Filter Summary Report: CG,TIA,simple,Z1,Z2,ZL

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Contents

1 Examined H(z) for CG TIA simple Z1 Z2 ZL: $\frac{Z_1Z_2Z_Lg_m+Z_1Z_L}{Z_1Z_2g_m+Z_1+Z_2+Z_L}$

$$H(z) = \frac{Z_1 Z_2 Z_L g_m + Z_1 Z_L}{Z_1 Z_2 g_m + Z_1 + Z_2 + Z_L}$$

- 2 HP
- 3 BP
- **3.1** BP-1 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{s \left(L_L R_1 R_2 g_m + L_L R_1 \right)}{L_L s + R_1 R_2 g_m + R_1 + R_2 + s^2 \left(C_L L_L R_1 R_2 g_m + C_L L_L R_1 + C_L L_L R_2 \right)}$$

Parameters:

Q:
$$C_L R_1 R_2 g_m \sqrt{\frac{1}{C_L L_L}} + C_L R_1 \sqrt{\frac{1}{C_L L_L}} + C_L R_2 \sqrt{\frac{1}{C_L L_L}}$$
 wo: $\sqrt{\frac{1}{C_L L_L}}$ bandwidth: $\frac{\sqrt{\frac{1}{C_L L_L}}}{C_L R_1 R_2 g_m \sqrt{\frac{1}{C_L L_L}} + C_L R_1 \sqrt{\frac{1}{C_L L_L}} + C_L R_2 \sqrt{\frac{1}{C_L L_L}}}$ K-LP: 0 K-HP: 0 K-BP: $R_1 R_2 g_m + R_1$ Qz: 0 Wz: None

3.2 BP-2 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{s\left(L_{L}R_{1}R_{2}R_{L}g_{m} + L_{L}R_{1}R_{L}\right)}{R_{1}R_{2}R_{L}g_{m} + R_{1}R_{L} + R_{2}R_{L} + s^{2}\left(C_{L}L_{L}R_{1}R_{2}R_{L}g_{m} + C_{L}L_{L}R_{1}R_{L} + C_{L}L_{L}R_{2}R_{L}\right) + s\left(L_{L}R_{1}R_{2}g_{m} + L_{L}R_{1} + L_{L}R_{2} + L_{L}R_{L}\right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_L R_1 R_2 R_L g_m \sqrt{\frac{1}{C_L L_L}} + C_L R_1 R_L \sqrt{\frac{1}{C_L L_L}} + C_L R_2 R_L \sqrt{\frac{1}{C_L L_L}}}{R_1 R_2 g_m + R_1 + R_2 + R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{C_L L_L}} \\ & \text{bandwidth:} \ \frac{\sqrt{\frac{1}{C_L L_L}} (R_1 R_2 g_m + R_1 + R_2 + R_L)}{C_L R_1 R_2 Q_m \sqrt{\frac{1}{C_L L_L}} + C_L R_1 R_L \sqrt{\frac{1}{C_L L_L}} + C_L R_2 R_L \sqrt{\frac{1}{C_L L_L}}} \\ & \text{K-LP:} \ 0 \\ & \text{K-HP:} \ 0 \\ & \text{K-BP:} \ \frac{R_1 R_2 R_L g_m + R_1 R_L}{R_1 R_2 g_m + R_1 + R_2 + R_L} \\ & \text{Qz:} \ 0 \\ & \text{Wz:} \ \text{None} \end{aligned}$$

3.3 BP-3 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{s (L_1 R_2 g_m + L_1)}{C_L R_2 s + s^2 (C_L L_1 R_2 g_m + C_L L_1) + 1}$$

$$Q: \frac{L_1 R_2 g_m \sqrt{\frac{1}{C_L L_1 R_2 g_m + C_L L_1}} + L_1 \sqrt{\frac{1}{C_L L_1 R_2 g_m + C_L L_1}}}{R_2}$$
wo:
$$\sqrt{\frac{1}{C_L L_1 R_2 g_m + C_L L_1}}$$
bandwidth:
$$\frac{R_2 \sqrt{\frac{1}{C_L L_1 R_2 g_m + C_L L_1}}}{L_1 R_2 g_m \sqrt{\frac{1}{C_L L_1 R_2 g_m + C_L L_1}} + L_1 \sqrt{\frac{1}{C_L L_1 R_2 g_m + C_L L_1}}}$$

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K-LP: 0
K-HP: 0
K-BP: \frac{L_1R_2g_m+L_1}{C_LR_2}
Qz: 0
Wz: None
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3.4 BP-4
$$Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{s \left(L_1 R_2 R_L g_m + L_1 R_L \right)}{R_2 + R_L + s^2 \left(C_L L_1 R_2 R_L g_m + C_L L_1 R_L \right) + s \left(C_L R_2 R_L + L_1 R_2 g_m + L_1 \right)}$$

$$Q: \frac{C_L L_1 R_2 R_L g_m \sqrt{\frac{R_2}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L} + \frac{R_L}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}}}{C_L R_2 R_L g_m + C_L L_1 R_L} + \frac{R_2}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L} + \frac{R_2}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}}$$

$$wo: \sqrt{\frac{R_2 + R_L}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}}}$$

$$bandwidth: \frac{\sqrt{\frac{R_2 + R_L}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}}}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} (C_L R_2 R_L + L_1 R_2 g_m + L_1)$$

$$bandwidth: \frac{R_2 + R_L}{C_L L_1 R_2 R_L g_m \sqrt{\frac{R_2}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{R_L}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + C_L L_1 R_L \sqrt{\frac{R_2}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{R_L}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}}$$

$$K-LP: 0$$

$$K-HP: 0$$

$$K-BP: \frac{L_1 R_2 R_L g_m \sqrt{\frac{R_2}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 g_m + C_L L_1 R_L} + \frac{1}{C_L L_1 R_2 g_m + C_L L_1 R_L}}$$

$$K-BP: \frac{L_1 R_2 R_L g_m \sqrt{\frac{R_2}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L L_1 R_2 R_L g_m + C_L L_1 R_L}} + \frac{1}{C_L$$

3.5 BP-5
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{s(L_1 R_2 R_L g_m + L_1 R_L)}{R_2 + R_L + s^2(C_1 L_1 R_2 + C_1 L_1 R_L) + s(L_1 R_2 g_m + L_1)}$$

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_1R_2\sqrt{\frac{1}{C_1L_1}} + C_1R_L\sqrt{\frac{1}{C_1L_1}}}{R_2g_m + 1} \\ \text{wo:} \ \sqrt{\frac{1}{C_1L_1}} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{1}{C_1L_1}}(R_2g_m + 1)}{C_1R_2\sqrt{\frac{1}{C_1L_1}} + C_1R_L\sqrt{\frac{1}{C_1L_1}}} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ R_L \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

3.6 BP-6
$$Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{s\left(L_{1}R_{1}R_{2}R_{L}g_{m} + L_{1}R_{1}R_{L}\right)}{R_{1}R_{2} + R_{1}R_{L} + s^{2}\left(C_{1}L_{1}R_{1}R_{2} + C_{1}L_{1}R_{1}R_{L}\right) + s\left(L_{1}R_{1}R_{2}g_{m} + L_{1}R_{1} + L_{1}R_{2} + L_{1}R_{L}\right)}$$

$$\begin{array}{l} \text{Q:} \ \frac{C_1R_1R_2\sqrt{\frac{1}{C_1L_1}}+C_1R_1R_L\sqrt{\frac{1}{C_1L_1}}}{R_1R_2g_m+R_1+R_2+R_L} \\ \text{wo:} \ \sqrt{\frac{1}{C_1L_1}} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{1}{C_1L_1}}(R_1R_2g_m+R_1+R_2+R_L)}{C_1R_1R_2\sqrt{\frac{1}{C_1L_1}}+C_1R_1R_L\sqrt{\frac{1}{C_1L_1}}} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{R_1R_2R_Lg_m+R_1R_L}{R_1R_2g_m+R_1+R_2+R_L} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

4 LP

4.1 LP-1
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_2 R_L g_m + R_L}{C_1 C_L R_2 R_L s^2 + R_2 g_m + s \left(C_1 R_2 + C_1 R_L + C_L R_2 R_L g_m + C_L R_L \right) + 1}$$

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_{1}C_{L}R_{2}R_{L}\sqrt{\frac{g_{m}}{C_{1}C_{L}R_{L}}}+\frac{1}{C_{1}C_{L}R_{2}R_{L}}}{C_{1}R_{2}+C_{1}R_{L}+C_{L}R_{2}R_{L}g_{m}+C_{L}R_{L}}}\\ \text{wo:} \ \sqrt{\frac{R_{2}g_{m}+1}{C_{1}C_{L}R_{2}R_{L}}}\\ \text{bandwidth:} \ \frac{\sqrt{\frac{R_{2}g_{m}+1}{C_{1}C_{L}R_{2}R_{L}}}(C_{1}R_{2}+C_{1}R_{L}+C_{L}R_{2}R_{L}g_{m}+C_{L}R_{L})}{C_{1}C_{L}R_{2}R_{L}\sqrt{\frac{g_{m}}{C_{1}C_{L}R_{L}}}+\frac{1}{C_{1}C_{L}R_{2}R_{L}}}\\ \text{K-LP:} \ R_{L}\\ \text{K-HP:} \ 0\\ \text{K-BP:} \ 0\\ \text{Qz:} \ \text{None}\\ \text{Wz:} \ \text{None} \end{array}$$

4.2 LP-2
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$H(s) = \frac{R_1 R_2 g_m + R_1}{C_1 C_L R_1 R_2 s^2 + s \left(C_1 R_1 + C_L R_1 R_2 g_m + C_L R_1 + C_L R_2 \right) + 1}$

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_1C_LR_1R_2\sqrt{\frac{1}{C_1C_LR_1R_2}}}{C_1R_1+C_LR_1R_2g_m+C_LR_1+C_LR_2} \\ \text{wo:} \ \sqrt{\frac{1}{C_1C_LR_1R_2}} \\ \text{bandwidth:} \ \frac{C_1R_1+C_LR_1R_2g_m+C_LR_1+C_LR_2}{C_1C_LR_1R_2} \\ \text{K-LP:} \ R_1R_2g_m+R_1 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \text{None} \end{array}$$

4.3 LP-3
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L}{C_1 C_L R_1 R_2 R_L s^2 + R_1 R_2 g_m + R_1 + R_2 + R_L + s \left(C_1 R_1 R_2 + C_1 R_1 R_L + C_L R_1 R_2 R_L g_m + C_L R_1 R_L + C_L R_2 R_L \right)}$$

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_1C_LR_1R_2R_L\sqrt{\frac{g_m}{C_1C_LR_L}} + \frac{1}{C_1C_LR_2R_L} + \frac{1}{C_1C_LR_1R_L} + \frac{1}{C_1C_LR_1R_2}}{C_1R_1R_2 + C_1R_1R_2 + C_LR_1R_2R_Lg_m + C_LR_1R_L + C_LR_2R_L} \\ \text{wo:} \ \sqrt{\frac{R_1R_2g_m + R_1 + R_2 + R_L}{C_1C_LR_1R_2R_L}} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{R_1R_2g_m + R_1 + R_2 + R_L}{C_1C_LR_1R_2R_L}}(C_1R_1R_2 + C_1R_1R_L + C_LR_1R_2R_Lg_m + C_LR_1R_L + C_LR_2R_L)}{C_1C_LR_1R_2R_L\sqrt{\frac{g_m}{C_1C_LR_L}} + \frac{1}{C_1C_LR_2R_L}} + \frac{1}{C_1C_LR_1R_L} + \frac{1}{C_1C_LR_1R_L}} \\ \text{K-LP:} \ \frac{R_1R_2R_Lg_m + R_1R_L}{R_1R_2g_m + R_1 + R_2 + R_L}} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \text{None} \end{array}$$

5 BS

5.1 BS-1
$$Z(s) = \left(R_1, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s^2 \left(C_L L_L R_1 R_2 g_m + C_L L_L R_1 \right)}{C_L L_L s^2 + s \left(C_L R_1 R_2 g_m + C_L R_1 + C_L R_2 \right) + 1}$$

Q:
$$\frac{L_L \sqrt{\frac{1}{C_L L_L}}}{R_1 R_2 g_m + R_1 + R_2}$$

wo: $\sqrt{\frac{1}{C_L L_L}}$
bandwidth: $\frac{R_1 R_2 g_m + R_1 + R_2}{L_L}$
K-LP: $R_1 R_2 g_m + R_1$
K-HP: $R_1 R_2 g_m + R_1$
K-BP: 0
Qz: None
Wz: $\sqrt{\frac{1}{C_L L_L}}$

5.2 BS-2
$$Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_{1}R_{2}R_{L}g_{m} + R_{1}R_{L} + s^{2}\left(C_{L}L_{L}R_{1}R_{2}R_{L}g_{m} + C_{L}L_{L}R_{1}R_{L}\right)}{R_{1}R_{2}g_{m} + R_{1} + R_{2} + R_{L} + s^{2}\left(C_{L}L_{L}R_{1}R_{2}g_{m} + C_{L}L_{L}R_{1} + C_{L}L_{L}R_{2} + C_{L}L_{L}R_{L}\right) + s\left(C_{L}R_{1}R_{2}R_{L}g_{m} + C_{L}R_{1}R_{L} + C_{L}R_{2}R_{L}\right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{L_L R_1 R_2 g_m \sqrt{\frac{1}{C_L L_L}} + L_L R_1 \sqrt{\frac{1}{C_L L_L}} + L_L R_2 \sqrt{\frac{1}{C_L L_L}} + L_L R_L \sqrt{\frac{1}{C_L L_L}}}{R_1 R_2 R_L g_m + R_1 R_L + R_2 R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{C_L L_L}} \\ & \text{bandwidth:} \ \frac{\sqrt{\frac{1}{C_L L_L}} (R_1 R_2 R_L g_m + R_1 R_L + R_2 R_L)}{L_L R_1 Q_m \sqrt{\frac{1}{C_L L_L}} + L_L R_1 \sqrt{\frac{1}{C_L L_L}} + L_L R_2 \sqrt{\frac{1}{C_L L_L}} + L_L R_2 \sqrt{\frac{1}{C_L L_L}} + L_L R_L \sqrt{\frac{1}{C_L L_L}} \\ & \text{K-LP:} \ \frac{R_1 R_2 R_L g_m + R_1 R_L}{R_1 R_2 g_m + R_1 + R_2 + R_L} \\ & \text{K-HP:} \ \frac{R_1 R_2 R_L g_m + R_1 R_L}{R_1 R_2 g_m + R_1 + R_2 + R_L} \\ & \text{K-BP:} \ 0 \\ & \text{Qz:} \ \text{None} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_L L_L}} \end{aligned}$$

5.3 BS-3
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_2 R_L g_m + R_L + s^2 \left(C_1 L_1 R_2 R_L g_m + C_1 L_1 R_L \right)}{R_2 g_m + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 \right) + s \left(C_1 R_2 + C_1 R_L \right) + 1}$$

$$\begin{array}{l} \text{Q:} \ \frac{L_{1}R_{2}g_{m}\sqrt{\frac{1}{C_{1}L_{1}}}+L_{1}\sqrt{\frac{1}{C_{1}L_{1}}}}{R_{2}+R_{L}} \\ \text{wo:} \ \sqrt{\frac{1}{C_{1}L_{1}}} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{1}{C_{1}L_{1}}}(R_{2}+R_{L})}{L_{1}R_{2}g_{m}\sqrt{\frac{1}{C_{1}L_{1}}}+L_{1}\sqrt{\frac{1}{C_{1}L_{1}}}} \\ \text{K-LP:} \ R_{L} \\ \text{K-HP:} \ R_{L} \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \sqrt{\frac{1}{C_{1}L_{1}}} \end{array}$$

5.4 BS-4
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L + s^2 \left(C_1 L_1 R_1 R_2 R_L g_m + C_1 L_1 R_1 R_L \right)}{R_1 R_2 g_m + R_1 + R_2 + R_L + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 + C_1 L_1 R_2 + C_1 L_1 R_L \right) + s \left(C_1 R_1 R_2 + C_1 R_1 R_L \right)}$$

$$\begin{array}{l} \text{Q:} \ \frac{L_1R_1R_2g_m\sqrt{\frac{1}{C_1L_1}} + L_1R_1\sqrt{\frac{1}{C_1L_1}} + L_1R_2\sqrt{\frac{1}{C_1L_1}} + L_1R_L\sqrt{\frac{1}{C_1L_1}}}{R_1R_2 + R_1R_L} \\ \text{wo:} \ \sqrt{\frac{1}{C_1L_1}} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{1}{C_1L_1}}(R_1R_2 + R_1R_L)}{L_1R_1R_2g_m\sqrt{\frac{1}{C_1L_1}} + L_1R_1\sqrt{\frac{1}{C_1L_1}} + L_1R_2\sqrt{\frac{1}{C_1L_1}} + L_1R_2\sqrt{\frac{1}{C_1L_1}}} \\ \text{K-LP:} \ \frac{R_1R_2R_Lg_m + R_1R_L}{R_1R_2g_m + R_1 + R_2 + R_L} \\ \text{K-HP:} \ \frac{R_1R_2R_Lg_m + R_1R_L}{R_1R_2g_m + R_1 + R_2 + R_L} \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \sqrt{\frac{1}{C_1L_1}} \end{array}$$

6 **GE**

6.1 GE-1
$$Z(s) = \left(R_1, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$H(s) = \frac{R_1 R_2 g_m + R_1 + s^2 \left(C_L L_L R_1 R_2 g_m + C_L L_L R_1 \right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1 R_L \right)}{C_L L_L s^2 + s \left(C_L R_1 R_2 g_m + C_L R_1 + C_L R_2 + C_L R_L \right) + 1}$

Parameters:

$$\begin{array}{l} \text{Q: } \frac{L_L\sqrt{\frac{1}{C_LL_L}}}{R_1R_2g_m+R_1+R_2+R_L} \\ \text{wo: } \sqrt{\frac{1}{C_LL_L}} \\ \text{bandwidth: } \frac{R_1R_2g_m+R_1+R_2+R_L}{L_L} \\ \text{K-LP: } R_1R_2g_m+R_1 \\ \text{K-HP: } R_1R_2g_m+R_1 \\ \text{K-BP: } \frac{R_1R_2R_Lg_m+R_1R_L}{R_1R_2g_m+R_1+R_2+R_L} \\ \text{Qz: } \frac{L_L\sqrt{\frac{1}{C_LL_L}}}{R_L} \\ \text{Wz: } \sqrt{\frac{1}{C_LL_L}} \end{array}$$

6.2 GE-2
$$Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L + s^2 \left(C_L L_L R_1 R_2 R_L g_m + C_L L_L R_1 R_L \right) + s \left(L_L R_1 R_2 g_m + L_L R_1 \right)}{L_L s + R_1 R_2 g_m + R_1 + R_2 + R_L + s^2 \left(C_L L_L R_1 R_2 g_m + C_L L_L R_1 + C_L L_L R_2 + C_L L_L R_L \right)}$$

$$\begin{aligned} &\text{Q: } C_L R_1 R_2 g_m \sqrt{\frac{1}{C_L L_L}} + C_L R_1 \sqrt{\frac{1}{C_L L_L}} + C_L R_2 \sqrt{\frac{1}{C_L L_L}} + C_L R_L \sqrt{\frac{1}{C_L L_L}} \\ &\text{wo: } \sqrt{\frac{1}{C_L L_L}} \\ &\text{bandwidth: } \frac{\sqrt{\frac{1}{C_L L_L}}}{C_L R_1 R_2 g_m \sqrt{\frac{1}{C_L L_L}} + C_L R_1 \sqrt{\frac{1}{C_L L_L}} + C_L R_2 \sqrt{\frac{1}{C_L L_L}} + C_L R_L \sqrt{\frac{1}{C_L L_L}}} \\ &\text{K-LP: } \frac{R_1 R_2 R_L g_m + R_1 R_L}{R_1 R_2 g_m + R_1 R_2 + R_L} \\ &\text{K-HP: } \frac{R_1 R_2 R_L g_m + R_1 R_L}{R_1 R_2 g_m + R_1 R_2 + R_L} \\ &\text{K-BP: } R_1 R_2 g_m + R_1 \\ &\text{Qz: } C_L R_L \sqrt{\frac{1}{C_L L_L}} \end{aligned}$$

