_L s^2 + C_1 R_1 g_m s + C_1 s + C_4 C_L R_L s^2 + 2 C_4 R_L g_m s + C_4 s + C_L R_L g_m s + g_m}$$

$$\mathbf{10.365 \quad INVALID-ORDER-365} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{(C_4 s - g_m)(C_1 R_1 s + 1)(C_L R_L s + 1)}{s(2C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L s + 2C_4 C_L R_L g_m s + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

$$\mathbf{10.366 \quad INVALID-ORDER-366} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{(C_4 s - g_m)(C_1 R_1 s + 1)(C_L L_L s^2 + 1)}{s(2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L s + 2C_4 C_L L_L g_m s^2 + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

$$\mathbf{10.367 \quad INVALID-ORDER-367} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = -\frac{L_L s(C_4 s - g_m)(C_1 R_1 s + 1)}{C_1 C_4 C_L L_L R_1 s^4 + 2C_1 C_4 L_L R_1 g_m s^3 + C_1 C_4 L_L s^3 + C_1 C_4 R_1 s^2 + C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s^3 + C_1 R_1 g_m s + C_1 s + C_4 C_L L_L s^3 + 2C_4 L_L g_m s^2 + C_4 s + C_L L_L g_m s^2 + g_m}$$

$$\mathbf{10.368 \quad INVALID-ORDER-368} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{(C_4 s - g_m)(C_1 R_1 s + 1)(C_L L_L s^2 + C_L R_L s + 1)}{s(2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + 2C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L s + 2C_4 C_L L_L g_m s^2 + 2C_4 R_L g_m s + C_4 s + C_L R_L g_m s^2 + g_m)}$$

$$\mathbf{10.369 \quad INVALID-ORDER-369} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = -\frac{L_L R_L s(C_4 s - g_m)(C_1 R_1 s + 1)}{C_1 C_4 C_L L_L R_1 R_L s^4 + 2C_1 C_4 L_L R_1 R_L g_m s^3 + C_1 C_4 L_L R_1 s^3 + C_1 C_4 L_L R_L s^3 + C_1 C_4 R_1 R_L s^2 + C_1 C_L L_L R_1 R_L g_m s^3 + C_1 C_L L_L R_L s^3 + C_1 L_L R_1 g_m s^2 + C_1 L_L s^2 + C_1 R_1 R_L s^2 + C_1 R_1 g_m s + C_1 s + C_4 C_L L_L s^3 + 2C_4 L_L g_m s^2 + C_4 s + C_L R_L g_m s^2 + g_m}$$

$$\mathbf{10.370 \quad INVALID-ORDER-370} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = -\frac{(C_4 s - g_m)(C_1 R_1 s + 1)(C_L L_L R_L s^2 + L_L s + R_L)}{2C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_L s^4 + 2C_1 C_4 L_L R_1 g_m s^3 + C_1 C_4 L_L s^3 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_L s^2 + C_1 C_L L_L R_1 g_m s^3 + C_1 C_L R_L g_m s^2 + C_1 R_1 R_L s^2 + C_1 R_1 g_m s + C_1 s + C_4 C_L L_L s^3 + 2C_4 L_L g_m s^2 + C_4 s + C_L R_L g_m s^2 + g_m}$$

10.371 INVALID-ORDER-371 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{R_L (C_4 s - g_m) (C_1 R_1 s + 1) (C_L s + 1)}{2C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 C_L R_1 R_L s^3 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_L s^2 + C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s^3 + C_1 C_L}$$

10.372 INVALID-ORDER-372 $Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_1 R_1 s + 1)(C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L R_1 R_4 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + C_1 C_L R_1 R_4 g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + 2C_1 R_1 g_m s + C_1 s + C_4 C_L R_4 s^2 + 2C_4 R_4 g_m s + C_L R_4 g_m s + C_L s + 2g_m}$$

10.373 INVALID-ORDER-373 $Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{R_L(C_1R_1s+1)(C_4R_4s-R_4g_ms+1)}{C_1C_4C_LR_1R_4R_Ls^3+2C_1C_4R_1R_4R_Lg_ms^2+C_1C_4R_1R_4s^2+C_1C_4R_4R_Ls^2+C_1C_LR_1R_4R_Lg_ms^2+C_1C_LR_1R_Ls^2+C_1C_LR_4R_Ls^2+C_1R_1R_4g_ms+2C_1R_1R_Lg_ms+C_1R_1R_4s}$$

10.374 INVALID-ORDER-374 $Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_1 R_1 s + 1)(C_L R_L s + 1)(C_4 R_4 s - R_4 g_m + 1)}{2C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_4 s^3 + C_1 C_4 C_L R_4 R_L s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + C_1 C_L R_1 R_4 g_m s^2 + 2C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_4 g_m s + C_1 C_L R_4}.$$

10.375 INVALID-ORDER-375 $Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_{4s}}, L_{Ls} + \frac{1}{C_{Ls}} \right)$

$$H(s) = -\frac{(C_1 R_1 s + 1)(C_L L_L s^2 + 1)(C_4 R_4 s - R_4 g_m + 1)}{2C_1 C_4 C_L L_L R_1 R_4 q_m s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L R_1 R_4 s^3 + 2C_1 C_4 R_1 R_4 q_m s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_L L_L R_1 q_m s^3 + C_1 C_L L_L s^3 + C_1 C_L R_1 R_4 q_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s + 1}$$

10.376 INVALID-ORDER-376 $Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{L_L s (C_1 R_1 s + 1) (C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_L R_1 R_4 s^4 + 2C_1 C_4 L_L R_1 R_4 g_m s^3 + C_1 C_4 L_L R_4 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_L R_1 R_4 g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_4 s^3 + 2C_1 L_L R_1 g_m s^2 + C_1 L_L s^2 + C_1 R_1 R_4}$$

$$10.377 \quad \text{INVALID-ORDER-377} \quad Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{2C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_4 s^4 + 2C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_4 s^3 + C_1 C_4 C_L R_4 R_L s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_L L_L R_1 g_m s^3 + C_1 C_L}{2C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_4 s^4 + 2C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_4 s^3 + C_1 C_4 C_L R_4 R_L s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_L L_L R_1 g_m s^3 + C_1 C_L}$$

$$10.378 \quad \text{INVALID-ORDER-378} \quad Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + 2C_1 C_4 L_L R_1 R_4 R_L g_m s^3 + C_1 C_4 L_L R_1 R_4 s^3 + C_1 C_4 L_L R_4 R_L s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 C_L L_L R_1 R_4 R_L g_m s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_L L_L R_1 g_m s^3 + C_1 C_L}{C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + 2C_1 C_4 L_L R_1 R_4 R_L g_m s^3 + C_1 C_4 L_L R_1 R_4 s^3 + C_1 C_4 L_L R_4 R_L s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 C_L L_L R_1 R_4 R_L g_m s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_L L_L R_1 g_m s^3 + C_1 C_L}$$

$$10.379 \quad \text{INVALID-ORDER-379} \quad Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = -\frac{2C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + 2C_1 C_4 L_L R_1 R_4 g_m s^3 + C_1 C_4 L_L R_4 s^3 + 2C_1 C_4 R_1 R_4 R_L g_m s^2 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_L R_1 R_4 g_m s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_L L_L R_1 g_m s^3 + C_1 C_L}{2C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + 2C_1 C_4 L_L R_1 R_4 g_m s^3 + C_1 C_4 L_L R_4 s^3 + 2C_1 C_4 R_1 R_4 R_L g_m s^2 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_L R_1 R_4 g_m s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_L L_L R_1 g_m s^3 + C_1 C_L}$$

$$10.380 \quad \text{INVALID-ORDER-380} \quad Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{2C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + 2C_1 C_4 R_1 R_4 R_L g_m s^2 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_L R_1 R_4 g_m s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_L L_L R_1 g_m s^3 + C_1 C_L}{2C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + 2C_1 C_4 R_1 R_4 R_L g_m s^2 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_L R_1 R_4 g_m s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_L L_L R_1 g_m s^3 + C_1 C_L}$$

$$10.381 \quad \text{INVALID-ORDER-381} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1)(C_4 R_4 g_m s - C_4 s + g_m)}{s(C_1 C_4 C_L R_1 R_4 g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_4 s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L s + C_4 C_L R_4 g_m s + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

$$10.382 \quad \text{INVALID-ORDER-382} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{R_L (C_1 R_1 s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_L s^3 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 C_L s^2}$$

$$10.383 \quad \text{INVALID-ORDER-383} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4s + \frac{1}{C_4s}, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_L R_L s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L R_1 R_4 g_m s^2 + 2C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L s + C_4 C_L R_4 g_m s + 2C_4 C_L R_1 s + C_4 C_L R_4 s + C_4 C_L R_L s + C_4 C_L s)}$$

$$10.384 \quad \text{INVALID-ORDER-384} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4s + \frac{1}{C_4s}, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_L L_L s^2 + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{s (2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 R_4 g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_4 s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L s + 2C_4 C_L L_L g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L s^2)}$$

$$10.385 \quad \text{INVALID-ORDER-385} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_L s (C_1 R_1 s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_4 s^4 + 2C_1 C_4 L_L R_1 g_m s^3 + C_1 C_4 L_L s^3 + C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s^3 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 C_L s^2}$$

$$10.386 \quad \text{INVALID-ORDER-386} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4s + \frac{1}{C_4s}, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_L L_L s^2 + C_L R_L s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{s (2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 R_4 g_m s^2 + 2C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 C_L s^2)}$$

$$10.387 \quad \text{INVALID-ORDER-387} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{1}{C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_L R_1 R_4 g_m s^3 + 2C_1 C_4 L_L R_1 R_L g_m s^3 + C_1 C_4 L_L R_1 s^3 + C_1 C_4 L_L R_4 s^3 + C_1 C_4 L_L R_L s^3 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 C_L s^2}$$

$$10.388 \quad \text{INVALID-ORDER-388} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \frac{L_Ls}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L R_L s^4 + 2C_1 C_4 L_L R_1 g_m s^3 + C_1 C_4 L_L s^3 + C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_L g_m s + C_1 C_4 R_1 s + C_4 L_4 g_m s^2 + 2C_4 R_L g_m s + C_4 s + g_m}$$

$$10.389 \quad \text{INVALID-ORDER-389} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{R_L (C_1 R_1 s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_L s^3 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_L g_m s + C_1 C_4 R_1 s + C_4 L_4 g_m s^2 + 2C_4 R_L g_m s + C_4 s + g_m}$$

$$10.390 \quad \text{INVALID-ORDER-390} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4 L_4 s^2 + 1}, R_L \right)$$

$$H(s) = \frac{R_L (C_1 R_1 s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_L s^2 + C_1 R_1 g_m s + C_1 s + C_4 L_4 g_m s^2 + 2C_4 R_L g_m s + C_4 s + g_m}$$

$$10.391 \quad \text{INVALID-ORDER-391} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4 L_4 s^2 + 1}, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{s (C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L R_1 s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L s + C_4 C_L L_4 g_m s^2 + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

$$10.392 \quad \text{INVALID-ORDER-392} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4 L_4 s^2 + 1}, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{R_L (C_1 R_1 s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L R_1 R_L s^3 + C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_L s^2 + C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_L s^2 + C_1 C_L R_1 s + C_4 L_4 g_m s^2 + 2C_4 R_L g_m s + C_4 s + g_m}$$

10.393 INVALID-ORDER-393 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 R_1 s + 1)(C_L R_L s + 1)(C_4 L_4 g_m s^2 - C_4 s + g_m)}{s(C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L s + C_4 C_L L_4 g_m s^2 + 2C_4 C_L R_1 g_m s + C_4 C_L s)}$$

10.394 INVALID-ORDER-394 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 R_1 s + 1)(C_L L_L s^2 + 1)(C_4 L_4 g_m s^2 - C_4 s + g_m)}{s(C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L s + C_4 C_L L_4 g_m s^2 + 2C_4 C_L R_1 g_m s + C_4 C_L s)}$$

10.395 INVALID-ORDER-395 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L s (C_1 R_1 s + 1)(C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 L_L R_1 g_m s^3 + C_1 C_4 L_L s^3 + C_1 C_4 R_1 s^2 + C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s^3}$$

10.396 INVALID-ORDER-396 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 R_1 s + 1)(C_L L_L s^2 + C_L R_L s + 1)(C_4 L_4 g_m s^2 - C_4 s + g_m)}{s(C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + 2C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L R_L s + C_1 C_L s)}$$

10.397 INVALID-ORDER-397 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{(C_1 R_1 s + 1)(C_L L_L s^2 + C_L R_L s + 1)(C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 L_4 L_L R_1 g_m s^4 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_L s^3 + 2C_1 C_4 L_L R_1 R_L g_m s^3 + C_1 C_4 L_L R_1 s^3 + C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_L s^2 + C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_L s^2 + C_1 C_L R_1 s^2 + C_1 C_L s}$$

10.398 INVALID-ORDER-398 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + 2 C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2 C_1 C_4 L_L R_1 g_m s^3 + C_1 C_4 L_L s^3 + 2 C_1 C_4 L_L R_L g_m s^2 + C_1 C_4 L_L s^2 + L_4 g_m s + 2 R_L g_m + 1}$$

10.399 INVALID-ORDER-399 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_L s^4 + 2 C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 C_L R_1 R_L s^3 + 2 C_1 C_4 L_L R_1 g_m s^3 + C_1 C_4 L_L s^3 + 2 C_1 C_4 L_L R_L g_m s^2 + C_1 C_4 L_L s^2 + L_4 g_m s + 2 R_L g_m + 1}$$

10.400 INVALID-ORDER-400 $Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, R_L \right)$

$$H(s) = -\frac{R_L (C_1 R_1 s + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{2 C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 L_4 R_1 g_m s^2 + C_1 L_4 s^2 + 2 C_1 R_1 R_L g_m s + C_1 R_1 s + C_1 R_L s + 2 C_4 L_4 R_L g_m s^2 + C_4 L_4 s^2 + L_4 g_m s + 2 R_L g_m + 1}$$

10.401 INVALID-ORDER-401 $Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_1 R_1 s + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_4 R_1 s^4 + 2 C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + C_1 C_L L_4 R_1 g_m s^3 + C_1 C_L L_4 s^3 + C_1 C_L R_1 s^2 + 2 C_1 R_1 g_m s + C_1 s + C_4 C_L L_4 s^3 + 2 C_4 L_4 g_m s^2 + C_L L_4 g_m s^2 + C_L s + 2 g_m}$$

10.402 INVALID-ORDER-402 $Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{R_L (C_1 R_1 s + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_4 R_1 R_L s^4 + 2 C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 R_1 R_L g_m s^3 + C_1 C_L L_4 R_L s^3 + C_1 C_L R_1 R_L s^2 + C_1 L_4 R_1 g_m s^2 + C_1 L_4 s^2 + 2 C_1 R_1 R_L g_m s + C_1 R_1 s + C_1 R_L s + 2 C_4 L_4 R_L g_m s^2 + C_4 L_4 s^2 + L_4 g_m s + 2 R_L g_m + 1}$$

$$10.403 \quad \text{INVALID-ORDER-403} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, R_L + \frac{1}{C_Ls} \right)$$

$$H(s) = -\frac{(C_1R_1s+1)(C_LR_Ls+1)(C_4L_4s^2-L_4g_ms+1)}{2C_1C_4C_LL_4R_1R_Lg_ms^4+C_1C_4C_LL_4R_1s^4+C_1C_4C_LL_4R_Ls^4+2C_1C_4L_4R_1g_ms^3+C_1C_4L_4s^3+C_1C_LL_4R_1g_ms^3+C_1C_LL_4s^3+2C_1C_LR_1R_Lg_ms^2+C_1C_LR_1s^2+C_1C_L}$$

$$10.404 \quad \text{INVALID-ORDER-404} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, L_Ls + \frac{1}{C_Ls} \right)$$

$$H(s) = -\frac{(C_1R_1s+1)(C_LL_Ls^2+1)(C_4L_4s^2-L_4g_ms+1)}{2C_1C_4C_LL_4L_LR_1g_ms^5+C_1C_4C_LL_4L_Ls^5+C_1C_4C_LL_4R_1s^4+2C_1C_4L_4R_1g_ms^3+C_1C_4L_4s^3+C_1C_LL_4R_1g_ms^3+C_1C_LL_4s^3+2C_1C_LL_LR_1g_ms^3+C_1C_LL_Ls^3+C_1C_L}$$

$$10.405 \quad \text{INVALID-ORDER-405} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \frac{L_Ls}{C_LL_Ls^2+1} \right)$$

$$H(s) = -\frac{L_Ls(C_1R_1s+1)(C_4L_4s^2-L_4g_ms+1)}{C_1C_4C_LL_4L_LR_1s^5+2C_1C_4L_4L_LR_1g_ms^4+C_1C_4L_4L_Ls^4+C_1C_4L_4R_1s^3+C_1C_LL_4L_LR_1g_ms^4+C_1C_LL_4L_Ls^4+C_1C_LL_LR_1s^3+C_1L_4R_1g_ms^2+C_1L_4s^2+2C_1L_LR_1g_m}$$

$$10.406 \quad \text{INVALID-ORDER-406} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, L_Ls + R_L + \frac{1}{C_Ls} \right)$$

$$H(s) = -\frac{L_Ls(C_1R_1s+1)(C_4L_4s^2-L_4g_ms+1)}{2C_1C_4C_LL_4L_LR_1g_ms^5+C_1C_4C_LL_4L_Ls^5+2C_1C_4C_LL_4R_1R_Lg_ms^4+C_1C_4C_LL_4R_1s^4+C_1C_4C_LL_4R_Ls^4+2C_1C_4L_4R_1g_ms^3+C_1C_4L_4s^3+C_1C_LL_4R_1g_ms^3+C_1C_LL_L}$$

$$10.407 \quad \text{INVALID-ORDER-407} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}} \right)$$

$$H(s) = -\frac{L_Ls(C_1R_1s+1)(C_4L_4s^2-L_4g_ms+1)}{C_1C_4C_LL_4L_LR_1R_Ls^5+2C_1C_4L_4L_LR_1R_Lg_ms^4+C_1C_4L_4L_LR_1s^4+C_1C_4L_4L_LR_Ls^4+C_1C_4L_4R_1R_Ls^3+C_1C_LL_4L_LR_1R_Lg_ms^4+C_1C_LL_4L_LR_Ls^4+C_1C_LL_LR_1R_Ls^3}$$

$$10.408 \quad \text{INVALID-ORDER-408} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = -\frac{2C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + 2C_1 C_4 L_4 L_L R_1 g_m s^4 + C_1 C_4 L_4 L_L s^4 + 2C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 L_L R_1 g_m s^4}{2C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + 2C_1 C_4 L_4 L_L R_1 g_m s^4 + C_1 C_4 L_4 L_L s^4 + 2C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 L_L R_1 g_m s^4}$$

$$10.409 \quad \text{INVALID-ORDER-409} \quad Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{2C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_4 R_1 R_L s^4 + 2C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 L_L R_1 g_m s^4}{2C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_4 R_1 R_L s^4 + 2C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 L_L R_1 g_m s^4}$$

$$10.410 \quad \text{INVALID-ORDER-410} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, R_L \right)$$

$$H(s) = \frac{R_L (C_1 R_1 s + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 R_1 g_m s + C_1 s + C_4 L_4 g_m s^2 + C_4 R_4 g_m s + 2C_4 R_L g_m s + C_4}$$

$$10.411 \quad \text{INVALID-ORDER-411} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L R_1 R_4 g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_4 s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L s + C_4 C_L L_4 g_m s^2 + C_4 C_L R_4 g_m s + C_4)}$$

$$10.412 \quad \text{INVALID-ORDER-412} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{R_L (C_1 R_1 s + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_L s^3 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 R_1 g_m s + C_1 s + C_4 L_4 g_m s^2 + C_4 R_4 g_m s + 2C_4 R_L g_m s + C_4}$$

$$10.413 \quad \text{INVALID-ORDER-413} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, R_L + \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{(C_1R_1s + 1)(C_LR_Ls + 1)(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m)}{s(C_1C_4C_LL_4R_1g_ms^3 + C_1C_4C_LL_4s^3 + C_1C_4C_LR_1R_4g_ms^2 + 2C_1C_4C_LR_1R_Lg_ms^2 + C_1C_4C_LR_1s^2 + C_1C_4C_LR_4s^2 + C_1C_4C_LR_Ls^2 + 2C_1C_4R_1g_ms + C_1C_4s + C_1C_LR_1g_m)}$$

$$10.414 \quad \text{INVALID-ORDER-414} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, L_Ls + \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{(C_1R_1s + 1)(C_LL_Ls^2 + 1)(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m)}{s(C_1C_4C_LL_4R_1g_ms^3 + C_1C_4C_LL_4s^3 + 2C_1C_4C_LL_LR_1g_ms^3 + C_1C_4C_LL_Ls^3 + C_1C_4C_LR_1R_4g_ms^2 + C_1C_4C_LR_1s^2 + C_1C_4C_LR_4s^2 + 2C_1C_4R_1g_ms + C_1C_4s + C_1C_LR_1g_m)}$$

$$10.415 \quad \text{INVALID-ORDER-415} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \frac{L_Ls}{C_LL_Ls^2 + 1} \right)$$

$$H(s) = \frac{L_Ls}{C_1C_4C_LL_4L_LR_1g_ms^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_LR_1R_4g_ms^4 + C_1C_4C_LL_LR_1s^4 + C_1C_4C_LL_LR_4s^4 + C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + 2C_1C_4L_LR_1g_ms^3 + C_1C_4L_Ls^3 +}$$

$$10.416 \quad \text{INVALID-ORDER-416} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, L_Ls + R_L + \frac{1}{C_Ls} \right)$$

$$H(s) = \frac{(C_1R_1s + 1)(C_LL_Ls^2 + C_LR_Ls + 1)(C_4L_4g_ms^2 - C_4R_4g_ms + C_4s - g_m)}{s(C_1C_4C_LL_4R_1g_ms^3 + C_1C_4C_LL_4s^3 + 2C_1C_4C_LL_LR_1g_ms^3 + C_1C_4C_LL_Ls^3 + C_1C_4C_LR_1R_4g_ms^2 + 2C_1C_4C_LR_1R_Lg_ms^2 + C_1C_4C_LR_1s^2 + C_1C_4C_LR_4s^2 + C_1C_4C_LR_Ls^2 + 2C_1C_4R_1g_ms + C_1C_4s + C_1C_LR_1g_m)}$$

$$10.417 \quad \text{INVALID-ORDER-417} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}} \right)$$

$$H(s) = \frac{1}{C_1C_4C_LL_4L_LR_1R_Lg_ms^5 + C_1C_4C_LL_4L_LR_Ls^5 + C_1C_4C_LL_LR_1R_4R_Lg_ms^4 + C_1C_4C_LL_LR_1R_Ls^4 + C_1C_4C_LL_LR_4R_Ls^4 + C_1C_4L_4L_LR_1g_ms^4 + C_1C_4L_4L_Ls^4 + C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + 2C_1C_4L_LR_1g_ms^3 + C_1C_4L_Ls^3 +}$$

10.418 INVALID-ORDER-418 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + 2 C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 L_4 R_1 g_m s^3 +$$

10.419 INVALID-ORDER-419 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + 2 C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R$$

10.420 INVALID-ORDER-420 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, R_L \right)$

$$H(s) = -\frac{R_L (C_1 R_1 s + 1) (C_4 L_4 R_4 s^2 - L_4 R_4 g_m s + L_4 s + R_4)}{2C_1 C_4 L_4 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 L_4 R_1 R_4 g_m s^2 + 2C_1 L_4 R_1 R_L g_m s^2 + C_1 L_4 R_1 s^2 + C_1 L_4 R_4 s^2 + C_1 L_4 R_L s^2 + 2C_1 R_1 R_4 R_L g_m s + C_1 R_1 R_4}$$

10.421 INVALID-ORDER-421 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_1 R_1 s + 1)(C_4 L_4 R_4 s^2 - L_4 R_4 g_m s + L_4 s + R_4)}{C_1 C_4 C_L L_4 R_1 R_4 s^4 + 2C_1 C_4 L_4 R_1 R_4 g_m s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_4 R_1 R_4 g_m s^3 + C_1 C_L L_4 R_1 s^3 + C_1 C_L L_4 R_4 s^3 + C_1 C_L R_1 R_4 s^2 + 2C_1 L_4 R_1 g_m s^2 + C_1 L_4 s^2 + 2C_1 R_1 R_4 g_m s + R_1 R_4}$$

10.422 INVALID-ORDER-422 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + 2 C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_L L_4 R_1 R_4 R_L g_m s^3 + C_1 C_L L_4 R_1 R_L s^3 + C_1 C_L L_4 R_4 R_L s^3 + C_1 C_L R_1 R_4 R_L s^2}{C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + 2 C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_L L_4 R_1 R_4 R_L g_m s^3 + C_1 C_L L_4 R_1 R_L s^3 + C_1 C_L L_4 R_4 R_L s^3 + C_1 C_L R_1 R_4 R_L s^2}$$

10.423 INVALID-ORDER-423 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_4 R_4 R_L s^4 + 2C_1 C_4 L_4 R_1 R_4 g_m s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_4 R_1 R_4 g_m s^3 + 2C_1 C_L L_4 R_1 R_L g_m s^3 + C_1 C_L L_4 R_1 s^3}{2C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_4 R_4 R_L s^4 + 2C_1 C_4 L_4 R_1 R_4 g_m s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_4 R_1 R_4 g_m s^3 + 2C_1 C_L L_4 R_1 R_L g_m s^3 + C_1 C_L L_4 R_1 s^3}$$

10.424 INVALID-ORDER-424 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + 2C_1 C_4 L_4 R_1 R_4 g_m s^3 + C_1 C_4 L_4 R_4 s^3 + 2C_1 C_L L_4 L_L R_1 g_m s^4 + C_1 C_L L_4 L_L s^4 + C_1 C_L L_4 R_1 R_4 g_m s^3}{2C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + 2C_1 C_4 L_4 R_1 R_4 g_m s^3 + C_1 C_4 L_4 R_4 s^3 + 2C_1 C_L L_4 L_L R_1 g_m s^4 + C_1 C_L L_4 L_L s^4 + C_1 C_L L_4 R_1 R_4 g_m s^3}$$

10.425 INVALID-ORDER-425 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + 2C_1 C_4 L_4 L_L R_1 R_4 g_m s^4 + C_1 C_4 L_4 L_L R_4 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_L L_4 L_L R_1 R_4 g_m s^4 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_4 L_L R_4 s^4 + C_1 C_L L_L R_1 R_4 s^3}{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + 2C_1 C_4 L_4 L_L R_1 R_4 g_m s^4 + C_1 C_4 L_4 L_L R_4 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_L L_4 L_L R_1 R_4 g_m s^4 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_4 L_L R_4 s^4 + C_1 C_L L_L R_1 R_4 s^3}$$

10.426 INVALID-ORDER-426 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + 2C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_4 R_4 R_L s^4 + 2C_1 C_4 L_4 R_1 R_4 g_m s^3 + C_1 C_4 L_4 R_4 s^3 + 2C_1 C_L L_4 L_L R_1 g_m s^4 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_4 L_L R_4 s^4 + C_1 C_L L_L R_1 R_4 s^3}{2C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + 2C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_4 R_4 R_L s^4 + 2C_1 C_4 L_4 R_1 R_4 g_m s^3 + C_1 C_4 L_4 R_4 s^3 + 2C_1 C_L L_4 L_L R_1 g_m s^4 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_4 L_L R_4 s^4 + C_1 C_L L_L R_1 R_4 s^3}$$

10.427 INVALID-ORDER-427 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + 2C_1 C_4 L_4 L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 L_4 L_L R_1 R_4 s^4 + C_1 C_4 L_4 L_L R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 R_L s^3 + C_1 C_L L_4 L_L R_1 R_4 R_L g_m s^4 + C_1 C_L L_4 L_L R_1 R_L s^4}{C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + 2C_1 C_4 L_4 L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 L_4 L_L R_1 R_4 s^4 + C_1 C_4 L_4 L_L R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 R_L s^3 + C_1 C_L L_4 L_L R_1 R_4 R_L g_m s^4 + C_1 C_L L_4 L_L R_1 R_L s^4}$$

10.428 INVALID-ORDER-428 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{2C_1C_4C_L L_4L_L R_1R_4R_L g_m s^5 + C_1C_4C_L L_4L_L R_1R_4 s^5 + C_1C_4C_L L_4L_L R_4R_L s^5 + 2C_1C_4L_4L_L R_1R_4g_m s^4 + C_1C_4L_4L_L R_4 s^4 + 2C_1C_4L_4R_1R_4R_L g_m s^3 + C_1C_4L_4R_1R_4 s^3 +$$

$$\textbf{10.429 INVALID-ORDER-429 } Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{2C_1C_4C_LL_4L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1R_4s^5 + C_1C_4C_LL_4L_LR_4R_Ls^5 + C_1C_4C_LL_4R_1R_4R_Ls^4 + 2C_1C_4L_4R_1R_4R_Lg_ms^3 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_4R_Ls^3 +$$

10.430 INVALID-ORDER-430 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, R_L \right)$

$$H(s) = \frac{R_L (C_1 R_1 s + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 L_4 R_1 R_4 g_m s^3 + 2C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 L_4 R_1 g_m s^2 + C_1 L_4 s^2 + C_1 R_1 R_4 g_m s + 2C_1 R_1 R_L g_m s + C_1 R_1 s + C_1 R_4 s + C_1}$$

10.431 INVALID-ORDER-431 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + 2 C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + C_1 C_L L_4 R_1 g_m s^3 + C_1 C_L L_4 s^3 + C_1 C_L R_1 R_4 g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2}$$

10.432 INVALID-ORDER-432 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 g_m s^3 + 2 C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 R_1 R_4 R_L g_m s^2 + C_1 C_L L_4 R_1 R_L s^2 + C_1 C_L L_4 R_4 R_L s^2 + C_1 C_L L_4 R_1 s^2 + C_1 C_L L_4 R_4 s^2 + C_1 C_L L_4 R_L s^2 + C_1 C_L L_4 s^2 + C_1 C_L R_1 R_4 R_L g_m s + C_1 C_L R_1 R_L s + C_1 C_L R_4 R_L s + C_1 C_L R_1 s + C_1 C_L R_4 s + C_1 C_L R_L s + C_1 C_L s + C_1 R_1 R_4 R_L g_m + C_1 R_1 R_L + C_1 R_4 R_L + C_1 R_1 + C_1 R_4 + C_1 R_L + C_1}{C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 g_m s^3 + 2 C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 R_1 R_4 R_L g_m s^2 + C_1 C_L L_4 R_1 R_L s^2 + C_1 C_L L_4 R_4 R_L s^2 + C_1 C_L L_4 R_1 s^2 + C_1 C_L L_4 R_4 s^2 + C_1 C_L L_4 R_L s^2 + C_1 C_L L_4 s^2 + C_1 C_L R_1 R_4 R_L g_m s + C_1 C_L R_1 R_L s + C_1 C_L R_4 R_L s + C_1 C_L R_1 s + C_1 C_L R_4 s + C_1 C_L R_L s + C_1 C_L s + C_1 R_1 R_4 R_L g_m + C_1 R_1 R_L + C_1 R_4 R_L + C_1 R_1 + C_1 R_4 + C_1 R_L + C_1}$$

$$10.433 \quad \text{INVALID-ORDER-433} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1)}{C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + C_1 C_L L_4 R_1 g_m s^3 + C_1 C_L L_4 s^3 +}$$

$$10.434 \quad \text{INVALID-ORDER-434} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1)}{2C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + C_1 C_L L_4 R_1 g_m s^3 + C_1 C_L L_4 s^3 +}$$

$$10.435 \quad \text{INVALID-ORDER-435} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1)}{C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + 2C_1 C_4 L_4 L_L R_1 g_m s^4 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_1 R_4 g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_4 s^3 +}$$

$$10.436 \quad \text{INVALID-ORDER-436} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1)}{2C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 +}$$

$$10.437 \quad \text{INVALID-ORDER-437} \quad Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1)}{C_1 C_4 C_L L_4 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 L_4 L_L R_1 R_4 g_m s^4 + 2C_1 C_4 L_4 L_L R_1 R_L g_m s^4 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_4 L_4 L_L R_4 s^4 + C_1 C_L L_4 s^4 +}$$

10.438 INVALID-ORDER-438 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + 2 C_1 C_4 L_4 L_L R_1 g_m s^4 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_1 s^4 + C_1 C_4 L_4 R_L s^4 + C_1 C_4 L_4 R_1 s^4 + C_1 C_4 L_4 R_L s^4 + C_1 C_4 L_4 R_1 s^4 + C_1 C_4 L_4 R_L s^4}{C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + 2 C_1 C_4 L_4 L_L R_1 g_m s^4 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_1 s^4 + C_1 C_4 L_4 R_L s^4 + C_1 C_4 L_4 R_1 s^4 + C_1 C_4 L_4 R_L s^4 + C_1 C_4 L_4 R_1 s^4 + C_1 C_4 L_4 R_L s^4}.$$

10.439 INVALID-ORDER-439 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 +$$

10.440 INVALID-ORDER-440 $Z(s) = (R_1, R_2, \infty, \infty, \infty, R_L)$

$$H(s) = -\frac{R_L (C_1 R_1 s + 1) (-C_4 L_4 R_4 g_m s^2 + C_4 L_4 s^2 + C_4 R_4 s - C_1 C_4 L_4 R_1 R_4 g_m s^3 + 2 C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + 2 C_1 C_4 R_1 R_4 R_L g_m s^2 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_4 R_L s^2 + C_1 R_1 R_4 g_m s + 2 C_1 R_1 R_4 s)}{C_1 C_4 L_4 R_1 R_4 g_m s^3 + 2 C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + 2 C_1 C_4 R_1 R_4 R_L g_m s^2 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_4 R_L s^2 + C_1 R_1 R_4 g_m s + 2 C_1 R_1 R_4 s}$$

10.441 INVALID-ORDER-441 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_1 R_1 s + 1)(-C_4 L_4 R_4 g_m s^2 + C_4 L_4 s^2 + C_4)}{C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L R_1 R_4 s^3 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + C_1 C_L R_1 R_4 g_m s^2 + C_1}$$

10.442 INVALID-ORDER-442 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 L_4 R_1 R_4 g_m s^3 + 2C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 +$$

10.443 INVALID-ORDER-443 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4 + 2C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_4 s^3 + C_1 C_4 C_L R_4 R_L s^3}{C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4 + 2C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_4 s^3 + C_1 C_4 C_L R_4 R_L s^3}$$

10.444 INVALID-ORDER-444 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + 2C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L R_1 R_4 s^3}{2C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + 2C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L R_1 R_4 s^3}$$

10.445 INVALID-ORDER-445 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_L R_1 R_4 s^4 + 2C_1 C_4 L_4 L_L R_1 g_m s^4 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_1 R_4 g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3}{C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_L R_1 R_4 s^4 + 2C_1 C_4 L_4 L_L R_1 g_m s^4 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_1 R_4 g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3}$$

10.446 INVALID-ORDER-446 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4 + 2C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L R_1 R_4 s^3}{2C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4 + 2C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L R_1 R_4 s^3}$$

10.447 INVALID-ORDER-447 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + C_1 C_4 L_4 L_L R_1 R_4 g_m s^4 + 2C_1 C_4 L_4 L_L R_1 R_L g_m s^4 + C_1 C_4 L_4 L_L R_4 g_m s^4 + C_1 C_4 L_4 L_L R_L g_m s^4 + C_1 C_4 L_4 L_L R_1 s^3 + C_1 C_4 L_4 L_L R_4 s^3 + C_1 C_4 L_4 L_L R_L s^3}{C_1 C_4 C_L L_4 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + C_1 C_4 L_4 L_L R_1 R_4 g_m s^4 + 2C_1 C_4 L_4 L_L R_1 R_L g_m s^4 + C_1 C_4 L_4 L_L R_4 g_m s^4 + C_1 C_4 L_4 L_L R_L g_m s^4 + C_1 C_4 L_4 L_L R_1 s^3 + C_1 C_4 L_4 L_L R_4 s^3 + C_1 C_4 L_4 L_L R_L s^3}$$

10.448 INVALID-ORDER-448 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + 2C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + 2C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4}{C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + 2C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + 2C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4}$$

10.449 INVALID-ORDER-449 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + 2C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4}{C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + 2C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4}$$

10.450 INVALID-ORDER-450 $Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{(R_4 g_m - 1) (C_1 L_1 s^2 + 1)}{C_1 C_L L_1 R_4 g_m s^3 + C_1 C_L L_1 s^3 + C_1 C_L R_4 s^2 + 2C_1 L_1 g_m s^2 + C_1 s + C_L R_4 g_m s + C_L s + 2g_m}$$

10.451 INVALID-ORDER-451 $Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_L (R_4 g_m - 1) (C_1 L_1 s^2 + 1)}{C_1 C_L L_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L R_4 R_L s^2 + C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_L g_m s^2 + C_1 L_1 s^2 + C_1 R_4 s + C_1 R_L s + C_L R_4 R_L g_m s + C_L R_L s + R_4 g_m + 2R_L g_m + 1}$$

10.452 INVALID-ORDER-452 $Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(R_4 g_m - 1) (C_1 L_1 s^2 + 1) (C_L R_L s + 1)}{C_1 C_L L_1 R_4 g_m s^3 + 2C_1 C_L L_1 R_L g_m s^3 + C_1 C_L L_1 s^3 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + 2C_1 L_1 g_m s^2 + C_1 s + C_L R_4 g_m s + 2C_L R_L g_m s + C_L s + 2g_m}$$

10.453 INVALID-ORDER-453 $Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(R_4 g_m - 1) (C_1 L_1 s^2 + 1) (C_L L_L s^2 + 1)}{2C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_1 R_4 g_m s^3 + C_1 C_L L_1 s^3 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_L L_L g_m s^2 + C_L R_4 g_m s + C_L s + 2g_m}$$

10.454 INVALID-ORDER-454 $Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L s (R_4 g_m - 1) (C_1 L_1 s^2 + 1)}{C_1 C_L L_1 L_L R_4 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_L R_4 s^3 + 2C_1 L_1 L_L g_m s^3 + C_1 L_1 R_4 g_m s^2 + C_1 L_1 s^2 + C_1 L_L s^2 + C_1 R_4 s + C_L L_L R_4 g_m s^2 + C_L L_L s^2 + 2L_L g_m s + R_4 g_m + 1}$$

10.455 INVALID-ORDER-455 $Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(R_4 g_m - 1) (C_1 L_1 s^2 + 1) (C_L L_L s^2 + C_L R_L s + 1)}{2C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_1 R_4 g_m s^3 + 2C_1 C_L L_1 R_L g_m s^3 + C_1 C_L L_1 s^3 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_L L_L g_m s^2 + C_L R_4 g_m s + 2C_L R_L g_m s + 1}$$

10.456 INVALID-ORDER-456 $Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_L R_L s (R_4 g_m - 1) (C_1 L_1 s^2 + 1)}{C_1 C_L L_1 L_L R_4 R_L g_m s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_1 L_L R_4 g_m s^3 + 2C_1 L_1 L_L R_L g_m s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_4 R_L g_m s^2 + C_1 L_1 R_L s^2 + C_1 L_L R_4 s^2 + C_1 L_L R_L s^2 + 1}$$

10.457 INVALID-ORDER-457 $Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{(R_4 g_m - 1) (C_1 L_1 s^2 + 1) (C_L L_L R_L s^2 + L_L s + R_L)}{C_1 C_L L_1 L_L R_4 g_m s^4 + 2C_1 C_L L_1 L_L R_L g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + 2C_1 L_1 L_L g_m s^3 + C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_L g_m s^2 + C_1 L_1 s^2 + C_1 L_L s^2 + C_1 R_L s^2 + 1}$$

$$10.458 \quad \text{INVALID-ORDER-458} \quad Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{R_L (R_4 g_m - 1) (C_1 L_1 s^2 + 1) (C_L L_L s^2 + 1)}{C_1 C_L L_1 L_L R_4 g_m s^4 + 2C_1 C_L L_1 L_L R_L g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 C_L R_4 R_L s^2 + C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_4 s^2 + 2C_1 L_1 R_L g_m s^2 + 2C_1 L_1 R_L s^2 + C_1 L_1 s^2 + C_1 s + 2C_4 R_L g_m s + C_4 s + g_m}$$

$$10.459 \quad \text{INVALID-ORDER-459} \quad Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L \right)$$

$$H(s) = -\frac{R_L (C_4 s - g_m) (C_1 L_1 s^2 + 1)}{2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 R_L s^2 + C_1 L_1 g_m s^2 + C_1 s + 2C_4 R_L g_m s + C_4 s + g_m}$$

$$10.460 \quad \text{INVALID-ORDER-460} \quad Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{(C_4 s - g_m) (C_1 L_1 s^2 + 1)}{s (C_1 C_4 C_L L_1 s^3 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

$$10.461 \quad \text{INVALID-ORDER-461} \quad Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = -\frac{R_L (C_4 s - g_m) (C_1 L_1 s^2 + 1)}{C_1 C_4 C_L L_1 R_L s^4 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 R_L s^2 + C_1 C_L L_1 R_L g_m s^3 + C_1 C_L R_L s^2 + C_1 L_1 g_m s^2 + C_1 s + C_4 C_L R_L s^2 + 2C_4 R_L g_m s + C_4 s + C_L R_L g_m s + g_m}$$

$$10.462 \quad \text{INVALID-ORDER-462} \quad Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{(C_4 s - g_m) (C_1 L_1 s^2 + 1) (C_L R_L s + 1)}{s (2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + 2C_4 C_L R_L g_m s + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

10.463 INVALID-ORDER-463 $Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_4 s - g_m)(C_1 L_1 s^2 + 1)(C_L L_L s^2 + 1)}{s(2C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_L s^3 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + 2C_4 C_L L_L g_m s^2 + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

10.464 INVALID-ORDER-464 $Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{L_L s (C_4 s - g_m)(C_1 L_1 s^2 + 1)}{C_1 C_4 C_L L_1 L_L s^5 + 2C_1 C_4 L_1 L_L g_m s^4 + C_1 C_4 L_1 s^3 + C_1 C_4 L_L s^3 + C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_L s^3 + C_1 L_1 g_m s^2 + C_1 s + C_4 C_L L_L s^3 + 2C_4 L_L g_m s^2 + C_4 s + C_L L_L g_m s^2 + g_m}$$

10.465 INVALID-ORDER-465 $Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_4 s - g_m)(C_1 L_1 s^2 + 1)(C_L L_L s^2 + C_L R_L s + 1)}{s(2C_1 C_4 C_L L_1 L_L g_m s^4 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + 2C_4 C_L L_L g_m s^2 + 2C_4 R_L g_m s + C_L g_m)}$$

10.466 INVALID-ORDER-466 $Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{L_L R_L s (C_4 s - g_m)(C_1 L_1 s^2 + 1)}{C_1 C_4 C_L L_1 L_L R_L s^5 + 2C_1 C_4 L_1 L_L R_L g_m s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 L_L R_L s^3 + C_1 C_L L_1 L_L R_L g_m s^4 + C_1 C_L L_L R_L s^3 + C_1 L_1 L_L g_m s^3 + C_1 L_1 R_L g_m s^2 + C_1 L_1 s + C_L R_L s + \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}}$$

10.467 INVALID-ORDER-467 $Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{(C_4 s - g_m)(C_1 L_1 s^2 + 1)(C_L L_L R_L s^2 + L_L s + R_L)}{2C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_L R_L s^4 + 2C_1 C_4 L_1 L_L g_m s^4 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_L s^3 + C_1 C_4 R_L s^2 + C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_L R_L s^3 + C_1 L_1 L_L g_m s^3 + C_1 L_1 R_L g_m s^2 + C_1 L_1 s + C_L R_L s + \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}}$$

$$10.468 \quad \text{INVALID-ORDER-468} \quad Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = - \frac{R_L (C_4 s - g_m) (C_1 L_1 s^2 + 1) (C_L}{2 C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_L R_L s^4 + 2 C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 R_L s^2 + C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_1 R_L g_m s^3 +$$

$$10.469 \quad \text{INVALID-ORDER-469} \quad Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$$

$$H(s) = - \frac{R_L (C_1 L_1 s^2 + 1) (C_4 R_4 s - R_4 g_m + 1)}{2 C_1 C_4 L_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 R_4 R_L s^2 + C_1 L_1 R_4 g_m s^2 + 2 C_1 L_1 R_L g_m s^2 + C_1 L_1 s^2 + C_1 R_4 s + C_1 R_L s + 2 C_4 R_4 R_L g_m s + C_4 R_4 s + R_4 g_m + 2 R_L g_m + 1}$$

$$10.470 \quad \text{INVALID-ORDER-470} \quad Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = - \frac{(C_1 L_1 s^2 + 1) (C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_1 R_4 s^4 + 2 C_1 C_4 L_1 R_4 g_m s^3 + C_1 C_4 R_4 s^2 + C_1 C_L L_1 R_4 g_m s^3 + C_1 C_L L_1 s^3 + C_1 C_L R_4 s^2 + 2 C_1 L_1 g_m s^2 + C_1 s + C_4 C_L R_4 s^2 + 2 C_4 R_4 g_m s + C_L R_4 g_m s + C_L s + 2 g_m}$$

$$10.471 \quad \text{INVALID-ORDER-471} \quad Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = - \frac{R_L (C_1 L_1 s^2 + 1) (C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_1 R_4 R_L s^4 + 2 C_1 C_4 L_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L R_4 R_L s^2 + C_1 L_1 R_4 g_m s^2 + 2 C_1 L_1 R_L g_m s^2 + C_1 L_1 s^2 + C_1 R_4 s + C_1 R_L s + 2 C_4 R_4 R_L g_m s + C_4 R_4 s + R_4 g_m + 2 R_L g_m + 1}$$

$$10.472 \quad \text{INVALID-ORDER-472} \quad Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = - \frac{(C_1 L_1 s^2 + 1) (C_L R_L s + 1) (C_4 R_4 s - R_4 g_m + 1)}{2 C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_4 s^4 + C_1 C_4 C_L R_4 R_L s^3 + 2 C_1 C_4 L_1 R_4 g_m s^3 + C_1 C_4 R_4 s^2 + C_1 C_L L_1 R_4 g_m s^3 + 2 C_1 C_L L_1 R_L g_m s^3 + C_1 C_L L_1 s^3 + C_1 C_L R_4 s^2 + C_1 C_L s^2 + C_1 R_4 s + C_1 R_L s + 2 C_4 R_4 R_L g_m s + C_4 R_4 s + R_4 g_m + 2 R_L g_m + 1}$$

10.473 INVALID-ORDER-473 $Z(s) = \left(R_1, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls} \right)$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1)(C_L L_L s^2 + 1)(C_4 R_4 s - R_4 g_m + 1)}{2C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + C_1 C_4 C_L L_1 R_4 s^4 + C_1 C_4 C_L L_L R_4 s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + C_1 C_4 R_4 s^2 + 2C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_1 R_4 g_m s^3 + C_1 C_L L_1 s^3 + C_1 C_L L_L s^3 + C_1 C_L}$$

10.474 INVALID-ORDER-474 $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{L_L s (C_1 L_1 s^2 + 1) (C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_1 L_L R_4 s^5 + 2 C_1 C_4 L_1 L_L R_4 g_m s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_L R_4 s^3 + C_1 C_L L_1 L_L R_4 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_L R_4 s^3 + 2 C_1 L_1 L_L g_m s^3 + C_1 L_1 R_4 g_m s^2 + C_1 L_L R_4 s + 1}$$

10.475 INVALID-ORDER-475 $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_LR_4g_ms^5 + 2C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_4s^4 + C_1C_4C_LL_LR_4s^4 + C_1C_4C_LR_4R_Ls^3 + 2C_1C_4L_1R_4g_ms^3 + C_1C_4R_4s^2 + 2C_1C_LL_1L_Lg_ms^4 + C_1C_LL_L}{2C_1C_4C_LL_1L_LR_4g_ms^5 + 2C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_4s^4 + C_1C_4C_LL_LR_4s^4 + C_1C_4C_LR_4R_Ls^3 + 2C_1C_4L_1R_4g_ms^3 + C_1C_4R_4s^2 + 2C_1C_LL_1L_Lg_ms^4 + C_1C_LL_L}$$

10.476 INVALID-ORDER-476 $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L + \frac{1}{L_L s}}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + 2C_1 C_4 L_1 L_L R_4 R_L g_m s^4 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_4 L_L R_4 R_L s^3 + C_1 C_L L_1 L_L R_4 R_L g_m s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_L R_4 R_L s^3}{C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + 2C_1 C_4 L_1 L_L R_4 R_L g_m s^4 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_4 L_L R_4 R_L s^3 + C_1 C_L L_1 L_L R_4 R_L g_m s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_L R_4 R_L s^3}$$

10.477 INVALID-ORDER-477 $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_L R_4 s^5 + C_1 C_4 C_L L_L R_4 R_L s^4 + 2C_1 C_4 L_1 L_L R_4 g_m s^4 + 2C_1 C_4 L_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_L R_4 s^3 + C_1 C_4 R_4 R_L s^2 + C_1 C_4 R_4}{2C_1 C_4 C_L L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_L R_4 s^5 + C_1 C_4 C_L L_L R_4 R_L s^4 + 2C_1 C_4 L_1 L_L R_4 g_m s^4 + 2C_1 C_4 L_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_L R_4 s^3 + C_1 C_4 R_4 R_L s^2 + C_1 C_4 R_4}$$

$$10.478 \quad \text{INVALID-ORDER-478} \quad Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = - \frac{2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + 2C_1 C_4 L_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_1 L_L R_4 g_m s^4}{2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + 2C_1 C_4 L_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_1 L_L R_4 g_m s^4}$$

$$10.479 \quad \text{INVALID-ORDER-479} \quad Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{R_L (C_1 L_1 s^2 + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 L_1 g_m s^2 + C_1 s + C_4 R_4 g_m s + 2C_4 R_L g_m s + C_4 s + g_m}$$

$$10.480 \quad \text{INVALID-ORDER-480} \quad Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L R_4 s^2 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + C_4 C_L R_4 g_m s + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

$$10.481 \quad \text{INVALID-ORDER-481} \quad Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{R_L (C_1 L_1 s^2 + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_L L_1 R_L g_m s^3 + C_1 C_L R_L s^3}$$

$$10.482 \quad \text{INVALID-ORDER-482} \quad Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_L R_L s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_1 R_4 g_m s^3 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + C_4 C_L R_4 g_m s + 2C_4 C_L s)}$$

10.483 INVALID-ORDER-483 $Z(s) = \left(R_1, L_2 s + \frac{1}{C_{2s}}, \infty, \infty, \infty, L_L s + \frac{1}{C_{Ls}} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + 1)(C_L L_L s^2 + 1)(C_4 R_4 g_m s - C_4 s + g_m)}{s(2C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_4 s^2 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + 2C_4 C_L L_L g_m s^2 + C_4 C_L s + 2C_4 L_1 g_m s + C_4)}.$$

10.484 INVALID-ORDER-484 $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L s (C_1 L_1 s^2 + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_L R_4 s^4 + 2 C_1 C_4 L_1 L_L g_m s^4 + C_1 C_4 L_1 R_4 g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_L s^3 + C_1 C_4 R_4 s^2 + C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_L s^3}$$

10.485 INVALID-ORDER-485 $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + 1)(C_L L_L s^2 + C_L R_L s + 1)(C_4 R_4 g_m s - C_4 s + g_m)}{s(2C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m)}$$

10.486 INVALID-ORDER-486 $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_1 L_L R_4 g_m s^4 + 2 C_1 C_4 L_1 L_L R_L g_m s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_L s^3 +$$

10.487 INVALID-ORDER-487 $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{(C_1 L_1 s^6 + C_2 L_1 s^5 + C_3 L_1 s^4 + C_4 L_1 s^3 + C_5 L_1 s^2 + C_6 L_1 s + C_7)}{C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + 2C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L R_L s^4 + 2C_1 C_4 L_1 L_L g_m s^4 + C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_1 s^2 + C_1 C_4 L_1 s + C_1 C_4}.$$

10.488 INVALID-ORDER-488 $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 C_L R_4 R_L s^3 +$$

10.489 INVALID-ORDER-489 $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_L (C_1 L_1 s^2 + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 L_1 L_4 q_m s^4 + 2 C_1 C_4 L_1 R_L q_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_L s^2 + C_1 L_1 q_m s^2 + C_1 s + C_4 L_4 q_m s^2 + 2 C_4 R_L q_m s + C_4 s + g_m}$$

10.490 INVALID-ORDER-490 $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + 1)(C_4 L_4 g_m s^2 - C_4 s + g_m)}{s(C_1 C_4 C_L L_1 L_4 g_m s^4 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 s^3 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + C_4 C_L L_4 g_m s^2 + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

10.491 INVALID-ORDER-491 $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_L (C_1 L_1 s^2 + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 L_1 L_4 g_m s^4 + 2 C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_L s^2 + C_1 C_L L_1 R_L g_m s^3 + C_1 C_L R_L s^2}$$

10.492 INVALID-ORDER-492 $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + 1)(C_L R_L s + 1)(C_4 L_4 g_m s^2 - C_4 s + g_m)}{s(C_1 C_4 C_L L_1 L_4 g_m s^4 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + C_4 C_L L_4 g_m s^2 + 2C_4 C_L}$$

$$10.493 \quad \text{INVALID-ORDER-493} \quad Z(s) = \left(R_1, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_L L_L s^2 + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{s (C_1 C_4 C_L L_1 L_4 g_m s^4 + 2 C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L L_L s^3 + 2 C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + C_4 C_L L_4 g_m s^2 + 2 C_4 C_L s)}$$

$$10.494 \quad \text{INVALID-ORDER-494} \quad Z(s) = \left(R_1, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_L s (C_1 L_1 s^2 + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 L_1 L_4 g_m s^4 + 2 C_1 C_4 L_1 L_L g_m s^4 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 L_L s^3 + C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_L s^3}$$

$$10.495 \quad \text{INVALID-ORDER-495} \quad Z(s) = \left(R_1, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{s (C_1 C_4 C_L L_1 L_4 g_m s^4 + 2 C_1 C_4 C_L L_1 L_L g_m s^4 + 2 C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_L s^2 + 2 C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L R_L s + C_1 C_L s)}$$

$$10.496 \quad \text{INVALID-ORDER-496} \quad Z(s) = \left(R_1, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 L_1 L_4 L_L g_m s^5 + C_1 C_4 L_1 L_4 R_L g_m s^4 + 2 C_1 C_4 L_1 L_L R_L g_m s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 L_L s^3 + C_1 C_L L_1 L_L g_m s^4 + C_1 C_L R_L s + C_1 C_L s}$$

$$10.497 \quad \text{INVALID-ORDER-497} \quad Z(s) = \left(R_1, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + 2 C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 L_1 L_4 g_m s^4 + 2 C_1 C_4 L_1 L_L g_m s^4 + 2 C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 L_L s^3 + C_1 C_L L_1 L_L g_m s^4 + C_1 C_L R_L s + C_1 C_L s}$$

$$10.498 \quad \text{INVALID-ORDER-498} \quad Z(s) = \left(R_1, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 C_L L_1 L_4 R_L g_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_4 R_L s^3 + C_1 L_1 L_4 g_m s^3 + 2 C_1 L_1 R_L g_m s^2 + C_1 L_1 s^2 + C_1 L_4 s^2 + C_1 R_L s + 2 C_4 L_4 R_L g_m s^2 + C_4 L_4 s^2 + L_4 g_m s + 2 R_L g_m + 1}{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 C_L L_1 L_4 R_L g_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_4 R_L s^3 + C_1 L_1 L_4 g_m s^3 + 2 C_1 L_1 R_L g_m s^2 + C_1 L_1 s^2 + C_1 L_4 s^2 + C_1 R_L s + 2 C_4 L_4 R_L g_m s^2 + C_4 L_4 s^2 + L_4 g_m s + 2 R_L g_m + 1}$$

$$10.499 \quad \text{INVALID-ORDER-499} \quad Z(s) = \left(R_1, \quad \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \quad \infty, \quad \infty, \quad \infty, \quad R_L \right)$$

$$H(s) = - \frac{R_L (C_1 L_1 s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{2 C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_4 R_L s^3 + C_1 L_1 L_4 g_m s^3 + 2 C_1 L_1 R_L g_m s^2 + C_1 L_1 s^2 + C_1 L_4 s^2 + C_1 R_L s + 2 C_4 L_4 R_L g_m s^2 + C_4 L_4 s^2 + L_4 g_m s + 2 R_L g_m + 1}$$

$$10.500 \quad \text{INVALID-ORDER-500} \quad Z(s) = \left(R_1, \quad \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \quad \infty, \quad \infty, \quad \infty, \quad \frac{1}{C_L s} \right)$$

$$H(s) = - \frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_1 L_4 s^5 + 2 C_1 C_4 L_1 L_4 g_m s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_1 L_4 g_m s^4 + C_1 C_L L_1 s^3 + C_1 C_L L_4 s^3 + 2 C_1 L_1 g_m s^2 + C_1 s + C_4 C_L L_4 s^3 + 2 C_4 L_4 g_m s^2 + C_L L_4 g_m s^2 + C_L s + 2 g_m}$$

$$10.501 \quad \text{INVALID-ORDER-501} \quad Z(s) = \left(R_1, \quad \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = - \frac{R_L (C_1 L_1 s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_1 L_4 R_L s^5 + 2 C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_1 L_4 R_L g_m s^4 + C_1 C_L L_1 R_L s^3 + C_1 C_L L_4 R_L s^3 + C_1 L_1 L_4 g_m s^3 + 2 C_1 L_1 R_L g_m s^2 + C_1 L_1 s^2 + C_1 L_4 s^2 + C_1 R_L s + 2 C_4 L_4 R_L g_m s^2 + C_4 L_4 s^2 + L_4 g_m s + 2 R_L g_m + 1}$$

$$10.502 \quad \text{INVALID-ORDER-502} \quad Z(s) = \left(R_1, \quad \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \quad \infty, \quad \infty, \quad \infty, \quad R_L + \frac{1}{C_L s} \right)$$

$$H(s) = - \frac{(C_1 L_1 s^2 + 1) (C_L R_L s + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{2 C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_4 R_L s^4 + 2 C_1 C_4 L_1 L_4 g_m s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_1 L_4 g_m s^4 + 2 C_1 C_L L_1 R_L g_m s^3 + C_1 C_L L_1 s^3 + C_1 C_L L_4 s^3 + C_1 C_L s^2 + C_1 L_1 L_4 g_m s^2 + C_1 L_1 s^2 + C_1 L_4 s^2 + C_1 R_L s + 2 C_4 L_4 R_L g_m s^2 + C_4 L_4 s^2 + L_4 g_m s + 2 R_L g_m + 1}$$

10.503 INVALID-ORDER-503 $Z(s) = \left(R_1, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = - \frac{(C_1 L_1 s^2 + 1) (C_L L_L s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{2 C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_4 L_L s^5 + 2 C_1 C_4 L_1 L_4 g_m s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_1 L_4 g_m s^4 + 2 C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_1 s^3 + C_1 C_L L_4 s^3 + C_1 C_L L_L s^3 + C_1 C_L L_L s^2 + C_1 C_L L_L s + C_1 C_L}$$

10.504 INVALID-ORDER-504 $Z(s) = \left(R_1, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = - \frac{L_L s (C_1 L_1 s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_1 L_4 L_L s^6 + 2 C_1 C_4 L_1 L_4 L_L g_m s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_4 L_L s^4 + C_1 C_L L_1 L_4 L_L g_m s^5 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_4 L_L s^4 + C_1 L_1 L_4 g_m s^3 + 2 C_1 L_1 L_L g_m s^3 + C_1 L_1 L_L s^3 + C_1 L_1 L_L s^2 + C_1 L_1 L_L s + C_1 L_1}$$

10.505 INVALID-ORDER-505 $Z(s) = \left(R_1, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = - \frac{(C_1 L_1 s^2 + 1) (C_L L_L s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{2 C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_L s^4 + 2 C_1 C_4 L_1 L_4 g_m s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_1 L_4 g_m s^4 + 2 C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_1 s^3 + C_1 C_L L_4 s^3 + C_1 C_L L_L s^3 + C_1 C_L L_L s^2 + C_1 C_L L_L s + C_1 C_L}$$

10.506 INVALID-ORDER-506 $Z(s) = \left(R_1, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = - \frac{(C_1 L_1 s^2 + 1) (C_L L_L s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + 2 C_1 C_4 L_1 L_4 L_L R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_4 L_L R_L s^4 + C_1 C_L L_1 L_4 L_L R_L g_m s^5 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_4 L_L R_L s^4 + C_1 C_L L_L R_L s^3 + C_1 C_L L_L R_L s^2 + C_1 C_L L_L R_L s + C_1 C_L}$$

10.507 INVALID-ORDER-507 $Z(s) = \left(R_1, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = - \frac{(C_1 L_1 s^2 + 1) (C_L L_L s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{2 C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_4 L_L R_L s^5 + 2 C_1 C_4 L_1 L_4 L_L g_m s^5 + 2 C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_1 L_4 L_L R_L g_m s^5 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_4 L_L R_L s^4 + C_1 C_L L_L R_L s^3 + C_1 C_L L_L R_L s^2 + C_1 C_L L_L R_L s + C_1 C_L}$$

$$10.508 \quad \text{INVALID-ORDER-508} \quad Z(s) = \left(R_1, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = - \frac{2C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + 2C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_1 L_4 L_L g_m s^5 -$$

$$10.509 \quad \text{INVALID-ORDER-509} \quad Z(s) = \left(R_1, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{R_L (C_1 L_1 s^2 + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 L_1 L_4 g_m s^4 + C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 L_1 g_m s^2 + C_1 s + C_4 L_4 g_m s^2 + C_4 R_4 g_m s + 2C_4 R_L g_m s + C_4 s}$$

$$10.510 \quad \text{INVALID-ORDER-510} \quad Z(s) = \left(R_1, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_1 L_4 g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L R_4 s^2 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + C_4 C_L L_4 g_m s^2 + C_4 C_L R_4 s}$$

$$10.511 \quad \text{INVALID-ORDER-511} \quad Z(s) = \left(R_1, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{R_L (C_1 L_1 s^2 + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 L_1 L_4 g_m s^4 + C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 L_1 g_m s^2 + C_1 s + C_4 L_4 g_m s^2 + C_4 R_4 g_m s + 2C_4 R_L g_m s + C_4 s}$$

$$10.512 \quad \text{INVALID-ORDER-512} \quad Z(s) = \left(R_1, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_L R_L s + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_1 L_4 g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + C_4 C_L L_4 g_m s^2 + C_4 C_L R_4 s}$$

$$10.513 \quad \text{INVALID-ORDER-513} \quad Z(s) = \left(R_1, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_L L_L s^2 + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_1 L_4 g_m s^4 + 2 C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_4 s^2 + 2 C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s)}$$

$$10.514 \quad \text{INVALID-ORDER-514} \quad Z(s) = \left(R_1, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_L s (C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 L_1 L_4 g_m s^4 + 2 C_1 C_4 L_1 L_L g_m s^4 + C_1 C_4 L_1 R_4 g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L L_L s^2 + C_1 C_4 C_L s + C_1 C_4 L_1 g_m s)}{s (C_1 C_4 C_L L_1 L_4 g_m s^4 + 2 C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + 2 C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + C_1 C_4 C_L s + C_1 C_4 L_1 g_m s)}$$

$$10.515 \quad \text{INVALID-ORDER-515} \quad Z(s) = \left(R_1, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_1 L_4 g_m s^4 + 2 C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + 2 C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + C_1 C_4 C_L s + C_1 C_4 L_1 g_m s)}$$

$$10.516 \quad \text{INVALID-ORDER-516} \quad Z(s) = \left(R_1, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_1 L_4 L_L g_m s^5 + C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 C_L L_1 L_4 g_m s^4 + 2 C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + 2 C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + C_1 C_4 C_L s + C_1 C_4 L_1 g_m s)}{s (C_1 C_4 C_L L_1 L_4 g_m s^4 + 2 C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + 2 C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + C_1 C_4 C_L s + C_1 C_4 L_1 g_m s)}$$

$$10.517 \quad \text{INVALID-ORDER-517} \quad Z(s) = \left(R_1, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 L_1 L_4 g_m s^4 + C_1 C_4 L_1 L_4 R_L g_m s^3 + C_1 C_4 L_1 L_4 s^3 + C_1 C_4 C_L L_1 L_4 g_m s^3 + 2 C_1 C_4 C_L L_1 L_L g_m s^3 + C_1 C_4 C_L L_1 R_4 g_m s^2 + 2 C_1 C_4 C_L L_1 R_L g_m s^2 + C_1 C_4 C_L L_1 s^2 + C_1 C_4 C_L L_4 s^2 + C_1 C_4 C_L L_L s^2 + C_1 C_4 C_L R_4 s + C_1 C_4 C_L R_L s + C_1 C_4 C_L s + C_1 C_4 L_1 g_m s)}{s (C_1 C_4 C_L L_1 L_4 g_m s^4 + 2 C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + 2 C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + C_1 C_4 C_L s + C_1 C_4 L_1 g_m s)}$$

$$10.518 \quad \text{INVALID-ORDER-518} \quad Z(s) = \left(R_1, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L$$

10.519 INVALID-ORDER-519 $Z(s) = (L_1 s, R_2, \infty, \infty, \infty, R_L)$

$$H(s) = -\frac{R_L (C_1 L_1 s^2 + 1) (C_4 L_4 R_4 s^2 - L_4 R_4 g_m s + L_4 s + R_4)}{2C_1 C_4 L_1 L_4 R_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 L_1 L_4 R_4 g_m s^3 + 2C_1 L_1 L_4 R_L g_m s^3 + C_1 L_1 L_4 s^3 + 2C_1 L_1 R_4 R_L g_m s^2 + C_1 L_1 R_4 s^2 + C_1 L_4 R_4 s^2 + C_1 L_4 R_L}$$

10.520 INVALID-ORDER-520 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1)(C_4 L_4 R_4 s^2 - L_4 R_4 g_m s + L_4 s + R_4)}{C_1 C_4 C_L L_1 L_4 R_4 s^5 + 2C_1 C_4 L_1 L_4 R_4 g_m s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_1 L_4 R_4 g_m s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_4 R_4 s^3 + 2C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 R_4 g_m s^2 + C_1 L_4}$$

10.521 INVALID-ORDER-521 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + 2C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_L L_1 L_4 R_4 R_L g_m s^4 + C_1 C_L L_1 L_4 R_L s^4 + C_1 C_L L_1 R_4 R_L s^3 + C_1 C_L L_4 R_4 R_L s^3 +$$

10.522 INVALID-ORDER-522 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_4R_4R_Ls^4 + 2C_1C_4L_1L_4R_4g_ms^4 + C_1C_4L_4R_4s^3 + C_1C_LL_1L_4R_4g_ms^4 + 2C_1C_LL_1L_4R_Lg_ms^4 + C_1C_LL_1L_4s^4}{2C_1C_4C_LL_1L_4R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_4R_4R_Ls^4 + 2C_1C_4L_1L_4R_4g_ms^4 + C_1C_4L_4R_4s^3 + C_1C_LL_1L_4R_4g_ms^4 + 2C_1C_LL_1L_4R_Lg_ms^4 + C_1C_LL_1L_4s^4}.$$

10.523 INVALID-ORDER-523 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + 2C_1 C_4 L_1 L_4 R_4 g_m s^4 + C_1 C_4 L_4 R_4 s^3 + 2C_1 C_L L_1 L_4 L_L g_m s^5 + C_1 C_L L_1 L_4 R_4 g_m s^4 + C_1 C_L L_1 L_4 s^4 + \dots}{\dots}$$

10.524 INVALID-ORDER-524 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + 2C_1 C_4 L_1 L_4 L_L R_4 g_m s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_4 L_L R_4 s^4 + C_1 C_L L_1 L_4 L_L R_4 g_m s^5 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_4 L_L R_4 s^4 + \dots}{\dots}$$

10.525 INVALID-ORDER-525 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 R_4 R_L s^4 + 2C_1 C_4 L_1 L_4 R_4 g_m s^4 + C_1 C_4 L_4 R_4 s^3 + 2C_1 C_L L_1 L_4 L_L R_4 g_m s^5 + \dots}{\dots}$$

10.526 INVALID-ORDER-526 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + 2C_1 C_4 L_1 L_4 L_L R_4 R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L R_4 s^5 + C_1 C_4 L_1 L_4 R_4 R_L s^4 + C_1 C_4 L_4 L_L R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_4 R_L g_m s^5 + C_1 C_L L_1 L_4 L_L R_L s^5 + \dots}{\dots}$$

10.527 INVALID-ORDER-527 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_4 L_L R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + 2C_1 C_4 L_1 L_4 L_L R_4 g_m s^5 + 2C_1 C_4 L_1 L_4 R_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_4 L_L R_4 s^4 + \dots}{\dots}$$