6.3 GE-3
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{C_2 L_2 R_1 R_L g_m s^2 + C_2 R_1 R_L s + R_1 R_L g_m}{R_1 g_m + s^2 \left(C_2 L_2 R_1 g_m + C_2 L_2 \right) + s \left(C_2 R_1 + C_2 R_L \right) + 1}$$

$$\begin{aligned} & \text{Q:} \ \frac{L_2 R_1 g_m \sqrt{\frac{1}{C_2 L_2}} + L_2 \sqrt{\frac{1}{C_2 L_2}}}{R_1 + R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{C_2 L_2}} \\ & \text{bandwidth:} \ \frac{\sqrt{\frac{1}{C_2 L_2}} (R_1 + R_L)}{L_2 R_1 g_m \sqrt{\frac{1}{C_2 L_2}} + L_2 \sqrt{\frac{1}{C_2 L_2}}} \\ & \text{K-LP:} \ \frac{R_1 R_L g_m}{R_1 g_m + 1} \\ & \text{K-HP:} \ \frac{R_1 R_L g_m}{R_1 g_m + 1} \\ & \text{K-BP:} \ \frac{R_1 R_L}{R_1 + R_L} \\ & \text{Qz:} \ L_2 g_m \sqrt{\frac{1}{C_2 L_2}} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_2 L_2}} \end{aligned}$$

6.4 GE-4 $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$

$H(s) = \frac{C_2L_2R_1R_Lg_ms^2 + R_1R_Lg_m + s\left(C_2R_1R_2R_Lg_m + C_2R_1R_L\right)}{R_1g_m + s^2\left(C_2L_2R_1g_m + C_2L_2\right) + s\left(C_2R_1R_2g_m + C_2R_1 + C_2R_2 + C_2R_L\right) + 1}$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{L_2 R_1 g_m \sqrt{\frac{1}{C_2 L_2}} + L_2 \sqrt{\frac{1}{C_2 L_2}}}{R_1 R_2 g_m + R_1 + R_2 + R_L} \\ & \text{wo:} \ \sqrt{\frac{1}{C_2 L_2}} \\ & \text{bandwidth:} \ \frac{\sqrt{\frac{1}{C_2 L_2}} (R_1 R_2 g_m + R_1 + R_2 + R_L)}{L_2 R_1 g_m \sqrt{\frac{1}{C_2 L_2}} + L_2 \sqrt{\frac{1}{C_2 L_2}}} \\ & \text{K-LP:} \ \frac{R_1 R_L g_m}{R_1 g_m + 1} \\ & \text{K-HP:} \ \frac{R_1 R_L g_m}{R_1 g_m + 1} \\ & \text{K-BP:} \ \frac{R_1 R_2 R_L g_m + R_1 R_L}{R_1 R_2 g_m + R_1 + R_2 + R_L} \\ & \text{Qz:} \ \frac{L_2 g_m \sqrt{\frac{1}{C_2 L_2}}}{R_2 g_m + 1} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_2 L_2}} \end{aligned}$$

6.5 GE-5
$$Z(s) = \left(R_1, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_2R_1R_Lg_ms + R_1R_2R_Lg_m + R_1R_L + s^2\left(C_2L_2R_1R_2R_Lg_m + C_2L_2R_1R_L\right)}{R_1R_2g_m + R_1 + R_2 + R_L + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1 + C_2L_2R_2 + C_2L_2R_L\right) + s\left(L_2R_1g_m + L_2\right)}$$

$$Q: \frac{C_2R_1R_2g_m\sqrt{\frac{1}{C_2L_2}} + C_2R_1\sqrt{\frac{1}{C_2L_2}} + C_2R_2\sqrt{\frac{1}{C_2L_2}} + C_2R_L\sqrt{\frac{1}{C_2L_2}}}{R_1g_m + 1}$$

$$wo: \sqrt{\frac{1}{C_2L_2}}$$
bandwidth:
$$\frac{\sqrt{\frac{1}{C_2L_2}}(R_1g_m + 1)}{C_2R_1R_2g_m\sqrt{\frac{1}{C_2L_2}} + C_2R_1\sqrt{\frac{1}{C_2L_2}} + C_2R_2\sqrt{\frac{1}{C_2L_2}} + C_2R_L\sqrt{\frac{1}{C_2L_2}}}$$

$$K-LP: \frac{R_1R_2R_Lg_m + R_1R_L}{R_1R_2g_m + R_1 + R_2 + R_L}$$

$$K-HP: \frac{R_1R_2R_Lg_m + R_1 + R_2 + R_L}{R_1R_2g_m + R_1 + R_2 + R_L}$$

$$K-BP: \frac{R_1R_2R_Lg_m}{R_1g_m + 1}$$

$$Qz: \frac{C_2R_2g_m\sqrt{\frac{1}{C_2L_2}} + C_2\sqrt{\frac{1}{C_2L_2}}}{g_m}$$

$$Wz: \sqrt{\frac{1}{C_2L_2}}$$

6.6 GE-6
$$Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{C_2R_1R_2R_Ls + R_1R_2R_Lg_m + R_1R_L + s^2\left(C_2L_2R_1R_2R_Lg_m + C_2L_2R_1R_L\right)}{R_1R_2g_m + R_1 + R_2 + R_L + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1 + C_2L_2R_2 + C_2L_2R_L\right) + s\left(C_2R_1R_2 + C_2R_2R_L\right)}$$

$$Q \colon \frac{L_2 R_1 R_2 g_m \sqrt{\frac{1}{C_2 L_2}} + L_2 R_1 \sqrt{\frac{1}{C_2 L_2}} + L_2 R_2 \sqrt{\frac{1}{C_2 L_2}} + L_2 R_L \sqrt{\frac{1}{C_2 L_2}}}{R_1 R_2 + R_2 R_L}$$

$$\text{wo: } \sqrt{\frac{1}{C_2 L_2}}$$

$$\text{bandwidth: } \frac{\sqrt{\frac{1}{C_2 L_2}} (R_1 R_2 + R_2 R_L)}{L_2 R_1 R_2 g_m \sqrt{\frac{1}{C_2 L_2}} + L_2 R_1 \sqrt{\frac{1}{C_2 L_2}} + L_2 R_2 \sqrt{\frac{1}{C_2 L_2}} + L_2 R_L \sqrt{\frac{1}{C_2 L_2}}}$$

$$\text{K-LP: } \frac{R_1 R_2 R_L g_m + R_1 R_L}{R_1 R_2 g_m + R_1 + R_2 + R_L}}$$

$$\text{K-HP: } \frac{R_1 R_2 R_L g_m + R_1 R_L}{R_1 R_2 g_m + R_1 + R_2 + R_L}}$$

$$\text{K-BP: } \frac{R_1 R_L}{R_1 R_2 g_m \sqrt{\frac{1}{C_2 L_2}}} + L_2 \sqrt{\frac{1}{C_2 L_2}}}}{R_2}$$

$$\text{Wz: } \sqrt{\frac{1}{C_2 L_2}}$$

6.7 GE-7
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L\right)$$

$H(s) = \frac{R_2 R_L g_m + R_L + s^2 \left(C_1 L_1 R_2 R_L g_m + C_1 L_1 R_L \right) + s \left(C_1 R_1 R_2 R_L g_m + C_1 R_1 R_L \right)}{R_2 g_m + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 \right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + C_1 R_2 + C_1 R_L \right) + 1}$

Parameters:

$$\begin{aligned} &\text{Q: } \frac{L_1 R_2 g_m \sqrt{\frac{1}{C_1 L_1}} + L_1 \sqrt{\frac{1}{C_1 L_1}}}{R_1 R_2 g_m + R_1 + R_2 + R_L} \\ &\text{wo: } \sqrt{\frac{1}{C_1 L_1}} \\ &\text{bandwidth: } \frac{\sqrt{\frac{1}{C_1 L_1}} (R_1 R_2 g_m + R_1 + R_2 + R_L)}{L_1 R_2 g_m \sqrt{\frac{1}{C_1 L_1}} + L_1 \sqrt{\frac{1}{C_1 L_1}}} \\ &\text{K-LP: } R_L \\ &\text{K-HP: } R_L \\ &\text{K-BP: } \frac{R_1 R_2 R_L g_m + R_1 R_L}{R_1 R_2 g_m + R_1 + R_2 + R_L} \\ &\text{Qz: } \frac{L_1 \sqrt{\frac{1}{C_1 L_1}}}{R_1} \\ &\text{Wz: } \sqrt{\frac{1}{C_1 L_1}} \end{aligned}$$

6.8 GE-8
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L + s^2 \left(C_1 L_1 R_1 R_2 R_L g_m + C_1 L_1 R_1 R_L \right) + s \left(L_1 R_2 R_L g_m + L_1 R_L \right)}{R_1 R_2 g_m + R_1 + R_2 + R_L + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 + C_1 L_1 R_2 + C_1 L_1 R_L \right) + s \left(L_1 R_2 g_m + L_1 \right)}$$

$$Q\colon \frac{C_1R_1R_2g_m\sqrt{\frac{1}{C_1L_1}}+C_1R_1\sqrt{\frac{1}{C_1L_1}}+C_1R_2\sqrt{\frac{1}{C_1L_1}}+C_1R_L\sqrt{\frac{1}{C_1L_1}}}{R_2g_m+1}$$
 wo: $\sqrt{\frac{1}{C_1L_1}}$ bandwidth:
$$\frac{\sqrt{\frac{1}{C_1L_1}}(R_2g_m+1)}{C_1R_1R_2g_m\sqrt{\frac{1}{C_1L_1}}+C_1R_1\sqrt{\frac{1}{C_1L_1}}+C_1R_2\sqrt{\frac{1}{C_1L_1}}+C_1R_L\sqrt{\frac{1}{C_1L_1}}}$$
 K-LP:
$$\frac{R_1R_2R_Lg_m+R_1R_L}{R_1R_2g_m+R_1+R_2+R_L}$$
 K-HP:
$$\frac{R_1R_2R_Lg_m+R_1R_L}{R_1R_2g_m+R_1+R_2+R_L}$$
 K-BP: R_L Qz: $C_1R_1\sqrt{\frac{1}{C_1L_1}}$ Wz: $\sqrt{\frac{1}{C_1L_1}}$

7 AP

8 INVALID-NUMER

8.1 INVALID-NUMER-1 $Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{C_2 R_1 R_L s + R_1 R_L g_m}{C_2 C_L R_1 R_L s^2 + R_1 g_m + s \left(C_2 R_1 + C_2 R_L + C_L R_1 R_L g_m + C_L R_L \right) + 1}$$

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_2C_LR_1R_L\sqrt{\frac{g_m}{C_2C_LR_L}} + \frac{1}{C_2C_LR_1R_L}}{C_2R_1 + C_2R_L + C_LR_1R_Lg_m + C_LR_L} \\ \text{wo:} \ \sqrt{\frac{R_1g_m + 1}{C_2C_LR_1R_L}} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{R_1g_m + 1}{C_2C_LR_1R_L}}(C_2R_1 + C_2R_L + C_LR_1R_Lg_m + C_LR_L)}{C_2C_LR_1R_L\sqrt{\frac{g_m}{C_2C_LR_L}} + \frac{1}{C_2C_LR_1R_L}} \\ \text{K-LP:} \ \frac{R_1R_Lg_m}{R_1g_m + 1} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_1R_L}{C_2R_1 + C_2R_L + C_LR_1R_Lg_m + C_LR_L} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

8.2 INVALID-NUMER-2 $Z(s) = \left(R_1, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$

$$H(s) = \frac{C_2 R_1 R_2 s + R_1 R_2 g_m + R_1}{C_2 C_L R_1 R_2 s^2 + s \left(C_2 R_2 + C_L R_1 R_2 g_m + C_L R_1 + C_L R_2\right) + 1}$$

Parameters:

Q:
$$\frac{C_2C_LR_1R_2\sqrt{\frac{1}{C_2C_LR_1R_2}}}{C_2R_2+C_LR_1R_2g_m+C_LR_1+C_LR_2}$$
 wo:
$$\sqrt{\frac{1}{C_2C_LR_1R_2}}$$
 bandwidth:
$$\frac{C_2R_2+C_LR_1R_2g_m+C_LR_1+C_LR_2}{C_2C_LR_1R_2}$$
 K-LP:
$$R_1R_2g_m+R_1$$
 K-HP:
$$0$$
 K-BP:
$$\frac{C_2R_1R_2}{C_2R_2+C_LR_1R_2g_m+C_LR_1+C_LR_2}$$
 Qz:
$$0$$
 Wz: None

8.3 INVALID-NUMER-3 $Z(s) = \left(R_1, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{C_2R_1R_2R_Ls + R_1R_2R_Lg_m + R_1R_L}{C_2C_LR_1R_2R_Ls^2 + R_1R_2g_m + R_1 + R_2 + R_L + s\left(C_2R_1R_2 + C_2R_2R_L + C_LR_1R_2R_Lg_m + C_LR_1R_L + C_LR_2R_L\right)}$$

$$\begin{aligned} & \text{Q:} \ \frac{C_2C_LR_1R_2R_L\sqrt{\frac{g_m}{C_2C_LR_L}} + \frac{1}{C_2C_LR_2R_L} + \frac{1}{C_2C_LR_1R_L} + \frac{1}{C_2C_LR_1R_2}}{C_2R_1R_2 + C_2R_2R_L + C_LR_1R_2R_Lg_m + C_LR_1R_L + C_LR_2R_L} \\ & \text{wo:} \ \sqrt{\frac{R_1R_2g_m + R_1 + R_2 + R_L}{C_2C_LR_1R_2R_L}} \\ & \text{bandwidth:} \ \frac{\sqrt{\frac{R_1R_2g_m + R_1 + R_2 + R_L}{C_2C_LR_1R_2R_L}}}{C_2C_LR_1R_2R_L} (C_2R_1R_2 + C_2R_2R_L + C_LR_1R_2R_Lg_m + C_LR_1R_L + C_LR_2R_L)} \\ & \text{bandwidth:} \ \frac{\sqrt{\frac{R_1R_2g_m + R_1 + R_2 + R_L}{C_2C_LR_1R_2R_L}}}{C_2C_LR_1R_2R_L\sqrt{\frac{g_m}{C_2C_LR_L}} + \frac{1}{C_2C_LR_2R_L}} + \frac{1}{C_2C_LR_1R_L} + \frac{1}{C_2C_LR_1R_L}} \\ & \text{K-LP:} \ \frac{R_1R_2R_Lg_m + R_1R_L}{R_1R_2g_m + R_1 + R_2 + R_L}} \\ & \text{K-HP:} \ 0 \\ & \text{K-BP:} \ \frac{C_2R_1R_2R_L}{C_2R_1R_2 + C_2R_2R_L + C_LR_1R_2R_L} + C_LR_1R_L + C_LR_2R_L} \\ & \text{Qz:} \ 0 \\ & \text{Wz:} \ \text{None} \end{aligned}$$

8.4 INVALID-NUMER-4 $Z(s) = \left(R_1, R_2 + \frac{1}{C_{2s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_1 R_L g_m + s \left(C_2 R_1 R_2 R_L g_m + C_2 R_1 R_L \right)}{R_1 g_m + s^2 \left(C_2 C_L R_1 R_2 R_L g_m + C_2 C_L R_1 R_L + C_2 C_L R_2 R_L \right) + s \left(C_2 R_1 R_2 g_m + C_2 R_1 + C_2 R_2 + C_2 R_L + C_L R_1 R_L g_m + C_L R_L \right) + 1}$$

Parameters:

 $Q: \frac{ \frac{C_2C_LR_1R_2R_Lg_m\sqrt{\frac{R_1g_m}{C_2C_LR_1R_2R_Lg_m+C_2C_LR_2R_L}}{C_2C_LR_1R_2R_Lg_m+C_2C_LR_1R_L+C_2C_LR_2R_L} + \frac{1}{C_2C_LR_1R_2R_Lg_m+C_2C_LR_1R_L+C_2C_LR_2R_L}}{C_2R_1R_2R_Lg_m+C_2C_LR_1R_L+C_2C_LR_2R_L} + \frac{1}{C_2C_LR_1R_2R_Lg_m+C_2C_LR_1R_L+C_2C_LR_2R_L}} + \frac{1}{C_2C_LR_1R_2R_Lg_m+C_2C_LR_1R_L+C_2C_LR_$ Wo: $\sqrt{\frac{R_1 g_m + 1}{C_2 C_L R_1 R_2 R_L g_m + C_2 C_L R_1 R_L + C_2 C_L R_2 R_L}}$

 $\frac{R_{1}g_{m}+1}{C_{2}C_{L}R_{1}R_{2}R_{L}g_{m}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}}(C_{2}R_{1}R_{2}g_{m}+C_{2}R_{1}+C_{L}R_{1}R_{L}g_{m}+C_{L}R_{L}})$ $\frac{R_{1}g_{m}}{C_{2}C_{L}R_{1}R_{2}R_{L}g_{m}\sqrt{\frac{R_{1}g_{m}}{C_{2}C_{L}R_{1}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}}+C_{2}C_{L}R_{1}R_{L}\sqrt{\frac{R_{1}g_{m}}{C_{2}C_{L}R_{1}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}+C_{2}C_{L}R_{2}R_{L}}+C_{2}C_{L}R_{1}R_{L}+C_{2}C_{L}R_{2}R_{L}+C_{2}C_{L}R_{$

K-LP: $\frac{R_1R_Lg_m}{R_1g_m+1}$ K-HP: 0

 $\begin{array}{l} \text{K-BP:} \ \frac{C_2R_1R_2R_Lg_m + C_2R_1R_L}{C_2R_1R_2g_m + C_2R_1 + C_2R_2 + C_2R_L + C_LR_1R_Lg_m + C_LR_L} \\ \text{Qz:} \ 0 \end{array}$

Wz: None

8.5 INVALID-NUMER-5 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{s^2 \left(C_L L_1 R_2 R_L g_m + C_L L_1 R_L \right) + s \left(L_1 R_2 g_m + L_1 \right)}{s^2 \left(C_L L_1 R_2 g_m + C_L L_1 \right) + s \left(C_L R_2 + C_L R_L \right) + 1}$$

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{L_{1}R_{2}g_{m}\sqrt{\frac{1}{C_{L}L_{1}R_{2}g_{m}+C_{L}L_{1}}}+L_{1}\sqrt{\frac{1}{C_{L}L_{1}R_{2}g_{m}+C_{L}L_{1}}}}{R_{2}+R_{L}} \\ \text{wo:} \ \sqrt{\frac{1}{C_{L}L_{1}R_{2}g_{m}+C_{L}L_{1}}} \\ \text{bandwidth:} \ \frac{(R_{2}+R_{L})\sqrt{\frac{1}{C_{L}L_{1}R_{2}g_{m}+C_{L}L_{1}}}}{L_{1}R_{2}g_{m}\sqrt{\frac{1}{C_{L}L_{1}R_{2}g_{m}+C_{L}L_{1}}}+L_{1}\sqrt{\frac{1}{C_{L}L_{1}R_{2}g_{m}+C_{L}L_{1}}}} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ R_{L} \\ \text{K-BP:} \ \frac{L_{1}R_{2}g_{m}+L_{1}}{C_{L}R_{2}+C_{L}R_{L}}} \\ \text{Qz:} \ C_{L}R_{L}\sqrt{\frac{1}{C_{L}L_{1}R_{2}g_{m}+C_{L}L_{1}}}} \\ \text{Wz:} \ \text{None} \end{array}$$