10.528 INVALID-ORDER-528 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{2C_1C_4C_L L_1L_4L_LR_4R_Lg_ms^6 + C_1C_4C_L L_1L_4L_LR_4s^6 + C_1C_4C_L L_1L_4R_4R_Ls^5 + C_1C_4C_L L_4L_LR_4R_Ls^5 + 2C_1C_4L_1L_4R_4R_Lg_ms^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_4R_4R_Ls^3 + C_1C_4L_4R_4s^3 + C_1C_4L_4s^3 + C_1C_4s^3}{2C_1C_4C_L L_1L_4L_LR_4R_Lg_ms^6 + C_1C_4C_L L_1L_4L_LR_4s^6 + C_1C_4C_L L_1L_4R_4R_Ls^5 + C_1C_4C_L L_4L_LR_4R_Ls^5 + 2C_1C_4L_1L_4R_4R_Lg_ms^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_4R_4R_Ls^3 + C_1C_4L_4R_4s^3 + C_1C_4L_4s^3 + C_1C_4s^3}$$

10.529 INVALID-ORDER-529 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_L (C_1 L_1 s^2 + 1) (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 L_1 L_4 g_m s^3 + C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_L g_m s^2 + C_1 L_1 s^2 + C_1 L_4 s^2 + C_1 R_4 s + 1}$$

10.530 INVALID-ORDER-530 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + 1)(C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_4 R_4 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_1 L_4 g_m s^4 + C_1 C_L L_1 R_4 g_m s^3 + C_1 C_L L_1 s^3 + C_1 C_L L_4 s^3 + C_1 C_L R_4 s^2 + \dots}$$

10.531 **INVALID-ORDER-531** $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_1}{C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_1}$$

10.532 INVALID-ORDER-532 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + 1)}{C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + 2C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_1 L_4 g_m s^4 + C_1 C_L L_1 R_4 g_m}$$

10.533 INVALID-ORDER-533 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + 1)}{2C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_4 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_1 L_4 g_m s^4 + 2C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 L_4 R_4 s^3 + C_1 C_L L_1 L_L s^3 + C_1 C_L L_1 L_4 R_4 s^2 + C_1 C_L L_1 L_L s^2 + C_1 C_L L_1 L_4 R_4 s + C_1 C_L L_1 L_L s + C_1 C_L L_1 L_4 R_4 + C_1 C_L L_1 L_L}$$

10.534 INVALID-ORDER-534 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + 1)}{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_4 L_L R_4 s^5 + 2C_1 C_4 L_1 L_4 L_L g_m s^5 + C_1 C_4 L_1 L_4 R_4 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_1 L_4 g_m s^4 + 2C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 L_4 R_4 s^3 + C_1 C_L L_1 L_L s^3 + C_1 C_L L_1 L_4 R_4 s^2 + C_1 C_L L_1 L_L s^2 + C_1 C_L L_1 L_4 R_4 s + C_1 C_L L_1 L_L s + C_1 C_L L_1 L_4 R_4 + C_1 C_L L_1 L_L}$$

10.535 INVALID-ORDER-535 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + 1)}{2C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + 2C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + C_1 C_4 L_1 L_4 R_4 s^3 + C_1 C_4 L_1 L_4 R_L s^3 + C_1 C_4 L_1 L_4 R_4 s^2 + C_1 C_4 L_1 L_4 R_L s^2 + C_1 C_4 L_1 L_4 R_4 s + C_1 C_4 L_1 L_4 R_L s + C_1 C_4 L_1 L_4 R_4 + C_1 C_4 L_1 L_4 R_L}$$

10.536 INVALID-ORDER-536 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + 1)}{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_4 g_m s^5 + 2C_1 C_4 L_1 L_4 L_L R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_4 s^3 + C_1 C_4 L_1 L_4 R_L s^3 + C_1 C_4 L_1 L_4 R_4 s^2 + C_1 C_4 L_1 L_4 R_L s^2 + C_1 C_4 L_1 L_4 R_4 s + C_1 C_4 L_1 L_4 R_L s + C_1 C_4 L_1 L_4 R_4 + C_1 C_4 L_1 L_4 R_L}$$

10.537 INVALID-ORDER-537 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + 1)}{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + 2C_1 C_4 L_1 L_4 L_L g_m s^5 + C_1 C_4 L_1 L_4 R_4 g_m s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_1 L_4 R_4 s^3 + C_1 C_4 L_1 L_4 R_L s^3 + C_1 C_4 L_1 L_4 R_4 s^2 + C_1 C_4 L_1 L_4 R_L s^2 + C_1 C_4 L_1 L_4 R_4 s + C_1 C_4 L_1 L_4 R_L s + C_1 C_4 L_1 L_4 R_4 + C_1 C_4 L_1 L_4 R_L}$$

10.538 INVALID-ORDER-538 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 +$$

10.539 INVALID-ORDER-539 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L \right)$

$$H(s) = -\frac{R_L (C_1 L_1 s^2 + 1) (-C_4 L_4 R_4 g_m s^2 + C_4 L_4 s^2 + C_4 R_4 s + C_4)}{C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_4 R_4 R_L s^2 + C_1 L_1 R_4 g_m s^2 + 2 C_1 L_1 R_4 s + C_1}$$

10.540 INVALID-ORDER-540 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1)(-C_4 L_4 R_4 g_m s^2 + C_4 L_4 s^2 + C_4}{C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_1 R_4 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + C_1 C_L L_1 R_4 g_m s^3 + C_1 C_L L_1 L_4 s^2 + C_1 C_L L_1 R_4 s + C_1 C_L L_4 + C_1 C_L R_4}$$

10.541 INVALID-ORDER-541 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_{2s+1}}, \infty, \infty, \infty, \frac{R_L}{C_L R_{Ls+1}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_4 R_L g_m s^4 + C_1 C_4 L_1 R_4 R_L s^4 + C_1 C_4 L_1 R_L s^4 + C_1 C_4 L_1 s^4 + C_1 C_4 L_4 R_4 R_L g_m s^4 + C_1 C_4 L_4 R_4 R_L s^4 + C_1 C_4 L_4 R_L s^4 + C_1 C_4 L_4 s^4 + C_1 C_4 R_4 R_L g_m s^4 + C_1 C_4 R_4 R_L s^4 + C_1 C_4 R_L s^4 + C_1 C_4 s^4}{C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_4 R_L g_m s^4 + C_1 C_4 L_1 R_4 R_L s^4 + C_1 C_4 L_1 R_L s^4 + C_1 C_4 L_1 s^4 + C_1 C_4 L_4 R_4 R_L g_m s^4 + C_1 C_4 L_4 R_4 R_L s^4 + C_1 C_4 L_4 R_L s^4 + C_1 C_4 L_4 s^4 + C_1 C_4 R_4 R_L g_m s^4 + C_1 C_4 R_4 R_L s^4 + C_1 C_4 R_L s^4 + C_1 C_4 s^4}.$$

10.542 INVALID-ORDER-542 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + 2 C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_4 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L R_4 R_L s^3}{\dots}$$

10.543 INVALID-ORDER-543 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_4R_4g_ms^5 + C_1C_4C_LL_1L_4s^5 + 2C_1C_4C_LL_1L_LR_4g_ms^5 + C_1C_4C_LL_1R_4s^4 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4R_4s^4 + C_1C_4C_LL_LR_4s^4 +$$

10.544 INVALID-ORDER-544 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + 2 C_1 C_4 L_1 L_4 L_L g_m s^5 + C_1 C_4 L_1 L_4 R_4 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 L_L R_4 g_m}{...}$$

10.545 INVALID-ORDER-545 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + 2C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + 2C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + 2C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_4 s^4 + C_1 C_4 C_L L_1 L_R R_4 g_m s^4 + C_1 C_4 C_L L_1 L_R s^4 + C_1 C_4 C_L L_1 L_L R_4 s^4 + C_1 C_4 C_L L_1 L_L R_L s^4 + C_1 C_4 C_L L_1 L_L R_L R_4 g_m s^4 + C_1 C_4 C_L L_1 L_L R_L R_4 s^4 + C_1 C_4 C_L L_1 L_L R_L s^4 + C_1 C_4 C_L L_1 L_L R_L R_4 s^4 + C_1 C_4 C_L L_1 L_L R_L R_4 s^4}{(s^2 + \omega_{L_1}^2)(s^2 + \omega_{L_2}^2)(s^2 + \omega_{L_3}^2)(s^2 + \omega_{L_4}^2)(s^2 + \omega_{L_5}^2)(s^2 + \omega_{L_6}^2)(s^2 + \omega_{L_7}^2)(s^2 + \omega_{L_8}^2)(s^2 + \omega_{L_9}^2)(s^2 + \omega_{L_{10}}^2)}$$

10.546 INVALID-ORDER-546 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_4 g_m s^5 + 2C_1 C_4 L_1 L_4 L_L R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L R_L s^5}{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_4 g_m s^5 + 2C_1 C_4 L_1 L_4 L_L R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L R_L s^5}.$$

10.547 INVALID-ORDER-547 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + 2 C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5}{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + 2 C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5}$$

10.548 INVALID-ORDER-548 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + 2 C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L g_m s^4 + C_1 C_4 C_L L_1 L_L R_L s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 L_L R_4 s^3 + C_1 C_4 C_L L_1 L_L R_L s^3 + C_1 C_4 C_L L_1 L_L s^3 + C_1 C_4 C_L L_1 L_L R_4 s^2 + C_1 C_4 C_L L_1 L_L R_L s^2 + C_1 C_4 C_L L_1 L_L s^2 + C_1 C_4 C_L L_1 L_L R_4 s + C_1 C_4 C_L L_1 L_L R_L s + C_1 C_4 C_L L_1 L_L s + C_1 C_4 C_L L_1 L_L R_4 + C_1 C_4 C_L L_1 L_L R_L + C_1 C_4 C_L L_1 L_L}{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + 2 C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L g_m s^4 + C_1 C_4 C_L L_1 L_L R_L s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 L_L R_4 s^3 + C_1 C_4 C_L L_1 L_L R_L s^3 + C_1 C_4 C_L L_1 L_L s^3 + C_1 C_4 C_L L_1 L_L R_4 s^2 + C_1 C_4 C_L L_1 L_L R_L s^2 + C_1 C_4 C_L L_1 L_L s^2 + C_1 C_4 C_L L_1 L_L R_4 s + C_1 C_4 C_L L_1 L_L R_L s + C_1 C_4 C_L L_1 L_L s + C_1 C_4 C_L L_1 L_L R_4 + C_1 C_4 C_L L_1 L_L R_L + C_1 C_4 C_L L_1 L_L}$$

10.549 INVALID-ORDER-549 $Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 s (R_4 g_m - 1)}{C_1 C_L L_1 R_4 s^3 + C_1 L_1 s^2 + C_L L_1 R_4 g_m s^2 + C_L L_1 s^2 + C_L R_4 s + 2 L_1 g_m s + 1}$$

10.550 INVALID-ORDER-550 $Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_L s (R_4 g_m - 1)}{C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_L L_1 R_4 R_L g_m s^2 + C_L L_1 R_L s^2 + C_L R_4 R_L s + L_1 R_4 g_m s + 2 L_1 R_L g_m s + L_1 s + R_4 + R_L}$$

10.551 INVALID-ORDER-551 $Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 s (R_4 g_m - 1) (C_L R_L s + 1)}{C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_L L_1 R_4 g_m s^2 + 2 C_L L_1 R_L g_m s^2 + C_L L_1 s^2 + C_L R_4 s + C_L R_L s + 2 L_1 g_m s + 1}$$

10.552 INVALID-ORDER-552 $Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 s (R_4 g_m - 1) (C_L L_L s^2 + 1)}{C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 s^3 + C_1 L_1 s^2 + 2 C_L L_1 L_L g_m s^3 + C_L L_1 R_4 g_m s^2 + C_L L_1 s^2 + C_L L_L s^2 + C_L R_4 s + 2 L_1 g_m s + 1}$$

10.553 INVALID-ORDER-553 $Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L s^2 (R_4 g_m - 1)}{C_1 C_L L_1 L_L R_4 s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_4 s^2 + C_L L_1 L_L R_4 g_m s^3 + C_L L_1 L_L s^3 + C_L L_L R_4 s^2 + 2 L_1 L_L g_m s^2 + L_1 R_4 g_m s + L_1 s + L_L s + R_4}$$

10.554 INVALID-ORDER-554 $Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 s (R_4 g_m - 1) (C_L L_L s^2 + C_L R_L s + 1)}{C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + 2 C_L L_1 L_L g_m s^3 + C_L L_1 R_4 g_m s^2 + 2 C_L L_1 R_L g_m s^2 + C_L L_1 s^2 + C_L L_L s^2 + C_L R_4 s + C_L R_L s + 2 L_1 g_m s + 1}$$

10.555 INVALID-ORDER-555 $Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_1 L_L R_L s^2 (R_4 g_m - 1)}{C_1 C_L L_1 L_L R_4 R_L s^4 + C_1 L_1 L_L R_4 s^3 + C_1 L_1 L_L R_L s^3 + C_1 L_1 R_4 R_L s^2 + C_L L_1 L_L R_4 R_L g_m s^3 + C_L L_1 L_L R_L s^3 + C_L L_L R_4 R_L s^2 + L_1 L_L R_4 g_m s^2 + 2 L_1 L_L R_L g_m s^2 + L_1 L_L s^2 +}$$

10.556 INVALID-ORDER-556 $Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{L_1 s (R_4 g_m - 1) (C_L L_L R_L s^2 + L_L s + R_L)}{C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_L L_1 L_L R_4 g_m s^3 + 2 C_L L_1 L_L R_L g_m s^3 + C_L L_1 L_L s^3 + C_L L_L R_4 s^2 + C_L L_L R_L s^2 + 2 L_1 L_L g_m s +}$$

10.557 INVALID-ORDER-557 $Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{L_1 R_L s (R_4 g_m - 1) (C_L L_L s^2 + 1)}{C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_L L_1 L_L R_4 g_m s^3 + 2 C_L L_1 L_L R_L g_m s^3 + C_L L_1 L_L s^3 + C_L L_1 R_4 R_L g_m s^2 + C_L L_1 R_L s^2 +}$$

10.558 INVALID-ORDER-558 $Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{L_1 R_L s (-C_4 s + g_m)}{C_1 C_4 L_1 R_L s^3 + C_1 L_1 s^2 + 2 C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 R_L s + L_1 g_m s + 1}$$

10.559 INVALID-ORDER-559 $Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_L s (-C_4 s + g_m)}{C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 R_L s^3 + 2C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 R_L s + C_L L_1 R_L g_m s^2 + C_L R_L s + L_1 g_m s + 1}$$

10.560 INVALID-ORDER-560 $Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 (C_4 s - g_m) (C_L R_L s + 1)}{C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + 2C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L R_L s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.561 INVALID-ORDER-561 $Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 (C_4 s - g_m) (C_L L_L s^2 + 1)}{C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + 2C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 s^2 + C_4 C_L L_L s^2 + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.562 INVALID-ORDER-562 $Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L s^2 (-C_4 s + g_m)}{C_1 C_4 L_1 L_L s^4 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_L s^4 + 2C_4 L_1 L_L g_m s^3 + C_4 L_1 s^2 + C_4 L_L s^2 + C_L L_1 L_L g_m s^3 + C_L L_L s^2 + L_1 g_m s + 1}$$

10.563 INVALID-ORDER-563 $Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 (C_4 s - g_m) (C_L L_L s^2 + C_L R_L s + 1)}{C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + 2C_4 C_L L_1 L_L g_m s^3 + 2C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_L s^2 + C_4 C_L R_L s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.564 INVALID-ORDER-564 $Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_1 L_L R_L s^2 (-C_4 s + g_m)}{C_1 C_4 L_1 L_L R_L s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_L s^2 + C_4 C_L L_1 L_L R_L s^4 + 2C_4 L_1 L_L R_L g_m s^3 + C_4 L_1 L_L s^3 + C_4 L_1 R_L s^2 + C_4 L_L R_L s^2 + C_L L_1 L_L R_L g_m s^3 + C_L L_L s^2 + L_1 g_m s + 1}$$

$$10.565 \quad \text{INVALID-ORDER-565} \quad Z(s) = \left(L_1 s, \quad L_2 s + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = -\frac{L_1 s (C_4 s - g_m) (C_L L_L R_L s^2 + L_L s + R_L)}{C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + 2 C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_L R_L s^3 + 2 C_4 L_1 L_L g_m s^3 + 2 C_4 L_1 R_L g_m s^2}$$

$$10.566 \quad \text{INVALID-ORDER-566} \quad Z(s) = \left(L_1 s, \quad L_2 s + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{L_1 R_L s (C_4 s - g_m) (C_L L_L s^2 + 1)}{C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + 2 C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_1 R_L s^3 + C_4 C_L L_L R_L s^3 + 2 C_4 L_1 R_L g_m s^2}$$

$$10.567 \quad \text{INVALID-ORDER-567} \quad Z(s) = \left(L_1 s, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad R_L \right)$$

$$H(s) = \frac{L_1 R_L s (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 L_1 R_4 R_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + 2 C_4 L_1 R_4 R_L g_m s^2 + C_4 L_1 R_4 s^2 + C_4 R_4 R_L s + L_1 R_4 g_m s + 2 L_1 R_L g_m s + L_1 s + R_4 + R_L}$$

$$10.568 \quad \text{INVALID-ORDER-568} \quad Z(s) = \left(L_1 s, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 s (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 L_1 s^2 + C_4 C_L L_1 R_4 s^3 + 2 C_4 L_1 R_4 g_m s^2 + C_4 R_4 s + C_L L_1 R_4 g_m s^2 + C_L L_1 s^2 + C_L R_4 s + 2 L_1 g_m s + 1}$$

$$10.569 \quad \text{INVALID-ORDER-569} \quad Z(s) = \left(L_1 s, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{L_1 R_L s (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_4 C_L L_1 R_4 R_L s^3 + 2 C_4 L_1 R_4 R_L g_m s^2 + C_4 L_1 R_4 s^2 + C_4 R_4 R_L s + C_L L_1 R_4 R_L g_m s^2 + C_L L_1 R_L s^2 + C_L R_4 R_L s}$$

$$10.570 \quad \text{INVALID-ORDER-570} \quad Z(s) = \left(L_1 s, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{L_1 s (C_L R_L s + 1) (C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + 2 C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_4 s^3 + C_4 C_L R_4 R_L s^2 + 2 C_4 L_1 R_4 g_m s^2 + C_4 R_4 s + C_L L_1 R_4 s}$$

10.571 INVALID-ORDER-571 $Z(s) = \left(L_1 s, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 s (C_L L_L s^2 + 1) (C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 s^3 + C_1 L_1 s^2 + 2 C_4 C_L L_1 L_L R_4 g_m s^4 + C_4 C_L L_1 R_4 s^3 + C_4 C_L L_L R_4 s^3 + 2 C_4 L_1 R_4 g_m s^2 + C_4 R_4 s + 2 C_L L_1 R_4 s}$$

10.572 INVALID-ORDER-572 $Z(s) = \left(L_1 s, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L s^2 (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_4 s^2 + C_4 C_L L_1 L_L R_4 s^4 + 2 C_4 L_1 L_L R_4 g_m s^3 + C_4 L_1 R_4 s^2 + C_4 L_L R_4 s^2 + C_L L_1 L_L R_4 g_m s^3 + C_L L_1 L_L s^3 + C_L L_L R_4 s}$$

10.573 INVALID-ORDER-573 $Z(s) = \left(L_1 s, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 s (C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + 2 C_4 C_L L_1 L_L R_4 g_m s^4 + 2 C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_4 s^3 + C_4 C_L L_L R_4 s^3 + 2 C_4 L_1 R_4 g_m s^2 + C_4 R_4 s + 2 C_L L_1 R_4 s}$$

10.574 INVALID-ORDER-574 $Z(s) = \left(L_1 s, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_1 L_L R_L s^2 (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 L_1 L_L R_4 R_L s^4 + C_1 C_L L_1 L_L R_4 R_L s^4 + C_1 L_1 L_L R_4 s^3 + C_1 L_1 L_L R_L s^3 + C_1 L_1 R_4 R_L s^2 + C_4 C_L L_1 L_L R_4 R_L s^4 + 2 C_4 L_1 L_L R_4 R_L g_m s^3 + C_4 L_1 L_L R_4 s^3 + C_4 L_1 R_4 R_L s^2 + C_4 R_4 s + 2 C_L L_1 R_4 s}$$

10.575 INVALID-ORDER-575 $Z(s) = \left(L_1 s, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{L_1 s (C_L L_L s^2 + 1) (C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + 2 C_4 C_L L_1 L_L R_4 R_L g_m s^4 + 2 C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_4 s^3 + C_4 C_L L_L R_4 s^3 + 2 C_4 L_1 R_4 g_m s^2 + C_4 R_4 s + 2 C_L L_1 R_4 s}$$

10.576 INVALID-ORDER-576 $Z(s) = \left(L_1 s, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + 2C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_4 s^4}{C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + 2C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_4 s^4}.$$

10.577 INVALID-ORDER-577 $Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{L_1 R_L s (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 L_1 s^2 + C_4 L_1 R_4 q_m s^2 + 2 C_4 L_1 R_L q_m s^2 + C_4 L_1 s^2 + C_4 R_4 s + C_4 R_L s + L_1 q_m s + 1}$$

10.578 INVALID-ORDER-578 $Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 R_4 g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L R_4 s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.579 INVALID-ORDER-579 $Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_L s (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_1 R_4 g_m s^2 + 2 C_4 L_1 R_L g_m s^2 + C_4 g_m}$$

10.580 **INVALID-ORDER-580** $Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_L R_L s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 R_4 g_m s^2 + 2 C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L R_4 s + C_4 C_L R_L s + 2 C_4 L_1 g_m s + C_4 + C_L L_1 g_m s}$$

10.581 INVALID-ORDER-581 $Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_L L_L s^2 + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + 2 C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 L_1 g_m s + C_4 + C_L L_1 g_m s}$$

10.582 INVALID-ORDER-582 $Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L s^2 (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_L R_4 g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2 C_4 L_1 L_L g_m s^3 + C_4 L_1 R_4 g_m s^2 + C_4}$$

10.583 INVALID-ORDER-583 $Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + 2 C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + 2 C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_L s^2 + C_4 C_L R_L s + g_m}$$

10.584 INVALID-ORDER-584 $Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 L_L R_L s^4 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_L s^2 + C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_L s^4 -$$

10.585 INVALID-ORDER-585 $Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{L_1 s (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_L R_4 g_m s^4 + 2 C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L R_4 s^4}$$

10.586 INVALID-ORDER-586 $Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_L L_L R_4 s^5 + C_1 C_4 C_L L_L L_L R_L s^5 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_L R_4 q_m s^4 + 2 C_4 C_L L_1 L_L R_4 q_m s^3 + C_4 C_L L_1 L_L R_4 q_m s^2 + C_4 C_L L_1 L_L R_4 q_m s + C_4 C_L L_1 L_L R_4 q_m}{C_1 C_4 C_L L_L L_L R_4 s^5 + C_1 C_4 C_L L_L L_L R_L s^5 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_L R_4 q_m s^4 + 2 C_4 C_L L_1 L_L R_4 q_m s^3 + C_4 C_L L_1 L_L R_4 q_m s^2 + C_4 C_L L_1 L_L R_4 q_m s + C_4 C_L L_1 L_L R_4 q_m}$$

$$10.587 \quad \text{INVALID-ORDER-587} \quad Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{L_1 R_L s (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_L s^3 + C_1 L_1 s^2 + C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 R_L s + L_1 g_m s + 1}$$

$$10.588 \quad \text{INVALID-ORDER-588} \quad Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + 2 C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

$$10.589 \quad \text{INVALID-ORDER-589} \quad Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{L_1 R_L s (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 R_L s^3 + C_4 C_L L_4 R_L s^3 + C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 R_L g_m s^2 + C_4}$$

$$10.590 \quad \text{INVALID-ORDER-590} \quad Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 (C_L R_L s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + 2 C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_L s + 2 C_4 L_1 g_m s + C_4 + C_L L_1 g_m s}$$

$$10.591 \quad \text{INVALID-ORDER-591} \quad Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 (C_L L_L s^2 + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + 2 C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L L_L s^2 + 2 C_4 L_1 g_m s + C_4 + C_L L_1 g_m s}$$

10.592 INVALID-ORDER-592 $Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L s^2 (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_4 L_L s^4 + C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 L_L g_m s^3 + C_4 L_1 L_L s^2}$$

10.593 INVALID-ORDER-593 $Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 q_m s^3 + 2 C_4 C_L L_1 L_L q_m s^3 + 2 C_4 C_L L_1 R_L q_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L L_4 q_m s + C_4 C_L q_m}$$

10.594 INVALID-ORDER-594 $Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_1 L_L R_L s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_L s^2 + C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_L R_L s^4 +$$

10.595 INVALID-ORDER-595 $Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{L_1 s (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 L_L g_m s^5 + 2 C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_4 L_L g_m s^3}$$

10.596 INVALID-ORDER-596 $Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^4}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^4}.$$

10.597 INVALID-ORDER-597 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{L_1 R_L s (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_1 C_4 L_1 L_4 R_L s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 R_L s^2 + 2C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_4 R_L s^2 + L_1 L_4 g_m s^2 + 2L_1 R_L g_m s + L_1 s + L_4 s + R_L}$$

10.598 INVALID-ORDER-598 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 s (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 s^4 + 2C_4 L_1 L_4 g_m s^3 + C_4 L_4 s^2 + C_L L_1 L_4 g_m s^3 + C_L L_1 s^2 + C_L L_4 s^2 + 2L_1 g_m s + 1}$$

10.599 INVALID-ORDER-599 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_L s (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_L L_1 L_4 R_L s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 R_L s^2 + C_4 C_L L_1 L_4 R_L s^4 + 2C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_4 R_L s^2 + C_L L_1 L_4 R_L g_m s^3 + C_L L_1 R_L s^2 + C_L L_4 R_L s}$$

10.600 INVALID-ORDER-600 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 s (C_L R_L s + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + 2C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 L_4 s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 L_1 L_4 g_m s^3 + C_4 L_4 s^2 + C_L L_1 L_4 s}$$

10.601 INVALID-ORDER-601 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 s (C_L L_L s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + 2C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 s^4 + C_4 C_L L_4 L_L s^4 + 2C_4 L_1 L_4 g_m s^3 + C_4 L_4 s^2 + C_L L_1 L_4 s}$$

10.602 INVALID-ORDER-602 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L s (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_1 C_4 L_1 L_4 L_L s^4 + C_1 C_L L_1 L_4 L_L s^4 + C_1 L_1 L_4 s^2 + C_1 L_1 L_L s^2 + C_4 C_L L_1 L_4 L_L s^4 + 2C_4 L_1 L_4 L_L g_m s^3 + C_4 L_1 L_4 s^2 + C_4 L_4 L_L s^2 + C_L L_1 L_4 L_L g_m s^3 + C_L L_1 L_L s^2 + C_L L_4 L_L s}$$

$$\mathbf{10.603 \quad INVALID-ORDER-603} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad R_2, \quad \infty, \quad \infty, \quad \infty, \quad L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = - \frac{L_1 s (C_4 L_4 s^2 - L_4 g_m s)}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + 2 C_4 C_L L_1 L_4 L_L g_m s^5 + 2 C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 L_4 L_L s^3 + C_4 C_L L_1 L_4 R_L s^2 + C_4 C_L L_1 L_4 L_L s + C_4 C_L L_1 L_4 R_L s + C_4 C_L L_1 L_4 L_L}$$

$$\mathbf{10.604 \quad INVALID-ORDER-604} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad R_2, \quad \infty, \quad \infty, \quad \infty, \quad \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{L_1 L_L R_L s (-C_4 L_4 s^2 + C_4 L_4 g_m s)}{C_1 C_4 L_1 L_4 L_L R_L s^4 + C_1 C_L L_1 L_4 L_L R_L s^4 + C_1 L_1 L_4 L_L s^3 + C_1 L_1 L_4 R_L s^2 + C_1 L_1 L_L R_L s^2 + C_4 C_L L_1 L_4 L_L R_L s^4 + 2 C_4 L_1 L_4 L_L R_L g_m s^3 + C_4 L_1 L_4 L_L s^3 + C_4 L_1 L_4 R_L s^2 + C_4 C_L L_1 L_4 L_L s + C_4 C_L L_1 L_4 R_L s + C_4 C_L L_1 L_4 L_L}$$

$$\mathbf{10.605 \quad INVALID-ORDER-605} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad R_2, \quad \infty, \quad \infty, \quad \infty, \quad \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = - \frac{L_1 L_L R_L s (C_4 L_4 s^2 - L_4 g_m s)}{C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_L s^2 + 2 C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^3 + C_4 C_L L_1 L_4 R_L s^2 + C_4 C_L L_1 L_4 L_L s + C_4 C_L L_1 L_4 R_L s + C_4 C_L L_1 L_4 L_L}$$

$$\mathbf{10.606 \quad INVALID-ORDER-606} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad R_2, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = - \frac{L_1 L_L R_L s (C_4 L_4 s^2 - L_4 g_m s)}{C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_4 R_L s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 R_L s^2 + 2 C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^3 + C_4 C_L L_1 L_4 R_L s^2 + C_4 C_L L_1 L_4 L_L s + C_4 C_L L_1 L_4 R_L s + C_4 C_L L_1 L_4 L_L}$$

$$\mathbf{10.607 \quad INVALID-ORDER-607} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad R_L \right)$$

$$H(s) = \frac{L_1 R_L s (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 L_1 s^2 + C_4 L_1 L_4 g_m s^3 + C_4 L_1 R_4 g_m s^2 + 2 C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 R_4 s + C_4 R_L s + L_1 g_m s + 1}$$

10.608 INVALID-ORDER-608 $Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.609 INVALID-ORDER-609 $Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_L s (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.610 INVALID-ORDER-610 $Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_L R_L s + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + 2C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.611 INVALID-ORDER-611 $Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_L L_L s^2 + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + 2C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.612 INVALID-ORDER-612 $Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L s^2 (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_L R_4 g_m s^4 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

10.613 INVALID-ORDER-613 $Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + 2C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + 2C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

$$\mathbf{10.614 \quad INVALID-ORDER-614} \quad Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 C_L L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 L_L R_L s^4 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_L R_4 s^3}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 L_L s^4}$$

$$\mathbf{10.615 \quad INVALID-ORDER-615} \quad Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 L_L s^4}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 L_L s^4}$$

$$\mathbf{10.616 \quad INVALID-ORDER-616} \quad Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4}$$

$$\mathbf{10.617 \quad INVALID-ORDER-617} \quad Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{L_1 R_L s (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{C_1 C_4 L_1 L_4 R_4 R_L s^4 + C_1 L_1 L_4 R_4 s^3 + C_1 L_1 L_4 R_L s^3 + C_1 L_1 R_4 R_L s^2 + 2 C_4 L_1 L_4 R_4 R_L g_m s^3 + C_4 L_1 L_4 R_4 s^3 + C_4 L_4 R_4 R_L s^2 + L_1 L_4 R_4 g_m s^2 + 2 L_1 L_4 R_L g_m s^2 + L_1 L_4 s^2 + 2 L_1 R_4 s^2}$$

$$\mathbf{10.618 \quad INVALID-ORDER-618} \quad Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 s (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4)}{C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 R_4 s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 R_4 s^2 + C_4 C_L L_1 L_4 R_4 s^4 + 2 C_4 L_1 L_4 R_4 g_m s^3 + C_4 L_4 R_4 s^2 + C_L L_1 L_4 R_4 g_m s^3 + C_L L_1 L_4 s^3 + C_L L_1 R_4 s^2 + C_L L_4 R_4 s^2}$$

10.619 INVALID-ORDER-619 $Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_L s (-C_4 L_4 R_4 s^2 + L_4 I_4)}{C_1 C_4 L_1 L_4 R_4 R_L s^4 + C_1 C_L L_1 L_4 R_4 R_L s^4 + C_1 L_1 L_4 R_4 s^3 + C_1 L_1 L_4 R_L s^3 + C_1 L_1 R_4 R_L s^2 + C_4 C_L L_1 L_4 R_4 R_L s^4 + 2C_4 L_1 L_4 R_4 R_L g_m s^3 + C_4 L_1 L_4 R_4 s^3 + C_4 L_4 R_4 R_L s^2 + C_L}$$

10.620 INVALID-ORDER-620 $Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1}{C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 R_L s^4 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 L_4 s^3 + C_1 L_1 R_4 s^2 + 2C_4 C_L L_1 L_4 R_4 R_L g_m s^4 + C_4 C_L L_1 L_4 R_4 s^4}.$$

10.621 INVALID-ORDER-621 $Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 s}{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 R_4 s^2 + 2 C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + C_4 C_L L_1 L_4 R_4 s^4 +}$$

10.622 INVALID-ORDER-622 $Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L s (-C_4 L_4 R_4 s^2 + L_4 R_4 g_r)}{C_1 C_4 L_1 L_4 L_L R_4 s^4 + C_1 C_L L_1 L_4 L_L R_4 s^4 + C_1 L_1 L_4 L_L s^3 + C_1 L_1 L_4 R_4 s^2 + C_1 L_1 L_L R_4 s^2 + C_4 C_L L_1 L_4 L_L R_4 s^4 + 2 C_4 L_1 L_4 L_L R_4 g_m s^3 + C_4 L_1 L_4 R_4 s^2 + C_4 L_4 L_L R_4 s^2 + C_L L_1 L_4 L_L R_4 s^2 + C_L L_1 L_4 R_4 s^2 + C_L L_1 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + C_L L_4 R_4 s^2 + C_L R_4 s^2}$$