8.6 INVALID-NUMER-6 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{C_2 L_1 R_L s^2 + L_1 R_L g_m s}{C_2 L_1 s^2 + s \left(C_2 R_L + L_1 g_m\right) + 1}$$

$$\begin{aligned} &\text{Q: } \frac{C_2L_1\sqrt{\frac{1}{C_2L_1}}}{C_2R_L + L_1g_m} \\ &\text{wo: } \sqrt{\frac{1}{C_2L_1}} \\ &\text{bandwidth: } \frac{C_2R_L + L_1g_m}{C_2L_1} \\ &\text{K-LP: 0} \\ &\text{K-HP: } R_L \\ &\text{K-BP: } \frac{L_1R_Lg_m}{C_2R_L + L_1g_m} \\ &\text{Qz: } \frac{C_2\sqrt{\frac{1}{C_2L_1}}}{g_m} \\ &\text{Wz: None} \end{aligned}$$

8.7 INVALID-NUMER-7 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_2\sqrt{\frac{1}{C_LL_1}+\frac{1}{C_2L_1}}}{g_m} \\ \text{wo:} \ \sqrt{\frac{C_2+C_L}{C_2C_LL_1}} \\ \text{bandwidth:} \ \frac{g_m\sqrt{\frac{C_2+C_L}{C_2C_LL_1}}}{C_2\sqrt{\frac{1}{C_LL_1}+\frac{1}{C_2L_1}}} \\ \text{K-LP:} \ \frac{L_1g_m}{C_2+C_L} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2}{C_Lg_m} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

8.8 INVALID-NUMER-8 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$

Parameters:

$$\begin{aligned} & \text{Q: } \frac{C_2L_1R_2\sqrt{\frac{1}{C_2L_1}+\frac{R_L}{C_2L_1R_2}}}{C_2R_2R_L+L_1R_2g_m+L_1} \\ & \text{wo: } \sqrt{\frac{R_2+R_L}{C_2L_1R_2}} \\ & \text{bandwidth: } \frac{\sqrt{\frac{R_2+R_L}{C_2L_1R_2}}(C_2R_2R_L+L_1R_2g_m+L_1)}{C_2L_1R_2\sqrt{\frac{1}{C_2L_1}+\frac{R_L}{C_2L_1R_2}}} \\ & \text{K-LP: 0} \\ & \text{K-HP: } R_L \\ & \text{K-BP: } \frac{L_1R_2R_Lg_m+L_1R_L}{C_2R_2R_L+L_1R_2g_m+L_1} \\ & \text{Qz: } \frac{C_2R_2\sqrt{\frac{1}{C_2L_1}+\frac{R_L}{C_2L_1R_2}}}{R_2g_m+1} \\ & \text{Wz: None} \end{aligned}$$

8.9 INVALID-NUMER-9 $Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$

$$\begin{array}{c} \text{Q:} \ \frac{C_2L_1R_2g_m\sqrt{\frac{1}{C_2L_1R_2g_m+C_2L_1}}}{C_2R_2+C_2R_L+L_1g_m} + C_2L_1\sqrt{\frac{1}{C_2L_1R_2g_m+C_2L_1}}\\ \text{wo:} \ \sqrt{\frac{1}{C_2L_1R_2g_m+C_2L_1}}\\ \text{bandwidth:} \ \frac{(C_2R_2+C_2R_L+L_1g_m)\sqrt{\frac{1}{C_2L_1R_2g_m+C_2L_1}}}{C_2L_1R_2g_m\sqrt{\frac{1}{C_2L_1R_2g_m+C_2L_1}}} + C_2L_1\sqrt{\frac{1}{C_2L_1R_2g_m+C_2L_1}}\\ \text{K-LP:} \ 0\\ \text{K-HP:} \ R_L\\ \text{K-BP:} \ \frac{L_1R_Lg_m}{C_2R_2+C_2R_L+L_1g_m}\\ \text{Qz:} \ \frac{C_2R_2g_m\sqrt{\frac{1}{C_2L_1R_2g_m+C_2L_1}}} + C_2\sqrt{\frac{1}{C_2L_1R_2g_m+C_2L_1}}}\\ \text{Qz:} \ \frac{C_2R_2g_m\sqrt{\frac{1}{C_2L_1R_2g_m+C_2L_1}}} + C_2\sqrt{\frac{1}{C_2L_1R_2g_m+C_2L_1}}}\\ \text{Wz:} \ \text{None} \end{array}$$

$$H(s) = \frac{C_2 L_1 s + L_1 g_m}{C_2 C_L L_1 s^2 + C_2 + C_L L_1 g_m s + C_L}$$

$$H(s) = \frac{C_2 L_1 R_2 R_L s^2 + s \left(L_1 R_2 R_L g_m + L_1 R_L \right)}{C_2 L_1 R_2 s^2 + R_2 + R_L + s \left(C_2 R_2 R_L + L_1 R_2 g_m + L_1 \right)}$$

$$H(s) = \frac{L_1 R_L g_m s + s^2 \left(C_2 L_1 R_2 R_L g_m + C_2 L_1 R_L \right)}{s^2 \left(C_2 L_1 R_2 g_m + C_2 L_1 \right) + s \left(C_2 R_2 + C_2 R_L + L_1 g_m \right) + 1}$$

8.10 INVALID-NUMER-10 $Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 g_m + s \left(C_2 L_1 R_2 g_m + C_2 L_1 \right)}{C_2 + C_L + s^2 \left(C_2 C_L L_1 R_2 g_m + C_2 C_L L_1 \right) + s \left(C_2 C_L R_2 + C_L L_1 g_m \right)}$$

Parameters:

$$\begin{array}{c} \text{Q:} & \frac{C_2L_1R_2g_m\sqrt{\frac{C_2}{C_2C_LL_1R_2g_m+C_2C_LL_1}} + C_2L_1\sqrt{\frac{C_2}{C_2C_LL_1R_2g_m+C_2C_LL_1}} + C_2L_1\sqrt{\frac{C_2}{C_2C_LL_1R_2g_m+C_2C_LL_1}} + \frac{C_L}{C_2C_LL_1R_2g_m+C_2C_LL_1} \\ \text{Wo:} & \sqrt{\frac{C_2+C_L}{C_2C_LL_1R_2g_m+C_2C_LL_1}} \\ \text{bandwidth:} & \frac{\sqrt{\frac{C_2+C_L}{C_2C_LL_1R_2g_m+C_2C_LL_1}} + C_2L_1\sqrt{\frac{C_2}{C_2C_LL_1R_2g_m+C_2C_LL_1}} + \frac{C_L}{C_2C_LL_1R_2g_m+C_2C_LL_1} \\ \text{K-LP:} & \frac{L_1g_m}{C_2+C_L} \\ \text{K-HP:} & 0 \\ \text{K-BP:} & \frac{C_2L_1R_2g_m\sqrt{\frac{C_2}{C_2C_LL_1R_2g_m+C_2C_LL_1}} + C_2L_1\sqrt{\frac{1}{C_2C_LL_1R_2g_m+C_2C_LL_1}} + C_2L_1\sqrt{\frac{1}{C_2C_LL_1R_2g_m+C_2C_LL_1}} + \frac{1}{C_2L_1R_2g_m+C_2C_LL_1} \\ \text{C-CL} & 1 \\ \text$$

8.11 INVALID-NUMER-11 $Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{C_2 R_L s + R_L g_m}{C_1 C_2 R_L s^2 + g_m + s (C_1 + C_2)}$$

Parameters:

$$\begin{aligned} &\text{Q:} \ \frac{C_{1}C_{2}R_{L}\sqrt{\frac{g_{m}}{C_{1}C_{2}R_{L}}}}{C_{1}+C_{2}}\\ &\text{wo:} \ \sqrt{\frac{g_{m}}{C_{1}C_{2}R_{L}}}\\ &\text{bandwidth:} \ \frac{C_{1}+C_{2}}{C_{1}C_{2}R_{L}}\\ &\text{K-LP:} \ R_{L}\\ &\text{K-HP:} \ 0\\ &\text{K-BP:} \ \frac{C_{2}R_{L}}{C_{1}+C_{2}}\\ &\text{Qz:} \ 0\\ &\text{Wz:} \ \text{None} \end{aligned}$$

8.12 INVALID-NUMER-12 $Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{C_2 R_L s + R_L g_m}{g_m + s^2 \left(C_1 C_2 R_L + C_1 C_L R_L + C_2 C_L R_L \right) + s \left(C_1 + C_2 + C_L R_L g_m \right)}$$

$$Q \colon \frac{C_{1}C_{2}R_{L}\sqrt{\frac{g_{m}}{C_{1}C_{2}R_{L}+C_{1}C_{L}R_{L}}} + C_{1}C_{L}R_{L}\sqrt{\frac{g_{m}}{C_{1}C_{2}R_{L}+C_{1}C_{L}R_{L}}} + C_{2}C_{L}R_{L}}\sqrt{\frac{g_{m}}{C_{1}C_{2}R_{L}+C_{1}C_{L}R_{L}}} + C_{2}C_{L}R_{L}}\sqrt{\frac{g_{m}}{C_{1}C_{2}R_{L}+C_{1}C_{L}R_{L}+C_{2}C_{L}R_{L}}} \\ \text{wo: } \sqrt{\frac{g_{m}}{C_{1}C_{2}R_{L}+C_{1}C_{L}R_{L}+C_{2}C_{L}R_{L}}} \\ \text{bandwidth: } \frac{\sqrt{\frac{g_{m}}{C_{1}C_{2}R_{L}+C_{1}C_{L}R_{L}+C_{2}C_{L}R_{L}}} (C_{1}+C_{2}+C_{L}R_{L}g_{m})}{C_{1}C_{2}R_{L}\sqrt{\frac{g_{m}}{C_{1}C_{2}R_{L}+C_{1}C_{L}R_{L}}} + C_{1}C_{L}R_{L}\sqrt{\frac{g_{m}}{C_{1}C_{2}R_{L}+C_{1}C_{L}R_{L}}} + C_{2}C_{L}R_{L}}} + C_{2}C_{L}R_{L}\sqrt{\frac{g_{m}}{C_{1}C_{2}R_{L}+C_{1}C_{L}R_{L}+C_{2}C_{L}R_{L}}} \\ \text{K-LP: } R_{L} \\ \text{K-HP: } 0 \\ \text{K-BP: } \frac{C_{2}R_{L}}{C_{1}+C_{2}+C_{L}R_{L}g_{m}}}{C_{1}+C_{2}+C_{L}R_{L}g_{m}}} \\ \text{Qz: } 0 \\ \text{Wz: None} \\ \end{aligned}$$

8.13 INVALID-NUMER-13
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{C_2 R_2 R_L s + R_2 R_L g_m + R_L}{C_1 C_2 R_2 R_L s^2 + R_2 g_m + s \left(C_1 R_2 + C_1 R_L + C_2 R_2\right) + 1}$$

$$\begin{array}{l} \text{Q:} \ \frac{C_1C_2R_2R_L\sqrt{\frac{g_m}{C_1C_2R_L}} + \frac{1}{C_1C_2R_2R_L}}{C_1R_2 + C_1R_L + C_2R_2} \\ \text{wo:} \ \sqrt{\frac{R_2g_m + 1}{C_1C_2R_2R_L}} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{R_2g_m + 1}{C_1C_2R_2R_L}}(C_1R_2 + C_1R_L + C_2R_2)}{C_1C_2R_2R_L\sqrt{\frac{g_m}{C_1C_2R_L}} + \frac{1}{C_1C_2R_2R_L}} \\ \text{K-LP:} \ R_L \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_2R_L}{C_1R_2 + C_1R_L + C_2R_2} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

8.14 INVALID-NUMER-14 $Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s+1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{C_2 R_2 R_L s + R_2 R_L g_m + R_L}{R_2 g_m + s^2 \left(C_1 C_2 R_2 R_L + C_1 C_L R_2 R_L + C_2 C_L R_2 R_L\right) + s \left(C_1 R_2 + C_1 R_L + C_2 R_2 + C_L R_2 R_L g_m + C_L R_L\right) + 1}$$

Parameters:

$$Q: \frac{C_1C_2R_2R_L\sqrt{C_1C_2R_2R_L+C_1C_LR_2$$

8.15 INVALID-NUMER-15 $Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{R_L g_m + s \left(C_2 R_2 R_L g_m + C_2 R_L \right)}{g_m + s^2 \left(C_1 C_2 R_2 + C_1 C_2 R_L \right) + s \left(C_1 + C_2 R_2 g_m + C_2 \right)}$$

$$\begin{aligned} &\text{Q:} \ \frac{C_1C_2R_2\sqrt{\frac{g_m}{C_1C_2R_2+C_1C_2R_L}} + C_1C_2R_L\sqrt{\frac{g_m}{C_1C_2R_2+C_1C_2R_L}}}{C_1+C_2R_2g_m+C_2} \\ &\text{wo:} \ \sqrt{\frac{g_m}{C_1C_2R_2+C_1C_2R_L}} \\ &\text{bandwidth:} \ \frac{\sqrt{\frac{g_m}{C_1C_2R_2+C_1C_2R_L}} (C_1+C_2R_2g_m+C_2)}{C_1C_2R_2\sqrt{\frac{g_m}{C_1C_2R_2+C_1C_2R_L}} + C_1C_2R_L\sqrt{\frac{g_m}{C_1C_2R_2+C_1C_2R_L}}} \\ &\text{K-LP:} \ R_L \\ &\text{K-HP:} \ 0 \\ &\text{K-BP:} \ \frac{C_2R_2R_Lg_m+C_2R_L}{C_1+C_2R_2g_m+C_2} \\ &\text{Qz:} \ 0 \\ &\text{Wz:} \ \text{None} \end{aligned}$$

8.16 INVALID-NUMER-16
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s \left(C_L R_1 R_2 R_L g_m + C_L R_1 R_L \right)}{s^2 \left(C_1 C_L R_1 R_2 + C_1 C_L R_1 R_L \right) + s \left(C_1 R_1 + C_L R_1 R_2 g_m + C_L R_1 + C_L R_2 + C_L R_L \right) + 1}$$

$$\begin{array}{l} \text{Q:} \ \frac{C_1C_LR_1R_2\sqrt{\frac{1}{C_1C_LR_1R_2+C_1C_LR_1R_L}} + C_1C_LR_1R_L\sqrt{\frac{1}{C_1C_LR_1R_2+C_1C_LR_1R_L}}}{C_1R_1+C_LR_1R_2g_m+C_LR_1+C_LR_2+C_LR_L} \\ \text{wo:} \ \sqrt{\frac{1}{C_1C_LR_1R_2+C_1C_LR_1R_L}} \\ \text{bandwidth:} \ \frac{(C_1R_1+C_LR_1R_2g_m+C_LR_1+C_LR_2+C_LR_L)\sqrt{\frac{1}{C_1C_LR_1R_2+C_1C_LR_1R_L}}}{C_1C_LR_1R_2\sqrt{\frac{1}{C_1C_LR_1R_2+C_1C_LR_1R_L}}} + C_1C_LR_1R_L\sqrt{\frac{1}{C_1C_LR_1R_2+C_1C_LR_1R_L}}} \\ \text{K-LP:} \ R_1R_2g_m+R_1 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_LR_1R_2R_Lg_m+C_LR_1R_L}{C_1R_1+C_LR_1R_2g_m+C_LR_1+C_LR_2+C_LR_L}} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

8.17 INVALID-NUMER-17 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{C_2 R_1 R_L s + R_1 R_L g_m}{C_1 C_2 R_1 R_L s^2 + R_1 g_m + s \left(C_1 R_1 + C_2 R_1 + C_2 R_L \right) + 1}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_1C_2R_1R_L\sqrt{\frac{g_m}{C_1C_2R_L}} + \frac{1}{C_1C_2R_1R_L}}{C_1R_1 + C_2R_1 + C_2R_L} \\ & \text{wo:} \ \sqrt{\frac{R_1g_m + 1}{C_1C_2R_1R_L}} \\ & \text{bandwidth:} \ \frac{\sqrt{\frac{R_1g_m + 1}{C_1C_2R_1R_L}}(C_1R_1 + C_2R_1 + C_2R_L)}{C_1C_2R_1R_L\sqrt{\frac{g_m}{C_1C_2R_L}} + \frac{1}{C_1C_2R_1R_L}} \\ & \text{K-LP:} \ \frac{R_1R_Lg_m}{R_1g_m + 1} \\ & \text{K-HP:} \ 0 \\ & \text{K-BP:} \ \frac{C_2R_1R_L}{C_1R_1 + C_2R_1 + C_2R_L} \\ & \text{Qz:} \ 0 \\ & \text{Wz:} \ \text{None} \end{aligned}$$

8.18 INVALID-NUMER-18 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{C_2 R_1 R_L s + R_1 R_L g_m}{R_1 g_m + s^2 \left(C_1 C_2 R_1 R_L + C_1 C_L R_1 R_L + C_2 C_L R_1 R_L \right) + s \left(C_1 R_1 + C_2 R_1 + C_2 R_L + C_L R_1 R_L g_m + C_L R_L \right) + 1}$$

Parameters:

Wz: None

$$Q: \frac{C_1C_2R_1R_L\sqrt{C_1C_2R_1R_L+C_1C_LR_1R_L+C_2C_LR_1R_L} + C_1C_LR_1R_L+C_1C_LR_1R_L+C_2C_LR_1R_L} + C_1C_LR_1R_L\sqrt{C_1C_2R_1R_L+C_1C_LR_1R_L+C_2C_LR_1R_L} + C_2C_LR_1R_L\sqrt{C_1C_2R_1R_L+C_1C_LR_1R_L+C_2C_LR_1R_L} + C_2C_LR_1R_L} + C_2C_LR_1R_L\sqrt{C_1C_2R_1R_L+C_1C_LR_1R_L+C_2C_LR_1R_L} + C_2C_LR_1R_L} \\ wo: \sqrt{\frac{R_1g_m+1}{C_1C_2R_1R_L+C_1C_LR_1R_L+C_2C_LR_1R_L}} \\ bandwidth: \frac{R_1g_m+1}{C_1C_2R_1R_L+C_1C_LR_1R_L+C_2C_LR_1R_L} + C_1C_LR_1R_L+C_2C_LR_1R_L} + C_1C_LR_1R_L+C_2C_LR_1R_L} \\ c_1C_2R_1R_L\sqrt{C_1C_2R_1R_L+C_1C_LR_1R_L+C_2C_LR_1R_L} + C_1C_LR_1R_L+C_2C_LR_1R_L} + C_1C_LR_1R_L+C_2C_LR_1R_L} + C_1C_LR_1R_L+C_2C_LR_1R_L} \\ c_1C_2R_1R_L\sqrt{C_1C_2R_1R_L+C_1C_LR_1R_L+C_2C_LR_1R_L} + C_1C_LR_1R_L+C_2C_LR_1R_L} + C_1C_LR_1R_L+C_2C_LR_1R_L} \\ c_1C_2R_1R_L\sqrt{C_1C_2R_1R_L+C_1C_LR_1R_L+C_2C_LR_1R_L} + C_1C_LR_1R_L+C_2C_LR_1R_L} \\ c_1C_2R_1R_L+C_1C_LR_1R_L+C_2C_LR_1R_L} \\ c_1C_2R_1R_L+C_1C_LR_1R_L+C_2$$

8.19 INVALID-NUMER-19
$$Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{C_2 R_1 R_2 R_L s + R_1 R_2 R_L g_m + R_1 R_L}{C_1 C_2 R_1 R_2 R_L s^2 + R_1 R_2 g_m + R_1 + R_2 + R_L + s \left(C_1 R_1 R_2 + C_1 R_1 R_L + C_2 R_1 R_2 + C_2 R_2 R_L \right)}$$

$$\begin{array}{l} \text{Q:} \ \frac{C_1C_2R_1R_2R_L\sqrt{\frac{g_m}{C_1C_2R_L}+\frac{1}{C_1C_2R_2R_L}+\frac{1}{C_1C_2R_1R_L}+\frac{1}{C_1C_2R_1R_L}+\frac{1}{C_1C_2R_1R_L}}{C_1R_1R_2+C_1R_1R_L+C_2R_1R_2+C_2R_2R_L} \\ \text{wo:} \ \sqrt{\frac{R_1R_2g_m+R_1+R_2+R_L}{C_1C_2R_1R_2R_L}} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{R_1R_2g_m+R_1+R_2+R_L}{C_1C_2R_1R_2R_L}}(C_1R_1R_2+C_1R_1R_L+C_2R_1R_2+C_2R_2R_L)}{C_1C_2R_1R_2R_L\sqrt{\frac{g_m}{C_1C_2R_L}+\frac{1}{C_1C_2R_2R_L}+\frac{1}{C_1C_2R_1R_L}+\frac{1}{C_1C_2R_1R_L}+\frac{1}{C_1C_2R_1R_L}}} \\ \text{K-LP:} \ \frac{R_1R_2R_Lg_m+R_1R_L}{R_1R_2g_m+R_1+R_2+R_L}}{K-\text{HP:} \ 0} \\ \text{K-BP:} \ \frac{C_2R_1R_2R_L}{C_1R_1R_2+C_1R_1R_L+C_2R_1R_2+C_2R_2R_L}} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