10.623 INVALID-ORDER-623 $Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 R_L s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 L_4 R_4 s^3 + C_1 L_1 L_4 R_L s^3 + C_1 L_1 L_L R_4 s^3 + C_1 L_1 L_L R_L s^3 + C_1 L_1 R_4 R_L s^2 + C_1 L_1 R_L s^2 + C_1 L_L R_4 s^2 + C_1 L_L R_L s^2 + C_1 R_4 R_L s + C_1 R_L s + C_1 L_1 R_4 s + C_1 L_1 R_L s + C_1 L_L R_4 s + C_1 L_L R_L s + C_1 R_4 s + C_1 R_L s + C_1 L_1 s + C_1 L_L s + C_1 R_4 + C_1 R_L + C_1 L_1 + C_1 L_L}{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 R_L s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 L_4 R_4 s^3 + C_1 L_1 L_4 R_L s^3 + C_1 L_1 L_L R_4 s^3 + C_1 L_1 L_L R_L s^3 + C_1 L_1 R_4 R_L s^2 + C_1 L_1 R_L s^2 + C_1 L_L R_4 s^2 + C_1 L_L R_L s^2 + C_1 R_4 R_L s + C_1 R_L s + C_1 L_1 R_4 s + C_1 L_1 R_L s + C_1 L_L R_4 s + C_1 L_L R_L s + C_1 R_4 s + C_1 R_L s + C_1 L_1 s + C_1 L_L s + C_1 R_4 + C_1 R_L + C_1 L_1 + C_1 L_L}.$$

$$10.624 \quad \text{INVALID-ORDER-624} \quad Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 L_L R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_4 R_L s^4 + C_1 L_1 L_4 L_L R_4 s^3 + C_1 L_1 L_4 L_L R_L s^3 + C_1 L_1 L_4 R_4 R_L s^2 + C_1 L_1 L_L R_4 R_L s^2 + C_4 C_L L_1 L_4 L_L R_4 R_L s^4 + 2 C_4 L_1 L_4 L_L R_4 R_L g_m}{C_1 C_4 L_1 L_4 L_L R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_4 R_L s^4 + C_1 L_1 L_4 L_L R_4 s^3 + C_1 L_1 L_4 L_L R_L s^3 + C_1 L_1 L_4 R_4 R_L s^2 + C_1 L_1 L_L R_4 R_L s^2 + C_4 C_L L_1 L_4 L_L R_4 R_L s^4 + 2 C_4 L_1 L_4 L_L R_4 R_L g_m}$$

$$10.625 \quad \text{INVALID-ORDER-625} \quad Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_4 s^5 + C_1 C_4 L_1 L_4 R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_4 s^5 + C_1 C_L L_1 L_4 L_L R_L s^5 + C_1 C_L L_1 L_L R_4 R_L s^4 + C_1 L_1 L_4 L_L s^4 + C_1 L_1 L_4 R_4 s^3 + C_1 L_1 L_4 R_L s^3 + C_1 L_1 L_4 R_4 R_L s^2 + C_1 L_1 L_L R_4 R_L s^2 + C_4 C_L L_1 L_4 L_L R_4 R_L s^4 + 2 C_4 L_1 L_4 L_L R_4 R_L g_m}{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_4 s^5 + C_1 C_4 L_1 L_4 R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_4 s^5 + C_1 C_L L_1 L_4 L_L R_L s^5 + C_1 C_L L_1 L_L R_4 R_L s^4 + C_1 L_1 L_4 L_L s^4 + C_1 L_1 L_4 R_4 s^3 + C_1 L_1 L_4 R_L s^3 + C_1 L_1 L_4 R_4 R_L s^2 + C_1 L_1 L_L R_4 R_L s^2 + C_4 C_L L_1 L_4 L_L R_4 R_L s^4 + 2 C_4 L_1 L_4 L_L R_4 R_L g_m}$$

$$10.626 \quad \text{INVALID-ORDER-626} \quad Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 L_1 L_4 R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_4 s^5 + C_1 C_L L_1 L_4 L_L R_L s^5 + C_1 C_L L_1 L_4 R_4 R_L s^4 + C_1 C_L L_1 L_L R_4 R_L s^4 + C_1 L_1 L_4 R_4 s^3 + C_1 L_1 L_4 R_L s^3 + C_1 L_1 L_4 R_4 R_L s^2 + C_1 L_1 L_L R_4 R_L s^2 + C_4 C_L L_1 L_4 L_L R_4 R_L s^4 + 2 C_4 L_1 L_4 L_L R_4 R_L g_m}{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 L_1 L_4 R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_4 s^5 + C_1 C_L L_1 L_4 L_L R_L s^5 + C_1 C_L L_1 L_4 R_4 R_L s^4 + C_1 C_L L_1 L_L R_4 R_L s^4 + C_1 L_1 L_4 R_4 s^3 + C_1 L_1 L_4 R_L s^3 + C_1 L_1 L_4 R_4 R_L s^2 + C_1 L_1 L_L R_4 R_L s^2 + C_4 C_L L_1 L_4 L_L R_4 R_L s^4 + 2 C_4 L_1 L_4 L_L R_4 R_L g_m}$$

$$10.627 \quad \text{INVALID-ORDER-627} \quad Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{L_1 R_L s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_4 L_1 L_4 R_4 g_m s^3 + 2 C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + L_1 L_4 g_m s^2 + L_1 L_4 R_4 s^2 + L_1 L_4 R_L s^2 + L_1 L_4 R_4 R_L s^2 + L_1 L_L R_4 R_L s^2 + C_4 C_L L_1 L_4 L_L R_4 R_L s^4 + 2 C_4 L_1 L_4 L_L R_4 R_L g_m}{C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_4 L_1 L_4 R_4 g_m s^3 + 2 C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_4 R_4 s^2 + C_4 L_4 R_L s^2 + L_1 L_4 g_m s^2 + L_1 L_4 R_4 s^2 + L_1 L_4 R_L s^2 + L_1 L_4 R_4 R_L s^2 + L_1 L_L R_4 R_L s^2 + C_4 C_L L_1 L_4 L_L R_4 R_L s^4 + 2 C_4 L_1 L_4 L_L R_4 R_L g_m}$$

$$10.628 \quad \text{INVALID-ORDER-628} \quad Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1)}{C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 R_4 s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 R_4 g_m s^4 + C_4 C_L L_1 L_4 s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_1 L_4 g_m s^3 + C_4 L_4 s^2 + C_L L_1 L_4 g_m s^2 + C_L L_1 L_4 R_4 s^2 + C_L L_1 L_4 R_L s^2 + C_L L_1 L_4 R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + C_4 C_L L_1 L_4 L_L R_4 R_L s^4 + 2 C_4 L_1 L_4 L_L R_4 R_L g_m}{C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 R_4 s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 R_4 g_m s^4 + C_4 C_L L_1 L_4 s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_1 L_4 g_m s^3 + C_4 L_4 s^2 + C_L L_1 L_4 g_m s^2 + C_L L_1 L_4 R_4 s^2 + C_L L_1 L_4 R_L s^2 + C_L L_1 L_4 R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + C_4 C_L L_1 L_4 L_L R_4 R_L s^4 + 2 C_4 L_1 L_4 L_L R_4 R_L g_m}$$

$$\mathbf{10.629 \quad INVALID-ORDER-629} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_L L_1 L_4 R_L s^4 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 L_4 s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_4 C_L L_1 L_4 R_4 R_L g_m s^4 + C_4 C_L L_1 L_4 R_4 R_L s^4 + C_4 C_L L_1 L_4 R_4 R_L s^4}{C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 R_4 g_m s^4 + 2 C_4 C_L L_1 L_4 R_4 g_m s^4 + C_4 C_L L_1 L_4 R_4 g_m s^4 + C_4 C_L L_1 L_4 R_4 g_m s^4}$$

$$\mathbf{10.630 \quad INVALID-ORDER-630} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 s (C_L R_L s + 1) (C_4 L_4 R_4 g_m s^2 + C_4 L_4 R_4 g_m s^2 + C_4 L_4 R_4 g_m s^2 + C_4 L_4 R_4 g_m s^2)}{C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 R_4 g_m s^4 + 2 C_4 C_L L_1 L_4 R_4 g_m s^4 + C_4 C_L L_1 L_4 R_4 g_m s^4 + C_4 C_L L_1 L_4 R_4 g_m s^4}$$

$$\mathbf{10.631 \quad INVALID-ORDER-631} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 s (C_L L_L s^2 + 1) (C_4 L_4 R_4 g_m s^2 + C_4 L_4 R_4 g_m s^2 + C_4 L_4 R_4 g_m s^2 + C_4 L_4 R_4 g_m s^2)}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 s^3 + C_1 L_1 s^2 + 2 C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 R_4 g_m s^4 + C_4 C_L L_1 L_4 R_4 g_m s^4 + C_4 C_L L_1 L_4 R_4 g_m s^4}$$

$$\mathbf{10.632 \quad INVALID-ORDER-632} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_L R_4 s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_4 s^2 + C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + C_4 C_L L_1 L_4 L_L R_4 g_m s^5}{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_L R_4 s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_4 s^2 + C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + C_4 C_L L_1 L_4 L_L R_4 g_m s^5}$$

$$\mathbf{10.633 \quad INVALID-ORDER-633} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + 2 C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_1 L_4 L_L R_4 g_m s^4 + C_4 C_L L_1 L_4 L_L R_4 g_m s^4 + C_4 C_L L_1 L_4 L_L R_4 g_m s^4 + C_4 C_L L_1 L_4 L_L R_4 g_m s^4}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + 2 C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_1 L_4 L_L R_4 g_m s^4 + C_4 C_L L_1 L_4 L_L R_4 g_m s^4 + C_4 C_L L_1 L_4 L_L R_4 g_m s^4 + C_4 C_L L_1 L_4 L_L R_4 g_m s^4}$$

$$10.634 \quad \text{INVALID-ORDER-634} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{1}{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_4 s^5 + C_1 C_4 L_1 L_4 L_L R_L s^5 + C_1 C_4 L_1 L_4 R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_L s^5 + C_1 C_L L_1 L_L R_4 R_L s^4 + C_1 L_1 L_4 L_L s^4 + C_1 L_1 L_4 R_L s^3 + C_1 L_1 L_4 s^2 + C_1 L_1 s + C_1}$$

$$10.635 \quad \text{INVALID-ORDER-635} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{1}{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_4 s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 L_4 s^2 + C_1 L_1 s + C_1}$$

$$10.636 \quad \text{INVALID-ORDER-636} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{1}{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_4 R_L s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_4 s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 L_4 s^2 + C_1 L_1 s + C_1}$$

$$10.637 \quad \text{INVALID-ORDER-637} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad L_2 s + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad R_L \right)$$

$$H(s) = \frac{L_1 R_L s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + 2C_4 L_1 R_4 R_L g_m s^2 + C_4 L_1 R_4 s^2 + C_4 L_1 s + C_1}$$

$$10.638 \quad \text{INVALID-ORDER-638} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad L_2 s + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 R_4 g_m s^4 + C_4 C_L L_1 L_4 s^4 + C_4 C_L L_1 R_4 s^3 + C_4 C_L L_4 R_4 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 s^3 + C_1}$$

10.639 INVALID-ORDER-639 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_4 C_L L_1 L_4 R_4 R_L g_m s^4 + C_4 C_L L_1 L_4 R_L s^4 + C_4 C_L L_1 L_4 R_4 s^4 + C_4 C_L L_1 L_4 R_L s^4}{C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_4 C_L L_1 L_4 R_4 R_L g_m s^4 + C_4 C_L L_1 L_4 R_L s^4 + C_4 C_L L_1 L_4 R_4 s^4 + C_4 C_L L_1 L_4 R_L s^4}$$

10.640 INVALID-ORDER-640 $Z(s) = \left(\frac{1}{C_{1s}}, L_2s + \frac{1}{C_{2s}}, \infty, \infty, \infty, R_L + \frac{1}{C_{Ls}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 R_4 g_m s^4 + 2 C_4 C_L L_1 L_4 R_4 s^4}{C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 R_4 g_m s^4 + 2 C_4 C_L L_1 L_4 R_4 s^4}$$

10.641 INVALID-ORDER-641 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 s^3 + C_1 L_1 s^2 + 2 C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^4 + C_4 C_L L_1 L_4 R_4 s^3 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_1 R_4 s^3 + C_4 L_1 s^2 + 2 C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^4 + C_4 C_L L_1 L_4 R_4 s^3 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_1 R_4 s^3 + C_4 L_1 s^2}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 s^3 + C_1 L_1 s^2 + 2 C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^4 + C_4 C_L L_1 L_4 R_4 s^3 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_1 R_4 s^3 + C_4 L_1 s^2 + 2 C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^4 + C_4 C_L L_1 L_4 R_4 s^3 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_1 R_4 s^3 + C_4 L_1 s^2}$$

10.642 INVALID-ORDER-642 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_4 s^2 + C_4 C_L L_1 L_4 L_L R_{4g_m} s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4}{...}$$

10.643 INVALID-ORDER-643 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 s^3}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 s^3}$$

10.644 INVALID-ORDER-644 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_4 s^5 + C_1 C_4 L_1 L_4 L_L R_L s^5 + C_1 C_4 L_1 L_4 R_4 R_L s^4 + C_1 C_4 L_1 L_L R_4 R_L s^4 + C_1 C_L L_1 L_L R_4 R_L s^4 + C_1 L_1 L_L R_4 s^3 + C_1 L_1 L_L R_L s^3 + C_1}{\dots}$$

10.645 INVALID-ORDER-645 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_4 L_1 L_L R_L s^3 + C_1 C_4 L_1 L_L R_4 s^2 + C_1 C_4 L_1 L_L R_L s^2 + C_1 C_4 L_1 L_L R_4 s^2 + C_1 C_4 L_1 L_L R_L s^2 + C_1 C_4 L_1 L_L R_4 s^2 + C_1 C_4 L_1 L_L R_L s^2}{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_4 L_1 L_L R_L s^3 + C_1 C_4 L_1 L_L R_4 s^2 + C_1 C_4 L_1 L_L R_L s^2 + C_1 C_4 L_1 L_L R_4 s^2 + C_1 C_4 L_1 L_L R_L s^2 + C_1 C_4 L_1 L_L R_4 s^2 + C_1 C_4 L_1 L_L R_L s^2}$$

10.646 INVALID-ORDER-646 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_4}{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_4}$$

10.647 INVALID-ORDER-647 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{(R_4 g_m - 1)(C_1 L_1 s^2 + C_1 R_1 s + 1)}{C_1 C_L L_1 R_4 g_m s^3 + C_1 C_L L_1 s^3 + C_1 C_L R_1 R_4 g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 R_1 g_m s + C_1 s + C_L R_4 g_m s + C_L s + 2g_m}$$

10.648 INVALID-ORDER-648 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_L(R_4 g_m - 1)(C_1 L_1 s^2 + C_1 R_1 s + 1)}{C_1 C_L L_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L R_1 R_4 R_L g_m s^2 + C_1 C_L R_1 R_L s^2 + C_1 C_L R_4 R_L s^2 + C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_L g_m s^2 + C_1 L_1 s^2 + C_1 R_1 R_4 g_m s + 2C_1 R_1 R_L g_m s + C_1 R_1 s + 1}$$

10.649 INVALID-ORDER-649 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(R_4 g_m - 1)(C_L R_L s + 1)(C_1 L_1 s^2 + C_1 R_1 s + 1)}{C_1 C_L L_1 R_4 g_m s^3 + 2C_1 C_L L_1 R_L g_m s^3 + C_1 C_L L_1 s^3 + C_1 C_L R_1 R_4 g_m s^2 + 2C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + 2C_1 L_1 g_m s^2 + 2C_1 R_1 g_m s + C_1 s + C_L}$$

10.650 INVALID-ORDER-650 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(R_4 g_m - 1)(C_L L_L s^2 + 1)(C_1 L_1 s^2 + C_1 R_1 s + 1)}{2C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_1 R_4 g_m s^3 + C_1 C_L L_1 s^3 + 2C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s^3 + C_1 C_L R_1 R_4 g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_L}$$

10.651 INVALID-ORDER-651 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L s (R_4 g_m - 1)(C_1 L_1 s^2 + C_1 R_1 s + 1)}{C_1 C_L L_1 L_L R_4 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_L R_1 R_4 g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_4 s^3 + 2C_1 L_1 L_L g_m s^3 + C_1 L_1 R_4 g_m s^2 + C_1 L_1 s^2 + 2C_1 L_L R_1 g_m s^2 + C_1 L_L s^2 + C_1 R_1}$$

10.652 INVALID-ORDER-652 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(R_4 g_m - 1)(C_1 L_1 s^2 + C_1 R_1 s + 1)(C_L L_L s^2 + C_L R_L s + 1)}{2C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_1 R_4 g_m s^3 + 2C_1 C_L L_1 R_L g_m s^3 + C_1 C_L L_1 s^3 + 2C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s^3 + C_1 C_L R_1 R_4 g_m s^2 + 2C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2}$$

10.653 INVALID-ORDER-653 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{1}{C_1 C_L L_1 L_L R_4 R_L g_m s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_L R_1 R_4 R_L g_m s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_1 L_L R_4 g_m s^3 + 2C_1 L_1 L_L R_L g_m s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_4}$$

10.654 INVALID-ORDER-654 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{(R_4 g_m - 1)}{C_1 C_L L_1 L_L R_4 g_m s^4 + 2C_1 C_L L_1 L_L R_L g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_L R_1 R_4 g_m s^3 + 2C_1 C_L L_L R_1 R_L g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + 2C_1 L_1 L_L g_m s^2 + C_1 L_1 L_L s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_1 s + 2C_4 R_L g_m s + C_4 s + g_m}$$

10.655 INVALID-ORDER-655 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{(R_4 g_m - 1)}{C_1 C_L L_1 L_L R_4 g_m s^4 + 2C_1 C_L L_1 L_L R_L g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L L_L R_1 R_4 g_m s^3 + 2C_1 C_L L_L R_1 R_L g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + 2C_1 L_1 L_L g_m s^2 + C_1 L_1 L_L s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_1 s + 2C_4 R_L g_m s + C_4 s + g_m}$$

10.656 INVALID-ORDER-656 $Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L \right)$

$$H(s) = -\frac{R_L (C_4 s - g_m) (C_1 L_1 s^2 + C_1 R_1 s + 1)}{2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_L s^2 + C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + 2C_4 R_L g_m s + C_4 s + g_m}$$

10.657 INVALID-ORDER-657 $Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_4 s - g_m) (C_1 L_1 s^2 + C_1 R_1 s + 1)}{s (C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L R_1 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L R_1 g_m s + C_1 C_L s + C_4 C_L s + 2C_4 g_m + C_L g_m)}$$

10.658 INVALID-ORDER-658 $Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{R_L (C_4 s - g_m) (C_1 L_1 s^2 + C_1 R_1 s + 1)}{C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L R_1 R_L s^3 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_L s^2 + C_1 C_L L_1 R_L g_m s^3 + C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_L s^2 + C_1 C_L s^2 + C_1 R_1 s + C_1 s + 2C_4 R_L g_m s + C_4 s + g_m}$$

10.659 INVALID-ORDER-659 $Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_4 s - g_m)(C_L R_L s + 1)(C_1 L_1 s^2 + C_1 R_1 s + 1)}{s(2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + 2C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L R_1 g_m s}$$

10.660 INVALID-ORDER-660 $Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_4 s - g_m)(C_L L_L s^2 + 1)(C_1 L_1 s^2 + C_1 R_1 s + 1)}{s(2C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 s^3 + 2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L R_1 g_m s}$$

10.661 INVALID-ORDER-661 $Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{L_L s(C_4 s - g_m)(C_1 L_1 s^2 + C_1 R_1 s + 1)}{C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_L R_1 s^4 + 2C_1 C_4 L_1 L_L g_m s^4 + C_1 C_4 L_1 s^3 + 2C_1 C_4 L_L R_1 g_m s^3 + C_1 C_4 L_L s^3 + C_1 C_4 R_1 s^2 + C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s^3 +$$

10.662 INVALID-ORDER-662 $Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_4 s - g_m)(C_1 L_1 s^2 + C_1 R_1 s + 1)(C_L L_L s^2 + 1)}{s(2C_1 C_4 C_L L_1 L_L g_m s^4 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + 2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + 2C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L R_1 g_m s}$$

10.663 INVALID-ORDER-663 $Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{1}{C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_L R_1 R_L s^4 + 2C_1 C_4 L_1 L_L R_L g_m s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_L s^3 + 2C_1 C_4 L_L R_1 R_L g_m s^3 + C_1 C_4 L_L R_1 s^3 + C_1 C_4 L_L R_L s^3 + C_1 C_4 R_1 R_L s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L R_1 g_m s}$$

$$10.664 \quad \text{INVALID-ORDER-664} \quad Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + 2C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_L s^4 + 2C_1 C_4 L_1 L_L g_m s^4 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + 2C_1 C_4 L_1 R_L g_m s^2 + C_1 C_4 L_1 R_L s^2 + C_1 C_4 L_1 R_L s + C_1 C_4 L_1}{2C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + 2C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_L s^4 + 2C_1 C_4 L_1 L_L g_m s^4 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + 2C_1 C_4 L_1 R_L g_m s^2 + C_1 C_4 L_1 R_L s^2 + C_1 C_4 L_1 R_L s + C_1 C_4 L_1}$$

$$10.665 \quad \text{INVALID-ORDER-665} \quad Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_1 R_L s^4 + 2C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 C_L R_1 R_L s^3 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 L_1 R_L s^2 + C_1 C_4 L_1 R_L s + C_1 C_4 L_1}{2C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_1 R_L s^4 + 2C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 C_L R_1 R_L s^3 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 L_1 R_L s^2 + C_1 C_4 L_1 R_L s + C_1 C_4 L_1}$$

$$10.666 \quad \text{INVALID-ORDER-666} \quad Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L \right)$$

$$H(s) = -\frac{R_L (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 R_4 s - R_4 g_m + 1)}{2C_1 C_4 L_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 R_1 R_4 R_L g_m s^2 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_4 R_L s^2 + C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_L g_m s^2 + C_1 L_1 s^2 + C_1 R_1 R_4 g_m s + 2C_1 R_1 R_L g_m s + C_1 R_1 R_4 s + C_1 R_1 R_L s + C_1 R_1 s + C_1}$$

$$10.667 \quad \text{INVALID-ORDER-667} \quad Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_1 R_4 s^4 + C_1 C_4 C_L R_1 R_4 s^3 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + C_1 C_L L_1 R_4 g_m s^3 + C_1 C_L L_1 s^3 + C_1 C_L R_1 R_4 g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_4 s + C_1 C_L R_1 s + C_1 C_L s + C_1}$$

$$10.668 \quad \text{INVALID-ORDER-668} \quad Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + 2C_1 C_4 L_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 R_1 R_4 R_L g_m s^2 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L R_1 R_4 R_L g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_4 s + C_1 C_L R_1 s + C_1 C_L s + C_1}{C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + 2C_1 C_4 L_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 R_1 R_4 R_L g_m s^2 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L R_1 R_4 R_L g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_4 s + C_1 C_L R_1 s + C_1 C_L s + C_1}$$

$$10.669 \quad \text{INVALID-ORDER-669} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \quad \infty, \quad \infty, \quad \infty, \quad R_L + \frac{1}{C_L s} \right)$$

$$H(s) = - \frac{2C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_4 s^4 + 2C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_4 s^3 + C_1 C_4 C_L R_4 R_L s^3 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + C_1 C_L R_4 s}{2C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_4 s^4 + 2C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_4 s^3 + C_1 C_4 C_L R_4 R_L s^3 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + C_1 C_L R_4 s}$$

$$10.670 \quad \text{INVALID-ORDER-670} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \quad \infty, \quad \infty, \quad \infty, \quad L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = - \frac{2C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + C_1 C_4 C_L L_1 R_4 s^4 + 2C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L R_1 R_4 s^3 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_L R_4 s}{2C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + C_1 C_4 C_L L_1 R_4 s^4 + 2C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L R_1 R_4 s^3 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_L R_4 s}$$

$$10.671 \quad \text{INVALID-ORDER-671} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = - \frac{C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_L R_1 R_4 s^4 + 2C_1 C_4 L_1 L_L R_4 g_m s^4 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_L R_1 R_4 g_m s^3 + C_1 C_4 L_L R_4 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_1 L_L R_4 g_m s^4 + C_1 C_L L_1 L_L R_4 s}{C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_L R_1 R_4 s^4 + 2C_1 C_4 L_1 L_L R_4 g_m s^4 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_L R_1 R_4 g_m s^3 + C_1 C_4 L_L R_4 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_1 L_L R_4 g_m s^4 + C_1 C_L L_1 L_L R_4 s}$$

$$10.672 \quad \text{INVALID-ORDER-672} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \quad \infty, \quad \infty, \quad \infty, \quad L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = - \frac{2C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + 2C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_4 s^4 + 2C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_4 s^4 + 2C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_4 s^3 + C_1 C_4 C_L R_4 s^3}{2C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + 2C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_4 s^4 + 2C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_4 s^4 + 2C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_4 s^3 + C_1 C_4 C_L R_4 s^3}$$

$$10.673 \quad \text{INVALID-ORDER-673} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = - \frac{C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + 2C_1 C_4 L_1 L_L R_4 R_L g_m s^4 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 R_4 R_L s^3 + 2C_1 C_4 L_L R_1 R_4 R_L g_m s^3 + C_1 C_4 L_L R_1 R_4 s^3 + C_1 C_4 L_L R_4 s^3}{C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + 2C_1 C_4 L_1 L_L R_4 R_L g_m s^4 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 R_4 R_L s^3 + 2C_1 C_4 L_L R_1 R_4 R_L g_m s^3 + C_1 C_4 L_L R_1 R_4 s^3 + C_1 C_4 L_L R_4 s^3}$$

$$10.674 \quad \text{INVALID-ORDER-674} \quad Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = - \frac{2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + 2C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + 2C_1 C_4 L_1 L_L R_4 g_m s^4 + 2C_1 C_4 L_1 R_4 R_L g_m s^3 + 2C_1 C_4 L_1 R_4 R_L s^3 + 2C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_1 R_L g_m s^3 + 2C_1 C_4 L_1 R_L s^3 + 2C_1 C_4 L_1 s^3 + C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + C_4 R_4 g_m s + C_4 R_4 s + C_4 L_1 g_m s + C_4 L_1 s + C_4 R_1 g_m s + C_4 R_1 s + C_4 R_L g_m s + C_4 R_L s + C_4 s}{2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + 2C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + 2C_1 C_4 L_1 L_L R_4 g_m s^4 + 2C_1 C_4 L_1 R_4 R_L g_m s^3 + 2C_1 C_4 L_1 R_4 R_L s^3 + 2C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_1 R_L g_m s^3 + 2C_1 C_4 L_1 R_L s^3 + 2C_1 C_4 L_1 s^3 + C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + C_4 R_4 g_m s + C_4 R_4 s + C_4 L_1 g_m s + C_4 L_1 s + C_4 R_1 g_m s + C_4 R_1 s + C_4 R_L g_m s + C_4 R_L s + C_4 s}$$

$$10.675 \quad \text{INVALID-ORDER-675} \quad Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = - \frac{2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + 2C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + 2C_1 C_4 C_L R_1 R_4 s^3 + 2C_1 C_4 C_L R_1 s^3 + C_1 C_4 C_L R_4 s^3 + C_1 C_4 C_L R_L s^3 + C_1 L_1 g_m s^3 + C_1 R_1 g_m s + C_1 s + C_4 R_4 g_m s + C_4 R_4 s + C_4 L_1 g_m s + C_4 L_1 s + C_4 R_1 g_m s + C_4 R_1 s + C_4 R_L g_m s + C_4 R_L s + C_4 s}{2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + 2C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + 2C_1 C_4 C_L R_1 R_4 s^3 + 2C_1 C_4 C_L R_1 s^3 + C_1 C_4 C_L R_4 s^3 + C_1 C_4 C_L R_L s^3 + C_1 L_1 g_m s^3 + C_1 R_1 g_m s + C_1 s + C_4 R_4 g_m s + C_4 R_4 s + C_4 L_1 g_m s + C_4 L_1 s + C_4 R_1 g_m s + C_4 R_1 s + C_4 R_L g_m s + C_4 R_L s + C_4 s}$$

$$10.676 \quad \text{INVALID-ORDER-676} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{R_L (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + C_4 R_4 g_m s + C_4 R_4 s + C_4 L_1 g_m s + C_4 L_1 s + C_4 R_1 g_m s + C_4 R_1 s + C_4 R_L g_m s + C_4 R_L s + C_4 s}$$

$$10.677 \quad \text{INVALID-ORDER-677} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L R_1 R_4 g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_4 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L R_1 g_m s + C_1 C_L s + C_4 R_4 g_m s + C_4 R_4 s + C_4 L_1 g_m s + C_4 L_1 s + C_4 R_1 g_m s + C_4 R_1 s + C_4 R_L g_m s + C_4 R_L s + C_4 s)}$$

$$10.678 \quad \text{INVALID-ORDER-678} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{R_L (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_L s^3 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + C_4 R_4 g_m s + C_4 R_4 s + C_4 L_1 g_m s + C_4 L_1 s + C_4 R_1 g_m s + C_4 R_1 s + C_4 R_L g_m s + C_4 R_L s + C_4 s}$$

10.679 INVALID-ORDER-679 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_L R_L s + 1)(C_1 L_1 s^2 + C_1 R_1 s + 1)(C_4 R_4 g_m s - C_4 R_4)}{s(C_1 C_4 C_L L_1 R_4 g_m s^3 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L R_1 R_4 g_m s^2 + 2C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 L_1 g_m s + C_1 C_4 L_1)}$$

10.680 INVALID-ORDER-680 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_L L_L s^2 + 1)(C_1 L_1 s^2 + C_1 R_1 s + 1)(C_4 R_4 g_m s - C_4 R_4 g_m)}{s(2C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 s^3 + 2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 R_4 g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_4 s^2 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 L_1 s^2 + C_1 C_4 L_L s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 s^2 + C_1 C_4)}.$$

10.681 INVALID-ORDER-681 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_L R_4 g_m s^5 + C_1 C_4 C_L L_L L_L s^5 + C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_4 s^4 + 2 C_1 C_4 L_1 L_L g_m s^4 + C_1 C_4 L_1 R_4 g_m s^3 + C_1 C_4 L_1 s^3 + 2 C_1 C_4 L_L R_1}{C_1 C_4 C_L L_L R_4 g_m s^5 + C_1 C_4 C_L L_L L_L s^5 + C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_4 s^4 + 2 C_1 C_4 L_1 L_L g_m s^4 + C_1 C_4 L_1 R_4 g_m s^3 + C_1 C_4 L_1 s^3 + 2 C_1 C_4 L_L R_1}.$$

10.682 INVALID-ORDER-682 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + C_1 R_1}{s(2C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + 2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 R_4 g_m s^2 + 2C_1 C_4 C_L R_1 R_L g_m s^2 +$$

10.683 INVALID-ORDER-683 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_1 L_L R_4 g_m s^4 + 2 C_1 C_4 L_1 L_L R_L g_m s^4 + C_1 C_4 L_1 L_L R_L s^4}{C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_1 L_L R_4 g_m s^4 + 2 C_1 C_4 L_1 L_L R_L g_m s^4 + C_1 C_4 L_1 L_L R_L s^4}$$

10.684 INVALID-ORDER-684 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + 2C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L}{C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + 2C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L}$$

10.685 INVALID-ORDER-685 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + 2C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L}{C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + 2C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L}$$

10.686 INVALID-ORDER-686 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_L (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_L s^2 + C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + C_4 L_4 g_m s^2 - C_4 s + g_m}$$

10.687 INVALID-ORDER-687 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{s (C_1 C_4 C_L L_1 L_4 g_m s^4 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L R_1 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L R_1 g_m s + C_1)}$$

10.688 INVALID-ORDER-688 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L R_1 R_L s^3 + C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_L s^2 + C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + C_4 L_4 g_m s^2 - C_4 s + g_m}{C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L R_1 R_L s^3 + C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_L s^2 + C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + C_4 L_4 g_m s^2 - C_4 s + g_m}$$

10.689 INVALID-ORDER-689 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_L R_L s + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 g_m s^2 - C_4 L_4 g_m)}{s (C_1 C_4 C_L L_1 L_4 g_m s^4 + 2 C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2 C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_L s^2 + 2 C_1 C_4 L_1 g_m s^2 - C_4 L_4 g_m)}$$

10.690 INVALID-ORDER-690 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_L L_L s^2 + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 g_m s^2 - C_4 L_4 g_m)}{s (C_1 C_4 C_L L_1 L_4 g_m s^4 + 2 C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2 C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 s^2 + 2 C_1 C_4 L_1 g_m s^2 - C_4 L_4 g_m)}$$

10.691 INVALID-ORDER-691 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 g_m s^2 - C_4 L_4 g_m)}{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 L_1 L_4 g_m s^4 + 2 C_1 C_4 L_1 L_L g_m s^4 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 R_1 g_m s^3 - C_4 L_4 g_m}$$

10.692 INVALID-ORDER-692 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 g_m s^2 - C_4 L_4 g_m)}{s (C_1 C_4 C_L L_1 L_4 g_m s^4 + 2 C_1 C_4 C_L L_1 L_L g_m s^4 + 2 C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2 C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + 2 C_1 C_4 C_L R_1 s^2 + 2 C_1 C_4 L_1 g_m s^2 - C_4 L_4 g_m)}$$

10.693 INVALID-ORDER-693 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 g_m s^2 - C_4 L_4 g_m)}{C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 L_1 L_4 L_L g_m s^5 + C_1 C_4 L_1 L_4 R_L g_m s^4 + 2 C_1 C_4 L_1 g_m s^4 - C_4 L_4 g_m}$$

10.694 INVALID-ORDER-694 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + 2 C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + 2 C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L s^4}{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + 2 C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + 2 C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L s^4}$$

10.695 INVALID-ORDER-695 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L q_m s^6 + C_1 C_4 C_L L_1 L_4 R_L q_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_L q_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_4 L_L R_1 q_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1}{C_1 C_4 C_L L_1 L_4 L_L q_m s^6 + C_1 C_4 C_L L_1 L_4 R_L q_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_L q_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_4 L_L R_1 q_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1}$$

10.696 INVALID-ORDER-696 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L \right)$

$$H(s) = -\frac{R_L (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{2C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 R_L g_m s^2 + C_1 L_1 s^2 + C_1 L_4 R_1 g_m s^2 + C_1 L_4 s^2 + 2C_1 R_1}$$

10.697 INVALID-ORDER-697 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_1 L_1 s^2 + C_1 R_1 s + 1)(C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_4 R_1 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + C_1 C_L L_1 L_4 g_m s^4 + C_1 C_L L_1 s^3 + C_1 C_L L_4 R_1 g_m s^3 + C_1 C_L L_4 s^3 + C_1 C_L R_1 s^2 + 2}$$

10.698 INVALID-ORDER-698 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_4 R_1 R_L s^4 + 2C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_1 L_4 R_L g_m s^4 + C_1 C_L L_1 R$$

10.699 INVALID-ORDER-699 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + 2C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_L s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + C_1 C_L L_1}{2C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + 2C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_L s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + C_1 C_L L_1}$$