8.20 INVALID-NUMER-20 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2 R_1 R_2 s + R_1 R_2 g_m + R_1}{s^2 \left(C_1 C_2 R_1 R_2 + C_1 C_L R_1 R_2 + C_2 C_L R_1 R_2\right) + s \left(C_1 R_1 + C_2 R_2 + C_L R_1 R_2 g_m + C_L R_1 + C_L R_2\right) + 1}$$

Parameters:

```
Q\colon \frac{C_{1}C_{2}R_{1}R_{2}\sqrt{\frac{1}{C_{1}C_{2}R_{1}R_{2}+C_{1}C_{L}R_{1}R_{2}}}+C_{1}C_{L}R_{1}R_{2}\sqrt{\frac{1}{C_{1}C_{2}R_{1}R_{2}+C_{1}C_{L}R_{1}R_{2}}}+C_{2}C_{L}R_{1}R_{2}}}{C_{1}R_{1}+C_{2}R_{2}+C_{L}R_{1}R_{2}g_{m}+C_{L}R_{1}+C_{L}R_{2}}}
wo: \sqrt{\frac{1}{C_{1}C_{2}R_{1}R_{2}+C_{1}C_{L}R_{1}R_{2}+C_{2}C_{L}R_{1}R_{2}}}{(C_{1}R_{1}+C_{2}R_{2}+C_{L}R_{1}R_{2}g_{m}+C_{L}R_{1}+C_{L}R_{2}})\sqrt{\frac{1}{C_{1}C_{2}R_{1}R_{2}+C_{1}C_{L}R_{1}R_{2}+C_{2}C_{L}R_{1}R_{2}}}{(C_{1}R_{1}+C_{2}R_{2}+C_{L}R_{1}R_{2}g_{m}+C_{L}R_{1}+C_{L}R_{2})\sqrt{\frac{1}{C_{1}C_{2}R_{1}R_{2}+C_{1}C_{L}R_{1}R_{2}+C_{2}C_{L}R_{1}R_{2}}}}}
bandwidth: \frac{(C_{1}R_{1}+C_{2}R_{2}+C_{L}R_{1}R_{2}g_{m}+C_{L}R_{1}+C_{L}R_{2})\sqrt{\frac{1}{C_{1}C_{2}R_{1}R_{2}+C_{1}C_{L}R_{1}R_{2}+C_{2}C_{L}R_{1}R_{2}}}{(C_{1}C_{2}R_{1}R_{2}+C_{1}C_{L}R_{1}R_{2}+C_{2}C_{L}R_{1}R_{2}}}}
K-LP: R_{1}R_{2}g_{m} + R_{1}
K-HP: 0
K-BP: \frac{C_{2}R_{1}R_{2}}{C_{1}R_{1}+C_{2}R_{2}+C_{L}R_{1}R_{2}g_{m}+C_{L}R_{1}+C_{L}R_{2}}}{(C_{1}R_{1}+C_{2}R_{2}+C_{L}R_{1}R_{2}g_{m}+C_{L}R_{1}+C_{L}R_{2}}}
Qz: 0
Wz: None
```

8.21 INVALID-NUMER-21
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_2 R_1 R_2 R_L s + R_1 R_2 R_L g_m + R_1 R_L}{R_1 R_2 g_m + R_1 + R_2 + R_L + s^2 \left(C_1 C_2 R_1 R_2 R_L + C_1 C_L R_1 R_2 R_L + C_2 C_L R_1 R_2 R_L\right) + s \left(C_1 R_1 R_2 + C_1 R_1 R_L + C_2 R_1 R_2 + C_2 R_2 R_L + C_L R_1 R_2 R_L g_m + C_L R_1 R_L + C_L R_2 R_L\right)}$$

Parameters:

Wz: None

$$Q: \frac{R_1R_2g_m}{C_1C_2R_1R_2R_L\sqrt{C_1C_2R_1R_2R_L+C_1C_LR_1R_2R_L+C_2C_LR_1R_2R_L+C_2C_LR_1R$$

8.22 INVALID-NUMER-22 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{R_1 R_L g_m + s \left(C_2 R_1 R_2 R_L g_m + C_2 R_1 R_L\right)}{R_1 g_m + s^2 \left(C_1 C_2 R_1 R_2 + C_1 C_2 R_1 R_L\right) + s \left(C_1 R_1 + C_2 R_1 R_2 g_m + C_2 R_1 + C_2 R_2 + C_2 R_L\right) + 1}$$

Parameters:

 $Q: \frac{c_1c_2R_1R_2\sqrt{\frac{R_1g_m}{C_1c_2R_1R_2+c_1c_2R_1R_L}} + c_1c_2R_1R_2\sqrt{\frac{R_1g_m}{C_1c_2R_1R_2+c_1c_2R_1R_L}} + c_1c_2R_1R_L\sqrt{\frac{R_1g_m}{C_1c_2R_1R_2+c_1c_2R_1R_L}} + c_1c_2R_1R_L\sqrt{\frac{R_1g_m}{C_1c_2R_1R_2+c_1c_2R_1R_L}} + c_1c_2R_1R_L + c_1c_2R_1R_2+c_1c_2R_1R_L}$ $wo: \sqrt{\frac{R_1g_m+1}{C_1C_2R_1R_2+c_1c_2R_1R_L}}$ $bandwidth: \frac{\sqrt{\frac{R_1g_m+1}{C_1c_2R_1R_2+c_1c_2R_1R_L}} + c_1c_2R_1R_2g_m + c_2R_1 + c_2R_2 + c_2R_L)}{\frac{R_1g_m}{C_1c_2R_1R_2+c_1c_2R_1R_L} + c_1c_2R_1R_L} + c_1c_2R_1R_L + c_1c_2R_1R_L + c_1c_2R_1R_L} + c_1c_2R_1R_L + c_1c_2R_1R_L + c_1c_2R_1R_L + c_1c_2R_1R_L + c_1c_2R_1R_L} + c_1c_2R_1R_L + c_1c_2R_1R_L + c_1c_2R_1R_L + c_1c_2R_1R_L + c_1c_2R_1R_L + c_1c_2R_1R_L + c_1c_2R_1R_L} + c_1c_2R_1R_L + c_1c_2$

8.23 INVALID-NUMER-23 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_2 R_L g_m + R_L + s \left(C_1 R_1 R_2 R_L g_m + C_1 R_1 R_L \right)}{R_2 g_m + s^2 \left(C_1 C_L R_1 R_2 R_L g_m + C_1 C_L R_1 R_L + C_1 C_L R_2 R_L \right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + C_1 R_2 + C_1 R_L + C_L R_2 R_L g_m + C_L R_L \right) + 1}$$

Parameters:

8.24 INVALID-NUMER-24 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2 L_1 s + L_1 g_m}{C_2 + C_L L_1 g_m s + C_L + s^2 \left(C_1 C_2 L_1 + C_1 C_L L_1 + C_2 C_L L_1 \right)}$$

Parameters:

Wz: None

 $\begin{array}{c} Q: \frac{C_1C_2\sqrt{\frac{C_2}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}} + \frac{C_L}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}} + C_1C_L\sqrt{\frac{C_2}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}} + C_2C_L\sqrt{\frac{C_2}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}} + C_2C_L\sqrt{\frac{C_2}{C_1C_2L_1+C_1C_LL$

8.25 INVALID-NUMER-25
$$Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2L_1R_1s + L_1R_1g_m}{C_2R_1 + C_LR_1 + s^2\left(C_1C_2L_1R_1 + C_1C_LL_1R_1 + C_2C_LL_1R_1\right) + s\left(C_2L_1 + C_LL_1R_1g_m + C_LL_1\right)}$$

$$\begin{array}{c} Q: \frac{C_1C_2R_1\sqrt{\frac{C_2}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}+\frac{C_L}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}+C_1C_LR_1\sqrt{\frac{C_2}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}+\frac{C_L}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}+C_2C_LR_1\sqrt{\frac{C_2}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}+\frac{C_L}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}+\frac{C_L}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}\\ wo: \sqrt{\frac{C_2+C_L}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}\\ \\ bandwidth: \frac{C_2+C_L}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}\\ \\ \frac{C_1C_2R_1\sqrt{\frac{C_2+C_L}{C_1C_LL_1+C_2C_LL_1}}+\frac{C_2}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}+\frac{C_2}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}+C_1C_LR_1\sqrt{\frac{C_2}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}+C_2C_LR_1\sqrt{\frac{C_2}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}+C_2C_LR_1\sqrt{\frac{C_2}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}+C_2C_LR_1\sqrt{\frac{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}+C_2C_LR_1\sqrt{\frac{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}+C_2C_LR_1\sqrt{\frac{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}+C_2C_LR_1\sqrt{\frac{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}+C_2C_LR_1\sqrt{\frac{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}}+C_2C_LR_1\sqrt{\frac{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}+C_2C_LR_1\sqrt{\frac{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}}+C_2C_LR_1\sqrt{\frac{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}}+C_2C_LR_1\sqrt{\frac{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}+C_2C_LR_1\sqrt{\frac{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}}+C_2C_LR_1\sqrt{\frac{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}}+C_2C_LR_1\sqrt{\frac{C_1C_2L_1+C_1C_LL_1+C_1C_LL_1+C_2C_LL_1}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}}+C_2C_LR_1\sqrt{\frac{C_1C_2L_1+C_1C_LL_1+C_1C_LL_1+C_2C_LL_1}{C_1C_2L_1+C_1C_LL_1+C_2C_LL_1}}}}$$

$$C_1C_2R_1$$

$$C_2C_2R_1$$

$$C_2C_2$$

9 INVALID-WZ

9.1 INVALID-WZ-1
$$Z(s) = \left(R_1, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_2C_LR_1R_2R_Ls^2 + R_1R_2g_m + R_1 + s\left(C_2R_1R_2 + C_LR_1R_2R_Lg_m + C_LR_1R_L\right)}{s^2\left(C_2C_LR_1R_2 + C_2C_LR_2R_L\right) + s\left(C_2R_2 + C_LR_1R_2g_m + C_LR_1 + C_LR_2 + C_LR_L\right) + 1}$$

Parameters:

$$\begin{aligned} &\text{Q:} \ \frac{C_2C_LR_1R_2\sqrt{\frac{1}{C_2C_LR_1R_2+C_2C_LR_2R_L}} + C_2C_LR_2R_L\sqrt{\frac{1}{C_2C_LR_1R_2+C_2C_LR_2R_L}}}{C_2R_2+C_LR_1R_2g_m + C_LR_1 + C_LR_2 + C_LR_L} \\ &\text{wo:} \ \sqrt{\frac{1}{C_2C_LR_1R_2+C_2C_LR_2R_L}} \\ &\text{bandwidth:} \ \frac{(C_2R_2+C_LR_1R_2g_m + C_LR_1+C_LR_2 + C_LR_L)\sqrt{\frac{1}{C_2C_LR_1R_2+C_2C_LR_2R_L}}}{C_2C_LR_1R_2\sqrt{\frac{1}{C_2C_LR_1R_2+C_2C_LR_2R_L}}} + C_2C_LR_2R_L\sqrt{\frac{1}{C_2C_LR_1R_2+C_2C_LR_2R_L}} \\ &\text{K-LP:} \ R_1R_2g_m + R_1 \\ &\text{K-HP:} \ \frac{R_1R_L}{R_1+R_L} \\ &\text{K-BP:} \ \frac{C_2R_1R_2+C_LR_1R_2R_Lg_m+C_LR_1R_L}{C_2R_2+C_LR_1R_2g_m+C_LR_1+C_LR_2} + C_LR_L \\ &\text{Qz:} \ \frac{C_2C_LR_2R_L\sqrt{\frac{1}{C_2C_LR_1R_2+C_2C_LR_2R_L}}}{C_2R_2+C_LR_2R_LG_m+C_LR_L} \\ &\text{Wz:} \ \sqrt{\frac{R_2g_m+1}{C_2C_LR_2R_L}} \end{aligned}$$

9.2 INVALID-WZ-2 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2 C_L L_1 R_L s^2 + L_1 g_m + s \left(C_2 L_1 + C_L L_1 R_L g_m \right)}{C_2 C_L L_1 s^2 + C_2 + C_L + s \left(C_2 C_L R_L + C_L L_1 g_m \right)}$$

$$\begin{aligned} & \text{Q: } \frac{C_2L_1\sqrt{\frac{1}{C_LL_1}+\frac{1}{C_2L_1}}}{C_2R_L+L_1g_m} \\ & \text{wo: } \sqrt{\frac{C_2+C_L}{C_2C_LL_1}} \\ & \text{bandwidth: } \frac{\sqrt{\frac{C_2+C_L}{C_2C_LL_1}}(C_2R_L+L_1g_m)}{C_2L_1\sqrt{\frac{1}{C_LL_1}+\frac{1}{C_2L_1}}} \\ & \text{K-LP: } \frac{L_1g_m}{C_2+C_L} \\ & \text{K-HP: } R_L \\ & \text{K-BP: } \frac{C_2L_1+C_LL_1R_Lg_m}{C_2C_LR_L+C_LL_1g_m} \\ & \text{Qz: } \frac{C_2C_LR_L\sqrt{\frac{1}{C_LL_1}+\frac{1}{C_2L_1}}}{C_2+C_LR_Lg_m} \\ & \text{Wz: } \sqrt{\frac{g_m}{C_2C_LR_L}} \end{aligned}$$

9.3 INVALID-WZ-3 $Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 g_m + s^2 \left(C_2 C_L L_1 R_2 R_L g_m + C_2 C_L L_1 R_L \right) + s \left(C_2 L_1 R_2 g_m + C_2 L_1 + C_L L_1 R_L g_m \right)}{C_2 + C_L + s^2 \left(C_2 C_L L_1 R_2 g_m + C_2 C_L L_1 \right) + s \left(C_2 C_L R_2 + C_2 C_L R_L + C_L L_1 g_m \right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \frac{C_2L_1R_2g_m\sqrt{\frac{C_2}{C_2L_1R_2g_m+C_2C_LL_1} + \frac{C_L}{C_2C_LL_1R_2g_m+C_2C_LL_1} + C_2L_1\sqrt{\frac{C_2}{C_2C_LL_1R_2g_m+C_2C_LL_1} + \frac{C_L}{C_2C_LL_1R_2g_m+C_2C_LL_1}}}{C_2R_2+C_2R_L+L_1g_m} \\ & \text{wo:} & \sqrt{\frac{C_2+C_L}{C_2C_LL_1R_2g_m+C_2C_LL_1}} \\ & \text{bandwidth:} & \frac{\sqrt{\frac{C_2+C_L}{C_2C_LL_1R_2g_m+C_2C_LL_1}}}{C_2L_1R_2g_m\sqrt{\frac{C_2}{C_2C_LL_1R_2g_m+C_2C_LL_1} + \frac{C_L}{C_2C_LL_1R_2g_m+C_2C_LL_1} + \frac{1}{C_2C_LL_1R_2g_m+C_2C_LL_1} + \frac{1}{C_2C_LL_1R_2g_m+C_2C_LL_1} + \frac{1}{C_2C_LL_1R_2g_m+C_2C_LL_1} + \frac{1}{C_2L_1R_2g_m+C_2C_LL_1} + \frac{1}{C_2L_1R_2g_m+C_2C_LL_1} + \frac{1}{C_2L_1R_2g_m+C_2C_LL_1} + \frac{1}{C_2L_1R_2g_m+C_2C_LL_1} + \frac{1}{C_2L_1R_2g_m+C_2C_LL_1} + \frac{1}{C_2L_1R_2g_m+C_2C_LL_1} + \frac{1}{C_2C_LL_1R_2g_m+C_2C_LL_1} + \frac{C_L}{C_2C_LL_1R_2g_m+C_2C_LL_1} + \frac{C_L}{C_2C_LL_1R_2g_m+C$$

9.4 INVALID-WZ-4 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{C_1 C_2 R_1 R_L s^2 + R_L g_m + s \left(C_1 R_1 R_L g_m + C_2 R_L \right)}{g_m + s^2 \left(C_1 C_2 R_1 + C_1 C_2 R_L \right) + s \left(C_1 R_1 g_m + C_1 + C_2 \right)}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_1C_2R_1\sqrt{\frac{g_m}{C_1C_2R_1+C_1C_2R_L}} + C_1C_2R_L\sqrt{\frac{g_m}{C_1C_2R_1+C_1C_2R_L}}}{C_1R_1g_m + C_1 + C_2} \\ & \text{Wo:} \ \sqrt{\frac{g_m}{C_1C_2R_1+C_1C_2R_L}} \\ & \text{bandwidth:} \ \frac{\sqrt{\frac{g_m}{C_1C_2R_1+C_1C_2R_L}} (C_1R_1g_m + C_1 + C_2)}{C_1C_2R_1\sqrt{\frac{g_m}{C_1C_2R_1+C_1C_2R_L}} + C_1C_2R_L\sqrt{\frac{g_m}{C_1C_2R_1+C_1C_2R_L}}} \\ & \text{K-LP:} \ R_L \\ & \text{K-HP:} \ \frac{R_1R_L}{R_1 + R_L} \\ & \text{K-BP:} \ \frac{C_1R_1R_Lg_m + C_2R_L}{C_1R_1g_m + C_1 + C_2} \\ & \text{Qz:} \ \frac{C_1C_2R_1\sqrt{\frac{g_m}{C_1C_2R_1+C_1C_2R_L}}}{C_1R_1g_m + C_2} \\ & \text{Wz:} \ \sqrt{\frac{g_m}{C_1C_2R_1}} \end{aligned}$$

9.5 INVALID-WZ-5 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{C_1 C_2 R_1 R_2 R_L s^2 + R_2 R_L g_m + R_L + s \left(C_1 R_1 R_2 R_L g_m + C_1 R_1 R_L + C_2 R_2 R_L \right)}{R_2 g_m + s^2 \left(C_1 C_2 R_1 R_2 + C_1 C_2 R_2 R_L \right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + C_1 R_2 + C_1 R_L + C_2 R_2 \right) + 1}$$

$$\begin{array}{c} Q: \frac{C_{1}C_{2}R_{1}R_{2}\sqrt{\frac{c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}L}{c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}}} + C_{1}C_{2}R_{1}L_{2}c_{1}c_{2}R_{2}L_{2}+c_{1}c_{2}R_{2}R_{L}}}{C_{1}R_{1}R_{2}g_{m}+C_{1}R_{1}+C_{1}R_{2}+C_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}}} \\ we: \sqrt{\frac{R_{2}g_{m}+1}{C_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}}}} \\ bandwidth: \frac{R_{2}g_{m}+1}{C_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}}} \\ C_{1}R_{1}R_{2}g_{m}+C_{1}R_{1}+C_{1}R_{2}+C_{1}R_{2}+C_{1}c_{2}R_{2}R_{L}} + C_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} \\ C_{1}C_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L} + C_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} \\ K-HP: \frac{R_{1}R_{L}}{R_{1}+R_{L}} \\ C_{1}R_{1}R_{2}g_{m}\sqrt{\frac{R_{2}g_{m}}{c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{1}}} + C_{1}R_{1}R_{1}C_{2}R_{1}R_{2}+c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} \\ C_{1}R_{1}R_{2}g_{m}\sqrt{\frac{R_{2}g_{m}}{c_{1}R_{1}+c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}R_{1}C_{2}R_{1}R_{2}+c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}R_{2}C_{1}R_{2}R_{1}+c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}R_{2}C_{1}R_{2}R_{2}+c_{1}c_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}R_{2}C_{1}R_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}R_{2}C_{1}R_{2}R_{2}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}R_{2}C_{1}R_{2}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}R_{2}C_{1}R_{2}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}R_{2}C_{1}R_{2}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}R_{2}C_{1}R_{2}R_{2}R_{2}+c_{1}c_{2}R_{2}R_{L} + C_{1}C_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_{1}C_{2}R_{1}R_{2}+c_{1}c_{2}R_{2}R_{L}} + C_$$

9.6 INVALID-WZ-6 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{R_L g_m + s^2 \left(C_1 C_2 R_1 R_2 R_L g_m + C_1 C_2 R_1 R_L \right) + s \left(C_1 R_1 R_L g_m + C_2 R_2 R_L g_m + C_2 R_L \right)}{g_m + s^2 \left(C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 + C_1 C_2 R_2 + C_1 C_2 R_L \right) + s \left(C_1 R_1 g_m + C_1 + C_2 R_2 g_m + C_2 \right)}$$

Parameters:

$$Q: \frac{C_1C_2R_1R_2g_m\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1}}{C_1R_1g_m+C_1+C_2R_2g_m+C_1}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1}+C_1C_2R_2\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1}+C_1C_2R_1}$$

$$wo: \sqrt{\frac{g_m}{C_1C_2R_1R_2g_m+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}$$

$$bandwidth: \frac{g_m}{C_1C_2R_1R_2g_m\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}}$$

$$Q_2: \frac{C_1C_2R_1R_2g_m}{C_1C_2R_1R_2g_m}+C_1C_2R_1}+C_1C_2R_1\sqrt{\overline{C_1C_2R_1R_2g_m}+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}}{C_1R_1g_m+C_1C_2R_1+C_1C_2R_1+C_1C_2R_2+C_1C_2R_1}}$$

10 INVALID-ORDER

10.1 INVALID-ORDER-1 $Z(s) = (R_1, R_2, \infty, \infty, \infty, R_L)$

$$H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L}{R_1 R_2 g_m + R_1 + R_2 + R_L}$$

10.2 INVALID-ORDER-2 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 R_2 g_m + R_1}{s \left(C_L R_1 R_2 g_m + C_L R_1 + C_L R_2 \right) + 1}$$

10.3 INVALID-ORDER-3 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L}{R_1 R_2 g_m + R_1 + R_2 + R_L + s \left(C_L R_1 R_2 R_L g_m + C_L R_1 R_L + C_L R_2 R_L \right)}$$

10.4 INVALID-ORDER-4 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s \left(C_L R_1 R_2 R_L g_m + C_L R_1 R_L \right)}{s \left(C_L R_1 R_2 g_m + C_L R_1 + C_L R_2 + C_L R_L \right) + 1}$$

10.5 INVALID-ORDER-5 $Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{C_2 R_1 R_L s + R_1 R_L g_m}{R_1 g_m + s \left(C_2 R_1 + C_2 R_L \right) + 1}$$

10.6 INVALID-ORDER-6 $Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2 R_1 s + R_1 g_m}{C_2 C_L R_1 s^2 + s \left(C_2 + C_L R_1 g_m + C_L\right)}$$

10.7 INVALID-ORDER-7
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 C_L R_1 R_L s^2 + R_1 g_m + s \left(C_2 R_1 + C_L R_1 R_L g_m \right)}{s^2 \left(C_2 C_L R_1 + C_2 C_L R_L \right) + s \left(C_2 + C_L R_1 g_m + C_L \right)}$$

10.8 INVALID-ORDER-8
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 C_L L_L R_1 s^3 + C_2 R_1 s + C_L L_L R_1 g_m s^2 + R_1 g_m}{C_2 C_L L_L s^3 + C_2 C_L R_1 s^2 + s \left(C_2 + C_L R_1 g_m + C_L\right)}$$

10.9 INVALID-ORDER-9
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2 L_L R_1 s^2 + L_L R_1 g_m s}{C_2 C_L L_L R_1 s^3 + C_2 R_1 s + R_1 g_m + s^2 \left(C_2 L_L + C_L L_L R_1 g_m + C_L L_L \right) + 1}$$

10.10 INVALID-ORDER-10
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 C_L L_L R_1 s^3 + R_1 g_m + s^2 \left(C_2 C_L R_1 R_L + C_L L_L R_1 g_m \right) + s \left(C_2 R_1 + C_L R_1 R_L g_m \right)}{C_2 C_L L_L s^3 + s^2 \left(C_2 C_L R_1 + C_2 C_L R_L \right) + s \left(C_2 + C_L R_1 g_m + C_L \right)}$$

10.11 INVALID-ORDER-11
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_2 L_L R_1 R_L s^2 + L_L R_1 R_L g_m s}{C_2 C_L L_L R_1 R_L s^3 + R_1 R_L g_m + R_L + s^2 \left(C_2 L_L R_1 + C_2 L_L R_L + C_L L_L R_1 R_L g_m + C_L L_L R_L \right) + s \left(C_2 R_1 R_L + L_L R_1 g_m + L_L \right)}$$

10.12 INVALID-ORDER-12
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2C_LL_LR_1R_Ls^3 + R_1R_Lg_m + s^2\left(C_2L_LR_1 + C_LL_LR_1R_Lg_m\right) + s\left(C_2R_1R_L + L_LR_1g_m\right)}{R_1g_m + s^3\left(C_2C_LL_LR_1 + C_2C_LL_LR_L\right) + s^2\left(C_2L_L + C_LL_LR_1g_m + C_LL_L\right) + s\left(C_2R_1 + C_2R_L\right) + 1}$$

10.13 INVALID-ORDER-13
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right)$$

$$H(s) = \frac{C_2C_LL_LR_1R_Ls^3 + C_2R_1R_Ls + C_LL_LR_1R_Lg_ms^2 + R_1R_Lg_m}{R_1g_m + s^3\left(C_2C_LL_LR_1 + C_2C_LL_LR_L\right) + s^2\left(C_2C_LR_1R_L + C_LL_LR_1g_m + C_LL_L\right) + s\left(C_2R_1 + C_2R_L + C_LR_1R_Lg_m + C_LR_L\right) + 1}$$

10.14 INVALID-ORDER-14 $Z(s) = \left(R_1, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{C_2 R_1 R_2 R_L s + R_1 R_2 R_L g_m + R_1 R_L}{R_1 R_2 g_m + R_1 + R_2 + R_L + s \left(C_2 R_1 R_2 + C_2 R_2 R_L\right)}$$

10.15 INVALID-ORDER-15 $Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2C_LL_LR_1R_2s^3 + C_2R_1R_2s + R_1R_2g_m + R_1 + s^2\left(C_LL_LR_1R_2g_m + C_LL_LR_1\right)}{C_2C_LL_LR_2s^3 + s^2\left(C_2C_LR_1R_2 + C_LL_L\right) + s\left(C_2R_2 + C_LR_1R_2g_m + C_LR_1 + C_LR_2\right) + 1}$$

10.16 INVALID-ORDER-16
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2 L_L R_1 R_2 s^2 + s \left(L_L R_1 R_2 g_m + L_L R_1 \right)}{C_2 C_L L_L R_1 R_2 s^3 + R_1 R_2 g_m + R_1 + R_2 + s^2 \left(C_2 L_L R_2 + C_L L_L R_1 R_2 g_m + C_L L_L R_1 + C_L L_L R_2 \right) + s \left(C_2 R_1 R_2 + L_L \right)}$$

$$\textbf{10.17} \quad \textbf{INVALID-ORDER-17} \ Z(s) = \left(R_1, \ \frac{R_2}{C_2 R_2 s + 1}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{C_2 C_L L_L R_1 R_2 s^3 + R_1 R_2 g_m + R_1 + s^2 \left(C_2 C_L R_1 R_2 R_L + C_L L_L R_1 R_2 g_m + C_L L_L R_1 \right) + s \left(C_2 R_1 R_2 + C_L R_1 R_2 R_L \right) + s \left(C_2 R_1 R_2 + C_L R_1 R_2 R_L \right) + 1$$

10.18 INVALID-ORDER-18 $Z(s) = \left(R_1, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$

$$H(s) = \frac{C_2 L_L R_1 R_2 R_L s^2 + s \left(L_L R_1 R_2 R_L g_m + L_L R_1 R_L\right)}{C_2 C_L L_L R_1 R_2 R_L s^3 + R_1 R_2 R_L g_m + R_1 R_L + R_2 R_L + s^2 \left(C_2 L_L R_1 R_2 + C_2 L_L R_2 R_L + C_L L_L R_1 R_2 R_L g_m + C_L L_L R_1 R_L + C_L L_L R_2 R_L\right) + s \left(C_2 R_1 R_2 R_L + L_L R_1 R_2 g_m + L_L R_1 + L_L R_2 + L_L R_1\right)}$$

10.19 INVALID-ORDER-19 $Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{C_2C_LL_LR_1R_2R_Ls^3 + R_1R_2R_Lg_m + R_1R_L + s^2\left(C_2L_LR_1R_2 + C_LL_LR_1R_2R_Lg_m + C_LL_LR_1R_L\right) + s\left(C_2R_1R_2R_L + L_LR_1R_2g_m + L_LR_1\right)}{R_1R_2g_m + R_1 + R_2 + R_L + s^3\left(C_2C_LL_LR_1R_2 + C_2C_LL_RR_2R_L\right) + s^2\left(C_2L_LR_1R_2g_m + C_LL_LR_1R_2g_m + C_LL_LR_1 + C_LL_LR_2 + C_LL_LR_1\right) + s\left(C_2R_1R_2R_L + L_LR_1R_2g_m + L_LR_1\right)}$$

10.20 INVALID-ORDER-20 $Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

$$H(s) = \frac{C_2C_LL_LR_1R_2R_Ls^3 + C_2R_1R_2R_Ls + R_1R_2R_Lg_m + R_1R_L + s^2\left(C_LL_LR_1R_2R_Lg_m + C_LL_LR_1R_L\right)}{R_1R_2g_m + R_1 + R_2 + R_L + s^3\left(C_2C_LL_LR_1R_2 + C_2C_LL_LR_2R_L\right) + s^2\left(C_2C_LR_1R_2R_L + C_LL_LR_1R_2g_m + C_LL_LR_1 + C_LR_1R_2 + C_LR_1R_1R_2 + C_LR_1R_1R_2 + C_LR_1R_2 + C_LR_1R_2 + C_LR_1R_1R_2 + C_LR_1R_1R_1 + C_LR_1R_1R_1 +$$

10.21 INVALID-ORDER-21 $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{R_1 R_L g_m + s \left(C_2 R_1 R_2 R_L g_m + C_2 R_1 R_L \right)}{R_1 g_m + s \left(C_2 R_1 R_2 g_m + C_2 R_1 + C_2 R_2 + C_2 R_L \right) + 1}$$

10.22 INVALID-ORDER-22 $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 g_m + s \left(C_2 R_1 R_2 g_m + C_2 R_1 \right)}{s^2 \left(C_2 C_L R_1 R_2 g_m + C_2 C_L R_1 + C_2 C_L R_2 \right) + s \left(C_2 + C_L R_1 g_m + C_L \right)}$$

10.23 INVALID-ORDER-23 $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 g_m + s^2 \left(C_2 C_L R_1 R_2 R_L g_m + C_2 C_L R_1 R_L \right) + s \left(C_2 R_1 R_2 g_m + C_2 R_1 + C_L R_1 R_L g_m \right)}{s^2 \left(C_2 C_L R_1 R_2 g_m + C_2 C_L R_1 + C_2 C_L R_2 + C_2 C_L R_L \right) + s \left(C_2 + C_L R_1 g_m + C_L \right)}$$

10.24 INVALID-ORDER-24 $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_L L_L R_1 g_m s^2 + R_1 g_m + s^3 \left(C_2 C_L L_L R_1 R_2 g_m + C_2 C_L L_L R_1 \right) + s \left(C_2 R_1 R_2 g_m + C_2 R_1 \right)}{C_2 C_L L_L s^3 + s^2 \left(C_2 C_L R_1 R_2 g_m + C_2 C_L R_1 + C_2 C_L R_2 \right) + s \left(C_2 + C_L R_1 g_m + C_L \right)}$$

10.25 INVALID-ORDER-25 $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L R_1 g_m s + s^2 \left(C_2 L_L R_1 R_2 g_m + C_2 L_L R_1 \right)}{R_1 g_m + s^3 \left(C_2 C_L L_L R_1 R_2 g_m + C_2 C_L L_L R_1 + C_2 C_L L_L R_2 \right) + s^2 \left(C_2 L_L + C_L L_L R_1 g_m + C_L L_L \right) + s \left(C_2 R_1 R_2 g_m + C_2 R_1 + C_2 R_2 \right) + 1}$$

10.26 INVALID-ORDER-26 $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 g_m + s^3 \left(C_2 C_L L_L R_1 R_2 g_m + C_2 C_L L_L R_1 \right) + s^2 \left(C_2 C_L R_1 R_2 R_L g_m + C_2 C_L R_1 R_L + C_L L_L R_1 g_m \right) + s \left(C_2 R_1 R_2 g_m + C_2 R_1 + C_L R_1 R_L g_m \right)}{C_2 C_L L_L s^3 + s^2 \left(C_2 C_L R_1 R_2 g_m + C_2 C_L R_1 + C_2 C_L R_2 + C_2 C_L R_L \right) + s \left(C_2 + C_L R_1 g_m + C_L R_1 R_2 g_m + C_L R_1 R_2 g_m + C_L R_1 R_2 g_m \right)}$$

10.27 INVALID-ORDER-27
$$Z(s) = \left(R_1, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{L_L R_1 R_L g_m s + s^2 \left(C_2 L_L R_1 R_2 R_L g_m + C_2 L_L R_1 R_L \right)}{R_1 R_L g_m + R_L + s^3 \left(C_2 C_L L_L R_1 R_2 R_L g_m + C_2 C_L L_L R_1 R_L + C_2 C_L L_L R_2 R_L \right) + s^2 \left(C_2 L_L R_1 R_2 g_m + C_2 L_L R_1 + C_2 L_L R_1 + C_2 L_L R_1 R_L g_m + C_L R_1 R_L g_m + C_L$$

10.28 INVALID-ORDER-28
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{R_1 R_L g_m + s^3 \left(C_2 C_L L_L R_1 R_2 R_L g_m + C_2 C_L L_L R_1 R_L\right) + s^2 \left(C_2 L_L R_1 R_2 g_m + C_2 L_L R_1 + C_L L_L R_1 R_L g_m\right) + s \left(C_2 R_1 R_2 R_L g_m + C_2 R_1 R_L + L_L R_1 g_m\right)}{R_1 g_m + s^3 \left(C_2 C_L L_L R_1 R_2 g_m + C_2 C_L L_L R_1 + C_2 C_L L_L R_2 + C_2 C_L L_L R_L\right) + s^2 \left(C_2 L_L + C_L L_L R_1 g_m + C_L L_L\right) + s \left(C_2 R_1 R_2 g_m + C_2 R_1 R_2 + C_2 R_1 R_2 + C_2 R_L\right) + 1}$$

10.29 INVALID-ORDER-29
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

10.30 INVALID-ORDER-30 $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2 L_2 R_1 g_m s^2 + C_2 R_1 s + R_1 g_m}{C_2 C_L R_1 s^2 + s^3 \left(C_2 C_L L_2 R_1 g_m + C_2 C_L L_2 \right) + s \left(C_2 + C_L R_1 g_m + C_L \right)}$$

10.31 INVALID-ORDER-31 $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{C_2L_2R_1R_Lg_ms^2 + C_2R_1R_Ls + R_1R_Lg_m}{R_1g_m + s^3\left(C_2C_LL_2R_1R_Lg_m + C_2C_LL_2R_L\right) + s^2\left(C_2C_LR_1R_L + C_2L_2R_1g_m + C_2L_2\right) + s\left(C_2R_1 + C_2R_L + C_LR_1R_Lg_m + C_LR_L\right) + 1}$$

10.32 INVALID-ORDER-32 $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2 C_L L_2 R_1 R_L g_m s^3 + R_1 g_m + s^2 \left(C_2 C_L R_1 R_L + C_2 L_2 R_1 g_m \right) + s \left(C_2 R_1 + C_L R_1 R_L g_m \right)}{s^3 \left(C_2 C_L L_2 R_1 g_m + C_2 C_L L_2 \right) + s^2 \left(C_2 C_L R_1 + C_2 C_L R_L \right) + s \left(C_2 + C_L R_1 g_m + C_L \right)}$$

10.33 INVALID-ORDER-33 $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2C_LL_2L_LR_1g_ms^4 + C_2C_LL_LR_1s^3 + C_2R_1s + R_1g_m + s^2\left(C_2L_2R_1g_m + C_LL_LR_1g_m\right)}{C_2C_LR_1s^2 + s^3\left(C_2C_LL_2R_1g_m + C_2C_LL_2 + C_2C_LL_L\right) + s\left(C_2 + C_LR_1g_m + C_L\right)}$$

10.34 INVALID-ORDER-34 $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{C_2L_2L_LR_1g_ms^3 + C_2L_LR_1s^2 + L_LR_1g_ms}{C_2C_LL_LR_1s^3 + C_2R_1s + R_1g_m + s^4\left(C_2C_LL_2L_LR_1g_m + C_2C_LL_2L_L\right) + s^2\left(C_2L_2R_1g_m + C_2L_2 + C_2L_L + C_LL_LR_1g_m + C_LL_L\right) + 1}$$

10.35 INVALID-ORDER-35 $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_{2}C_{L}L_{2}L_{L}R_{1}g_{m}s^{4} + R_{1}g_{m} + s^{3}\left(C_{2}C_{L}L_{2}R_{1}R_{L}g_{m} + C_{2}C_{L}L_{L}R_{1}\right) + s^{2}\left(C_{2}C_{L}R_{1}R_{L} + C_{2}L_{2}R_{1}g_{m} + C_{L}L_{L}R_{1}g_{m}\right) + s\left(C_{2}R_{1} + C_{L}R_{1}R_{L}g_{m}\right)}{s^{3}\left(C_{2}C_{L}L_{2}R_{1}g_{m} + C_{2}C_{L}L_{2} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{2}C_{L}R_{1} + C_{2}C_{L}R_{1}\right) + s\left(C_{2} + C_{L}R_{1}g_{m} + C_{L}L_{L}R_{1}g_{m}\right)}$$

10.36 INVALID-ORDER-36
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_2L_2L_RR_1R_Lg_ms^3 + C_2L_LR_1R_Lg_ms}{R_1R_Lg_m + R_L + s^4\left(C_2C_LL_2L_LR_1R_Lg_m + C_2C_LL_2L_LR_1\right) + s^3\left(C_2C_LL_LR_1R_L + C_2L_LR_1g_m + C_2L_2L_L\right) + s^2\left(C_2L_2R_1R_Lg_m + C_2L_2R_L + C_2L_LR_1 + C_2L_LR_1 + C_2L_LR_1 + C_2L_LR_1\right) + s\left(C_2R_1R_L + L_LR_1g_m + L_LR_1g_m + C_2L_LR_1\right) + s\left(C_2R_1R_L + L_LR_1g_m + C_2L_LR_1\right) + s\left(C_2R_1R_L + L_LR_1g_m + C_2L_LR_1\right) + s\left(C_2R_1R_L + C_2L_LR_1 + C_2L_LR_1\right) + s\left(C_2R_1R_L + C_2L_LR_1\right) + s\left(C_2R_1R_1 + C_2R_1R_1\right) + s\left(C_2R_1R_1 + C_2$$