10.700 INVALID-ORDER-700 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_4 s^5 + 2C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + C_1 C_L L_1}{2C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_4 s^5 + 2C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + C_1 C_L L_1}$$

10.701 INVALID-ORDER-701 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_4 L_L R_1 s^5 + 2C_1 C_4 L_1 L_4 L_L g_m s^5 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_4 L_L R_1 g_m s^4 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_1 L_4 L_L g_m s^5 + C_1 C_L L_1 L_L}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_4 L_L R_1 s^5 + 2C_1 C_4 L_1 L_4 L_L g_m s^5 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_4 L_L R_1 g_m s^4 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_1 L_4 L_L g_m s^5 + C_1 C_L L_1 L_L}$$

10.702 INVALID-ORDER-702 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + 2C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + 2C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + 2C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 L_L}{2C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + 2C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + 2C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + 2C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 L_L}$$

10.703 INVALID-ORDER-703 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + 2C_1 C_4 L_1 L_4 L_L R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_L s^4 + 2C_1 C_4 L_4 L_L R_1 R_L g_m s^4 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_4 L_4 L_L}{C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + 2C_1 C_4 L_1 L_4 L_L R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_L s^4 + 2C_1 C_4 L_4 L_L R_1 R_L g_m s^4 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_4 L_4 L_L}$$

10.704 INVALID-ORDER-704 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + 2C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + 2C_1 C_4 L_1 L_4 L_L g_m s^5 + 2C_1 C_4 L_1 L_4 R_L g_m s^4 + \dots}{\dots}$$

10.705 INVALID-ORDER-705 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_L s^5 + 2C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_4 R_1 R_L s^4 + 2C_1 C_4 C_L L_1 L_4 R_1 R_L s^4}{(s^2 + \gamma)^2}$$

10.706 INVALID-ORDER-706 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_L (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 L_1 L_4 g_m s^4 + C_1 C_4 L_1 R_4 g_m s^3 + 2 C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_1 R_4 g_m s^2 + 2 C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 g_m s + C_1 g_m}$$

10.707 INVALID-ORDER-707 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s}{s (C_1 C_4 C_L L_1 L_4 g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L R_1 R_4 g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_4 s^2 + 2 C_1 C_4 L_1 g_m s^2 +$$

10.708 INVALID-ORDER-708 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_L s^3 + C_1 C_4 C_L R_4 R_L s^3}{C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_L s^3 + C_1 C_4 C_L R_4 R_L s^3}$$

10.709 INVALID-ORDER-709 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_L R_L s + 1)(C_1 L_1 s + 1)}{s(C_1 C_4 C_L L_1 L_4 g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L R_1 R_4 g_m s^2 + 2C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_L s^2 + C_1 C_4 C_L s^2)}$$

10.710 INVALID-ORDER-710 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_L L_L s^2 + 1)(C_1 L_1 s + 1)}{s(C_1 C_4 C_L L_1 L_4 g_m s^4 + 2C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 s^3 + C_1 C_4 C_L R_L s^3 + C_1 C_4 C_L s^3)}$$

10.711 INVALID-ORDER-711 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{1}{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L s^4}$$

10.712 INVALID-ORDER-712 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{1}{s(C_1 C_4 C_L L_1 L_4 g_m s^4 + 2C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 s^3 + C_1 C_4 C_L R_L s^3 + C_1 C_4 C_L s^3)}$$

10.713 INVALID-ORDER-713 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{1}{C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L s^4}$$

10.714 INVALID-ORDER-714 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + 2 C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4}{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + 2 C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4}$$

10.715 INVALID-ORDER-715 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L$$

10.716 INVALID-ORDER-716 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = -\frac{R_L}{2C_1C_4L_1L_4R_4R_Lg_ms^4 + C_1C_4L_1L_4R_4s^4 + 2C_1C_4L_4R_1R_4R_Lg_ms^3 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_4R_Ls^3 + C_1L_1L_4R_4g_ms^3 + 2C_1L_1L_4R_Lg_ms^3 + C_1L_1L_4s^3 + 2C_1L_1R_4I}$$

10.717 INVALID-ORDER-717 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + 2C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2C_1 C_4 L_4 R_1 R_4 g_m s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_1 L_4 R_4 g_m s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_4 R_1}{C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + 2C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2C_1 C_4 L_4 R_1 R_4 g_m s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_1 L_4 R_4 g_m s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_4 R_1}$$

10.718 INVALID-ORDER-718 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + 2C_1 C_4 L_1 L_4 R_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + 2C_1 C_4 L_4 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_L L_1 L_4 R_1 R_4 s^2 + C_1 C_L L_1 L_4 R_4 R_L s^2 + C_1 C_L L_1 L_4 R_1 s^2 + C_1 C_L L_1 L_4 R_4 s^2 + C_1 C_L L_1 L_4 s^2 + C_1 C_L L_1 R_1 R_4 s^2 + C_1 C_L L_1 R_4 R_L s^2 + C_1 C_L L_1 R_1 s^2 + C_1 C_L L_1 R_4 s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_4 R_L s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L s^2 + C_1 C R_1 R_4 s^2 + C_1 C R_4 R_L s^2 + C_1 C R_1 s^2 + C_1 C R_4 s^2 + C_1 C s^2 + C_1 R_1 R_4 s^2 + C_1 R_4 R_L s^2 + C_1 R_1 s^2 + C_1 R_4 s^2 + C_1 s^2}{C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + 2C_1 C_4 L_1 L_4 R_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + 2C_1 C_4 L_4 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_L L_1 L_4 R_1 R_4 s^2 + C_1 C_L L_1 L_4 R_4 R_L s^2 + C_1 C_L L_1 L_4 R_1 s^2 + C_1 C_L L_1 L_4 R_4 s^2 + C_1 C_L L_1 L_4 s^2 + C_1 C_L L_1 R_1 R_4 s^2 + C_1 C_L L_1 R_4 R_L s^2 + C_1 C_L L_1 R_1 s^2 + C_1 C_L L_1 R_4 s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_4 R_L s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L s^2 + C_1 C R_1 R_4 s^2 + C_1 C R_4 R_L s^2 + C_1 C R_1 s^2 + C_1 C R_4 s^2 + C_1 C s^2 + C_1 R_1 R_4 s^2 + C_1 R_4 R_L s^2 + C_1 R_1 s^2 + C_1 R_4 s^2 + C_1 s^2}.$$

10.719 INVALID-ORDER-719 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4C_LL_4R_1R_4R_Lg_ms^4 + C_1C_4C_LL_4R_1R_4s^4 + C_1C_4C_LL_4R_4R_Ls^4 + 2C_1C_4L_1L_4R_4g_ms^4 + 2C_1C_4L_4R_1R_4g_ms^3 + C_1C_4L_4R_4R_Lg_ms^2 + C_1C_4L_4R_4s^2 + C_1C_4L_1L_4R_4g_ms + C_1C_4L_1L_4s + C_1C_4L_4R_1R_4 + C_1C_4L_4R_4R_L + C_1C_4L_4R_4}{2C_1C_4C_LL_1L_4R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4C_LL_4R_1R_4R_Lg_ms^4 + C_1C_4C_LL_4R_1R_4s^4 + C_1C_4C_LL_4R_4R_Ls^4 + 2C_1C_4L_1L_4R_4g_ms^4 + 2C_1C_4L_4R_1R_4g_ms^3 + C_1C_4L_4R_4R_Lg_ms^2 + C_1C_4L_4R_4s^2 + C_1C_4L_1L_4R_4g_ms + C_1C_4L_1L_4s + C_1C_4L_4R_1R_4 + C_1C_4L_4R_4R_L + C_1C_4L_4R_4}.$$

10.720 INVALID-ORDER-720 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_4q_ms^6 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4C_LL_4L_LR_1R_4q_ms^5 + C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_4R_1R_4s^4 + 2C_1C_4L_1L_4R_4q_ms^4 + 2C_1C_4L_4R_1R_4q_ms^3 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_1R_4s^2 + C_1C_4L_4R_1R_4s + C_1C_4L_4R_1R_4}{2C_1C_4C_LL_1L_4L_LR_4q_ms^6 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4C_LL_4L_LR_1R_4q_ms^5 + C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_4R_1R_4s^4 + 2C_1C_4L_1L_4R_4q_ms^4 + 2C_1C_4L_4R_1R_4q_ms^3 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_1R_4s^2 + C_1C_4L_4R_1R_4s + C_1C_4L_4R_1R_4}.$$

10.721 INVALID-ORDER-721 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + 2C_1 C_4 L_1 L_4 L_L R_4 g_m s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + 2C_1 C_4 L_4 L_L R_1 R_4 g_m s^4 + C_1 C_4 L_4 L_L R_4 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_L L_1 L_4 L_L}{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + 2C_1 C_4 L_1 L_4 L_L R_4 g_m s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + 2C_1 C_4 L_4 L_L R_1 R_4 g_m s^4 + C_1 C_4 L_4 L_L R_4 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_L L_1 L_4 L_L}$$

10.722 INVALID-ORDER-722 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_4g_ms^6 + 2C_1C_4C_LL_1L_4R_4RLg_ms^5 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4C_LL_4L_LR_1R_4g_ms^5 + C_1C_4C_LL_4L_LR_4s^5 + 2C_1C_4C_LL_4R_1R_4RLg_ms^4 + C_1C_4C_LL_4R_1R_4R_4s^4 + C_1C_4C_LL_4R_1R_4s^4 + C_1C_4C_LL_4R_1R_4s^4}{2C_1C_4C_LL_1L_4L_LR_4g_ms^6 + 2C_1C_4C_LL_1L_4R_4RLg_ms^5 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4C_LL_4L_LR_1R_4g_ms^5 + C_1C_4C_LL_4L_LR_4s^5 + 2C_1C_4C_LL_4R_1R_4RLg_ms^4 + C_1C_4C_LL_4R_1R_4R_4s^4 + C_1C_4C_LL_4R_1R_4s^4 + C_1C_4C_LL_4R_1R_4s^4}.$$

10.723 INVALID-ORDER-723 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + 2C_1 C_4 L_1 L_4 L_L R_4 R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L R_4 s^5 + C_1 C_4 L_1 L_4 R_4 R_L s^4 + 2C_1 C_4 L_4 L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 L_4 L_L R_1}{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + 2C_1 C_4 L_1 L_4 L_L R_4 R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L R_4 s^5 + C_1 C_4 L_1 L_4 R_4 R_L s^4 + 2C_1 C_4 L_4 L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 L_4 L_L R_1}$$

10.724 INVALID-ORDER-724 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + 2C_1C_4C_LL_4L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1R_4s^5 + C_1C_4C_LL_4L_LR_4R_Ls^5 + 2C_1C_4L_1L_4L_LR_4g_ms^5 + 2C_1C_4L_1L_4L_LR_4s^5 + 2C_1C_4L_1L_4L_LR_4g_ms^4 + C_1C_4L_1L_4L_LR_4s^4 + 2C_1C_4L_1L_4L_LR_4g_ms^3 + C_1C_4L_1L_4L_LR_4s^3 + 2C_1C_4L_1L_4L_LR_4g_ms^2 + C_1C_4L_1L_4L_LR_4s^2 + 2C_1C_4L_1L_4L_LR_4g_ms + C_1C_4L_1L_4L_LR_4s + C_1C_4L_1L_4L_LR_4}{2C_1C_4C_LL_1L_4L_LR_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + 2C_1C_4C_LL_4L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1R_4s^5 + C_1C_4C_LL_4L_LR_4R_Ls^5 + 2C_1C_4L_1L_4L_LR_4g_ms^5 + 2C_1C_4L_1L_4L_LR_4s^5 + 2C_1C_4L_1L_4L_LR_4g_ms^4 + C_1C_4L_1L_4L_LR_4s^4 + 2C_1C_4L_1L_4L_LR_4g_ms^3 + C_1C_4L_1L_4L_LR_4s^3 + 2C_1C_4L_1L_4L_LR_4g_ms^2 + C_1C_4L_1L_4L_LR_4s^2 + 2C_1C_4L_1L_4L_LR_4g_ms + C_1C_4L_1L_4L_LR_4}.$$

10.725 INVALID-ORDER-725 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4R_4R_Ls^5 + 2C_1C_4C_LL_4L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1R_4s^5 + C_1C_4C_LL_4L_LR_4R_Ls^5 + C_1C_4C$$

10.726 INVALID-ORDER-726 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_L (C_1 L_1 s^2 + C_1 R_1 s + C_1 L_1 R_1)}{C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_4 R_1 R_4 g_m s^3 + 2 C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 L_1 L_4 g_m s^3 + C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_1 L_4 R_1 s^2 + C_1 L_4 R_4 s^2 + C_1 L_4 R_L s^2 + C_1 R_1 R_4 s^2 + C_1 R_1 R_L s^2 + C_1 R_4 R_L s^2 + C_1 R_1 s^2 + C_1 R_4 s^2 + C_1 R_L s^2 + C_1 s^2}$$

10.727 INVALID-ORDER-727 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 C_4 C_L L_1 L_4 R_{4g_m} s^5 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_4 R_1 R_{4g_m} s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + C_1 C_L L_1 L_4 g_m s^2 + C_1 C_L L_1 L_4 s^2 + C_1 C_L L_1 R_1 s^2 + C_1 C_L L_1 R_4 s^2 + C_1 C_L L_1 R_4 g_m s + C_1 C_L L_1 R_4 s + C_1 C_L L_1 R_4 g_m)}{C_1 C_4 C_L L_1 L_4 R_{4g_m} s^5 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_4 R_1 R_{4g_m} s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + C_1 C_L L_1 L_4 g_m s^2 + C_1 C_L L_1 L_4 s^2 + C_1 C_L L_1 R_1 s^2 + C_1 C_L L_1 R_4 s^2 + C_1 C_L L_1 R_4 g_m s + C_1 C_L L_1 R_4 s + C_1 C_L L_1 R_4 g_m}$$

10.728 INVALID-ORDER-728 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 R_4 s^4}{C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 R_4 s^4}.$$

10.729 INVALID-ORDER-729 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + 2 C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4}{C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + 2 C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4}$$

10.730 INVALID-ORDER-730 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{2 C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + 2 C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4}{2 C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + 2 C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4}$$

10.731 INVALID-ORDER-731 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + 2 C_1 C_4 L_1 L_4 L_L g_m s^5 + C_1 C_4 L_1 L_4 R_4 g_m s^4 + C_1 C_4 L_1 L_4 R_4 s^4}{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + 2 C_1 C_4 L_1 L_4 L_L g_m s^5 + C_1 C_4 L_1 L_4 R_4 g_m s^4 + C_1 C_4 L_1 L_4 R_4 s^4}$$

10.732 INVALID-ORDER-732 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{2 C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + 2 C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + 2 C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4}{2 C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + 2 C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + 2 C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4}$$

10.733 INVALID-ORDER-733 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_4 g_m s^5 + 2 C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_4 s^4}{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_4 g_m s^5 + 2 C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_4 s^4}$$

$$\mathbf{10.734 \quad INVALID-ORDER-734} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5}{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5}$$

$$\mathbf{10.735 \quad INVALID-ORDER-735} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5}{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5}$$

$$\mathbf{10.736 \quad INVALID-ORDER-736} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L \right)$$

$$H(s) = - \frac{C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_4 R_1 R_4 g_m s^3 + 2 C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_L s^3}{C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_4 R_1 R_4 g_m s^3 + 2 C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_L s^3}$$

$$\mathbf{10.737 \quad INVALID-ORDER-737} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = - \frac{C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_1 R_4 s^4 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L R_1 R_4 s^3 + 2 C_1 C_4 L_1 L_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 s^4}{C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_1 R_4 s^4 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L R_1 R_4 s^3 + 2 C_1 C_4 L_1 L_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 s^4}$$

$$\mathbf{10.738 \quad INVALID-ORDER-738} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = - \frac{C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 C_L R_1 R_4 s^3}{C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 C_L L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 C_L R_1 R_4 s^3}$$

10.739 INVALID-ORDER-739 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + 2C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + 2C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_4 s^4 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + 2C_1 C_4 C_L L_4 R_L g_m s^4 + C_1 C_4 C_L L_4 s^4 + 2C_1 C_4 C_L R_1 R_4 g_m s^3 + C_1 C_4 C_L R_1 R_4 s^3 + C_1 C_4 C_L R_1 s^3 + 2C_1 C_4 C_L R_L g_m s^3 + C_1 C_4 C_L R_L s^3 + C_1 C_4 C_L s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 s^2 + 2C_1 C_4 R_L g_m s^2 + C_1 C_4 R_L s^2 + C_1 C_4 s^2 + 2C_1 R_1 R_4 g_m s + C_1 R_1 R_4 s + C_1 R_1 s + 2C_1 R_L g_m s + C_1 R_L s + C_1 s}{C_1 C_4 C_L L_1 L_4 R_4 g_m s^5 + 2C_1 C_4 C_L L_1 L_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 s^5 + 2C_1 C_4 C_L L_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_4 s^4 + C_1 C_4 C_L L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_1 s^4 + 2C_1 C_4 C_L L_4 R_L g_m s^4 + C_1 C_4 C_L L_4 s^4 + 2C_1 C_4 C_L R_1 R_4 g_m s^3 + C_1 C_4 C_L R_1 R_4 s^3 + C_1 C_4 C_L R_1 s^3 + 2C_1 C_4 C_L R_L g_m s^3 + C_1 C_4 C_L R_L s^3 + C_1 C_4 C_L s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 s^2 + 2C_1 C_4 R_L g_m s^2 + C_1 C_4 R_L s^2 + C_1 C_4 s^2 + 2C_1 R_1 R_4 g_m s + C_1 R_1 R_4 s + C_1 R_1 s + 2C_1 R_L g_m s + C_1 R_L s + C_1 s}.$$

10.740 INVALID-ORDER-740 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_Lq_ms^6 + C_1C_4C_LL_1L_4R_4q_ms^5 + C_1C_4C_LL_1L_4s^5 + 2C_1C_4C_LL_1L_LR_4q_ms^5 + C_1C_4C_LL_1R_4s^4 + 2C_1C_4C_LL_4L_LR_1q_ms^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4}{2C_1C_4C_LL_1L_4L_LR_1q_ms^5 + C_1C_4C_LL_1L_4R_4q_ms^5 + C_1C_4C_LL_1L_4s^5 + 2C_1C_4C_LL_1L_LR_4q_ms^5 + C_1C_4C_LL_1R_4s^4 + 2C_1C_4C_LL_4L_LR_1q_ms^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4}$$

10.741 INVALID-ORDER-741 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_L R_1 R_4 s^4 + 2 C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^3 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^3 + C_1 C_4 C_L L_1 L_L R_4 s^3 + C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^3 + C_1 C_4 C_L L_4 L_L R_1 s^3 + C_1 C_4 C_L L_4 L_L R_4 s^3 + C_1 C_4 C_L L_L R_1 R_4 s^2 + 2 C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^2 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^2 + C_1 C_4 C_L L_1 L_L R_4 s^2 + C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^2 + C_1 C_4 C_L L_4 L_L R_1 s^2 + C_1 C_4 C_L L_4 L_L R_4 s^2 + C_1 C_4 C_L L_L R_1 R_4 s}{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_L R_1 R_4 s^4 + 2 C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^3 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^3 + C_1 C_4 C_L L_1 L_L R_4 s^3 + C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^3 + C_1 C_4 C_L L_4 L_L R_1 s^3 + C_1 C_4 C_L L_4 L_L R_4 s^3 + C_1 C_4 C_L L_L R_1 R_4 s^2 + 2 C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^2 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^2 + C_1 C_4 C_L L_1 L_L R_4 s^2 + C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^2 + C_1 C_4 C_L L_4 L_L R_1 s^2 + C_1 C_4 C_L L_4 L_L R_4 s^2 + C_1 C_4 C_L L_L R_1 R_4 s}$$

10.742 INVALID-ORDER-742 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_4R_Lg_ms^5 + 2C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1L_4s^5 + 2C_1C_4C_LL_1L_LR_Lg_ms^5 + 2C_1C_4C_LL_1R_LR_Lg_ms^4 + C_1C_4C_LL_1R_4s^4 + 2C_1$$

10.743 INVALID-ORDER-743 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 C_L L_4 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_1 L s^5 + C_1 C_4 C_L L_1 s^5 + C_1 C_4 C_L L s^5 + C_1 C_4 C_L s^5 + C_1 C_4 C s^5 + C_1 C_4 s^5 + C_1 C s^5 + C_1 s^5}{C_1 C_4 C_L L_1 L_4 L_L R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 C_L L_4 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_1 L s^5 + C_1 C_4 C_L L_1 s^5 + C_1 C_4 C_L L s^5 + C_1 C_4 C_L s^5 + C_1 C_4 C s^5 + C_1 C_4 s^5 + C_1 C s^5 + C_1 s^5}.$$

$$10.744 \quad \text{INVALID-ORDER-744} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + 2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 s^4 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^3 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 s^3 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^2 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 s^2 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s + 2C_1 C_4 C_L L_4 L_L R_1 R_4 s + 2C_1 C_4 C_L L_4 L_L R_1 R_4}{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + 2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 s^4 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^3 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 s^3 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^2 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 s^2 + 2C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s + 2C_1 C_4 C_L L_4 L_L R_1 R_4 s + 2C_1 C_4 C_L L_4 L_L R_1 R_4}$$

$$10.745 \quad \text{INVALID-ORDER-745} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + 2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + 2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^4 + 2C_1 C_4 C_L L_1 L_L R_4 s^4 + 2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^3 + 2C_1 C_4 C_L L_1 L_L R_4 s^3 + 2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^2 + 2C_1 C_4 C_L L_1 L_L R_4 s^2 + 2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s + 2C_1 C_4 C_L L_1 L_L R_4 s + 2C_1 C_4 C_L L_1 L_L R_4 R_L}{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + 2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + 2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^4 + 2C_1 C_4 C_L L_1 L_L R_4 s^4 + 2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^3 + 2C_1 C_4 C_L L_1 L_L R_4 s^3 + 2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^2 + 2C_1 C_4 C_L L_1 L_L R_4 s^2 + 2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s + 2C_1 C_4 C_L L_1 L_L R_4 s + 2C_1 C_4 C_L L_1 L_L R_4 R_L}$$

$$10.746 \quad \text{INVALID-ORDER-746} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 (L_2 s + \frac{1}{C_2 s})}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 R_1 s (R_4 g_m - 1)}{C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + C_L L_1 R_1 R_4 g_m s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_4 s^2 + C_L R_1 R_4 s + 2L_1 R_1 g_m s + L_1 s + R_1}$$

$$10.747 \quad \text{INVALID-ORDER-747} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 (L_2 s + \frac{1}{C_2 s})}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{L_1 R_1 R_L s (R_4 g_m - 1)}{C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_L L_1 R_1 R_4 R_L g_m s^2 + C_L L_1 R_1 R_L s^2 + C_L L_1 R_4 R_L s^2 + C_L R_1 R_4 R_L s + L_1 R_1 R_4 g_m s + 2L_1 R_1 R_L g_m s + L_1 R_1 s + L_1 R_1}$$

$$10.748 \quad \text{INVALID-ORDER-748} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 (L_2 s + \frac{1}{C_2 s})}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 R_1 s (R_4 g_m - 1) (C_L R_L s + 1)}{C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_L L_1 R_1 R_4 g_m s^2 + 2C_L L_1 R_1 R_L g_m s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_4 s^2 + C_L L_1 R_L s^2 + C_L R_1 R_4 s + C_L R_1 R_L s + 2L_1 R_1 g_m s + L_1 s + R_1}$$

$$\mathbf{10.749 \quad INVALID-ORDER-749} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 R_1 s (R_4 g_m - 1) (C_L L_L s^2 + 1)}{C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + 2 C_L L_1 L_L R_1 g_m s^3 + C_L L_1 L_L s^3 + C_L L_1 R_1 R_4 g_m s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_4 s^2 + C_L L_L R_1 s^2 + C_L R_1 R_4 s + 2 L_1 R_1 g_m s + L_1}$$

$$\mathbf{10.750 \quad INVALID-ORDER-750} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_1 L_L R_1 s^2 (R_4 g_m - 1)}{C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_L L_1 L_L R_1 R_4 g_m s^3 + C_L L_1 L_L R_1 s^3 + C_L L_1 L_L R_4 s^3 + C_L L_L R_1 R_4 s^2 + 2 L_1 L_L R_1 g_m s^2 + L_1 L_L s^2 + L_1 R_1 R_4 g_m s + L_1}$$

$$\mathbf{10.751 \quad INVALID-ORDER-751} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 R_1 s (R_4 g_m - 1) (C_L L_L s^2 + C_L R_L s + 1)}{C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2 C_L L_1 L_L R_1 g_m s^3 + C_L L_1 L_L s^3 + C_L L_1 R_1 R_4 g_m s^2 + 2 C_L L_1 R_1 R_L g_m s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_4 s^2 + L_1 R_1 R_4 g_m s + L_1}$$

$$\mathbf{10.752 \quad INVALID-ORDER-752} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{L_1 L_L R_1 R_L s^2 (R_4 g_m - 1)}{C_1 C_L L_1 L_L R_1 R_4 R_L s^4 + C_1 L_1 L_L R_1 R_4 s^3 + C_1 L_1 L_L R_1 R_L s^3 + C_1 L_1 R_1 R_4 R_L s^2 + C_L L_1 L_L R_1 R_4 R_L g_m s^3 + C_L L_1 L_L R_1 R_L s^3 + C_L L_1 L_L R_4 R_L s^3 + C_L L_L R_1 R_4 R_L s^2 + L_1 R_1 R_4 R_L g_m s + L_1}$$

$$\mathbf{10.753 \quad INVALID-ORDER-753} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{L_1 R_1 s (R_4 g_m - 1) (C_L L_L s^2 + C_L R_L s + 1)}{C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_L L_1 L_L R_1 R_4 g_m s^3 + 2 C_L L_1 L_L R_1 R_L g_m s^3 + C_L L_1 L_L R_1 s^3 + C_L L_1 L_L R_4 s^3 + L_1 R_1 R_4 g_m s + L_1}$$

$$10.754 \quad \text{INVALID-ORDER-754} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{L_1}{C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_L L_1 L_L R_1 R_4 g_m s^3 + 2 C_L L_1 L_L R_1 R_L g_m s^3 + C_L L_1 L_L R_1 s^3 + C_L L_1 L_L R_1 s^3 + C_L L_1 L_L R_1 s^3}$$

$$10.755 \quad \text{INVALID-ORDER-755} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{L_1 R_1 R_L s (-C_4 s + g_m)}{C_1 C_4 L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2 C_4 L_1 R_1 R_L g_m s^2 + C_4 L_1 R_1 s^2 + C_4 L_1 R_L s^2 + C_4 R_1 R_L s + L_1 R_1 g_m s + L_1 s + R_1}$$

$$10.756 \quad \text{INVALID-ORDER-756} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{L_1 R_1 R_L s (-C_4 s + g_m)}{C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 R_1 R_L s^3 + 2 C_4 L_1 R_1 R_L g_m s^2 + C_4 L_1 R_1 s^2 + C_4 L_1 R_L s^2 + C_4 R_1 R_L s + C_L L_1 R_1 R_L g_m s^2 + C_L L_1 R_L s^2 + C_L R_1 R_L s}$$

$$10.757 \quad \text{INVALID-ORDER-757} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{L_1 R_1 (C_4 s - g_m) (C_L R_L s + 1)}{C_1 C_4 C_L L_1 R_1 R_L s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + 2 C_4 C_L L_1 R_1 R_L g_m s^2 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_L s^2 + C_4 C_L R_1 R_L s + 2 C_4 L_1 R_1 g_m s + C_4 L_1 s + C_4 R_1 + C_L L_1 R_1 g_m s}$$

$$10.758 \quad \text{INVALID-ORDER-758} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{L_1 R_1 (C_4 s - g_m) (C_L L_L s^2 + 1)}{C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + 2 C_4 C_L L_1 L_L R_1 g_m s^3 + C_4 C_L L_1 L_L s^3 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_L R_1 s^2 + 2 C_4 L_1 R_1 g_m s + C_4 L_1 s + C_4 R_1 + C_L L_1 R_1 g_m s}$$

$$10.759 \quad \text{INVALID-ORDER-759} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_1 L_L R_1 s^2 (-C_4 s + g_m)}{C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_L R_1 s^4 + 2 C_4 L_1 L_L R_1 g_m s^3 + C_4 L_1 L_L s^3 + C_4 L_1 R_1 s^2 + C_4 L_L R_1 s^2 + C_L L_1 L_L R_1 g_m s^3 + C_L L_1 L_L s^3 + C_L L_L R_1 s^3}$$

10.760 INVALID-ORDER-760 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 R_1 (C_4 s - g_m) (C_L L_L s^2 + C_L R_L s + 1)}{C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_L s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + 2 C_4 C_L L_1 L_L R_1 g_m s^3 + C_4 C_L L_1 L_L s^3 + 2 C_4 C_L L_1 R_1 R_L g_m s^2 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_L s^2}.$$

10.761 INVALID-ORDER-761 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_1 L_L R_1 R_L s^2 (-C_4 s + g_m)}{C_1 C_4 L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_L s^2 + C_4 C_L L_1 L_L R_1 R_L s^4 + 2C_4 L_1 L_L R_1 R_L g_m s^3 + C_4 L_1 L_L R_1 s^3 + C_4 L_1 L_L R_L s^3 + C_4 L_1 R_1 R_L s^2 + C_4 R_1 R_L s}$$

10.762 INVALID-ORDER-762 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{L_1 R_1 s(C_4 s + C_5)}{C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + 2C_4 C_L L_1 L_L R_1 R_L g_m s^4 + C_4 C_L L_1 L_L R_1 s^4 + C_4 C_L L_1 L_L R_L s^4 + C_4 C_L L_L R_1 s^4}$$

10.763 INVALID-ORDER-763 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{L}{C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2C_4 C_L L_1 L_L R_1 R_L g_m s^4 + C_4 C_L L_1 L_L R_1 s^4 + C_4 C_L L_1 L_L R_L s^4 + C_4 C_L L_1 L_L s^4}$$

10.764 INVALID-ORDER-764 $Z(s) = \left(R_1 + \frac{1}{C_{1s}}, \frac{1}{C_{2s}}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{L_1 R_1 R_L s (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + 2 C_4 L_1 R_1 R_4 R_L g_m s^2 + C_4 L_1 R_1 R_4 s^2 + C_4 L_1 R_4 R_L s^2 + C_4 R_1 R_4 R_L s + L_1 R_1 R_4 g_m s + 2 L_1 R_1 R_L g_m s + L_1 R_1 s + L_1 R_4}$$

10.765 INVALID-ORDER-765 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 s (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 R_1 R_4 s^3 + 2C_4 L_1 R_1 R_4 g_m s^2 + C_4 L_1 R_4 s^2 + C_4 R_1 R_4 s + C_L L_1 R_1 R_4 g_m s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_4 s^2 + C_L R_1 R_4 s}$$

10.766 INVALID-ORDER-766 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_1 R_L s (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_4 C_L L_1 R_1 R_4 R_L s^3 + 2C_4 L_1 R_1 R_4 R_L g_m s^2 + C_4 L_1 R_1 R_4 s^2 + C_4 L_1 R_4 R_L s^2 + C_4 R_1 R_4 R_L s + C_L L_1 R_1 R_4 R_L s^2 + C_L L_1 R_1 R_4 s^2 + C_L R_1 R_4 R_L s}$$

10.767 INVALID-ORDER-767 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 R_1 s (C_L R_L s + 1)}{C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2C_4 C_L L_1 R_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_1 R_4 s^3 + C_4 C_L L_1 R_4 R_L s^3 + C_4 C_L R_1 R_4 s^3}$$

10.768 INVALID-ORDER-768 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 R_1 s (C_L L_L s + 1)}{C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + 2C_4 C_L L_1 L_L R_1 R_4 g_m s^4 + C_4 C_L L_1 L_L R_4 s^4 + C_4 C_L L_1 R_1 R_4 s^3 + C_4 C_L L_L R_1 R_4 s^3}$$

10.769 INVALID-ORDER-769 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L R_1 s^2 (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_4 C_L L_1 L_L R_1 R_4 s^4 + 2C_4 L_1 L_L R_1 R_4 g_m s^3 + C_4 L_1 L_L R_4 s^3 + C_4 L_1 R_1 R_4 s^2 + C_4 L_L R_1 R_4 s^2 + C_L L_1 R_1 R_4 s^2}$$