10.37 INVALID-ORDER-37
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2C_LL_2L_LR_1R_Lg_ms^4 + R_1R_Lg_m + s^3\left(C_2C_LL_LR_1R_L + C_2L_2L_LR_1g_m\right) + s^2\left(C_2L_2R_1R_Lg_m + C_2L_LR_1 + C_LL_LR_1R_Lg_m\right) + s\left(C_2R_1R_L + L_LR_1g_m\right)}{R_1g_m + s^4\left(C_2C_LL_2L_LR_1g_m + C_2C_LL_2L_L\right) + s^3\left(C_2C_LL_LR_1 + C_2C_LL_LR_L\right) + s^2\left(C_2L_2R_1g_m + C_2L_2 + C_2L_L + C_LL_LR_1g_m + C_LL_L\right) + s\left(C_2R_1 + C_2R_L\right) + 1}$$

10.38 INVALID-ORDER-38
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_2C_LL_2L_LR_1R_Lg_ms^4 + C_2C_LL_LR_1R_Ls^3 + C_2R_1R_Ls + R_1R_Lg_m + s^2\left(C_2L_2R_1R_Lg_m + C_LL_LR_1R_Lg_m\right)}{R_1g_m + s^4\left(C_2C_LL_2L_LR_1g_m + C_2C_LL_2R_L\right) + s^3\left(C_2C_LL_2R_1R_Lg_m + C_2C_LL_2R_L + C_2C_LL_2R_L\right) + s^2\left(C_2C_LR_1R_L + C_2C_LL_2R_1R_Lg_m + C_LL_LR_1g_m + C_LL_LR_1g_m + C_LL_L\right) + s\left(C_2R_1 + C_2R_L + C_LR_1R_Lg_m + C_LR_L\right) + s^2\left(C_2C_LR_1R_L + C_2C_LL_2R_1R_Lg_m + C_LL_LR_1g_m + C_LL_L\right) + s^2\left(C_2C_LR_1R_L + C_2C_LL_2R_1R_Lg_m + C_LL_LR_1g_m + C_LL_L\right) + s^2\left(C_2C_LR_1R_L + C_2C_LL_2R_1R_Lg_m + C_LL_LR_1g_m + C_LL_L\right) + s^2\left(C_2C_LR_1R_L + C_2C_LL_2R_1R_Lg_m + C_LL_LR_1g_m + C_LL_LR_1g_m + C_LL_LR_1g_m + C_LR_1g_m\right) + s^2\left(C_2C_LR_1R_L + C_2C_LL_2R_1R_Lg_m + C_2C_LL_2R_1R_Lg$$

10.39 INVALID-ORDER-39 $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2 L_2 R_1 g_m s^2 + R_1 g_m + s \left(C_2 R_1 R_2 g_m + C_2 R_1 \right)}{s^3 \left(C_2 C_L L_2 R_1 g_m + C_2 C_L L_2 \right) + s^2 \left(C_2 C_L R_1 R_2 g_m + C_2 C_L R_1 + C_2 C_L R_2 \right) + s \left(C_2 + C_L R_1 g_m + C_L \right)}$$

10.40 INVALID-ORDER-40 $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{C_2L_2R_1R_Lg_ms^2 + R_1R_Lg_m + s\left(C_2R_1R_2R_Lg_m + C_2R_1R_L\right)}{R_1g_m + s^3\left(C_2C_LL_2R_1R_Lg_m + C_2C_LL_2R_L\right) + s^2\left(C_2C_LR_1R_2R_Lg_m + C_2C_LR_1R_L + C_2C_LR_2R_L + C_2L_2R_1g_m + C_2L_2\right) + s\left(C_2R_1R_2g_m + C_2R_1 + C_2R_2 + C_2R_L + C_LR_1R_Lg_m + C_LR_L\right) + 1}$$

10.41 INVALID-ORDER-41 $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2C_LL_2R_1R_Lg_ms^3 + R_1g_m + s^2\left(C_2C_LR_1R_2R_Lg_m + C_2C_LR_1R_L + C_2L_2R_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1 + C_LR_1R_Lg_m\right)}{s^3\left(C_2C_LL_2R_1g_m + C_2C_LL_2\right) + s^2\left(C_2C_LR_1R_2g_m + C_2C_LR_1 + C_2C_LR_2 + C_2C_LR_1\right) + s\left(C_2 + C_LR_1g_m + C_LR_1g_m\right)}$$

10.42 INVALID-ORDER-42 $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2C_LL_2L_LR_1g_ms^4 + R_1g_m + s^3\left(C_2C_LL_LR_1R_2g_m + C_2C_LL_LR_1\right) + s^2\left(C_2L_2R_1g_m + C_LL_LR_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1\right)}{s^3\left(C_2C_LL_2R_1g_m + C_2C_LL_2 + C_2C_LL_L\right) + s^2\left(C_2C_LR_1R_2g_m + C_2C_LR_1 + C_2C_LR_2\right) + s\left(C_2 + C_LR_1g_m + C_L\right)}$$

10.43 INVALID-ORDER-43 $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{C_2L_2L_R_1g_ms^3 + L_LR_1g_ms + s^2\left(C_2L_LR_1R_2g_m + C_2L_LR_1\right)}{R_1g_m + s^4\left(C_2C_LL_2L_LR_1g_m + C_2C_LL_LR_1\right) + s^3\left(C_2C_LL_LR_1R_2g_m + C_2C_LL_LR_1 + C_2C_LL_LR_2\right) + s^2\left(C_2L_2R_1g_m + C_2L_L + C_LL_LR_1g_m + C_LL_L\right) + s\left(C_2R_1R_2g_m + C_2R_1 + C_2R_2\right) + 1}$$

10.44 INVALID-ORDER-44 $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2C_LL_2L_LR_1g_ms^4 + R_1g_m + s^3\left(C_2C_LL_2R_1R_Lg_m + C_2C_LL_LR_1R_2g_m + C_2C_LL_LR_1\right) + s^2\left(C_2C_LR_1R_2R_Lg_m + C_2C_LR_1R_L + C_2L_2R_1g_m + C_LL_LR_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1R_Lg_m + C_2R_1R_Lg_m + C_2R_1R_Lg_m\right) + s\left(C_2R_1R_2g_m + C_2R_1R_2g_m + C_2R_1R_2g_m\right)}{s^3\left(C_2C_LL_2R_1g_m + C_2C_LL_2 + C_2C_LL_2\right) + s^2\left(C_2C_LR_1R_2g_m + C_2C_LR_1 + C_2C_LR_2\right) + s\left(C_2R_1R_2g_m + C_2R_1R_2g_m + C_2R_1R_2g_m + C_2R_1R_2g_m + C_2R_1R_2g_m\right)}$$

10.47 INVALID-ORDER-47
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

10.48 INVALID-ORDER-48
$$Z(s) = \left(R_1, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_2 R_1 g_m s + R_1 R_2 g_m + R_1 + s^2 \left(C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1 \right)}{s^3 \left(C_2 C_L L_2 R_1 R_2 g_m + C_2 C_L L_2 R_1 + C_2 C_L L_2 R_2 \right) + s^2 \left(C_2 L_2 + C_L L_2 R_1 g_m + C_L L_2 \right) + s \left(C_L R_1 R_2 g_m + C_L R_1 + C_L R_2 \right) + 1}$$

10.49 INVALID-ORDER-49
$$Z(s) = \left(R_1, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{L_2 R_1 R_L g_m s + R_1 R_2 R_L g_m + R_1 R_L + s^2 \left(C_2 L_2 R_1 R_2 R_L g_m + C_2 L_2 R_1 R_L\right)}{R_1 R_2 g_m + R_1 + R_2 + R_L + s^3 \left(C_2 C_L L_2 R_1 R_2 R_L g_m + C_2 C_L L_2 R_1 R_L + C_2 C_L L_2 R_1 R_2 g_m + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_2 g_m + C_2 L_2$$

10.50 INVALID-ORDER-50
$$Z(s) = \left(R_1, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s^3 \left(C_2 C_L L_2 R_1 R_2 R_L g_m + C_2 C_L L_2 R_1 R_L\right) + s^2 \left(C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1 + C_L L_2 R_1 R_L g_m\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1 R_L + L_2 R_1 g_m\right)}{s^3 \left(C_2 C_L L_2 R_1 R_2 g_m + C_2 C_L L_2 R_1 + C_2 C_L L_2 R_L\right) + s^2 \left(C_2 L_2 + C_L L_2 R_1 g_m + C_L L_2\right) + s \left(C_L R_1 R_2 g_m + C_L R_1 + C_L R_2 + C_L R_L\right) + 1}$$

10.51 INVALID-ORDER-51
$$Z(s) = \left(R_1, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_L L_2 L_L R_1 g_m s^3 + L_2 R_1 g_m s + R_1 R_2 g_m + R_1 + s^4 \left(C_2 C_L L_2 L_L R_1 R_2 g_m + C_2 C_L L_2 L_L R_1\right) + s^2 \left(C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1 + C_L L_L R_1 R_2 g_m + C_L L_L R_1\right)}{C_2 C_L L_2 L_L s^4 + s^3 \left(C_2 C_L L_2 R_1 R_2 g_m + C_2 C_L L_2 R_1 + C_2 C_L L_2 R_2\right) + s^2 \left(C_2 L_2 + C_L L_2 R_1 g_m + C_L L_2 + C_L L_L\right) + s \left(C_L R_1 R_2 g_m + C_L R_1 + C_L R_1 R_2 R_1 + C_L R_1 R_2 R_1 R_2 R_1 + C_L R_1 R_2 R_1 R_$$

10.52 INVALID-ORDER-52
$$Z(s) = \left(R_1, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_2L_LR_1g_ms^2 + s^3\left(C_2L_2L_LR_1R_2g_m + C_2L_2L_LR_1\right) + s\left(L_LR_1R_2g_m + L_LR_1\right)}{R_1R_2g_m + R_1 + R_2 + s^4\left(C_2C_LL_2L_LR_1R_2g_m + C_2C_LL_2L_LR_1 + C_2C_LL_2L_LR_1g_m + C_LL_2L_L\right) + s^3\left(C_2L_2L_LR_1g_m + C_LL_2L_L\right) + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1 + C_2L$$

10.53 INVALID-ORDER-53
$$Z(s) = \left(R_1, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s^4 \left(C_2 C_L L_2 L_L R_1 R_2 g_m + C_2 C_L L_2 L_L R_1\right) + s^3 \left(C_2 C_L L_2 R_1 R_2 R_L g_m + C_2 L_L R_1 R_2 g_m + C_2 L_2 R_2 R_2 g_m + C_2 L$$

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10.54 INVALID-ORDER-54 Z(s) = \left(R_1, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       L_2L_LR_1R_Lg_ms^2 + s^3(C_2L_2L_LR_1R_2R_Lg_m + C_2L_2L_LR_1R_L) + s(L_LR_1R_2R_Lg_m + L_LR_1R_L)
                                           \frac{L_{2}L_{L}R_{1}R_{L}g_{m}s^{2}+s^{3}\left(C_{2}L_{2}L_{L}R_{1}R_{2}R_{L}g_{m}+C_{2}L_{2}L_{L}R_{1}R_{L}\right)+s\left(L_{L}R_{1}R_{2}R_{L}g_{m}+L_{L}R_{1}R_{L}\right)}{R_{1}R_{2}R_{L}g_{m}+R_{1}R_{L}+s^{4}\left(C_{2}C_{L}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}L_{R}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{2}L_{L}R_{L}+C_{
10.55 INVALID-ORDER-55 Z(s) = \left(R_1, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
                                           \frac{R_{1}R_{2}R_{L}g_{m}+R_{1}R_{L}+s^{4}\left(C_{2}C_{L}L_{2}L_{L}R_{1}R_{2}R_{L}g_{m}+C_{2}L_{L}L_{R}R_{1}R_{L}\right)+s^{3}\left(C_{2}L_{2}L_{L}R_{1}R_{2}g_{m}+C_{2}L_{L}L_{R}R_{1}R_{L}g_{m}\right)+s^{2}\left(C_{2}L_{2}R_{1}R_{L}g_{m}+C_{L}L_{R}R_{1}R_{L}+L_{L}L_{R}R_{1}g_{m}+C_{L}L_{R}R_{1}g_{m}\right)+s\left(L_{2}R_{1}R_{L}g_{m}+L_{L}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{L}+L_{L}L_{R}R_{1}g_{m}+C_{L}L_{R}R_{1}R_{L}+L_{L}L_{R}R_{1}R_{L}+L_{L}L_{R}R_{1}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{L}L_{R}R_{1}R_{2}g_{m}+C_{
10.56 INVALID-ORDER-56 Z(s) = \left(R_1, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2 + 1)}{C_LL_Ls^2 + C_LR_Ls + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C_{L}L_{2}L_{L}R_{1}R_{L}g_{m}s^{3} + L_{2}R_{1}R_{L}g_{m}s + R_{1}R_{2}R_{L}g_{m} + R_{1}R_{L} + s^{4}\left(C_{2}C_{L}L_{2}L_{L}R_{1}R_{2}R_{L}g_{m} + C_{2}C_{L}L_{2}L_{L}R_{1}R_{L}\right) + s^{2}\left(C_{2}L_{2}R_{1}R_{2}R_{L}g_{m} + C_{2}L_{2}R_{1}R_{L} + C_{L}L_{L}R_{1}R_{L}\right) + s^{2}\left(C_{2}L_{2}R_{1}R_{L}g_{m} + C_{2}L_{2}R_{1}R_{L} + C_{L}L_{L}R_{1}R_{L}\right) + s^{2}\left(C_{2}L_{2}R_{1}R_{L}g_{m} + C_{2}L_{2}R_{1}R_{L}\right) + s^{2}\left(C_{
H(s) = \frac{C_L L_2 L_L R_1 R_L g_m s^3 + L_2 R_1 R_L g_m s + R_1 R_2 R_L g_m + R_1 R_L + s^4 \left(C_2 C_L L_2 L_L R_1 R_2 R_L g_m + C_2 C_L L_2 L_L R_1 R_L \right) + s^2 \left(C_2 L_2 R_1 R_2 R_L g_m + C_2 L_2 R_1 R_L + C_L L_L R_1 R_2 R_L g_m + C_2 L_2 R_1 R_2 R_
10.57 INVALID-ORDER-57 Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)
                                                                                                                                                                                                                                                                                                                                                     H(s) = \frac{C_2R_1R_2s + R_1R_2g_m + R_1 + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1\right)}{s^3\left(C_2C_LL_2R_1R_2g_m + C_2C_LL_2R_1 + C_2C_LL_2R_2\right) + s^2\left(C_2C_LR_1R_2 + C_2L_2\right) + s\left(C_2R_2 + C_LR_1R_2g_m + C_LR_1 + C_LR_2\right) + 1}
10.58 INVALID-ORDER-58 Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)
                                                                     H(s) = \frac{C_2R_1R_2R_Ls + R_1R_2R_Lg_m + R_1R_L + s^2\left(C_2L_2R_1R_2R_Lg_m + C_2L_2R_1R_L\right)}{R_1R_2g_m + R_1 + R_2 + R_L + s^3\left(C_2C_LL_2R_1R_2R_Lg_m + C_2C_LL_2R_1R_L + C_2C_LL_2R_2R_L\right) + s^2\left(C_2C_LR_1R_2R_L + C_2L_2R_1R_2R_L + C_2L_2R_1 + C_2
10.59 INVALID-ORDER-59 Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)
                                                                                                                                                                                                                                                H(s) = \frac{R_1 R_2 g_m + R_1 + s^3 \left(C_2 C_L L_2 R_1 R_2 R_L g_m + C_2 C_L L_2 R_1 R_L\right) + s^2 \left(C_2 C_L R_1 R_2 R_L + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s \left(C_2 R_1 R_2 + C_L R_1 R_2 R_L g_m + C_L R_1 R_L\right)}{s^3 \left(C_2 C_L L_2 R_1 R_2 g_m + C_2 C_L L_2 R_1 + C_2 C_L L_2 R_L\right) + s^2 \left(C_2 C_L R_1 R_2 + C_2 C_L R_2 R_L + C_2 L_2\right) + s \left(C_2 R_2 + C_L R_1 R_2 g_m + C_L R_1 + C_L R_2 + C_L R_1\right) + 1}
10.60 INVALID-ORDER-60 Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)
                                                                                                                                                                                                                                           H(s) = \frac{C_2C_LL_LR_1R_2s^3 + C_2R_1R_2s + R_1R_2g_m + R_1 + s^4\left(C_2C_LL_2L_LR_1R_2g_m + C_2C_LL_2L_LR_1\right) + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1 + C_LL_LR_1R_2g_m + C_LL_LR_1\right)}{C_2C_LL_2L_Ls^4 + s^3\left(C_2C_LL_2R_1R_2g_m + C_2C_LL_2R_1 + C_2C_LL_2R_2 + C_2C_LL_LR_2\right) + s^2\left(C_2C_LR_1R_2 + C_2L_2 + C_LL_L\right) + s\left(C_2R_2 + C_LR_1R_2g_m + C_LR_1R_2g_m + C_LR_1\right) + s^2\left(C_2C_LR_1R_2 + C_2C_LL_2R_1 + C_2C_LL_2R_1\right) + s^2\left(C_2C_LR_1R_2 + C_2C_LL_2R_1\right) + s^2\left(C_2C_LR_1R_2 + C_2C_LL_2R_1 + C_2C_LL_2R_1\right) + s^2\left(C_2C_LR_1R_2 + C_2C_LL_2\right) + s
10.61 INVALID-ORDER-61 Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)
                                                            H(s) = \frac{C_2L_LR_1R_2s^2 + s^3\left(C_2L_2L_LR_1R_2g_m + C_2L_2L_LR_1\right) + s\left(L_LR_1R_2g_m + L_LR_1\right)}{R_1R_2g_m + R_1 + R_2 + s^4\left(C_2C_LL_2L_LR_1R_2g_m + C_2C_LL_2L_LR_1 + C_2C_LL_2L_LR_1 + c_2C_LL_LR_1R_2 + c_2L_LL_L\right) + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1 + C_2L_2R_2 + C_2L_LR_1R_2g_m + C_LL_LR_1R_2g_m + C_LL_LR_1 + C_LL_LR_1\right) + s\left(C_2R_1R_2 + C_2L_2R_1 + C_2L_2R_1 + C_2L_2R_2 + C_2L_LR_1 + C_2L_LR_1\right)}
10.62 INVALID-ORDER-62 Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)
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 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^4 \left(C_2 C_L L_2 L_L R_1 R_2 g_m + C_2 C_L L_2 L_L R_1\right) + s^3 \left(C_2 C_L L_2 R_1 R_2 R_L g_m + C_2 C_L L_2 R_1 R_2 R_L + C_2 C_L L_L R_1 R_2\right) + s^2 \left(C_2 C_L R_1 R_2 R_L + C_2 L_2 R_1 R_2 g_m + C_L L_L R_1\right) + s \left(C_2 R_1 R_2 + C_L L_L R_1\right) + s \left(C_2 R_1 R_2 R_L + C_2 L_L R_1 R_2 g_m + C_L L_L R_1\right) + s \left(C_2 R_1 R_2 + C_L L_L R_1\right) + s \left(C_2 R_1 R_2 R_L + C_2 L_L R_1 R_2 g_m + C_L L_L R_1\right) + s \left(C_2 R_1 R_2 + C_L R_1 R_2 g_m + C_L R_1 R_2\right) + s^2 \left(C_2 C_L R_1 R_2 + C_L R_1 R_2 R_L + C_2 L_L R_1 R_2 g_m + C_L R_1 R_2 R_L + C_L R$

10.63 INVALID-ORDER-63 $Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, \infty, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$

 $H(s) = \frac{C_2L_LR_1R_2R_Ls^2 + s^3\left(C_2L_2L_LR_1R_2R_Lg_m + C_2L_2L_LR_1R_L\right) + s\left(L_LR_1R_2R_Lg_m + L_LR_1R_L\right)}{R_1R_2R_Lg_m + R_1R_L + R_2R_L + s^4\left(C_2C_LL_2L_LR_1R_2R_Lg_m + C_2L_2L_LR_1R_2R_L + s^4\left(C_2C_LL_2L_RR_1R_2R_Lg_m + C_2L_2L_LR_1R_2R_L + s^4\left(C_2C_LL_2L_RR_1R_2R_Lg_m + C_2L_2L_RR_1R_2R_L + s^4\left(C_2C_LL_2L_RR_1R_2R_L + s^4\left(C_2C_LL_2R_1R_2R_L + s^4\left(C_2C_LL_2R_1R_L + s^4\left(C_$