10.770 INVALID-ORDER-770 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 L_L R_1 s^2 (-C_4 R_4 s + R_4 g_m - 1)}{C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2C_4 C_L L_1 L_L R_1 R_4 g_m s^4 + C_4 C_L L_1 L_L R_1 R_4 s^4 + C_4 C_L L_1 R_1 R_4 s^3 + C_4 C_L L_L R_1 R_4 s^3}$$

$$10.771 \quad \text{INVALID-ORDER-771} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_L R_1 R_4 R_L s^4 + C_1 C_L L_1 L_L R_1 R_4 R_L s^4 + C_1 L_1 L_L R_1 R_4 s^3 + C_1 L_1 L_L R_1 R_L s^3 + C_1 L_1 R_1 R_4 R_L s^2 + C_4 C_L L_1 L_L R_1 R_4 R_L s^4 + 2C_4 L_1 L_L R_1 R_4 R_L g_m s^3 + C_4 L_1 L_L R_1 R_4 R_L s^2}{C_1 C_4 L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + 2C_4 C_L L_1 L_L R_1 R_4 R_L s^2 + C_4 C_L L_1 L_L R_1 R_4 R_L s^2 + C_4 L_1 R_1 R_4 s + C_4 R_1 R_L s + L_1 R_1 g_m s + L_1 s}$$

$$10.772 \quad \text{INVALID-ORDER-772} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + 2C_4 C_L L_1 L_L R_1 R_4 R_L s^2 + C_4 C_L L_1 L_L R_1 R_4 R_L s^2 + C_4 L_1 R_1 R_4 s + C_4 R_1 R_L s + L_1 R_1 g_m s + L_1 s}{C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + 2C_4 C_L L_1 L_L R_1 R_4 R_L s^2 + C_4 C_L L_1 L_L R_1 R_4 R_L s^2 + C_4 L_1 R_1 R_4 s + C_4 R_1 R_L s + L_1 R_1 g_m s + L_1 s}$$

$$10.773 \quad \text{INVALID-ORDER-773} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + 2C_4 C_L L_1 L_L R_1 R_4 R_L s^2 + C_4 C_L L_1 L_L R_1 R_4 R_L s^2 + C_4 L_1 R_1 R_4 s + C_4 R_1 R_L s + L_1 R_1 g_m s + L_1 s}{C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + 2C_4 C_L L_1 L_L R_1 R_4 R_L s^2 + C_4 C_L L_1 L_L R_1 R_4 R_L s^2 + C_4 L_1 R_1 R_4 s + C_4 R_1 R_L s + L_1 R_1 g_m s + L_1 s}$$

$$10.774 \quad \text{INVALID-ORDER-774} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{L_1 R_1 R_L s (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 L_1 R_1 R_4 g_m s^2 + 2C_4 L_1 R_1 R_L g_m s^2 + C_4 L_1 R_1 s^2 + C_4 L_1 R_4 s^2 + C_4 L_1 R_L s^2 + C_4 R_1 R_4 s + C_4 R_1 R_L s + L_1 R_1 g_m s + L_1 s}$$

$$10.775 \quad \text{INVALID-ORDER-775} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 R_1 (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_1 R_4 g_m s^2 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_4 s^2 + C_4 C_L R_1 R_4 s + 2C_4 L_1 R_1 g_m s + C_4 L_1 s + C_4 R_1 + C_L L_1 R_1 g_m s + L_1 s}$$

$$10.776 \quad \text{INVALID-ORDER-776} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{L_1 R_1 R_L s (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 R_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_1 R_L s^3 + C_4 C_L L_1 R_4 R_L s^3 + C_4 C_L R_1 R_4 s^3}$$

$$10.777 \quad \text{INVALID-ORDER-777} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 R_1 (C_L R_L s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 C_L L_1 R_1 R_L s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_1 R_4 g_m s^2 + 2 C_4 C_L L_1 R_1 R_L g_m s^2 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_4 s^2 + C_4 C_L L_1 R_L s^2 + C_4 C_L R_1 R_4 s^2}$$

$$10.778 \quad \text{INVALID-ORDER-778} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 R_1 (C_L L_L s^2 + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + 2 C_4 C_L L_1 L_L R_1 g_m s^3 + C_4 C_L L_1 L_L s^3 + C_4 C_L L_1 R_1 R_4 g_m s^2 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_4 s^2 + C_4 C_L L_1 R_L s^2}$$

$$10.779 \quad \text{INVALID-ORDER-779} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_1 L_L R_1 s^2 (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_L R_1 R_4 g_m s^4 + C_4 C_L L_1 L_L R_1 s^4 + C_4 C_L L_1 L_L R_4 s^4 + C_4 C_L L_L R_1 R_4 s^4}$$

$$10.780 \quad \text{INVALID-ORDER-780} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 R_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 C_L L_1 R_1 R_L s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + 2 C_4 C_L L_1 L_L R_1 g_m s^3 + C_4 C_L L_1 L_L s^3 + C_4 C_L L_1 R_1 R_4 g_m s^2 + 2 C_4 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_4 s^2 + C_4 C_L L_1 R_L s^2}$$

$$10.781 \quad \text{INVALID-ORDER-781} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{L_1 R_1 (C_L L_L s^2 + C_L R_L s + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_4 L_1 L_L R_1 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_L s^2 + C_4 C_L L_1 L_L R_1 R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_1 s^4 + C_4 C_L L_1 L_L R_4 s^4 + C_4 C_L L_L R_1 R_4 s^4}$$

10.782 INVALID-ORDER-782 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_L R_1 R_4 g_m s^4 + 2 C_4 C_L L_1 L_L R_1 R_4 s^4}{C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_L R_1 R_4 g_m s^4 + 2 C_4 C_L L_1 L_L R_1 R_4 s^4}$$

10.783 INVALID-ORDER-783 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

10.784 INVALID-ORDER-784 $Z(s) = \left(R_1 + \frac{1}{C_{1s}}, R_2 + \frac{1}{C_{2s}}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{L_1 R_1 R_L s (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 L_1 L_4 R_1 g_m s^3 + C_4 L_1 L_4 s^3 + 2 C_4 L_1 R_1 R_L g_m s^2 + C_4 L_1 R_1 s^2 + C_4 L_1 R_L s^2 + C_4 L_4 R_1 s^2 + C_4 R_1 R_L s + L_1 R_1 g_m s + L_1 s}$$

10.785 INVALID-ORDER-785 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 g_m s^3 + C_4 C_L L_1 L_4 s^3 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_4 R_1 s^2 + 2C_4 L_1 R_1 g_m s + C_4 L_1 s + C_4 R_1 + C_L L_1 R_1 g_m s +}$$

10.786 INVALID-ORDER-786 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_1 R_L s (C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 R_L g_m s^4 + C_4 C_L L_1 L_4 R_L s^4 + C_4 C_L L_1 R_1 R_L s^3 + C_4 C_L L_4 R_1 R_L s^2)}{C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 R_L g_m s^4 + C_4 C_L L_1 L_4 R_L s^4 + C_4 C_L L_1 R_1 R_L s^3 + C_4 C_L L_4 R_1 R_L s^2}$$

10.787 INVALID-ORDER-787 $Z(s) = \left(R_1 + \frac{1}{C_{1s}}, R_2 + \frac{1}{C_{2s}}, \infty, \infty, \infty, R_L + \frac{1}{C_{Ls}} \right)$

10.788 INVALID-ORDER-788 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

10.789 INVALID-ORDER-789 $Z(s) = \left(R_1 + \frac{1}{C_{1s}}, R_2 + \frac{1}{C_{2s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_1 L_L R_1 s^2 (C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_1 L_L R_1 s^4 + C_4 C_L L_4 L_L R_1 s^4)}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_1 L_L R_1 s^4 + C_4 C_L L_4 L_L R_1 s^4}$$

10.790 INVALID-ORDER-790 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

10.791 INVALID-ORDER-791 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L + \frac{1}{L_L s}}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_4 L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_L s^2 + C_4 C_L L_1 L_4 L_L R_1 R_L g_m s}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_4 L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_L s^2 + C_4 C_L L_1 L_4 L_L R_1 R_L g_m s}$$

10.792 INVALID-ORDER-792 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L L_1}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L L_1}$$

10.793 INVALID-ORDER-793 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L L_1}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L L_1}$$

10.794 INVALID-ORDER-794 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{L_1 R_1 R_L s (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 R_1 R_L s^2 + 2C_4 L_1 L_4 R_1 R_L g_m s^3 + C_4 L_1 L_4 R_1 s^3 + C_4 L_1 L_4 R_L s^3 + C_4 L_4 R_1 R_L s^2 + L_1 L_4 R_1 g_m s^2 + L_1 L_4 s^2 + 2L_1 R_1 R_L g_m s + L_1 R_1}$$

10.795 INVALID-ORDER-795 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 s (-C_4 L_4 s^2 + L_4 g_m s - 1)}{C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 s^4 + 2C_4 L_1 L_4 R_1 g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_4 R_1 s^2 + C_L L_1 L_4 R_1 g_m s^3 + C_L L_1 L_4 s^3 + C_L L_1 R_1 s^2 + C_L L_4 R_1 s^2}$$

10.796 INVALID-ORDER-796 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_1 R_L s (-C_4 L_4 s^2 + L_4 g_m s)}{C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 R_1 R_L s^4 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 R_1 R_L s^2 + C_4 C_L L_1 L_4 R_1 R_L s^4 + 2C_4 L_1 L_4 R_1 R_L g_m s^3 + C_4 L_1 L_4 R_1 s^3 + C_4 L_1 L_4 R_L s^3 + C_4 L_4 R_1 R_L s^2 + C_L L_1 L_4 R_1 g_m s^3 + C_L L_1 L_4 s^3 + C_L L_1 R_1 s^2 + C_L L_4 R_1 s^2}$$

10.797 INVALID-ORDER-797 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 R_1 s (C_L R_L s^5 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_L L_1 L_4 R_1 R_L q_m s^4 + C_4 C_L L_1 L_4 R_1 s^4 + C_4 C_L L_1 L_4 R_L s^4 + C_4 C_L L_4 R_1 s^4 + C_4 C_L L_1 R_1 s^4 + C_4 C_L L_1 R_L s^4 + C_4 C_L R_1 s^4 + C_4 C_L s^4)}{C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_L L_1 L_4 R_1 R_L q_m s^4 + C_4 C_L L_1 L_4 R_1 s^4 + C_4 C_L L_1 L_4 R_L s^4 + C_4 C_L L_4 R_1 s^4 + C_4 C_L L_1 R_1 s^4 + C_4 C_L L_1 R_L s^4 + C_4 C_L R_1 s^4 + C_4 C_L s^4}$$

10.798 INVALID-ORDER-798 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 R_1 s \left(C_L L_L s^5 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + 2 C_4 C_L L_1 L_4 L_L R_1 q_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_1 L_4 R_1 s^4 + C_4 C_L L_4 L_L s^4 \right)}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + 2 C_4 C_L L_1 L_4 L_L R_1 q_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_1 L_4 R_1 s^4 + C_4 C_L L_4 L_L s^4}$$

10.799 INVALID-ORDER-799 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^{2+1}} \right)$

10.800 INVALID-ORDER-800 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L}$$

10.801 INVALID-ORDER-801 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L + \frac{1}{L_L s}}} \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 L_L R_1 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 R_L s^4 + C_1 L_1 L_4 L_L R_1 s^3 + C_1 L_1 L_4 R_1 R_L s^2 + C_1 L_1 L_L R_1 R_L s^2 + C_4 C_L L_1 L_4 L_L R_1 R_L s^4 + 2 C_4 L_1 L_4 L_L R_1 R_L g_m s^3 + C_4 L_1 L_4 L_L R_1 R_L s^4}{C_1 C_4 L_1 L_4 L_L R_1 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 R_L s^4 + C_1 L_1 L_4 L_L R_1 s^3 + C_1 L_1 L_4 R_1 R_L s^2 + C_1 L_1 L_L R_1 R_L s^2 + C_4 C_L L_1 L_4 L_L R_1 R_L s^4 + 2 C_4 L_1 L_4 L_L R_1 R_L g_m s^3 + C_4 L_1 L_4 L_L R_1 R_L s^4}$$

$$10.802 \quad \text{INVALID-ORDER-802} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad L_2 s + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = - \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_L s^2 + 2 C_4 C_L L_1 L_4 L_L R_1 R_L s}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_L s^2 + 2 C_4 C_L L_1 L_4 L_L R_1 R_L s}$$

$$10.803 \quad \text{INVALID-ORDER-803} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad L_2 s + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = - \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 R_1 R_L s^2 + 2 C_4 C_L L_1 L_4 L_L R_1 R_L s}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 R_1 R_L s^2 + 2 C_4 C_L L_1 L_4 L_L R_1 R_L s}$$

$$10.804 \quad \text{INVALID-ORDER-804} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad R_L \right)$$

$$H(s) = \frac{L_1 R_1 R_L s (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 L_1 L_4 R_1 g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_1 R_1 R_4 g_m s^2 + 2 C_4 L_1 R_1 R_L g_m s^2 + C_4 L_1 R_1 s^2 + C_4 L_1 R_4 s^2 + C_4 L_1 R_4 g_m s}$$

$$10.805 \quad \text{INVALID-ORDER-805} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 R_1 (C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 C_L L_1 L_4 R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 g_m s^3 + C_4 C_L L_1 L_4 s^3 + C_4 C_L L_1 R_1 R_4 g_m s^2 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_4 s^2 + C_4 C_L L_1 R_4 g_m s}$$

$$10.806 \quad \text{INVALID-ORDER-806} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 R_L g_m s^4 + C_4 C_L L_1 R_1 R_4 g_m s^3 + C_4 C_L L_1 R_1 R_L s^3 + C_4 C_L L_1 R_1 R_4 s^2 + C_4 C_L L_1 R_1 R_4 g_m s^2 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_4 s^2 + C_4 C_L L_1 R_4 g_m s}{C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 R_L g_m s^4 + C_4 C_L L_1 R_1 R_4 g_m s^3 + C_4 C_L L_1 R_1 R_L s^3 + C_4 C_L L_1 R_1 R_4 s^2 + C_4 C_L L_1 R_1 R_4 g_m s^2 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_4 s^2 + C_4 C_L L_1 R_4 g_m s}$$

10.807 **INVALID-ORDER-807** $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 (C_L R_L s + 1) (C_4 L_4 g_m s}{C_1 C_4 C_L L_1 L_4 R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 C_L L_1 R_1 R_L s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 g_m s^3 + C_4 C_L L_1 L_4 s^3 + C_4 C_L L_1 R_1 R_4 g_m s^2 + 2 C_4 C_L L_1 R_1 R_4}$$

10.808 INVALID-ORDER-808 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 (C_L L_L s^2 + 1) (C_4 L_4 g_m}{C_1 C_4 C_L L_1 L_4 R_1 s^4 + C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 g_m s^3 + C_4 C_L L_1 L_4 s^3 + 2 C_4 C_L L_1 L_L R_1 g_m s^3 + C_4 C_L L_1 L_L s^3}$$

10.809 INVALID-ORDER-809 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L L_1 L_4 L_L R_1 s^4 + C_4 C_L L_1 L_4 L_L R_1 s^3 + C_4 C_L L_1 L_4 L_L R_1 s^2 + C_4 C_L L_1 L_4 L_L R_1 s}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L L_1 L_4 L_L R_1 s^4 + C_4 C_L L_1 L_4 L_L R_1 s^3 + C_4 C_L L_1 L_4 L_L R_1 s^2 + C_4 C_L L_1 L_4 L_L R_1 s}$$

10.810 INVALID-ORDER-810 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_1 s^4 + C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 C_L L_1 R_1 R_L s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 g_m s^3 + C_4 C_L L_1 L_4 s^3 + 2 C_4 C_L L_1 L_L R_1}{C_1 C_4 C_L L_1 L_4 R_1 s^4 + C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 C_L L_1 R_1 R_L s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 g_m s^3 + C_4 C_L L_1 L_4 s^3 + 2 C_4 C_L L_1 L_L R_1}$$

10.811 INVALID-ORDER-811 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L + \frac{1}{L_L s}}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_4 L_1 L_L R_1 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L$$

10.812 INVALID-ORDER-812 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{1}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_1 R_f s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1}$$

10.813 INVALID-ORDER-813 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1}{\dots}$$

10.814 INVALID-ORDER-814 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{L_1 R_1 R_L s (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s}{C_1 C_4 L_1 L_4 R_1 R_4 R_L s^4 + C_1 L_1 L_4 R_1 R_4 s^3 + C_1 L_1 L_4 R_1 R_L s^3 + C_1 L_1 R_1 R_4 R_L s^2 + 2 C_4 L_1 L_4 R_1 R_4 R_L g_m s^3 + C_4 L_1 L_4 R_1 R_4 s^3 + C_4 L_1 L_4 R_4 R_L s^3 + C_4 L_4 R_1 R_4 R_L s^2 + L_1 L_4 R_1}$$

10.815 INVALID-ORDER-815 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 s (-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - C_1 C_L L_1 L_4 R_1 R_4 s^4 + C_1 C_L L_1 L_4 R_1 R_4 s^4 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_4 C_L L_1 L_4 R_1 R_4 s^4 + 2 C_4 L_1 L_4 R_1 R_4 g_m s^3 + C_4 L_1 L_4 R_4 s^3 + C_4 L_4 R_1 R_4 s^2 + C_L L_1 L_4 R_1 R_4 g_m s^3 +$$

10.816 INVALID-ORDER-816 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 R_4 R_L s^4 + C_1 C_L L_1 L_4 R_1 R_4 R_L s^4 + C_1 L_1 L_4 R_1 R_4 s^3 + C_1 L_1 L_4 R_1 R_L s^3 + C_1 L_1 R_1 R_4 R_L s^2 + C_4 C_L L_1 L_4 R_1 R_4 R_L s^4 + 2 C_4 L_1 L_4 R_1 R_4 R_L g_m s^3 + C_4 L_1 L_4 R_1 R_4 s^2}{C_1 C_4 L_1 L_4 R_1 R_4 R_L s^4 + C_1 C_L L_1 L_4 R_1 R_4 R_L s^4 + C_1 L_1 L_4 R_1 R_4 s^3 + C_1 L_1 L_4 R_1 R_L s^3 + C_1 L_1 R_1 R_4 R_L s^2 + C_4 C_L L_1 L_4 R_1 R_4 R_L s^4 + 2 C_4 L_1 L_4 R_1 R_4 R_L g_m s^3 + C_4 L_1 L_4 R_1 R_4 s^2}$$

10.817 INVALID-ORDER-817 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_L L_1 L_4 R_1 R_4 s^4 + C_1 C_L L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + 2C_4 C_L L_1 L_4 R_1 R_4 R_L g_m}{C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_L L_1 L_4 R_1 R_4 s^4 + C_1 C_L L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + 2C_4 C_L L_1 L_4 R_1 R_4 R_L g_m}$$

10.818 INVALID-ORDER-818 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_4 R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + 2 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m}{}$$

10.819 INVALID-ORDER-819 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_4 L_L R_1 R_4 s^4 + C_1 L_1 L_4 L_L R_1 s^3 + C_1 L_1 L_4 R_1 R_4 s^2 + C_1 L_1 L_L R_1 R_4 s^2 + C_4 C_L L_1 L_4 L_L R_1 R_4 s^4 + 2 C_4 L_1 L_4 L_L R_1 R_4 g_m s^3 + C_4 L_1 L_4 L_L R_4 s^3}{C_1 C_4 L_1 L_4 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_4 L_L R_1 R_4 s^4 + C_1 L_1 L_4 L_L R_1 s^3 + C_1 L_1 L_4 R_1 R_4 s^2 + C_1 L_1 L_L R_1 R_4 s^2 + C_4 C_L L_1 L_4 L_L R_1 R_4 s^4 + 2 C_4 L_1 L_4 L_L R_1 R_4 g_m s^3 + C_4 L_1 L_4 L_L R_4 s^3}$$

10.820 INVALID-ORDER-820 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_4 R_1 R_4 s^4 + C_1 C_L L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 R_L s^4}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_4 R_1 R_4 s^4 + C_1 C_L L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 R_L s^4}$$

10.821 INVALID-ORDER-821 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L + \frac{1}{L_L s}}} \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 L_L R_1 R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 R_4 R_L s^4 + C_1 L_1 L_4 L_L R_1 R_4 s^3 + C_1 L_1 L_4 L_L R_1 R_L s^3 + C_1 L_1 L_4 R_1 R_4 R_L s^2 + C_1 L_1 L_L R_1 R_4 R_L s^2 + C_4 C_L L_1 L_4 L_L R_1 R_4 R_L s^4 + 2}{\dots}$$

$$10.822 \quad \text{INVALID-ORDER-822} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 R_4 s^5 + C_1 C_L L_1 L_4 L_L R_1 R_L s^5 + C_1 C_L L_1 L_L R_1 R_4 R_L s^4 + C_1 L_1 L_4 L_L R_1 s^4}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 R_4 s^5 + C_1 C_L L_1 L_4 L_L R_1 R_L s^5 + C_1 C_L L_1 L_L R_1 R_4 R_L s^4 + C_1 L_1 L_4 L_L R_1 s^4}$$

$$10.823 \quad \text{INVALID-ORDER-823} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L s^6 + C_1 C_4 L_1 L_4 R_1 R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 R_4 s^5 + C_1 C_L L_1 L_4 L_L R_1 R_L s^5 + C_1 C_L L_1 L_4 R_1 R_4 R_L s^4 + C_1 C_L L_1 L_L R_1 R_4 R_L s^4 + C_1 L_1 L_4 R_1 R_4 s^3}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L s^6 + C_1 C_4 L_1 L_4 R_1 R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 R_4 s^5 + C_1 C_L L_1 L_4 L_L R_1 R_L s^5 + C_1 C_L L_1 L_4 R_1 R_4 R_L s^4 + C_1 C_L L_1 L_L R_1 R_4 R_L s^4 + C_1 L_1 L_4 R_1 R_4 s^3}$$

$$10.824 \quad \text{INVALID-ORDER-824} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L \right)$$

$$H(s) = \frac{L_1 R_1 R_L s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + C_4 L_4 R_4 s) + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_4 L_1 L_4 R_1 R_4 g_m s^3 + 2 C_4 L_1 L_4 R_1 R_L g_m s^3 + C_4 L_1 L_4 R_1 s^3 + C_4 L_1 L_4 R_4 s^3 + C_4 L_1 L_4 R_4 s^3}{C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 R_4 g_m s^4 + C_4 C_L L_1 L_4 R_1 s^4 + C_4 C_L L_1 L_4 R_4 s^4 + C_4 C_L L_4 R_1 R_4 s^3}$$

$$10.825 \quad \text{INVALID-ORDER-825} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 R_1 s (C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + C_4 L_4 R_4 s) + C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 R_4 g_m s^4 + C_4 C_L L_1 L_4 R_1 s^4 + C_4 C_L L_1 L_4 R_4 s^4 + C_4 C_L L_4 R_1 R_4 s^3}{C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 R_4 g_m s^4 + C_4 C_L L_1 L_4 R_1 s^4 + C_4 C_L L_1 L_4 R_4 s^4 + C_4 C_L L_4 R_1 R_4 s^3}$$

$$10.826 \quad \text{INVALID-ORDER-826} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_4 C_L L_1 L_4 R_1 R_4 s^3}{C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_4 C_L L_1 L_4 R_1 R_4 s^3}$$

10.827 INVALID-ORDER-827 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 R_4 g_m s^4 + 2 C_4 C_L L_1}{C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 R_4 g_m s^4 + 2 C_4 C_L L_1}$$

10.828 INVALID-ORDER-828 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L L_1}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L L_1}$$

10.829 INVALID-ORDER-829 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_4 C_L L_1 L_4 L_L R_1 s^5 + C_4 C_L L_1 L_4 R_1 R_4 s^4 + C_4 C_L L_1 L_L R_1 R_4 s^4 + C_4 L_1 L_4 R_1 s^3 + C_4 L_1 L_L R_1 s^3 + C_4 L_1 R_1 R_4 s^2 + C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_4 C_L L_1 L_4 L_L R_1 s^5 + C_4 C_L L_1 L_4 R_1 R_4 s^4 + C_4 C_L L_1 L_L R_1 R_4 s^4 + C_4 L_1 L_4 R_1 s^3 + C_4 L_1 L_L R_1 s^3 + C_4 L_1 R_1 R_4 s^2}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_4 C_L L_1 L_4 L_L R_1 s^5 + C_4 C_L L_1 L_4 R_1 R_4 s^4 + C_4 C_L L_1 L_L R_1 R_4 s^4 + C_4 L_1 L_4 R_1 s^3 + C_4 L_1 L_L R_1 s^3 + C_4 L_1 R_1 R_4 s^2}$$

10.830 INVALID-ORDER-830 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_1 s^2 + C_1 C_L L_1 R_1 s + C_1 C_L L_1 s^2 + C_1 C_L L_1 s + C_1 C_L s^2 + C_1 C_L s + C_1 C s^2 + C_1 C s + C_1 s^2 + C_1 s + C s^2 + C s + s^2 + s}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_1 s^2 + C_1 C_L L_1 R_1 s + C_1 C_L L_1 s^2 + C_1 C_L L_1 s + C_1 C_L s^2 + C_1 C_L s + C_1 C s^2 + C_1 C s + C_1 s^2 + C_1 s + C s^2 + C s + s^2 + s}.$$

10.831 INVALID-ORDER-831 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_1 L_4 L_L R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 R_L s^5 + C_1 C_L L_1 L_L R_1 R_4 R_L s^4 + C_1 L_1 L_4 L_L R_1 s^4 +$$

10.832 INVALID-ORDER-832 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1}$$

10.833 INVALID-ORDER-833 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_4 R_1 R_L s^4 + C_1}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_4 R_1 R_L s^4 + C_1}$$

10.834 INVALID-ORDER-834 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{L_1 R_1 R_L s (C_4 L_4 s^4 + C_4 L_4 R_1 R_L s^3 + C_4 L_4 R_1 R_L s^2 + C_4 L_4 R_1 R_L s + C_4 L_4 R_1 R_L)}{C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_4 L_1 L_4 R_1 R_4 g_m s^3 + 2 C_4 L_1 L_4 R_1 R_L g_m s^3 + C_4 L_1 L_4 R_1 s^3 + C_4 L_1 L_4 R_4 s^3 + C_4 L_1 L_4 R_1 R_L s^2 + C_4 L_1 L_4 R_1 R_L s + C_4 L_1 L_4 R_1 R_L}$$

10.835 INVALID-ORDER-835 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 s (C_4 L_4 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 R_4 g_m s^4 + C_4 C_L L_1 L_4 R_1 s^4 + C_4 C_L L_1 L_4 R_4 s^4 + C_4 C_L L_1 R_1 R_4 s^3)}{C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 R_4 g_m s^4 + C_4 C_L L_1 L_4 R_1 s^4 + C_4 C_L L_1 L_4 R_4 s^4 + C_4 C_L L_1 R_1 R_4 s^3}$$

10.836 INVALID-ORDER-836 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_4 C_L L_1 L_4 R_1 R_4 R_L g_m s^4}{C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_4 C_L L_1 L_4 R_1 R_4 R_L g_m s^4}$$

10.837 INVALID-ORDER-837 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 R_4 s}{C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 R_4 s}$$

10.838 INVALID-ORDER-838 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_L}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_L}$$

10.839 INVALID-ORDER-839 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^5}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^5}.$$

10.840 INVALID-ORDER-840 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 L$$

10.841 INVALID-ORDER-841 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_1 L_4 L_L R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 R_L s^4 + C_1 C_4 L_1 L_L R_1 R_4 R_L s^4 + C_1 C_L L_1 L_L R_1 R_4 R_L s^4 + C_1 L_1 L_L R_1 R_4 s^3 +$$

10.842 INVALID-ORDER-842 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_4 L_1 L_L R_1 R_L s^4 + C_1 C_4 L_1 L_L R_4 R_L s^4 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 L_L R_L s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_1 R_4 s^4 + C_1 C_4 L_1 R_1 R_L s^4 + C_1 C_4 L_1 R_4 R_L s^4 + C_1 C_4 L_1 R_4 s^4 + C_1 C_4 L_1 s^4 + C_1 C_4 R_1 R_4 s^4 + C_1 C_4 R_1 R_L s^4 + C_1 C_4 R_4 R_L s^4 + C_1 C_4 R_4 s^4 + C_1 C_4 s^4}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_4 L_1 L_L R_1 R_L s^4 + C_1 C_4 L_1 L_L R_4 R_L s^4 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 L_L R_L s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_1 R_4 s^4 + C_1 C_4 L_1 R_1 R_L s^4 + C_1 C_4 L_1 R_4 R_L s^4 + C_1 C_4 L_1 R_4 s^4 + C_1 C_4 L_1 s^4 + C_1 C_4 R_1 R_4 s^4 + C_1 C_4 R_1 R_L s^4 + C_1 C_4 R_4 R_L s^4 + C_1 C_4 R_4 s^4 + C_1 C_4 s^4}.$$

10.843 INVALID-ORDER-843 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^4}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^4}$$

10.844 INVALID-ORDER-844 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{(R_4 g_m - 1)(C_1 L_1 R_1 s^2 + L_1 s + R_1)}{C_1 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_L L_1 R_4 g_m s^2 + C_L L_1 s^2 + C_L R_1 R_4 g_m s + C_L R_1 s + C_L R_4 s + 2L_1 g_m s + 2R_1 g_m + 1}$$

10.845 INVALID-ORDER-845 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_L (R_4 g_m - 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{C_1 C_L L_1 R_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 g_m s^2 + 2 C_1 L_1 R_1 R_L g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_L L_1 R_4 R_L g_m s^2 + C_L L_1 R_L s^2}$$

10.846 INVALID-ORDER-846 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(R_4 g_m - 1)(C_L R_L s + 1)(C_1 L_1 R_1 s^2 + L_1 s + R_1)}{C_1 C_L L_1 R_1 R_4 g_m s^3 + 2C_1 C_L L_1 R_1 R_L g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_L L_1 R_4 g_m s^2 + 2C_L L_1 R_L g_m s^2 + C_L L_1 s^2 + C_L R_1 s + R_1}$$

10.847 INVALID-ORDER-847 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(R_4 g_m - 1) (C_L L_L s^2 + 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2C_L L_1 L_L g_m s^3 + C_L L_1 R_4 g_m s^2 + C_L L_1 s^2 + 2C_L L_1 L_L s^3}$$

10.848 INVALID-ORDER-848 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L s (R_4 g_m - 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 + 2C_1 L_1 L_L R_1 g_m s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_1 R_4 g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + C_L L_1 L_L R_4 g_m s^3 + C_L L_1 L_L s^3}$$

10.849 INVALID-ORDER-849 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(R_4 g_m - 1) (C_L L_L s^2 + C_L R_L s + 1)}{2C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_1 R_4 g_m s^3 + 2C_1 C_L L_1 R_1 R_L g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2C_L L_1 L_L s^3}$$

10.850 INVALID-ORDER-850 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{1}{C_1 C_L L_1 L_L R_1 R_4 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_4 R_L s^4 + C_1 L_1 L_L R_1 R_4 g_m s^3 + 2C_1 L_1 L_L R_1 R_L g_m s^3 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 L_L R_4 s^3 + C_1 L_1 L_L R_L s^3 + C_1 L_1 R_1 R_4 g_m s^2 + C_1 L_1 R_1 s^2 + 2C_L L_1 L_L s^3}$$

10.851 INVALID-ORDER-851 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{1}{C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + 2C_1 C_L L_1 L_L R_1 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + 2C_1 L_1 L_L R_1 g_m s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_1 R_4 g_m s^2 + 2C_1 L_1 R_1 s^2 + 2C_L L_1 L_L s^3}$$

10.852 INVALID-ORDER-852 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + 2 C_1 C_L L_1 L_L R_1 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_1 R_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_4 R_L s^3 +$$

10.853 INVALID-ORDER-853 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L \right)$

$$H(s) = -\frac{R_L (C_4 s - g_m) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + L_1 g_m s + R_1 g_m + 1}$$

10.854 INVALID-ORDER-854 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_4s - g_m)(C_1L_1R_1s^2 + L_1s + R_1)}{s(C_1C_4C_LL_1R_1s^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2 + C_4C_LL_1s^2 + C_4C_LR_1s + 2C_4L_1g_ms + 2C_4R_1g_m + C_4 + C_LL_1g_ms + C_LR_1g_m + C)}$$

10.855 INVALID-ORDER-855 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{R_L(C_4s - g_m)(C_1L_1R_1s^2 + L_1s + R_1)}{C_1C_4C_LL_1R_1R_Ls^4 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_Ls^3 + C_1C_LL_1R_1R_Lg_ms^3 + C_1C_LL_1R_Ls^3 + C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_4C_LL_1R_Ls^3 + C_4C_LL_1R_1R_Ls^2 + C_4C_LL_1R_1s + C_4C_LL_1R_L}.$$

10.856 INVALID-ORDER-856 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_4s - g_m)(C_LR_Ls + 1)(C_1L_1R_1s^2 + L_1s + R_1)}{s(2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_Ls^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2 + 2C_4C_LL_1R_Lg_ms^2 + C_4C_LL_1s^2 + 2C_4C_LL_1R_Ls + 2C_4C_LL_1R_1g_m + 2C_4C_LL_1s + 2C_4C_LL_1R_1)}.$$

10.857 INVALID-ORDER-857 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_4s - g_m)(C_LLs^2 + 1)(C_1L_1R_1s^2 + L_1s + R_1)}{s(2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + C_1C_4C_LL_1R_1s^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2 + 2C_4C_LL_1L_Lg_ms^3 + C_4C_LL_1s^2 + 2C_4L_1R_1g_ms + 2C_4L_1R_1s + 2C_4R_1)}$$

10.858 INVALID-ORDER-858 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{L_L s (C_4 s - g_m) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{C_1 C_4 C_L L_1 L_L R_1 s^5 + 2C_1 C_4 L_1 L_L R_1 g_m s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_1 s^3 + C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_L R_1 s^3}$$

10.859 INVALID-ORDER-859 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_4s - g_m)(C_L}{s(2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_Ls^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_L}.$$

10.860 INVALID-ORDER-860 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L + \frac{1}{L_L s}}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + 2 C_1 C_4 L_1 L_L R_1 R_L g_m s^4 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 L_L R_L s^4 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 R_L g_m s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_L R_1 g_m s^3}{C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + 2 C_1 C_4 L_1 L_L R_1 R_L g_m s^4 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 L_L R_L s^4 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 R_L g_m s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_L R_1 g_m s^3}$$

10.861 INVALID-ORDER-861 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$\mathbf{10.862 \quad INVALID-ORDER-862} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \frac{R_2}{C_2 R_2 s + 1}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_1 R_1 R_L s^4 + 2C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L R_1 g_m s^4}{2C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_1 R_1 R_L s^4 + 2C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L R_1 g_m s^4}$$

$$\mathbf{10.863 \quad INVALID-ORDER-863} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad R_L \right)$$

$$H(s) = -\frac{R_L (C_4 R_4 s - R_4 g_m + 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 g_m s^2 + 2C_1 L_1 R_1 R_L g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + 2C_4 L_1 R_4 R_L g_m s^2 + C_4 L_1 R_4 s^2}$$

$$\mathbf{10.864 \quad INVALID-ORDER-864} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{(C_4 R_4 s - R_4 g_m + 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{C_1 C_4 C_L L_1 R_1 R_4 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_4 C_L L_1 R_4 s^3 + C_4 C_L R_1 R_4 s^3}$$

$$\mathbf{10.865 \quad INVALID-ORDER-865} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + 2C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 R_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 g_m s^2 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 R_4 s^3 + C_4 C_L R_1 R_4 s^3}{C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + 2C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 R_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 g_m s^2 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 R_4 s^3 + C_4 C_L R_1 R_4 s^3}$$

$$\mathbf{10.866 \quad INVALID-ORDER-866} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad R_L + \frac{1}{C_L s} \right)$$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + C_1 C_4 C_L L_1 R_4 R_L s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 R_1 R_4 g_m s^3 + 2C_1 C_L L_1 R_1 R_L g_m s^3 + C_1 C_L L_1 R_1 s^3}{2C_1 C_4 C_L L_1 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + C_1 C_4 C_L L_1 R_4 R_L s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 R_1 R_4 g_m s^3 + 2C_1 C_L L_1 R_1 R_L g_m s^3 + C_1 C_L L_1 R_1 s^3}$$

10.867 INVALID-ORDER-867 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_1 R_4 g_m s^3}{2C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_1 R_4 g_m s^3}$$

10.868 INVALID-ORDER-868 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + 2C_1 C_4 L_1 L_L R_1 R_4 g_m s^4 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 + 2C_1 L_1 L_L R_1 g_m s^3}{C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + 2C_1 C_4 L_1 L_L R_1 R_4 g_m s^4 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 + 2C_1 L_1 L_L R_1 g_m s^3}$$

10.869 INVALID-ORDER-869 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + 2C_1 C_4 C_L L_1 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + C_1 C_4 C_L L_1 R_4 R_L s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 + 2C_1 L_1 L_L R_1 g_m s^3}{2C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + 2C_1 C_4 C_L L_1 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + C_1 C_4 C_L L_1 R_4 R_L s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 + 2C_1 L_1 L_L R_1 g_m s^3}$$

10.870 INVALID-ORDER-870 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + 2C_1 C_4 L_1 L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_4 L_1 L_L R_4 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_1 R_4 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 R_L s^4}{C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + 2C_1 C_4 L_1 L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_4 L_1 L_L R_4 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_1 R_4 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 R_L s^4}$$

10.871 INVALID-ORDER-871 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + 2C_1 C_4 L_1 L_L R_1 R_4 g_m s^4 + C_1 C_4 L_1 L_L R_4 s^4 + 2C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R_4 s^3 + 2C_1 C_L L_1 L_L R_1 R_4 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_4 R_L s^4 + 2C_1 L_1 L_L R_1 g_m s^3}{2C_1 C_4 C_L L_1 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + 2C_1 C_4 L_1 L_L R_1 R_4 g_m s^4 + C_1 C_4 L_1 L_L R_4 s^4 + 2C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R_4 s^3 + 2C_1 C_L L_1 L_L R_1 R_4 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_4 R_L s^4 + 2C_1 L_1 L_L R_1 g_m s^3}$$

$$10.872 \quad \text{INVALID-ORDER-872} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = - \frac{2C_1 C_4 C_L L_1 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + 2C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_4 R_L s^3 +$$

$$10.873 \quad \text{INVALID-ORDER-873} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad L_2 s + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad R_L \right)$$

$$H(s) = \frac{R_L (C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 R_1 R_4 s^2 +$$

$$10.874 \quad \text{INVALID-ORDER-874} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad L_2 s + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_4 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 R_4 g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L R_1 R_4 s^2 +$$

$$10.875 \quad \text{INVALID-ORDER-875} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad L_2 s + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_1 R_L s^4 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 R_1 g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L R_1 R_4 s^2 +$$

$$10.876 \quad \text{INVALID-ORDER-876} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad L_2 s + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{(C_L R_L s + 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 C_L L_1 R_1 R_L g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 C_L L_1 R_L s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 R_1 g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L R_1 R_4 s^2 +$$

10.877 INVALID-ORDER-877 $Z(s) = \left(L_1s + \frac{1}{C_1s}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls} \right)$

$$H(s) = \frac{(C_LL_Ls^2 + 1)(C_1L_1s^2 + 1)}{s(2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + C_1C_4C_LL_1R_1R_4g_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2)}$$

10.878 INVALID-ORDER-878 $Z(s) = \left(L_1s + \frac{1}{C_1s}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} \right)$

$$H(s) = \frac{1}{C_1C_4C_LL_1L_LR_1R_4g_ms^5 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_1L_LR_4s^5 + 2C_1C_4L_1L_LR_1g_ms^4 + C_1C_4L_1L_Ls^4 + C_1C_4L_1R_1R_4g_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_4s^3 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2}$$

10.879 INVALID-ORDER-879 $Z(s) = \left(L_1s + \frac{1}{C_1s}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls} \right)$

$$H(s) = \frac{1}{s(2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + C_1C_4C_LL_1R_1R_4g_ms^3 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + C_1C_4C_LL_1R_Ls^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2)}$$

10.880 INVALID-ORDER-880 $Z(s) = \left(L_1s + \frac{1}{C_1s}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}} \right)$

$$H(s) = \frac{1}{C_1C_4C_LL_1L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1R_Ls^5 + C_1C_4C_LL_1L_LR_4R_Ls^5 + C_1C_4L_1L_LR_1R_4g_ms^4 + 2C_1C_4L_1L_LR_1R_Lg_ms^4 + C_1C_4L_1L_LR_1s^4 + C_1C_4L_1L_LR_4s^4 + C_1C_LL_1R_1R_4g_ms^3 + C_1C_LL_1R_1s^3 + C_1C_LL_1R_4s^3 + C_1C_LL_1R_Ls^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2}$$

10.881 INVALID-ORDER-881 $Z(s) = \left(L_1s + \frac{1}{C_1s}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L \right)$

$$H(s) = \frac{1}{C_1C_4C_LL_1L_LR_1R_4g_ms^5 + 2C_1C_4C_LL_1L_LR_1R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_1L_LR_Ls^5 + 2C_1C_4L_1L_LR_1g_ms^4 + C_1C_4L_1L_Ls^4 + C_1C_4L_1R_1R_4g_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_4s^3 + C_1C_LL_1R_1R_4g_ms^2 + C_1C_LL_1R_1s^2 + C_1C_LL_1R_4s^2 + C_1C_LL_1R_Ls^2 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2}$$

10.882 INVALID-ORDER-882 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_1 R_L s^4 +$$

10.883 INVALID-ORDER-883 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_L (C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 L_4 R_1 g}$$

10.884 INVALID-ORDER-884 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 L_1 R_1 s^2 + L_1 s + R_1)(C_4 L_4 g_m s^2 - C_4 s + g_m)}{s(C_1 C_4 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 R_1 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + C_4 C_L L_1 s^2 + C_4 C_L L_4 R_1 s + C_4 R_1)}$$

10.885 INVALID-ORDER-885 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_1 R_L q_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_L s^4 + C_1 C_4 L_1 L_4 R_1 q_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_1 R_L q_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 R_1 R_L q_m s^2 + C_1 C_L L_1 R_1 R_L s^2 + C_1 C_L L_1 R_L q_m s + C_1 C_L L_1 R_L s}{C_1 C_4 C_L L_1 L_4 R_1 R_L q_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_L s^4 + C_1 C_4 L_1 L_4 R_1 q_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_1 R_L q_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 R_1 R_L q_m s^2 + C_1 C_L L_1 R_1 R_L s^2 + C_1 C_L L_1 R_L q_m s + C_1 C_L L_1 R_L s}$$

10.886 INVALID-ORDER-886 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_L R_L s + 1)(C_1 L_1 l)}{s(C_1 C_4 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + 2C_1 C_4 C_L L_1 R_1 R_L g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_L s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2)}$$

10.887 INVALID-ORDER-887 $Z(s) = \left(L_1s + \frac{1}{C_1s}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls} \right)$

$$H(s) = \frac{(C_LL_Ls^2 + 1)(C_1L_1s^2 + R_1s + \frac{1}{C_1})}{s(C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + 2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + C_1C_4C_LL_1R_1s^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2)}$$

10.888 INVALID-ORDER-888 $Z(s) = \left(L_1s + \frac{1}{C_1s}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} \right)$

$$H(s) = \frac{(C_LL_Ls^2 + 1)(C_1L_1s^2 + R_1s + \frac{1}{C_1})}{C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_1L_LR_1g_ms^4 + C_1C_4L_1L_Ls^4 + C_1C_4L_1R_1s^3 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2}$$

10.889 INVALID-ORDER-889 $Z(s) = \left(L_1s + \frac{1}{C_1s}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls} \right)$

$$H(s) = \frac{(C_1L_1s^2 + R_1s + \frac{1}{C_1})(C_LL_Ls^2 + 1)}{s(C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + 2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_Ls^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2)}$$

10.890 INVALID-ORDER-890 $Z(s) = \left(L_1s + \frac{1}{C_1s}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}} \right)$

$$H(s) = \frac{(C_1L_1s^2 + R_1s + \frac{1}{C_1})(C_LL_Ls^2 + 1)}{C_1C_4C_LL_1L_4L_LR_1R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_1L_LR_1R_Ls^5 + C_1C_4L_1L_4L_LR_1g_ms^5 + C_1C_4L_1L_4L_Ls^5 + C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_Ls^4 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2}$$

10.891 INVALID-ORDER-891 $Z(s) = \left(L_1s + \frac{1}{C_1s}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L \right)$

$$H(s) = \frac{(C_1L_1s^2 + R_1s + \frac{1}{C_1})(C_LL_Ls^2 + 1)}{C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + 2C_1C_4C_LL_1L_LR_1R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_1L_LR_Ls^5 + C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2}$$

$$\mathbf{10.892} \quad \mathbf{INVALID-ORDER-892} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + 2 C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 +$$

10.893 INVALID-ORDER-893 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L \right)$

$$H(s) = -\frac{R_L (C_4 L_4 s^2 - L_4 g_m s + 1) (C_1 L_1 R_1 s^2 + L_1 s + 1)}{2C_1 C_4 L_1 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 L_1 L_4 R_1 g_m s^3 + C_1 L_1 L_4 s^3 + 2C_1 L_1 R_1 R_L g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_L s^2 + 2C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4}$$

10.894 INVALID-ORDER-894 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{(C_4 L_4 s^2 - L_4 g_m s + 1)(C_1 L_1 R_1 s^2 + L_1 s + R_1)}{C_1 C_4 C_L L_1 L_4 R_1 s^5 + 2C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 R_1 s^3 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 s^4 + C_4 C_L L_4 R_1 s^3}$$

10.895 INVALID-ORDER-895 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + 2C_1 C_4 L_1 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_L L_1 L_4 R_1 R_L g_m s^4 + C_1 C_L L_1 L_4 R_L s^4 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 L_4 R_1 g_m s^3 +$$

10.896 INVALID-ORDER-896 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_Ls^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4R_1g_ms^4 + C_1C_LL_1L_4s^4 + 2C_1C_LL_1R_1R_Lg_ms^3 -$$

10.897 INVALID-ORDER-897 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1s^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4R_1g_ms^4 + C_1C_LL_1L_4s^4 + 2C_1C_LL_1L_LR_1g_ms^4 +$$

10.898 INVALID-ORDER-898 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + 2 C_1 C_4 L_1 L_4 L_L R_1 g_m s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 L_L R_1 g_m s^5 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 L_4 R_1 g_m s^3 + C_1 L_1 L_4 L_L s^3 + C_1 L_1 L_L R_1 s^2 + C_1 L_1 L_L s^2 + C_1 L_1 R_1 s + C_1 R_1}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + 2 C_1 C_4 L_1 L_4 L_L R_1 g_m s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 L_L R_1 g_m s^5 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 L_4 R_1 g_m s^3 + C_1 L_1 L_4 L_L s^3 + C_1 L_1 L_L R_1 s^2 + C_1 L_1 L_L s^2 + C_1 L_1 R_1 s + C_1 R_1}$$

10.899 INVALID-ORDER-899 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_Ls^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4s^4}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_Ls^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4s^4}$$

10.900 INVALID-ORDER-900 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + 2 C_1 C_4 L_1 L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 L_L R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 R_L g_m s^5 + C_1 C_L L_1 L_4 L_L R_L s^5 +$$

10.901 INVALID-ORDER-901 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + 2C_1 C_4 L_1 L_4 L_L R_1 g_m s^5 + C_1 C_4 L_1 L_4 L_L s^5 + 2C_1 C_4 L_1 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + \dots}{\dots}$$

10.902 INVALID-ORDER-902 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_1R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_1L_4R_1R_Ls^5 + 2C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_Ls^4 + C_1C_4L_1L_4R_Lg_ms^3 + C_1C_4L_1L_4R_Ls^3 + C_1C_4L_1L_4R_Lg_ms^2 + C_1C_4L_1L_4R_Ls^2 + C_1C_4L_1L_4R_Lg_ms + C_1C_4L_1L_4R_L}{2C_1C_4C_LL_1L_4L_LR_1R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_1L_4R_1R_Ls^5 + 2C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_Ls^4 + C_1C_4L_1L_4R_Lg_ms^3 + C_1C_4L_1L_4R_Ls^3 + C_1C_4L_1L_4R_Lg_ms^2 + C_1C_4L_1L_4R_Ls^2 + C_1C_4L_1L_4R_Lg_ms + C_1C_4L_1L_4R_L}.$$

10.903 INVALID-ORDER-903 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_L (C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_4 L_4 g_m s^2 + C_4 L_4 s + R_4)}{C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2 C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_4 L_1 L_4 g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_1 R_1 s^2 + C_4 L_1 R_4 s^2 + C_4 L_1 R_L s^2 + C_4 L_1 s^2 + R_1 R_4 g_m s^2 + R_1 R_4 s^2 + R_1 R_L s^2 + R_1 s^2 + R_4 R_L s^2 + R_4 s^2 + R_L s^2 + s^2 + 1}$$

10.904 INVALID-ORDER-904 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{(C_1 L_1 R_1 s^2 + L_1 s + R_1)}{s(C_1 C_4 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_4 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2}$$

10.905 INVALID-ORDER-905 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_1 R_L q_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L q_m s^4 + C_1 C_4 C_L L_1 R_1 R_L s^4 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_1 q_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_1 R_4}{C_1 C_4 C_L L_1 L_4 R_1 R_L q_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L q_m s^4 + C_1 C_4 C_L L_1 R_1 R_L s^4 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_1 q_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_1 R_4}$$

10.906 INVALID-ORDER-906 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{1}{s(C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + C_1C_4C_LL_1R_1R_4g_ms^3 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + C_1C_4C_LL_1R_Ls^3 + 2C_1C_4L_1R_1g_ms^2 -$$

$$\mathbf{10.907 \quad INVALID-ORDER-907} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{1}{s(C_1 C_4 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + 2C_1 C_4 C_L L_1 L_L R_1 g_m s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_4 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 +$$

$$\mathbf{10.908 \quad INVALID-ORDER-908} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{1}{C_1 C_4 C_L L_1 L_4 L_L R_1 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 L_L R_1$$

$$\mathbf{10.909 \quad INVALID-ORDER-909} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{1}{s(C_1 C_4 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + 2C_1 C_4 C_L L_1 L_L R_1 g_m s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 C_L L_1 R_1 R_L g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_4 s^3 +$$

$$\mathbf{10.910 \quad INVALID-ORDER-910} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = \frac{1}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_1 g_m s^5 + C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 +$$

$$\mathbf{10.911 \quad INVALID-ORDER-911} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = \frac{1}{C_1 C_4 C_L L_1 L_4 L_L R_1 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + 2C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 L_4 L_L R_1 g_m s^5 + C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 +$$

10.912 INVALID-ORDER-912 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5}{C_1 C_4 C_L L_1 L_4 L_L R_1 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5}$$

10.913 INVALID-ORDER-913 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, R_L \right)$

10.914 INVALID-ORDER-914 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + 2C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 R_1 R_4 g_m s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_4 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + 2C_1 L_1 L_4 R_1 g_m s^3 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 L_4 R_4 s^3 + C_1 L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^3 + C_1 L_1 R_4 s^3 + C_1 L_1 s^3}{C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + 2C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 R_1 R_4 g_m s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_4 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + 2C_1 L_1 L_4 R_1 g_m s^3 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 L_4 R_4 s^3 + C_1 L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^3 + C_1 L_1 R_4 s^3 + C_1 L_1 s^3}.$$

10.915 INVALID-ORDER-915 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + 2C_1 C_4 L_1 L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_4 R_L s^4 + C_1 C_L L_1 L_4 R_1 R_4 R_L g_m s^4 + C_1 C_L L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 R_4 R_L s^4 +$$

10.916 INVALID-ORDER-916 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4R_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_1L_4R_4R_Ls^5 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + C_1C_4L_1L_4R_4s^4 + C_1C_LL_1L_4R_1R_4g_ms^4 + 2C_1C_LL_1L_4R_1R_Lg_m}{2C_1C_4C_LL_1L_4R_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_1L_4R_4R_Ls^5 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + C_1C_4L_1L_4R_4s^4 + C_1C_LL_1L_4R_1R_4g_ms^4 + 2C_1C_LL_1L_4R_1R_Lg_m}$$

10.917 INVALID-ORDER-917 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4R_1R_4s^5 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + C_1C_4L_1L_4R_4s^4 + 2C_1C_LL_1L_4L_LR_1g_ms^5 + C_1C_LL_1L_4L_Ls^5 + C_1C_LL_1L_4L_LR_1s^5 + C_1C_LL_1L_4L_LR_4s^5 + C_1C_LL_1L_4L_LR_4g_ms^4 + C_1C_LL_1L_4L_LR_4s^4 + C_1C_LL_1L_4L_LR_4g_ms^3 + C_1C_LL_1L_4L_LR_4g_ms^2 + C_1C_LL_1L_4L_LR_4g_ms + C_1C_LL_1L_4L_LR_4}{2C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4R_1R_4s^5 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + C_1C_4L_1L_4R_4s^4 + 2C_1C_LL_1L_4L_LR_1g_ms^5 + C_1C_LL_1L_4L_Ls^5 + C_1C_LL_1L_4L_LR_1s^5 + C_1C_LL_1L_4L_LR_4s^5 + C_1C_LL_1L_4L_LR_4g_ms^4 + C_1C_LL_1L_4L_LR_4s^4 + C_1C_LL_1L_4L_LR_4g_ms^3 + C_1C_LL_1L_4L_LR_4g_ms^2 + C_1C_LL_1L_4L_LR_4g_ms + C_1C_LL_1L_4L_LR_4}.$$

10.918 INVALID-ORDER-918 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + 2C_1 C_4 L_1 L_4 L_L R_1 R_4 g_m s^5 + C_1 C_4 L_1 L_4 L_L R_4 s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_L L_1 L_4 L_L R_1 R_4 g_m s^5 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_4 L_L R_4 s^5 +$$

10.919 INVALID-ORDER-919 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + 2C_1C_4C_LL_1L_4R_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_1L_4R_4R_Ls^5 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + C_1C_4L_1$$

10.920 INVALID-ORDER-920 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L s^6 + 2C_1 C_4 L_1 L_4 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_1 L_4 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 R_4 R_L g_m s^5 + C_1 C_L L_1 L_4 L_L R_1 R_4 R_L s^4}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L s^6 + 2C_1 C_4 L_1 L_4 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_1 L_4 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 R_4 R_L g_m s^5 + C_1 C_L L_1 L_4 L_L R_1 R_4 R_L s^4}$$

10.921 INVALID-ORDER-921 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

10.922 INVALID-ORDER-922 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$

10.923 INVALID-ORDER-923 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{1}{C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 L_1 L_4 R_1 g_m s^3 + C_1 L_1 L_4 s^3 + C_1 L_1 R_1 R_4 g_m s^2 + 2 C_1 L_1 R_1 R_L g_m}$$

10.924 INVALID-ORDER-924 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + 2 C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 g_m s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 s^3 + C_1 C_L R_1 R_4 g_m s^2 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 g_m s^2 + C_1 C_L R_4 s^2 + C_1 C_L s^2 + C_1 R_1 R_4 g_m s + C_1 R_1 R_4 s + C_1 R_1 s + C_1 R_4 g_m s + C_1 R_4 s + C_1 s}{C_1 C_4 C_L L_1 L_4 R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + 2 C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 g_m s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 s^3 + C_1 C_L R_1 R_4 g_m s^2 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 g_m s^2 + C_1 C_L R_4 s^2 + C_1 C_L s^2 + C_1 R_1 R_4 g_m s + C_1 R_1 R_4 s + C_1 R_1 s + C_1 R_4 g_m s + C_1 R_4 s + C_1 s}.$$

10.925 INVALID-ORDER-925 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

10.926 INVALID-ORDER-926 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_4 R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + 2 C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 R_L s^4 + C_1 C_L L_1 L_4 s^4}{C_1 C_4 C_L L_1 L_4 R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_4 R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + 2 C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 R_L s^4 + C_1 C_L L_1 L_4 s^4}$$

10.927 INVALID-ORDER-927 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4R_1g_ms^4 + C_1C_LL_1L_4R_1s^4 + C_1C_LL_1L_4R_4g_ms^4 + C_1C_LL_1L_4R_4s^4 + C_1C_LL_1L_4R_4g_ms^4 + C_1C_LL_1L_4R_4s^4}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4R_1g_ms^4 + C_1C_LL_1L_4R_1s^4 + C_1C_LL_1L_4R_4g_ms^4 + C_1C_LL_1L_4R_4s^4 + C_1C_LL_1L_4R_4g_ms^4 + C_1C_LL_1L_4R_4s^4}$$

10.928 INVALID-ORDER-928 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

10.929 INVALID-ORDER-929 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

10.930 INVALID-ORDER-930 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 L_1 L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 L_L R_4 s^5 + C_1 C_4 L_1 L_4 L_L R_4 g_m s^5 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 L_L R_4 s^5 + C_1 C_4 L_1 L_4 L_L R_4 g_m s^5}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 L_1 L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 L_L R_4 s^5 + C_1 C_4 L_1 L_4 L_L R_4 g_m s^5 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 L_L R_4 s^5 + C_1 C_4 L_1 L_4 L_L R_4 g_m s^5}$$

10.931 INVALID-ORDER-931 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

10.932 INVALID-ORDER-932 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L g_m s^5 + C_1 C_4$$

10.933 INVALID-ORDER-933 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L \right)$

$$H(s) = -\frac{C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + 2 C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 R_1 R_4 g_m s^4 + 2 C_1 C_4 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_4 R_1 s^4 + C_1 C_4 L_4 R_4 s^4 + C_1 C_4 L_4 R_L s^4 + 2 C_1 C_4 L_4 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_1 R_4 R_L g_m s^3 + C_1 C_4 R_1 R_4 s^3 + C_1 C_4 R_1 R_L s^3 + C_1 C_4 R_1 s^3 + C_1 C_4 R_4 R_L g_m s^3 + C_1 C_4 R_4 R_L s^3 + C_1 C_4 R_4 s^3 + C_1 C_4 R_L s^3 + C_1 C_4 s^3}{C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + 2 C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 R_1 R_4 g_m s^4 + 2 C_1 C_4 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_4 R_1 s^4 + C_1 C_4 L_4 R_4 s^4 + C_1 C_4 L_4 R_L s^4 + 2 C_1 C_4 L_4 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_1 R_4 R_L g_m s^3 + C_1 C_4 R_1 R_4 s^3 + C_1 C_4 R_1 R_L s^3 + C_1 C_4 R_1 s^3 + C_1 C_4 R_4 R_L g_m s^3 + C_1 C_4 R_4 R_L s^3 + C_1 C_4 R_4 s^3 + C_1 C_4 R_L s^3 + C_1 C_4 s^3}.$$

10.934 INVALID-ORDER-934 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + 2C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 R_1 R_4 s^3 + C_1 C_4 s^3}{C_1 C_4 C_L L_1 L_4 R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + 2C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 R_1 R_4 s^3 + C_1 C_4 s^3}.$$

10.935 INVALID-ORDER-935 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 s^4}{C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 s^4}$$

10.936 INVALID-ORDER-936 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

10.937 INVALID-ORDER-937 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4C_LL_1L_LR_1R_4g_ms^5 + C_1C_4C_LL_1L_LR_4s^5 +$$

10.938 INVALID-ORDER-938 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + 2C_1 C_4 L_1 L_4 L_L R_1 g_m s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + 2C_1 C_4 L_1 L_4 L_L R_1 g_m s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4}$$

10.939 INVALID-ORDER-939 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5 +$$

10.940 INVALID-ORDER-940 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 L_1 L_4 L_L R_1 R_L g_m s^5}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 L_1 L_4 L_L R_1 R_L g_m s^5}$$

10.941 INVALID-ORDER-941 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + 2C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + 2C_1 C_4 C_L L_1 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_1 L_L s^5}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^7 + 2C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^7 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^7 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^7 + C_1 C_4 C_L L_1 L_4 L_L R_L s^7 + 2C_1 C_4 C_L L_1 L_L R_1 R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^6 + C_1 C_4 C_L L_1 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_L R_L s^6 + C_1 C_4 C_L L_1 L_L s^6}.$$

10.942 INVALID-ORDER-942 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

[illegible]

10.943 INVALID-ORDER-943 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (R_4 g_m - 1) (C_1 L_1 s^2 + 1)}{C_1 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L R_1 R_4 s^2 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_L R_1 R_4 g_m s + C_L R_1 s + C_L R_4 s + 2R_1 g_m + 1}$$

10.944 INVALID-ORDER-944 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{R_1 R_L (R_4 g_m - 1) (C_1 L_1 s^2 + 1)}{C_1 C_L L_1 R_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_4 R_L s^3 + C_1 C_L R_1 R_4 R_L s^2 + C_1 L_1 R_1 R_4 g_m s^2 + 2 C_1 L_1 R_1 R_L g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_1 R_1 R_4 s}$$

10.945 INVALID-ORDER-945 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (R_4 g_m - 1) (C_1 L_1 s^2 + 1) (C_L R_L s + 1)}{C_1 C_L L_1 R_1 R_4 g_m s^3 + 2 C_1 C_L L_1 R_1 R_L g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 R_L s^2 + 2 C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_L R_1 R_4}$$

10.946 INVALID-ORDER-946 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (R_4 g_m - 1) (C_1 L_1 s^2 + 1) (C_L L_L s^2 + 1)}{2C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + 2C_L L_L}$$

10.947 INVALID-ORDER-947 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{L_L R_1 s (R_4 g_m - 1) (C_1 L_1 s^2 + 1)}{C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_L R_1 R_4 s^3 + 2C_1 L_1 L_L R_1 g_m s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_1 R_4 g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + C_1 L_L R_1 s^2 + C_1 L_L R_4 s^2 + C_1 L_L R_1 s^2 + C_1 L_L R_4 s^2}$$

10.948 INVALID-ORDER-948 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (R_4 g_m - 1) (C_1 L_1 s^2 + 1) (C_L L_L s^2 + 1)}{2C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_1 R_4 g_m s^3 + 2C_1 C_L L_1 R_1 R_L g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2}$$

10.949 INVALID-ORDER-949 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{1}{C_1 C_L L_1 L_L R_1 R_4 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_4 R_L s^4 + C_1 C_L L_L R_1 R_4 R_L s^3 + C_1 L_1 L_L R_1 R_4 g_m s^3 + 2C_1 L_1 L_L R_1 R_L g_m s^3 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 L_L R_4 s^3 + C_1 L_1 L_L R_L s^3 + C_1 L_1 R_1 R_4 g_m s^2 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R_4 R_L s^2 + C_1 L_L R_1 R_4 g_m s^2 + C_1 L_L R_1 R_L s^2 + C_1 L_L R_4 R_L s^2 + C_1 L_L R_1 s^2 + C_1 L_L R_4 s^2 + C_1 L_L R_L s^2}$$

10.950 INVALID-ORDER-950 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{1}{C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + 2C_1 C_L L_1 L_L R_1 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_L s^3 + 2C_1 L_1 L_L R_1 g_m s^3 + C_1 L_1 L_L R_4 s^3 + C_1 L_1 L_L R_L s^3 + C_1 L_1 R_1 R_4 g_m s^2 + C_1 L_1 R_1 R_L s^2 + C_1 L_1 R_4 R_L s^2 + C_1 L_L R_1 R_4 g_m s^2 + C_1 L_L R_1 R_L s^2 + C_1 L_L R_4 R_L s^2 + C_1 L_L R_1 s^2 + C_1 L_L R_4 s^2 + C_1 L_L R_L s^2}$$

10.951 INVALID-ORDER-951 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L (L_L s + \frac{1}{C_L s})}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{1}{C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + 2C_1 C_L L_1 L_L R_1 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_1 R_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_4 R_L s^3 + C_1 C_L L_L R_1 R_4 g_m s^2 + C_1 C_L L_L R_1 R_L s^2 + C_1 C_L L_L R_4 R_L s^2 + C_1 C_L L_L R_1 s^2 + C_1 C_L L_L R_4 s^2 + C_1 C_L L_L R_L s^2}$$

10.952 INVALID-ORDER-952 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = -\frac{R_1 R_L (C_4 s - g_m) (C_1 L_1 s^2 + 1)}{2C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 R_1 R_L s^2 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + R_1 g_m + 1}$$

10.953 INVALID-ORDER-953 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_4 s - g_m) (C_1 L_1 s^2 + 1)}{s (C_1 C_4 C_L L_1 R_1 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 s^2 + C_1 C_4 R_1 s + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_1 s + C_4 C_L R_1 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.954 INVALID-ORDER-954 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{R_1 R_L (C_4 s - g_m) (C_1 L_1 s^2 + 1)}{C_1 C_4 C_L L_1 R_1 R_L s^4 + 2C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 R_1 R_L s^2 + C_1 C_L L_1 R_1 R_L g_m s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L R_1 R_L s^2 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + R_1 g_m + 1}$$

10.955 INVALID-ORDER-955 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_4 s - g_m) (C_1 L_1 s^2 + 1) (C_L R_L s + 1)}{s (2C_1 C_4 C_L L_1 R_1 R_L g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 C_L R_1 R_L s^2 + 2C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 s^2 + C_1 C_4 R_1 s + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_1 s + C_4 C_L R_1 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.956 INVALID-ORDER-956 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_4 s - g_m) (C_1 L_1 s^2 + 1) (C_L L_L s^2 + 1)}{s (2C_1 C_4 C_L L_1 L_L R_1 g_m s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_L R_1 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 s^2 + C_1 C_4 R_1 s + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_1 s + C_4 C_L R_1 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L)}$$

10.957 INVALID-ORDER-957 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{L_L R_1 s (C_4 s - g_m) (C_1 L_1 s^2 + 1)}{C_1 C_4 C_L L_1 L_L R_1 s^5 + 2C_1 C_4 L_1 L_L R_1 g_m s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_L R_1 s^3 + C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_L R_1 s^3 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + R_1 g_m + 1}$$

10.958 INVALID-ORDER-958 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

10.959 INVALID-ORDER-959 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L + \frac{1}{L_L s}}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + 2 C_1 C_4 L_1 L_L R_1 R_L g_m s^4 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 L_L R_L s^4 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_4 L_L R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 R_L g_m s^4 + C_1 C_L L_1 L_L R_L s^4}{C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + 2 C_1 C_4 L_1 L_L R_1 R_L g_m s^4 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 L_L R_L s^4 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_4 L_L R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 R_L g_m s^4 + C_1 C_L L_1 L_L R_L s^4}$$

10.960 INVALID-ORDER-960 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{2C_1C_4C_LL_LL_LR_1R_Lg_ms^5 + C_1C_4C_LL_LL_LR_1s^5 + C_1C_4C_LL_LL_RLs^5 + C_1C_4C_LL_LR_1R_Ls^4 + 2C_1C_4L_LL_R_1g_ms^4 + C_1C_4L_LLs^4 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3}{2C_1C_4C_LL_LL_LR_1R_Lg_ms^5 + C_1C_4C_LL_LL_LR_1s^5 + C_1C_4C_LL_LL_RLs^5 + C_1C_4C_LL_LR_1R_Ls^4 + 2C_1C_4L_LL_R_1g_ms^4 + C_1C_4L_LLs^4 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3}.$$

10.961 INVALID-ORDER-961 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_LR_1R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_1L_LR_Ls^5 + C_1C_4C_LL_1R_1R_Ls^4 + C_1C_4C_LL_R_1R_Ls^4 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_Ls^3}{2C_1C_4C_LL_1L_LR_1R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_1L_LR_Ls^5 + C_1C_4C_LL_1R_1R_Ls^4 + C_1C_4C_LL_R_1R_Ls^4 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_Ls^3}$$

10.962 INVALID-ORDER-962 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = -\frac{R_1 R_L (C_1 L_1 s^2 + 1) (C_4 R_4 s - R_4 g_m + 1)}{2C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 L_1 R_1 R_4 g_m s^2 + 2C_1 L_1 R_1 R_L g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_1 R_1 R_4}$$

10.963 INVALID-ORDER-963 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_1 L_1 s^2 + 1) (C_4 R_4 s - R_4 g_m + 1)}{C_1 C_4 C_L L_1 R_1 R_4 s^4 + 2 C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L R_1 R_4 s^2 + 2 C_1 L_1 R_1 g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s + C_1 R_1}.$$

10.964 INVALID-ORDER-964 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + 2 C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 C_L L_1 R_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_4 R_L s^3}{C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + 2 C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 C_L L_1 R_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_4 R_L s^3}.$$

10.965 INVALID-ORDER-965 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1R_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_1R_4s^4 + C_1C_4C_LL_1R_4R_Ls^4 + C_1C_4C_LR_1R_4R_Ls^3 + 2C_1C_4L_1R_1R_4g_ms^3 + C_1C_4L_1R_4s^3 + C_1C_4R_1R_4s^2 + C_1C_LL_1R_1R_4g_ms^3}{2C_1C_4C_LL_1R_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_1R_4s^4 + C_1C_4C_LL_1R_4R_Ls^4 + C_1C_4C_LR_1R_4R_Ls^3 + 2C_1C_4L_1R_1R_4g_ms^3 + C_1C_4L_1R_4s^3 + C_1C_4R_1R_4s^2 + C_1C_LL_1R_1R_4g_ms^3}.$$

10.966 INVALID-ORDER-966 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_LR_1R_4g_ms^5 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_1R_1R_4s^4 + C_1C_4C_LL_1R_1R_4s^4 + 2C_1C_4L_1R_1R_4g_ms^3 + C_1C_4L_1R_4s^3 + C_1C_4R_1R_4s^2 + 2C_1C_LL_1L_LR_1g_ms^4}{\dots}$$

10.967 INVALID-ORDER-967 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + 2C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^4 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_L R_1 R_4 s^3 + C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 +$$

10.968 INVALID-ORDER-968 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_LR_1R_4g_ms^5 + C_1C_4C_LL_1L_LR_4s^5 + 2C_1C_4C_LL_1R_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_1R_4s^4 + C_1C_4C_LL_1R_4R_Ls^4 + C_1C_4C_LL_LR_1R_4s^4 + C_1C_4C_LR_1R_4R_Ls^3 + 2C_1C_4C_LR_1R_4s^3 + 2C_1C_4C_LR_1R_4s^2 + 2C_1C_4C_LR_1R_4s + 2C_1C_4C_LR_1R_4}{2C_1C_4C_LL_1L_LR_1R_4g_ms^5 + C_1C_4C_LL_1L_LR_4s^5 + 2C_1C_4C_LL_1R_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_1R_4s^4 + C_1C_4C_LL_1R_4R_Ls^4 + C_1C_4C_LL_LR_1R_4s^4 + C_1C_4C_LR_1R_4R_Ls^3 + 2C_1C_4C_LR_1R_4s^3 + 2C_1C_4C_LR_1R_4s^2 + 2C_1C_4C_LR_1R_4s + 2C_1C_4C_LR_1R_4}.$$