10.64 INVALID-ORDER-64 $Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, \frac{C_LL_LR_Ls^2+L_Ls+R_L}{C_LL_Ls^2+1}\right)$

 $H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L + s^4 \left(C_2 C_L L_2 L_L R_1 R_2 R_L g_m + C_2 C_L L_2 L_L R_1 R_2 R_L + C_2 L_2 L_L R_1 R_2 R_L + C_2 L_2 L_L R_1 R_2 g_m + C_2 L_2 L_L R_1 R_2 g_m + C_2 L_2 L_L R_1 R_2 + C_2 L_2 L_L R_1 R_2 R_L + C_2 L_2 R_1 R_2 R$

10.65 INVALID-ORDER-65 $Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$

 $\frac{C_2C_LL_LR_1R_2R_Ls^3 + C_2R_1R_2R_Ls + R_1R_2R_Lg_m + R_1R_L + s^4\left(C_2C_LL_2L_LR_1R_2R_Lg_m + C_2C_LL_2L_LR_1R_L\right) + s^2\left(C_2L_2R_1R_2R_Lg_m + C_2L_2R_1R_L + C_LL_LR_1R_2R_Lg_m + C_2L_2R_1R_2R_Lg_m + C_2L_2R_1R_2R$

10.66 INVALID-ORDER-66 $Z(s) = (L_1 s, R_2, \infty, \infty, \infty, R_L)$

$$H(s) = \frac{s(L_1 R_2 R_L g_m + L_1 R_L)}{R_2 + R_L + s(L_1 R_2 g_m + L_1)}$$

10.67 INVALID-ORDER-67 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{s^3 \left(C_L L_1 L_L R_2 g_m + C_L L_1 L_L \right) + s \left(L_1 R_2 g_m + L_1 \right)}{C_L R_2 s + s^2 \left(C_L L_1 R_2 g_m + C_L L_1 + C_L L_L \right) + 1}$$

10.68 INVALID-ORDER-68 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{s^2 \left(L_1 L_L R_2 g_m + L_1 L_L \right)}{C_L L_L R_2 s^2 + R_2 + s^3 \left(C_L L_1 L_L R_2 g_m + C_L L_1 L_L \right) + s \left(L_1 R_2 g_m + L_1 + L_L \right)}$$

10.69 INVALID-ORDER-69 $Z(s) = \left(L_1 s, \ R_2, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{s^3 \left(C_L L_1 L_L R_2 g_m + C_L L_1 L_L \right) + s^2 \left(C_L L_1 R_2 R_L g_m + C_L L_1 R_L \right) + s \left(L_1 R_2 g_m + L_1 \right)}{s^2 \left(C_L L_1 R_2 g_m + C_L L_1 + C_L L_L \right) + s \left(C_L R_2 + C_L R_L \right) + 1}$$

10.70 INVALID-ORDER-70 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{s^2 \left(L_1 L_L R_2 R_L g_m + L_1 L_L R_L \right)}{R_2 R_L + s^3 \left(C_L L_1 L_L R_2 R_L g_m + C_L L_1 L_L R_L \right) + s^2 \left(C_L L_L R_2 R_L + L_1 L_L R_2 g_m + L_1 L_L \right) + s \left(L_1 R_2 R_L g_m + L_1 R_L + L_L R_2 + L_L R_L \right)}$$

10.71 INVALID-ORDER-71 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{C_L L_R L_s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{s^3 \left(C_L L_1 L_L R_2 R_L g_m + C_L L_1 L_L R_L \right) + s^2 \left(L_1 L_L R_2 g_m + L_1 L_L \right) + s \left(L_1 R_2 R_L g_m + L_1 R_L \right)}{R_2 + R_L + s^3 \left(C_L L_1 L_L R_2 g_m + C_L L_1 L_L \right) + s^2 \left(C_L L_L R_2 + C_L L_L R_L \right) + s \left(L_1 R_2 g_m + L_1 + L_L \right)}$$

10.72 INVALID-ORDER-72
$$Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{R_L\left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{{{s^3}\left({{C_L}{L_1}{L_L}{R_2}{R_L}{g_m} + {C_L}{L_1}{L_L}{R_L}} \right) + s\left({{L_1}{R_2}{R_L}{g_m} + {L_1}{R_L}} \right)}}{{{R_2} + {R_L} + {s^3}\left({{C_L}{L_1}{L_L}{R_2}{g_m} + {C_L}{L_1}{L_L}} \right) + s^2\left({{C_L}{L_1}{R_2}{R_L}{g_m} + {C_L}{L_1}{R_L} + {C_L}{L_L}{R_2} + {C_L}{L_L}{R_L}} \right) + s\left({{C_L}{R_2}{R_L} + {L_1}{R_2}{g_m} + {L_1}} \right)}}$$

10.73 INVALID-ORDER-73
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_2 L_1 R_L s^2 + L_1 R_L g_m s}{C_2 C_L L_1 R_L s^3 + s^2 \left(C_2 L_1 + C_L L_1 R_L g_m \right) + s \left(C_2 R_L + C_L R_L + L_1 g_m \right) + 1}$$

10.74 INVALID-ORDER-74
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 C_L L_1 L_L s^3 + C_2 L_1 s + C_L L_1 L_L g_m s^2 + L_1 g_m}{C_2 + C_L L_1 g_m s + C_L + s^2 (C_2 C_L L_1 + C_2 C_L L_L)}$$

10.75 INVALID-ORDER-75
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2 L_1 L_L s^3 + L_1 L_L g_m s^2}{C_2 C_L L_1 L_L s^4 + C_L L_1 L_L g_m s^3 + L_1 g_m s + s^2 \left(C_2 L_1 + C_2 L_L + C_L L_L \right) + 1}$$

10.76 INVALID-ORDER-76
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 C_L L_1 L_L s^3 + L_1 g_m + s^2 \left(C_2 C_L L_1 R_L + C_L L_1 L_L g_m \right) + s \left(C_2 L_1 + C_L L_1 R_L g_m \right)}{C_2 + C_L + s^2 \left(C_2 C_L L_1 + C_2 C_L L_L \right) + s \left(C_2 C_L R_L + C_L L_1 g_m \right)}$$

10.77 INVALID-ORDER-77
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_2L_1L_LR_Ls^3 + L_1L_LR_Lg_ms^2}{C_2C_LL_1L_LR_Ls^4 + R_L + s^3\left(C_2L_1L_L + C_LL_1L_LR_Lg_m\right) + s^2\left(C_2L_1R_L + C_LL_LR_L + C_LL_LR_L + L_1L_Lg_m\right) + s\left(L_1R_Lg_m + L_L\right)}$$

10.78 INVALID-ORDER-78
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2C_LL_1L_LR_Ls^4 + L_1R_Lg_ms + s^3\left(C_2L_1L_L + C_LL_1L_LR_Lg_m\right) + s^2\left(C_2L_1R_L + L_1L_Lg_m\right)}{C_2C_LL_1L_Ls^4 + s^3\left(C_2C_LL_LR_L + C_LL_1L_Lg_m\right) + s^2\left(C_2L_1 + C_2L_L + C_LL_L\right) + s\left(C_2R_L + L_1g_m\right) + 1}$$

10.79 INVALID-ORDER-79
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_{2}C_{L}L_{1}L_{L}R_{L}s^{4} + C_{2}L_{1}R_{L}s^{2} + C_{L}L_{1}L_{L}R_{L}g_{m}s^{3} + L_{1}R_{L}g_{m}s}{C_{2}C_{L}L_{1}L_{L}s^{4} + s^{3}\left(C_{2}C_{L}L_{1}R_{L} + C_{2}C_{L}L_{L}R_{L} + C_{L}L_{1}L_{L}g_{m}\right) + s^{2}\left(C_{2}L_{1} + C_{L}L_{1}R_{L}g_{m} + C_{L}L_{L}\right) + s\left(C_{2}R_{L} + C_{L}R_{L} + L_{1}g_{m}\right) + 1}$$

10.80 INVALID-ORDER-80
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 L_1 R_2 s^2 + s \left(L_1 R_2 g_m + L_1\right)}{C_2 C_L L_1 R_2 s^3 + s^2 \left(C_L L_1 R_2 g_m + C_L L_1\right) + s \left(C_2 R_2 + C_L R_2\right) + 1}$$

10.81 INVALID-ORDER-81
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_2L_1R_2R_Ls^2 + s\left(L_1R_2R_Lg_m + L_1R_L\right)}{C_2C_LL_1R_2R_Ls^3 + R_2 + R_L + s^2\left(C_2L_1R_2 + C_LL_1R_2R_Lg_m + C_LL_1R_L\right) + s\left(C_2R_2R_L + C_LR_2R_L + L_1R_2g_m + L_1\right)}$$

10.82 INVALID-ORDER-82
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2C_LL_1R_2R_Ls^3 + s^2\left(C_2L_1R_2 + C_LL_1R_2R_Lg_m + C_LL_1R_L\right) + s\left(L_1R_2g_m + L_1\right)}{C_2C_LL_1R_2s^3 + s^2\left(C_2C_LR_2R_L + C_LL_1R_2g_m + C_LL_1\right) + s\left(C_2R_2 + C_LR_2 + C_LR_L\right) + 1}$$

10.83 INVALID-ORDER-83
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 C_L L_1 L_L R_2 s^4 + C_2 L_1 R_2 s^2 + s^3 \left(C_L L_1 L_L R_2 g_m + C_L L_1 L_L \right) + s \left(L_1 R_2 g_m + L_1 \right)}{s^3 \left(C_2 C_L L_1 R_2 + C_2 C_L L_L R_2 \right) + s^2 \left(C_L L_1 R_2 g_m + C_L L_1 + C_L L_L \right) + s \left(C_2 R_2 + C_L R_2 \right) + 1}$$

10.84 INVALID-ORDER-84
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2L_1L_LR_2s^3 + s^2\left(L_1L_LR_2g_m + L_1L_L\right)}{C_2C_LL_1L_LR_2s^4 + R_2 + s^3\left(C_LL_1L_LR_2g_m + C_LL_1L_L\right) + s^2\left(C_2L_1R_2 + C_2L_LR_2 + C_LL_LR_2\right) + s\left(L_1R_2g_m + L_1 + L_L\right)}$$

10.85 INVALID-ORDER-85
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2C_LL_1L_LR_2s^4 + s^3\left(C_2C_LL_1R_2R_L + C_LL_1L_LR_2g_m + C_LL_1L_L\right) + s^2\left(C_2L_1R_2 + C_LL_1R_2R_Lg_m + C_LL_1R_L\right) + s\left(L_1R_2g_m + L_1\right)}{s^3\left(C_2C_LL_1R_2 + C_2C_LL_LR_2\right) + s^2\left(C_2C_LR_2R_L + C_LL_1R_2g_m + C_LL_1 + C_LL_L\right) + s\left(C_2R_2 + C_LR_2 + C_LR_L\right) + 1}$$

10.86 INVALID-ORDER-86
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_2L_1L_LR_2R_Ls^3 + s^2\left(L_1L_LR_2R_Lg_m + L_1L_LR_L\right)}{C_2C_LL_1L_LR_2R_Ls^4 + R_2R_L + s^3\left(C_2L_1L_LR_2 + C_LL_1L_LR_2R_Lg_m + C_LL_1L_LR_L\right) + s^2\left(C_2L_1R_2R_L + C_2L_LR_2R_L + C_LL_LR_2R_L + L_1L_LR_2g_m + L_1L_L\right) + s\left(L_1R_2R_Lg_m + L_1R_L + L_LR_2 + L_LR_L\right)}$$

10.87 INVALID-ORDER-87
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2C_LL_1L_LR_2R_Ls^4 + s^3\left(C_2L_1L_LR_2 + C_LL_1L_LR_2R_Lg_m + C_LL_1L_LR_L\right) + s^2\left(C_2L_1R_2R_L + L_1L_LR_2g_m + L_1L_L\right) + s\left(L_1R_2R_Lg_m + L_1R_L\right)}{C_2C_LL_1L_LR_2s^4 + R_2 + R_L + s^3\left(C_2C_LL_LR_2R_L + C_LL_1L_LR_2g_m + C_LL_1L_L\right) + s^2\left(C_2L_1R_2 + C_2L_LR_2 + C_LL_LR_2 + C_LL_LR_L\right) + s\left(C_2R_2R_L + L_1R_2g_m + L_1L_L\right)}$$

10.88 INVALID-ORDER-88
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_2C_LL_1L_LR_2R_Ls^4 + C_2L_1R_2R_Ls^2 + s^3\left(C_LL_1L_LR_2R_Lg_m + C_LL_1L_LR_L\right) + s\left(L_1R_2R_Lg_m + L_1R_L\right)}{C_2C_LL_1L_LR_2s^4 + R_2 + R_L + s^3\left(C_2C_LL_1R_2R_L + C_LL_LR_2R_L + C_LL_1L_LR_2g_m + C_LL_1L_L\right) + s^2\left(C_2L_1R_2 + C_LL_1R_2R_L + C_LL_1R_2 +$$

10.89 INVALID-ORDER-89
$$Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_L g_m s + s^2 \left(C_2 L_1 R_2 R_L g_m + C_2 L_1 R_L \right)}{s^3 \left(C_2 C_L L_1 R_2 R_L g_m + C_2 C_L L_1 R_L \right) + s^2 \left(C_2 C_L R_2 R_L + C_2 L_1 R_2 g_m + C_2 L_1 + C_L L_1 R_L g_m \right) + s \left(C_2 R_2 + C_2 R_L + C_L R_L + L_1 g_m \right) + 1}$$

10.90 INVALID-ORDER-90
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_L L_1 L_L g_m s^2 + L_1 g_m + s^3 \left(C_2 C_L L_1 L_L R_2 g_m + C_2 C_L L_1 L_L \right) + s \left(C_2 L_1 R_2 g_m + C_2 L_1 \right)}{C_2 + C_L + s^2 \left(C_2 C_L L_1 R_2 g_m + C_2 C_L L_1 + C_2 C_L L_L \right) + s \left(C_2 C_L R_2 + C_L L_1 g_m \right)}$$

10.91 INVALID-ORDER-91
$$Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_{1}L_{L}g_{m}s^{2} + s^{3}\left(C_{2}L_{1}L_{L}R_{2}g_{m} + C_{2}L_{1}L_{L}\right)}{s^{4}\left(C_{2}C_{L}L_{1}L_{L}R_{2}g_{m} + C_{2}C_{L}L_{1}L_{L}\right) + s^{3}\left(C_{2}C_{L}L_{L}R_{2} + C_{L}L_{1}L_{L}g_{m}\right) + s^{2}\left(C_{2}L_{1}R_{2}g_{m} + C_{2}L_{1} + C_{2}L_{L} + C_{L}L_{L}\right) + s\left(C_{2}R_{2} + L_{1}g_{m}\right) + 1}$$

10.92 INVALID-ORDER-92
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_{1}g_{m} + s^{3}\left(C_{2}C_{L}L_{1}L_{L}R_{2}g_{m} + C_{2}C_{L}L_{1}L_{L}\right) + s^{2}\left(C_{2}C_{L}L_{1}R_{2}R_{L}g_{m} + C_{2}C_{L}L_{1}R_{L} + C_{L}L_{1}L_{L}g_{m}\right) + s\left(C_{2}L_{1}R_{2}g_{m} + C_{2}L_{1} + C_{L}L_{1}R_{L}g_{m}\right)}{C_{2} + C_{L} + s^{2}\left(C_{2}C_{L}L_{1}R_{2}g_{m} + C_{2}C_{L}L_{1} + C_{2}C_{L}L_{L}\right) + s\left(C_{2}C_{L}R_{2} + C_{2}C_{L}R_{L} + C_{L}L_{1}g_{m}\right)}$$

10.93 INVALID-ORDER-93
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{L_1 L_L R_L g_m s^2 + s^3 \left(C_2 L_1 L_L R_2 R_L g_m + C_2 L_1 L_L R_L \right)}{R_L + s^4 \left(C_2 C_L L_1 L_L R_2 g_m + C_2 L_L L_L R_L \right) + s^3 \left(C_2 C_L L_L R_2 R_L + C_2 L_1 L_L R_2 g_m + C_2 L_1 L_L R_L g_m \right) + s^2 \left(C_2 L_1 R_2 R_L g_m + C_2 L_1 R_L + C_2 L_L R_L + C_2 L_L R_L + C_2 L_L R_L + C_2 L_L R_L + L_1 L_L g_m \right) + s \left(C_2 R_2 R_L + L_1 R_L g_m + L_L \right)}$$

10.94 INVALID-ORDER-94
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 R_L g_m s + s^4 \left(C_2 C_L L_1 L_L R_2 R_L g_m + C_2 C_L L_1 L_L R_L\right) + s^3 \left(C_2 L_1 L_L R_2 g_m + C_2 L_1 L_L + C_L L_1 L_L R_L g_m\right) + s^2 \left(C_2 L_1 R_2 R_L g_m + C_2 L_1 R_L + L_1 L_L g_m\right)}{s^4 \left(C_2 C_L L_1 L_L R_2 g_m + C_2 C_L L_1 L_L\right) + s^3 \left(C_2 C_L L_1 L_L R_2 + C_2 C_L L_1 L_L R_2 g_m + C_2 L_1 R_2 R_L g_m + C_2 L_1 + C_2 L_L + C_2 L_L R_2 R_L R_2 R_L$$

10.95 INVALID-ORDER-95
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_L L_1 L_L R_L g_m s^3 + L_1 R_L g_m s + s^4 \left(C_2 C_L L_1 L_L R_2 R_L g_m + C_2 C_L L_1 L_L R_L\right) + s^2 \left(C_2 L_1 R_2 R_L g_m + C_2 L_1 R_L\right)}{s^4 \left(C_2 C_L L_1 L_L R_2 g_m + C_2 C_L L_1 R_L\right) + s^3 \left(C_2 C_L L_1 R_2 R_L g_m + C_2 C_L L_1 R_L + C_2 C_$$

10.96 INVALID-ORDER-96 $Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{C_2 L_1 L_2 R_L g_m s^3 + C_2 L_1 R_L s^2 + L_1 R_L g_m s}{C_2 L_1 L_2 g_m s^3 + s^2 \left(C_2 L_1 + C_2 L_2 \right) + s \left(C_2 R_L + L_1 g_m \right) + 1}$$

10.97 INVALID-ORDER-97 $Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2 L_1 L_2 g_m s^2 + C_2 L_1 s + L_1 g_m}{C_2 C_L L_1 L_2 g_m s^3 + C_2 + C_L L_1 g_m s + C_L + s^2 (C_2 C_L L_1 + C_2 C_L L_2)}$$

10.98 INVALID-ORDER-98
$$Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_2L_1L_2R_Lg_ms^3 + C_2L_1R_Ls^2 + L_1R_Lg_ms}{C_2C_LL_1L_2R_Lg_ms^4 + s^3\left(C_2C_LL_1R_L + C_2C_LL_2R_L + C_2L_1L_2g_m\right) + s^2\left(C_2L_1 + C_2L_2 + C_LL_1R_Lg_m\right) + s\left(C_2R_L + C_LR_L + L_1g_m\right) + 1}$$

10.99 INVALID-ORDER-99
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 C_L L_1 L_2 R_L g_m s^3 + L_1 g_m + s^2 \left(C_2 C_L L_1 R_L + C_2 L_1 L_2 g_m \right) + s \left(C_2 L_1 + C_L L_1 R_L g_m \right)}{C_2 C_L L_1 L_2 g_m s^3 + C_2 + C_L + s^2 \left(C_2 C_L L_1 + C_2 C_L L_2 \right) + s \left(C_2 C_L R_L + C_L L_1 g_m \right)}$$