10.969 INVALID-ORDER-969 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + 2 C_1 C_4 L_1 L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_4 L_1 L_L R_4 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_4 L_L R_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_1 R_4 R_L g_m s^4}{C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + 2 C_1 C_4 L_1 L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_4 L_1 L_L R_4 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_4 L_L R_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_1 R_4 R_L g_m s^4}$$

10.970 INVALID-ORDER-970 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{2C_1C_4C_LL_LL_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_LL_LR_1R_4s^5 + C_1C_4C_LL_LL_LR_4R_Ls^5 + C_1C_4C_LL_LR_1R_4R_Ls^4 + 2C_1C_4L_1L_LR_1R_4g_ms^4 + C_1C_4L_1L_LR_4s^4 + 2C_1C_4L_1R_1R_4R_L}{\dots}$$

$$\textbf{10.971 INVALID-ORDER-971 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{2C_1C_4C_LL_1L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1R_4s^5 + C_1C_4C_LL_1L_LR_4R_Ls^5 + C_1C_4C_LL_1R_1R_4R_Ls^4 + C_1C_4C_LL_R_1R_4R_Ls^4 + 2C_1C_4L_1R_1R_4R_Lg_ms^3 + C_1C_4L_1R_1R_4R_Ls^3 + 2C_1C_4L_1R_1R_4R_Ls^2 + C_1C_4L_1R_1R_4s^2 + C_1C_4L_1R_1s^2 + C_1C_4L_1R_4R_Ls^2 + C_1C_4L_1R_4s^2 + C_1C_4L_1s^2 + C_1C_4R_1R_4R_Ls^2 + C_1C_4R_1R_4s^2 + C_1C_4R_1s^2 + C_1C_4R_4R_Ls^2 + C_1C_4R_4s^2 + C_1C_4s^2}{2C_1C_4C_LL_1L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1R_4s^5 + C_1C_4C_LL_1L_LR_4R_Ls^5 + C_1C_4C_LL_1R_1R_4R_Ls^4 + C_1C_4C_LL_R_1R_4R_Ls^4 + 2C_1C_4L_1R_1R_4R_Lg_ms^3 + C_1C_4L_1R_1R_4R_Ls^3 + 2C_1C_4L_1R_1R_4R_Ls^2 + C_1C_4L_1R_1R_4s^2 + C_1C_4L_1R_1s^2 + C_1C_4L_1R_4R_Ls^2 + C_1C_4L_1R_4s^2 + C_1C_4L_1s^2 + C_1C_4R_1R_4R_Ls^2 + C_1C_4R_1R_4s^2 + C_1C_4R_1s^2 + C_1C_4R_4R_Ls^2 + C_1C_4R_4s^2 + C_1C_4s^2}.$$

10.972 INVALID-ORDER-972 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_1 R_L (C_1 L_1 s^2 + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2 C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 R_L s^2 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_4 R_1 R_4 g_m}$$

10.973 INVALID-ORDER-973 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_1 L_1 s^2 + 1) (C_4 R_4 g_m s - C_4 s + g_m)}{s (C_1 C_4 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 C_L R_1 R_4 s^2 + 2 C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 s^2 + C_1 C_4 R_1 s + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_1 s}$$

$$\mathbf{10.974 \quad INVALID-ORDER-974} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_1 R_L s^4 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2 C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 L_1 R_4 g_m s^2 + C_1 C_4 L_1 R_L g_m s^2 + C_1 C_4 L_1 R_4 s^2 + C_1 C_4 L_1 R_L s^2 + C_1 C_4 L_1 R_4 g_m s + C_1 C_4 L_1 R_L s + C_1 C_4 L_1 R_4 + C_1 C_4 L_1 R_L}{s^5}$$

$$\mathbf{10.975 \quad INVALID-ORDER-975} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{R_1 (C_1 L_1 s^2 + 1) (C_L R_L s + 1)}{s (C_1 C_4 C_L L_1 R_1 R_4 g_m s^3 + 2 C_1 C_4 C_L L_1 R_1 R_L g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 C_L R_1 R_4 s^2 + C_1 C_4 C_L R_1 R_L s^2 + 2 C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 R_1 s^2 + C_1 C_4 L_1 R_4 s^2 + C_1 C_4 L_1 R_L s^2 + C_1 C_4 L_1 R_4 g_m s + C_1 C_4 L_1 R_L s + C_1 C_4 L_1 R_4 + C_1 C_4 L_1 R_L)}{s^5}$$

$$\mathbf{10.976 \quad INVALID-ORDER-976} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{R_1 (C_1 L_1 s^2 + 1) (C_L L_L s + 1)}{s (2 C_1 C_4 C_L L_1 L_L R_1 g_m s^4 + C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 C_L L_L R_1 s^3 + C_1 C_4 C_L R_1 R_4 s^2 + 2 C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 R_1 s^2 + C_1 C_4 L_1 R_4 s^2 + C_1 C_4 L_1 R_L s^2 + C_1 C_4 L_1 R_4 g_m s + C_1 C_4 L_1 R_L s + C_1 C_4 L_1 R_4 + C_1 C_4 L_1 R_L)}{s^5}$$

$$\mathbf{10.977 \quad INVALID-ORDER-977} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_L R_1 R_4 s^4 + 2 C_1 C_4 L_1 L_L R_1 g_m s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 L_1 R_4 g_m s^2 + C_1 C_4 L_1 R_L g_m s^2 + C_1 C_4 L_1 R_4 s^2 + C_1 C_4 L_1 R_L s^2 + C_1 C_4 L_1 R_4 g_m s + C_1 C_4 L_1 R_L s + C_1 C_4 L_1 R_4 + C_1 C_4 L_1 R_L}{s^5}$$

$$\mathbf{10.978 \quad INVALID-ORDER-978} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_L R_1 g_m s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_1 R_4 g_m s^3 + 2 C_1 C_4 C_L L_1 R_1 R_L g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 C_L L_L R_1 s^3 + C_1 C_4 C_L L_L R_1 g_m s^2 + C_1 C_4 C_L L_L R_1 s^2 + C_1 C_4 C_L L_L R_4 s^2 + C_1 C_4 C_L L_L R_L s^2 + C_1 C_4 C_L L_L R_4 g_m s + C_1 C_4 C_L L_L R_L s + C_1 C_4 C_L L_L R_4 + C_1 C_4 C_L L_L R_L}{s^5}$$

10.979 INVALID-ORDER-979 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_L R_1 R_L s^5 + C_1 C_4 C_L L_L R_4 R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + C_1 C_4 L_1 L_L R_1 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_L R_1 R_L g_m s^4 + C_1 C_4 L_1 L_L R_1 s^4}{C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_L R_1 R_L s^5 + C_1 C_4 C_L L_L R_4 R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + C_1 C_4 L_1 L_L R_1 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_L R_1 R_L g_m s^4 + C_1 C_4 L_1 L_L R_1 s^4}$$

10.980 INVALID-ORDER-980 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

10.981 INVALID-ORDER-981 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_1 R_L s^4 +$$

10.982 INVALID-ORDER-982 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{R_1 R_L (C_1 L_1 s^2 + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_L s^2 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_4 L_4 R_1 g_m}$$

10.983 INVALID-ORDER-983 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_1 L_1 s^2 + 1) (C_4 L_4 g_m s^2 - C_4 s + g_m)}{s (C_1 C_4 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_4 R_1 s^3 + 2 C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 s^2 + C_1 C_4 R_1 s + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_1 s}$$

10.984 INVALID-ORDER-984 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_L s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 R_1 s^3}{C_1 C_4 C_L L_1 L_4 R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_L s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 R_1 s^3}.$$

10.985 INVALID-ORDER-985 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_1 L_1 s^2 + 1) (C_L R_L s + 1)}{s (C_1 C_4 C_L L_1 L_4 R_1 q_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + 2 C_1 C_4 C_L L_1 R_1 R_L q_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 C_L L_4 R_1 s^3 + C_1 C_4 C_L R_1 R_L s^2 + 2 C_1 C_4 L_1 R_1 q_m s^2 + C_1 C_4 L_1 R_1 s^2 + C_1 C_4 L_1 R_L s^2 + C_1 C_4 L_4 R_1 s^2 + C_1 C_4 L_4 R_L s^2 + C_1 C_4 L_1 R_1 q_m s + C_1 C_4 L_1 R_1 s + C_1 C_4 L_1 R_L s + C_1 C_4 L_4 R_1 s + C_1 C_4 L_4 R_L s + C_1 C_4 L_1 R_1 + C_1 C_4 L_1 R_L + C_1 C_4 L_4 R_1 + C_1 C_4 L_4 R_L + C_1 C_4 L_1 + C_1 C_4 L_4 + C_1 C_4 R_1 + C_1 C_4 R_L + C_1 C_4 + C_1 C_L + C_1 C + C_1 L_1 + C_1 L_4 + C_1 L + C_1 R_1 + C_1 R_L + C_1 R + C_1 + C_4 + C_L + C + L_1 + L_4 + L + R_1 + R_L + R + 1)}$$

10.986 INVALID-ORDER-986 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 (C_1 L_1 s^2 + 1) (C_L L_L s^2 + 1)}{s (C_1 C_4 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + 2 C_1 C_4 C_L L_1 L_L R_1 g_m s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_4 R_1 s^3 + C_1 C_4 C_L L_L R_1 s^3 + 2 C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 R_1 s^2 + C_1 C_4 L_L R_1 s^2 + C_1 C_4 L_L s^2 + C_1 C_4 s^2 + C_1 C_4)}.$$

10.987 INVALID-ORDER-987 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 L_L R_1 g_m s^4 + C_1 C_4 L_1 L_L s^4 + C_1$$

10.988 INVALID-ORDER-988 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{1}{s(C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + 2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_Ls^3 + C_1C_4C_LL_4R_1s^3)}$$

10.989 INVALID-ORDER-989 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_1 g_m s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_1 R_L g_m s^4 +$$

10.990 INVALID-ORDER-990 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

10.991 INVALID-ORDER-991 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + 2 C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 +$$

10.992 INVALID-ORDER-992 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L \right)$

$$H(s) = -\frac{R_L R_L (C_1 L_1 s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{2C_1 C_4 L_1 L_4 R_L R_L g_m s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_4 R_L R_L s^3 + C_1 L_1 L_4 R_L g_m s^3 + C_1 L_1 L_4 s^3 + 2C_1 L_1 R_L R_L g_m s^2 + C_1 L_1 R_L s^2 + C_1 L_1 R_L s^2 + C_1 L_4 R_L s}$$

10.993 INVALID-ORDER-993 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1 (C_1 L_1 s^2 + 1) (C_4 L_4 s^2 - L_4 g_m s + 1)}{C_1 C_4 C_L L_1 L_4 R_1 s^5 + 2C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_4 R_1 s^3 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2}$$

10.994 INVALID-ORDER-994 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + 2C_1 C_4 C_L L_1 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_L L_1 L_4 R_1 R_L g_m s^4 + C_1 C_L L_1 L_4 R_L s^4 + C_1 C_L L_1 R_1 R_L s^3 +$$

10.995 INVALID-ORDER-995 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_4R_1R_Ls^4 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_4L_4R_1s^3 + C_1C_LL_1L_4R_1g_ms^4 +$$

10.996 INVALID-ORDER-996 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

10.997 INVALID-ORDER-997 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + 2 C_1 C_4 L_1 L_4 L_L R_1 g_m s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_L L_1 L_4 L_L R_1 g_m s^5 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L g_m s^3 + C_1 C_L L_1 L_L s^3 + C_1 C_L L_1 L_L R_1 s^2 + C_1 C_L L_1 L_L g_m s^2 + C_1 C_L L_1 L_L s^2 + C_1 C_L L_1 L_L R_1 s + C_1 C_L L_1 L_L g_m s + C_1 C_L L_1 L_L s + C_1 C_L L_1 L_L R_1 + C_1 C_L L_1 L_L g_m + C_1 C_L L_1 L_L}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + 2 C_1 C_4 L_1 L_4 L_L R_1 g_m s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_L L_1 L_4 L_L R_1 g_m s^5 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L g_m s^3 + C_1 C_L L_1 L_L s^3 + C_1 C_L L_1 L_L R_1 s^2 + C_1 C_L L_1 L_L g_m s^2 + C_1 C_L L_1 L_L s^2 + C_1 C_L L_1 L_L R_1 s + C_1 C_L L_1 L_L g_m s + C_1 C_L L_1 L_L s + C_1 C_L L_1 L_L R_1 + C_1 C_L L_1 L_L g_m + C_1 C_L L_1 L_L}$$

10.998 INVALID-ORDER-998 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$\mathbf{10.999 \quad INVALID-ORDER-999} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad R_2, \quad \infty, \quad \infty, \quad \infty, \quad \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + 2C_1 C_4 L_1 L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 L_L R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_4 L_4 L_L R_1 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 R_L g_m s^5 + \dots}{\dots}$$

$$\mathbf{10.1000 \quad INVALID-ORDER-1000} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad R_2, \quad \infty, \quad \infty, \quad \infty, \quad \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + 2C_1 C_4 L_1 L_4 L_L R_1 g_m s^5 + C_1 C_4 L_1 L_4 L_L s^5 + 2C_1 C_4 L_1 L_4 R_1 R_L g_m s^5 + \dots}{\dots}$$

$$\mathbf{10.1001 \quad INVALID-ORDER-1001} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad R_2, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + 2C_1 C_4 L_1 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + \dots}{\dots}$$

$$\mathbf{10.1002 \quad INVALID-ORDER-1002} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad R_L \right)$$

$$H(s) = \frac{R_1 R_L (C_1 L_1 s^2 + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s + \dots)}{C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 R_L s^2 + \dots}$$

$$\mathbf{10.1003 \quad INVALID-ORDER-1003} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{1}{C_L s} \right)$$

$$H(s) = \frac{R_1 (C_1 L_1 s^2 + 1) (C_4 L_4 g_m s^2 + C_4 R_4 g_m s + \dots)}{s (C_1 C_4 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 C_L L_4 R_1 s^3 + C_1 C_4 C_L R_1 R_4 s^2 + 2C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 R_1 R_4 s^2 + \dots)}$$

10.1004 INVALID-ORDER-1004 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_1 R_L s^4 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 C_L R_1 R_4 R_L s^2 + C_1 C_4 C_L R_1 R_4 R_L s + C_1 C_4 C_L R_1 R_4 R_L}{C_1 C_4 C_L L_1 L_4 R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_1 R_L s^4 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 C_L R_1 R_4 R_L s^2 + C_1 C_4 C_L R_1 R_4 R_L s + C_1 C_4 C_L R_1 R_4 R_L}$$

10.1005 INVALID-ORDER-1005 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{1}{s(C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + C_1C_4C_LL_1R_1R_4g_ms^3 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + C_1C_4C_LL_1R_Ls^3 + C_1C_4C_LL_4R_1s^3 +$$

10.1006 INVALID-ORDER-1006 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{s(C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + 2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + C_1C_4C_LL_1R_1R_4g_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + C_1C_4C_LL_4R_1s^3 +$$

10.1007 INVALID-ORDER-1007 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^{2+1}} \right)$

10.1008 INVALID-ORDER-1008 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

10.1009 INVALID-ORDER-1009 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L + \frac{1}{L_L s}}} \right)$

10.1010 INVALID-ORDER-1010 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 +$$

10.1011 INVALID-ORDER-1011 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5}{C_1 C_4 C_L L_1 L_4 L_L R_1 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5}$$

10.1012 INVALID-ORDER-1012 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L \right)$

$$H(s) = -\frac{2C_1C_4L_1L_4R_1R_4R_Lg_ms^4 + C_1C_4L_1L_4R_1R_4s^4 + C_1C_4L_1L_4R_4R_Ls^4 + C_1C_4L_4R_1R_4R_Ls^3 + C_1L_1L_4R_1R_4g_ms^3 + 2C_1L_1L_4R_1R_Lg_ms^3 + C_1L_1L_4R_1s^3 + C_1L_1L_4R_4s^3 + C_1L_1L_4R_4R_Ls^2 + C_1L_1L_4R_4s^2 + C_1L_1L_4R_4R_Ls + C_1L_1L_4R_4s + C_1L_1L_4R_4R_L}{2C_1C_4L_1L_4R_1R_4R_Lg_ms^4 + C_1C_4L_1L_4R_1R_4s^4 + C_1C_4L_1L_4R_4R_Ls^4 + C_1C_4L_4R_1R_4R_Ls^3 + C_1L_1L_4R_1R_4g_ms^3 + 2C_1L_1L_4R_1R_Lg_ms^3 + C_1L_1L_4R_1s^3 + C_1L_1L_4R_4s^3 + C_1L_1L_4R_4R_Ls^2 + C_1L_1L_4R_4s^2 + C_1L_1L_4R_4R_Ls + C_1L_1L_4R_4s + C_1L_1L_4R_4R_L}.$$

10.1013 INVALID-ORDER-1013 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

10.1014 INVALID-ORDER-1014 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + 2C_1 C_4 L_1 L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 R_L s^3 + C_1 C_L L_1 L_4 R_1 R_4 R_L g_m s^4 + C_1 C_L L_1 L_4 R_1 R_L s^4 +$$

10.1015 INVALID-ORDER-1015 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4R_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4C_LL_4R_1R_4R_Ls^4 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_1R_4s^2 + C_1C_4L_4R_1R_4s + C_1C_4L_4R_1R_4}{2C_1C_4C_LL_1L_4R_1R_4g_ms^5 + C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4C_LL_4R_1R_4R_Ls^4 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_1R_4s^2 + C_1C_4L_4R_1R_4s + C_1C_4L_4R_1R_4}.$$

10.1016 INVALID-ORDER-1016 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_4L_LR_1R_4s^5 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_4R_1R_4s^3 + 2C_1C_4L_4R_4s^2 + 2C_1C_4L_1L_4R_1R_4s + 2C_1C_4L_1L_4R_4}{2C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_4L_LR_1R_4s^5 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_4R_1R_4s^3 + 2C_1C_4L_4R_4s^2 + 2C_1C_4L_1L_4R_1R_4s + 2C_1C_4L_1L_4R_4}$$

10.1017 **INVALID-ORDER-1017** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

10.1018 INVALID-ORDER-1018 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1C_4C_L L_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_L L_1L_4L_LR_4s^6 + 2C_1C_4C_L L_1L_4R_1R_4R_Lg_ms^5 + C_1C_4C_L L_1L_4R_1R_4s^5 + C_1C_4C_L L_1L_4R_4R_Ls^5 + C_1C_4C_L L_4L_LR_1R_4s^5 + C_1C_4C_L$$

10.1019 INVALID-ORDER-1019 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L s^6 + 2C_1 C_4 L_1 L_4 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_1 L_4 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 R_L s^4 + C_1 C_4 L_4 L_L R_1 R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 R_4 R_L s^4}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L s^6 + 2C_1 C_4 L_1 L_4 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 L_1 L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_1 L_4 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 R_L s^4 + C_1 C_4 L_4 L_L R_1 R_4 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 R_4 R_L s^4}$$

10.1020 INVALID-ORDER-1020 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_1R_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1R_4s^6 + C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + C_1C_4C_LL_4L_LR_1R_4R_Ls^5 + 2C_1C_4L_1L_4L_LR_1R_4g_ms^5 + C_1C_4L_1L_4L_LR_4s^5 + 2C_1C_4L_1L_4L_LR_1R_4s^4 + C_1C_4L_1L_4L_LR_4s^4 + 2C_1C_4L_1L_4L_LR_1R_4s^3 + C_1C_4L_1L_4L_LR_4s^3 + 2C_1C_4L_1L_4L_LR_1R_4s^2 + C_1C_4L_1L_4L_LR_4s^2 + 2C_1C_4L_1L_4L_LR_1R_4s + C_1C_4L_1L_4L_LR_4s + 2C_1C_4L_1L_4L_LR_1R_4 + C_1C_4L_1L_4L_LR_4}{2C_1C_4C_LL_1L_4L_LR_1R_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1R_4s^6 + C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + C_1C_4C_LL_4L_LR_1R_4R_Ls^5 + 2C_1C_4L_1L_4L_LR_1R_4g_ms^5 + C_1C_4L_1L_4L_LR_4s^5 + 2C_1C_4L_1L_4L_LR_1R_4s^4 + C_1C_4L_1L_4L_LR_4s^4 + 2C_1C_4L_1L_4L_LR_1R_4s^3 + C_1C_4L_1L_4L_LR_4s^3 + 2C_1C_4L_1L_4L_LR_1R_4s^2 + C_1C_4L_1L_4L_LR_4s^2 + 2C_1C_4L_1L_4L_LR_1R_4s + C_1C_4L_1L_4L_LR_4s + 2C_1C_4L_1L_4L_LR_1R_4 + C_1C_4L_1L_4L_LR_4}.$$

10.1021 INVALID-ORDER-1021 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_1R_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1R_4s^6 + C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + C_1C_4C_LL_1L_4R_1R_4R_Ls^5 + C_1C_4C_LL_4L_LR_1R_4R_Ls^5 + 2C_1C_4L_1L_4R_1R_4R_Lg_ms^5}{2C_1C_4C_LL_1L_4L_LR_1R_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1R_4s^6 + C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + C_1C_4C_LL_1L_4R_1R_4R_Ls^5 + C_1C_4C_LL_4L_LR_1R_4R_Ls^5 + 2C_1C_4L_1L_4R_1R_4R_Lg_ms^5}$$

10.1022 INVALID-ORDER-1022 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L \right)$

$$H(s) = \frac{1}{C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 L_1 L_4 R_1 g_m s^3 + C_1 L_1 L_4 s^2}$$

10.1023 INVALID-ORDER-1023 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + 2C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_L L_1 L_4 R_1 s^3}{C_1 C_4 C_L L_1 L_4 R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + 2C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_L L_1 L_4 R_1 s^3}$$

10.1024 INVALID-ORDER-1024 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 s^4 +$$

10.1025 INVALID-ORDER-1025 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s} \right)$

10.1026 INVALID-ORDER-1026 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4R_1R_4s^4 + 2C_1C_4L_1L_4L_LR_1R_4s^4 + 2C_1C_4L_1L_4L_LR_1R_4s^3 + 2C_1C_4L_1L_4L_LR_1R_4s^2 + 2C_1C_4L_1L_4L_LR_1R_4s + 2C_1C_4L_1L_4L_LR_1R_4}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4R_1R_4s^4 + 2C_1C_4L_1L_4L_LR_1R_4s^4 + 2C_1C_4L_1L_4L_LR_1R_4s^3 + 2C_1C_4L_1L_4L_LR_1R_4s^2 + 2C_1C_4L_1L_4L_LR_1R_4s + 2C_1C_4L_1L_4L_LR_1R_4}.$$

10.1027 INVALID-ORDER-1027 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + 2 C_1 C_4 L_1 L_4 L_L R_1 g_m s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 +$$

10.1028 INVALID-ORDER-1028 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s} \right)$

10.1029 INVALID-ORDER-1029 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L + \frac{1}{L_L s}}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 L_1 L_4 L_L R_1 R_L g_m s^5 +$$

10.1030 INVALID-ORDER-1030 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_4 L_L R_1 R_4 s^4 + C_1 C_4 C_L L_4 L_L R_1 R_4 s^3 + C_1 C_4 C_L L_4 L_L R_1 R_4 s^2 + C_1 C_4 C_L L_4 L_L R_1 R_4 s + C_1 C_4 C_L L_4 L_L R_1 R_4}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_4 L_L R_1 R_4 s^4 + C_1 C_4 C_L L_4 L_L R_1 R_4 s^3 + C_1 C_4 C_L L_4 L_L R_1 R_4 s^2 + C_1 C_4 C_L L_4 L_L R_1 R_4 s + C_1 C_4 C_L L_4 L_L R_1 R_4}$$

10.1031 INVALID-ORDER-1031 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L g_m s^5 + C_1 C_4$$

10.1032 INVALID-ORDER-1032 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_{1s}}, L_2 s + \frac{1}{C_{2s}}, \infty, \infty, \infty, R_L \right)$

$$H(s) = -\frac{C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + 2 C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_1 R_4 R_L g_m s^2 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_4 s^2}{C_1 C_4 L_1 L_4 R_1 R_4 R_L g_m s^5 + C_1 C_4 L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^5 + C_1 C_4 L_1 L_4 R_4 s^5 + C_1 C_4 L_1 L_4 R_L s^5 + C_1 C_4 L_1 R_1 R_4 R_L g_m s^4 + C_1 C_4 L_1 R_1 R_4 s^4 + C_1 C_4 L_1 R_1 s^4 + C_1 C_4 L_1 R_4 s^4 + C_1 C_4 L_1 R_L s^4 + C_1 C_4 L_1 s^4 + C_1 C_4 L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 L_4 R_1 R_4 s^4 + C_1 C_4 L_4 R_1 s^4 + C_1 C_4 L_4 R_4 s^4 + C_1 C_4 L_4 R_L s^4 + C_1 C_4 L_4 s^4 + C_1 C_4 R_1 R_4 R_L g_m s^3 + C_1 C_4 R_1 R_4 s^3 + C_1 C_4 R_1 s^3 + C_1 C_4 R_4 s^3 + C_1 C_4 R_L s^3 + C_1 C_4 s^3}.$$

10.1033 INVALID-ORDER-1033 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + 2C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 s^2 + C_1 C_L L_1 L_4 R_1 R_4 g_m s + C_1 C_L L_1 L_4 R_1 s + C_1 C_L L_1 L_4 R_4 s + C_1 C_L L_1 R_1 R_4 s + C_1 C_L L_4 R_1 R_4 s + C_1 C_L L_1 s + C_1 C_L L_4 s + C_1 C_L R_1 R_4 s + C_1 C_L R_1 s + C_1 C_L R_4 s + C_1 C_L s + C_1 C_R L_1 L_4 R_1 R_4 g_m + C_1 C_R L_1 L_4 R_1 s + C_1 C_R L_1 L_4 R_4 s + C_1 C_R L_1 R_1 R_4 s + C_1 C_R L_4 R_1 R_4 s + C_1 C_R L_1 s + C_1 C_R L_4 s + C_1 C_R R_1 R_4 s + C_1 C_R R_1 s + C_1 C_R R_4 s + C_1 C_R s + C_L L_1 L_4 R_1 R_4 g_m + C_L L_1 L_4 R_1 s + C_L L_1 L_4 R_4 s + C_L L_1 R_1 R_4 s + C_L L_4 R_1 R_4 s + C_L L_1 s + C_L L_4 s + C_L R_1 R_4 s + C_L R_1 s + C_L R_4 s + C_L s + C_R L_1 L_4 R_1 R_4 g_m + C_R L_1 L_4 R_1 s + C_R L_1 L_4 R_4 s + C_R L_1 R_1 R_4 s + C_R L_4 R_1 R_4 s + C_R L_1 s + C_R L_4 s + C_R R_1 R_4 s + C_R R_1 s + C_R R_4 s + C_R s}{C_1 C_4 C_L L_1 L_4 R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + 2C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 s^2 + C_1 C_L L_1 L_4 R_1 R_4 g_m s + C_1 C_L L_1 L_4 R_1 s + C_1 C_L L_1 L_4 R_4 s + C_1 C_L L_1 R_1 R_4 s + C_1 C_L L_4 R_1 R_4 s + C_1 C_L L_1 s + C_1 C_L L_4 s + C_1 C_L R_1 R_4 s + C_1 C_L R_1 s + C_1 C_L R_4 s + C_1 C_L s + C_1 C_R L_1 L_4 R_1 R_4 g_m + C_1 C_R L_1 L_4 R_1 s + C_1 C_R L_1 L_4 R_4 s + C_1 C_R L_1 R_1 R_4 s + C_1 C_R L_4 R_1 R_4 s + C_1 C_R L_1 s + C_1 C_R L_4 s + C_1 C_R R_1 R_4 s + C_1 C_R R_1 s + C_1 C_R R_4 s + C_1 C_R s + C_L L_1 L_4 R_1 R_4 g_m + C_L L_1 L_4 R_1 s + C_L L_1 L_4 R_4 s + C_L L_1 R_1 R_4 s + C_L L_4 R_1 R_4 s + C_L L_1 s + C_L L_4 s + C_L R_1 R_4 s + C_L R_1 s + C_L R_4 s + C_L s + C_R L_1 L_4 R_1 R_4 g_m + C_R L_1 L_4 R_1 s + C_R L_1 L_4 R_4 s + C_R L_1 R_1 R_4 s + C_R L_4 R_1 R_4 s + C_R L_1 s + C_R L_4 s + C_R R_1 R_4 s + C_R R_1 s + C_R R_4 s + C_R s}.$$

$$\mathbf{10.1034 \quad INVALID-ORDER-1034} \quad Z(s) = \left(L_1s + R_1 + \frac{1}{C_1s}, \quad L_2s + \frac{1}{C_2s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L}{C_LR_Ls+1} \right)$$

$$H(s) = -\frac{C_1C_4C_LL_1L_4R_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1R_Ls^5 + C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4C_LL_1R_1R_4R_Ls^4 + C_1C_4C_LL_4R_1R_4R_Ls^4 + C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1R_4s^4}{C_1C_4C_LL_1L_4R_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1R_Ls^5 + C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4C_LL_1R_1R_4R_Ls^4 + C_1C_4C_LL_4R_1R_4R_Ls^4 + C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1R_4s^4}$$

$$\mathbf{10.1035 \quad INVALID-ORDER-1035} \quad Z(s) = \left(L_1s + R_1 + \frac{1}{C_1s}, \quad L_2s + \frac{1}{C_2s}, \quad \infty, \quad \infty, \quad \infty, \quad R_L + \frac{1}{C_Ls} \right)$$

$$H(s) = -\frac{C_1C_4C_LL_1L_4R_1R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5 + 2C_1C_4C_LL_1R_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_1R_4s^4}{C_1C_4C_LL_1L_4R_1R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5 + 2C_1C_4C_LL_1R_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_1R_4s^4}$$

$$\mathbf{10.1036 \quad INVALID-ORDER-1036} \quad Z(s) = \left(L_1s + R_1 + \frac{1}{C_1s}, \quad L_2s + \frac{1}{C_2s}, \quad \infty, \quad \infty, \quad \infty, \quad L_Ls + \frac{1}{C_Ls} \right)$$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4C_LL_1L_LR_1R_4g_ms^5 + C_1C_4C_LL_1L_LR_4s^5}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4C_LL_1L_LR_1R_4g_ms^5 + C_1C_4C_LL_1L_LR_4s^5}$$

$$\mathbf{10.1037 \quad INVALID-ORDER-1037} \quad Z(s) = \left(L_1s + R_1 + \frac{1}{C_1s}, \quad L_2s + \frac{1}{C_2s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{L_Ls}{C_LL_Ls^2+1} \right)$$

$$H(s) = -\frac{C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_LR_1R_4s^5 + C_1C_4C_LL_4L_LR_1R_4s^5 + 2C_1C_4L_1L_4L_LR_1g_ms^5 + C_1C_4L_1L_4L_Ls^5}{C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_LR_1R_4s^5 + C_1C_4C_LL_4L_LR_1R_4s^5 + 2C_1C_4L_1L_4L_LR_1g_ms^5 + C_1C_4L_1L_4L_Ls^5}$$

$$\mathbf{10.1038 \quad INVALID-ORDER-1038} \quad Z(s) = \left(L_1s + R_1 + \frac{1}{C_1s}, \quad L_2s + \frac{1}{C_2s}, \quad \infty, \quad \infty, \quad \infty, \quad L_Ls + R_L + \frac{1}{C_Ls} \right)$$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5}$$

10.1039 INVALID-ORDER-1039 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L + \frac{1}{L_L s}}} \right)$

$$H(s) = -\frac{1}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_1 R_4 g_m s^5}.$$

10.1040 INVALID-ORDER-1040 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + 2C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + 2C_1 C_4 C_L L_1 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_L s^5}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^7 + 2C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^7 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^7 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^7 + C_1 C_4 C_L L_1 L_4 L_L R_L s^7 + 2C_1 C_4 C_L L_1 L_L R_1 R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^6 + C_1 C_4 C_L L_1 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_L R_4 R_L s^6 + C_1 C_4 C_L L_1 L_L R_L s^6}.$$

$$\textbf{10.1041} \quad \textbf{INVALID-ORDER-1041} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad L_2 s + \frac{1}{C_2 s}, \quad \infty, \quad \infty, \quad \infty, \quad \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_1 s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_1 R_1 R_4 g_m s^4 + C_1 C_4 C_L L_1 L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_1 L_4 R_1 s^4 + C_1 C_4 C_L L_1 L_4 R_4 s^4 + C_1 C_4 C_L L_1 L_4 R_L s^4 + C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + C_1 C_4 C_L L_1 R_1 s^4 + C_1 C_4 C_L L_1 R_4 s^4 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_1 s^4 + C_1 C_4 C_L R_1 R_4 g_m s^3 + C_1 C_4 C_L R_1 R_4 s^3 + C_1 C_4 C_L R_1 s^3 + C_1 C_4 C_L R_4 s^3 + C_1 C_4 C_L R_L s^3 + C_1 C_4 C_L s^3 + C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_4 s^2 + C_1 R_1 R_4 g_m s + C_1 R_1 R_4 s + C_1 R_1 s + C_1 R_4 s + C_1 R_L s + C_1 s}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 C_L L_1 L_4 R_1 s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 L_4 s^5 + C_1 C_4 C_L L_1 R_1 R_4 g_m s^4 + C_1 C_4 C_L L_1 L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_1 L_4 R_1 s^4 + C_1 C_4 C_L L_1 L_4 R_4 s^4 + C_1 C_4 C_L L_1 L_4 R_L s^4 + C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + C_1 C_4 C_L L_1 R_1 s^4 + C_1 C_4 C_L L_1 R_4 s^4 + C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L L_1 s^4 + C_1 C_4 C_L R_1 R_4 g_m s^3 + C_1 C_4 C_L R_1 R_4 s^3 + C_1 C_4 C_L R_1 s^3 + C_1 C_4 C_L R_4 s^3 + C_1 C_4 C_L R_L s^3 + C_1 C_4 C_L s^3 + C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_4 s^2 + C_1 R_1 R_4 g_m s + C_1 R_1 R_4 s + C_1 R_1 s + C_1 R_4 s + C_1 R_L s + C_1 s}.$$