10.100 INVALID-ORDER-100
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 C_L L_1 L_2 L_L g_m s^4 + C_2 C_L L_1 L_L s^3 + C_2 L_1 s + L_1 g_m + s^2 \left(C_2 L_1 L_2 g_m + C_L L_1 L_L g_m \right)}{C_2 C_L L_1 L_2 g_m s^3 + C_2 + C_L L_1 g_m s + C_L + s^2 \left(C_2 C_L L_1 + C_2 C_L L_2 + C_2 C_L L_L \right)}$$

10.101 INVALID-ORDER-101
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2L_1L_2L_Lg_ms^4 + C_2L_1L_Ls^3 + L_1L_Lg_ms^2}{C_2C_LL_1L_2L_Lg_ms^5 + L_1g_ms + s^4\left(C_2C_LL_1L_L + C_2C_LL_2L_L\right) + s^3\left(C_2L_1L_2g_m + C_LL_1L_Lg_m\right) + s^2\left(C_2L_1 + C_2L_2 + C_2L_L + C_LL_L\right) + 1}$$

10.102 INVALID-ORDER-102
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2C_LL_1L_2L_Lg_ms^4 + L_1g_m + s^3\left(C_2C_LL_1L_2R_Lg_m + C_2C_LL_1L_L\right) + s^2\left(C_2C_LL_1R_L + C_2L_1L_2g_m + C_LL_1L_Lg_m\right) + s\left(C_2L_1 + C_LL_1R_Lg_m\right)}{C_2C_LL_1L_2g_ms^3 + C_2 + C_L + s^2\left(C_2C_LL_1 + C_2C_LL_2 + C_2C_LL_L\right) + s\left(C_2C_LR_L + C_LL_1g_m\right)}$$

10.103 INVALID-ORDER-103
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_2L_1L_2L_LR_Lg_ms^4 + C_2L_1L_LR_Ls^3 + L_1L_LR_Lg_ms^2}{C_2C_LL_1L_2L_LR_Lg_ms^5 + R_L + s^4\left(C_2C_LL_1L_LR_L + C_2L_LL_LR_L + C_2L_1L_LR_Lg_m\right) + s^3\left(C_2L_1L_2R_Lg_m + C_2L_1L_L + C_LL_LL_LR_Lg_m\right) + s^2\left(C_2L_1R_L + C_2L_2R_L + C_2L_LR_L + C_LL_LR_L + C_LR_L + C_LR_L$$

10.104 INVALID-ORDER-104
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2C_LL_1L_2L_LR_Lg_ms^5 + L_1R_Lg_ms + s^4\left(C_2C_LL_1L_LR_L + C_2L_1L_2L_Lg_m\right) + s^3\left(C_2L_1L_2R_Lg_m + C_2L_1L_L + C_LL_1L_LR_Lg_m\right) + s^2\left(C_2L_1R_L + L_1L_Lg_m\right)}{C_2C_LL_1L_2L_Lg_ms^5 + s^4\left(C_2C_LL_1L_L + C_2L_1L_2L_L\right) + s^3\left(C_2C_LL_LR_L + C_2L_1L_2g_m + C_LL_1L_Lg_m\right) + s^2\left(C_2L_1 + C_2L_2 + C_2L_L + C_LL_L\right) + s\left(C_2R_L + L_1g_m\right) + 1}$$

10.105 INVALID-ORDER-105
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_2C_LL_1L_2L_LR_Lg_ms^5 + C_2C_LL_1L_LR_Ls^4 + C_2L_1R_Ls^2 + L_1R_Lg_ms + s^3\left(C_2L_1L_2R_Lg_m + C_LL_1L_LR_Lg_m\right)}{C_2C_LL_1L_2L_Lg_ms^5 + s^4\left(C_2C_LL_1L_2R_Lg_m + C_2C_LL_1L_L + C_2C_LL_2L_L\right) + s^3\left(C_2C_LL_1R_L + C_2C_LL_2R_L +$$

10.106 INVALID-ORDER-106 $Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$

$$H(s) = \frac{C_2 L_1 L_2 R_L g_m s^3 + L_1 R_L g_m s + s^2 \left(C_2 L_1 R_2 R_L g_m + C_2 L_1 R_L \right)}{C_2 L_1 L_2 g_m s^3 + s^2 \left(C_2 L_1 R_2 g_m + C_2 L_1 + C_2 L_2 \right) + s \left(C_2 R_2 + C_2 R_L + L_1 g_m \right) + 1}$$

10.107 INVALID-ORDER-107
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 L_1 L_2 g_m s^2 + L_1 g_m + s \left(C_2 L_1 R_2 g_m + C_2 L_1 \right)}{C_2 C_L L_1 L_2 g_m s^3 + C_2 + C_L + s^2 \left(C_2 C_L L_1 R_2 g_m + C_2 C_L L_1 + C_2 C_L L_2 \right) + s \left(C_2 C_L R_2 + C_L L_1 g_m \right)}$$

10.108 INVALID-ORDER-108
$$Z(s) = (I_{12}, I_{22} + B_{2} - \frac{I_{12}}{I_{12}}, x_{1}, x_{1}, x_{2}, \frac{I_{12}}{I_{12}})$$

$$= \frac{C_{11}I_{12}I_{12}x_{1}^{2} + I_{12}I_{12}I_{12}x_{1}^{2} + I_{12}I_{12}I_{12}I_{12}x_{1}^{2} + I_{12}I_{12}I_{12}I_{12}I_{12}I_{12}I_{12}I_{12}I_{12}I_{12}I_{12}I_{12}I_{12}I_{12}I_{12}I_{12}$$

 $H(s) = \frac{L_1 L_2 R_L g_m s^2 + s^3 \left(C_2 L_1 L_2 R_2 R_L g_m + C_2 L_1 L_2 R_L \right) + s \left(L_1 R_2 R_L g_m + L_1 R_L \right)}{R_2 + R_L + s^3 \left(C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2 \right) + s^2 \left(C_2 L_2 R_2 + C_2 L_2 R_L + L_1 L_2 g_m \right) + s \left(L_1 R_2 g_m + L_1 + L_2 \right)}$

10.117 INVALID-ORDER-117 $Z(s) = \left(L_1 s, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$ $H(s) = \frac{L_1 L_2 g_m s^2 + s^3 \left(C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2\right) + s \left(L_1 R_2 g_m + L_1\right)}{C_L R_2 s + s^4 \left(C_2 C_L L_1 L_2 R_2 g_m + C_2 C_L L_1 L_2\right) + s^3 \left(C_2 C_L L_2 R_2 + C_L L_1 L_2 g_m\right) + s^2 \left(C_2 L_2 + C_L L_1 R_2 g_m + C_L L_1 + C_L L_2\right) + 1}$ **10.118** INVALID-ORDER-118 $Z(s) = \left(L_1 s, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$ $H(s) = \frac{L_{1}L_{2}R_{L}g_{m}s^{2} + s^{3}\left(C_{2}L_{1}L_{2}R_{2}R_{L}g_{m} + C_{2}L_{1}L_{2}R_{L}\right) + s\left(L_{1}R_{2}R_{L}g_{m} + L_{1}R_{L}\right)}{R_{2} + R_{L} + s^{4}\left(C_{2}C_{L}L_{1}L_{2}R_{L}g_{m} + C_{2}L_{1}L_{2}R_{L}g_{m} + C_{2}L_{1}L_{2}R_{L}g_{m}$ **10.119** INVALID-ORDER-119 $Z(s) = \left(L_1 s, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_{L,s}}\right)$ $H(s) = \frac{s^4 \left(C_2 C_L L_1 L_2 R_2 R_L g_m + C_2 C_L L_1 L_2 R_L\right) + s^3 \left(C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2 + C_L L_1 L_2 R_L g_m\right) + s^2 \left(C_L L_1 R_2 R_L g_m + C_L L_1 R_L + L_1 L_2 g_m\right) + s \left(L_1 R_2 g_m + L_1\right)}{s^4 \left(C_2 C_L L_1 L_2 R_2 g_m + C_2 C_L L_1 L_2\right) + s^3 \left(C_2 C_L L_2 R_2 + C_2 C_L L_2 R_L + C_L L_1 L_2 g_m\right) + s^2 \left(C_2 L_2 + C_L L_1 R_2 g_m + C_L L_1 + C_L L_2\right) + s \left(C_L R_2 + C_L R_L\right) + 1}$ **10.120** INVALID-ORDER-120 $Z(s) = \left(L_1 s, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$ $H(s) = \frac{C_L L_1 L_2 L_L g_m s^4 + L_1 L_2 g_m s^2 + s^5 \left(C_2 C_L L_1 L_2 L_L R_2 g_m + C_2 C_L L_1 L_2 L_L\right) + s^3 \left(C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2 + C_L L_1 L_L R_2 g_m + C_L L_1 L_L\right) + s \left(L_1 R_2 g_m + L_1\right)}{C_L R_2 s + s^4 \left(C_2 C_L L_1 L_2 R_2 g_m + C_2 C_L L_1 L_2 + C_2 C_L L_2 L_L\right) + s^3 \left(C_2 C_L L_2 R_2 + C_L L_1 L_2 g_m\right) + s^2 \left(C_2 L_2 + C_L L_1 R_2 g_m + C_L L_1 + C_L L_2 + C_L L_1\right) + 1}$ 10.121 INVALID-ORDER-121 $Z(s) = \left(L_1 s, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$ $H(s) = \frac{L_1 L_2 L_L g_m s^3 + s^4 \left(C_2 L_1 L_2 L_L R_2 g_m + C_2 L_1 L_2 L_L \right) + s^2 \left(L_1 L_L R_2 g_m + L_1 L_L \right)}{R_2 + s^5 \left(C_2 C_L L_1 L_2 L_L R_2 g_m + C_2 L_1 L_2 L_L \right) + s^3 \left(C_2 L_1 L_2 L_L R_2 g_m + C_2 L_1 L_2 L_L \right) + s^3 \left(C_2 L_1 L_2 L_L R_2 g_m + C_2 L_1 L_2 L_L \right) + s^2 \left(C_2 L_2 L_2 L_L R_2 + L_1 L_2 g_m \right) + s \left(L_1 R_2 g_m + L_1 L_2 L_L R_2 g_m + L_2 L_2 L_L \right) + s^2 \left(C_2 L_2 R_2 + C_L L_2 L_2 L_L R_2 + L_2 L_2 L_L R_2 R_2 \right) + s \left(C_2 L_2 R_2 + C_2 L_2 L_2 L_2 R_2 \right) + s \left(C_2 L_2 R_2 + C_2 L_2 L_2 R_2 + C_2 L_2 L_2 R_2 \right) + s \left(C_2 L_2 R_2 + C_2 L_2 L_2 R_2 \right) + s \left(C_2 L_2 R_2 + C_2 L_2 L_2 R_2 \right) + s \left(C_2 L_2 R_2 + C_2 L_2 R$ **10.122** INVALID-ORDER-122 $Z(s) = \left(L_1 s, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$ $H(s) = \frac{s^5 \left(C_2 C_L L_1 L_2 L_L R_2 g_m + C_2 C_L L_1 L_2 L_L\right) + s^4 \left(C_2 C_L L_1 L_2 R_L g_m + C_2 C_L L_1 L_2 R_L g_m + C_2 L_1 L_2 R_L g_m + C_L L_1 L_L R_2 g_m + C_L L_1 R$ **10.123** INVALID-ORDER-123 $Z(s) = \left(L_1 s, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$ $L_1L_2L_LR_Lg_ms^3 + s^4\left(C_2L_1L_2L_LR_2R_Lg_m + C_2L_1L_2L_LR_L\right) + s^2\left(L_1L_LR_2R_Lg_m + L_1L_LR_L\right)$ $\frac{L_1L_2L_LL_2g_m + + s \cdot (C_2L_1L_2L_Lg_m + C_2L_1L_2L_Lg_m + C_2L_1L_2L_Lg_m + C_2L_1L_2L_Lg_m + L_1L_Lg_m + L_1L_Lg_m)}{R_2R_L + s^5 \left(C_2C_LL_1L_2L_LR_2g_m + C_2L_1L_2L_LR_2g_m + C_2L_1L_2L_RR_2g_m + C_2L_1L_2R_2g_m + C_2L_2R_2g_m + C_2L_2R_2g_m + C_2L_2R_2g_m + C_2L_2R_2g_m + C_2L_2R_2g_m + C_2L_2R_2g_m$ 10.124 INVALID-ORDER-124 $Z(s) = \left(L_1 s, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

 $H(s) = \frac{s^5 \left(C_2 C_L L_1 L_2 L_L R_2 R_L g_m + C_2 C_L L_1 L_2 L_L R_2 g_m + C_2 L_1 L_2 R_L g_m + C_2 L_1 L_2 R_L g_m + C_2 L_1 L_2 L_L R_2 g_m + C_2 L_2 L_L R_2 g_m + C_2 L_1 L_2 L_2 R_2 g_m + C_2 L_1 L_2 L_2 R_2 g_m + C_2 L_2 L_2 R_2 R_2 g_m + C_2 L_2 L_2 R_2 R_2 g_m + C$

10.125 INVALID-ORDER-125 $Z(s) = \left(L_1 s, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

 $H(s) = \frac{C_L L_1 L_2 L_L R_L g_m s^4 + L_1 L_2 R_L g_m s^2 + s^5 \left(C_2 C_L L_1 L_2 L_L R_2 R_L g_m + C_2 C_L L_1 L_2 L_L R_L\right) + s^3 \left(C_2 L_1 L_2 R_L g_m + C_2 L_1 L_2 R_L + C_L L_1 L_L R_2 R_L g_m + C_L L_1 L_L R_2 R_L g_m$

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10.126 INVALID-ORDER-126 Z(s) = \left(L_1 s, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)
                                                                                                                                                                                                                                                                                                                      H(s) = \frac{C_2L_1R_2R_Ls^2 + s^3\left(C_2L_1L_2R_2R_Lg_m + C_2L_1L_2R_L\right) + s\left(L_1R_2R_Lg_m + L_1R_L\right)}{R_2 + R_L + s^3\left(C_2L_1L_2R_2g_m + C_2L_1L_2\right) + s^2\left(C_2L_1R_2 + C_2L_2R_2 + C_2L_2R_L\right) + s\left(C_2R_2R_L + L_1R_2g_m + L_1\right)}
10.127 INVALID-ORDER-127 Z(s) = \left(L_1 s, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                                               H(s) = \frac{C_2L_1R_2s^2 + s^3\left(C_2L_1L_2R_2g_m + C_2L_1L_2\right) + s\left(L_1R_2g_m + L_1\right)}{s^4\left(C_2C_LL_1L_2R_2g_m + C_2C_LL_1L_2\right) + s^3\left(C_2C_LL_1R_2 + C_2C_LL_2R_2\right) + s^2\left(C_2L_2 + C_LL_1R_2g_m + C_LL_1\right) + s\left(C_2R_2 + C_LR_2\right) + 1}
10.128 INVALID-ORDER-128 Z(s) = \left(L_1 s, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)
                                                 H(s) = \frac{C_2L_1R_2R_Ls^2 + s^3\left(C_2L_1L_2R_2R_Lg_m + C_2L_1L_2R_L\right) + s\left(L_1R_2R_Lg_m + L_1R_L\right)}{R_2 + R_L + s^4\left(C_2C_LL_1L_2R_Lg_m + C_2C_LL_1L_2R_L\right) + s^3\left(C_2C_LL_1R_2R_L + C_2L_1L_2R_2g_m + C_2L_1L_2\right) + s^2\left(C_2L_1R_2 + C_2L_2R_2 + C_2L_2R_L + C_LL_1R_2R_Lg_m + C_LL_1R_L\right) + s\left(C_2R_2R_L + C_LR_2R_L + C_LR_
10.129 INVALID-ORDER-129 Z(s) = \left(L_1 s, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)
                                                                                                                                                                                             H(s) = \frac{s^4 \left(C_2 C_L L_1 L_2 R_2 R_L g_m + C_2 C_L L_1 L_2 R_L\right) + s^3 \left(C_2 C_L L_1 R_2 R_L + C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2\right) + s^2 \left(C_2 L_1 R_2 + C_L L_1 R_2 R_L g_m + C_L L_1 R_L\right) + s \left(L_1 R_2 g_m + L_1\right)}{s^4 \left(C_2 C_L L_1 L_2 R_2 g_m + C_2 C_L L_1 L_2\right) + s^3 \left(C_2 C_L L_1 R_2 + C_2 C_L L_2 R_L\right) + s^2 \left(C_2 C_L R_2 R_L + C_2 L_2 + C_L L_1 R_2 g_m + C_L L_1\right) + s \left(C_2 R_2 + C_L R_2 + C_L L_1 R_2 g_m + C_L L_1\right) + s \left(C_2 R_2 + C_L R_2 + C_L R_2\right) + s^2 \left(C_2 C_L R_2 R_L + C_2 L_2 R_L + C_2 L_1 R_2 R_L + C_2 L_1 
10.130 INVALID-ORDER-130 Z(s) = \left(L_1 s, \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)
                                                                                                                                                                                             H(s) = \frac{C_2C_LL_1L_LR_2s^4 + C_2L_1R_2s^2 + s^5\left(C_2C_LL_1L_2L_LR_2g_m + C_2C_LL_1L_2L_L\right) + s^3\left(C_2L_1L_2R_2g_m + C_2L_1L_2 + C_LL_1L_LR_2g_m + C_LL_1L_L\right) + s\left(L_1R_2g_m + L_1\right)}{s^4\left(C_2C_LL_1L_2R_2g_m + C_2C_LL_1L_2 + C_2C_LL_2L_L\right) + s^3\left(C_2C_LL_1R_2 + C_2C_LL_2R_2 + C_2C_LL_2R_2\right) + s^2\left(C_2L_2 + C_LL_1R_2g_m + C_LL_1 + C_LL_1\right) + s\left(C_2R_2 + C_LR_2\right) + 1}
10.131 INVALID-ORDER-131 Z(s) = \left(L_1 s, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^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_2L_1L_2R_2s^3 + s^4\left(C_2L_1L_2L_LR_2g_m + C_2L_1L_2L_L\right) + s^2\left(L_1L_LR_2g_m + L_1L_L\right)}{R_2 + s^5\left(C_2C_LL_1L_2L_LR_2g_m + C_2L_1L_2L_L\right) + s^4\left(C_2C_LL_1L_LR_2 + C_2L_LL_LR_2\right) + s^3\left(C_2L_1L_2R_2g_m + C_2L_1L_L + C_LL_1L_LR_2g_m + C_LL_1L_L\right) + s^2\left(C_2L_1R_2 + C_2L_2R_2 + C_2L_1R_2 + C_LL_1R_2\right) + s\left(L_1R_2g_m + L_1L_L\right)}
10.132 INVALID-ORDER-132 Z(s) = \left(L_1 s, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)
                 H(s) = \frac{s^5 \left(C_2 C_L L_1 L_2 L_L R_2 g_m + C_2 C_L L_1 L_2 L_L\right) + s^4 \left(C_2 C_L L_1 L_2 R_2 g_m + C_2 C_L L_1 L_2 R_L + C_2 C_L L_1 L_2 R_L\right) + s^3 \left(C_2 C_L L_1 R_2 R_L + C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2\right) + s^2 \left(C_2 L_1 R_2 + C_L L_1 R_2 R_L + C_2 C_L L_1 R_2\right) + s^3 \left(C_2 C_L L_1 R_2 R_L + C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2\right) + s^2 \left(C_2 C_L R_2 R_L + C_2 L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^2 \left(C_2 C_L R_2 R_L + C_2 L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^2 \left(C_2 C_L R_2 R_L + C_2 L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^2 \left(C_2 C_L R_2 R_L + C_2 L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^2 \left(C_2 L_1 R_2 R_L + C_2 L_1 L_2 R_2 R_L + C_2 L_1 L_2 R_2 R_L + C_2 L_1 L_2 R_2 R_L + C_2 L_1 R_2 R_L
10.133 INVALID-ORDER-133 Z(s) = \left(L_1 s, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
                                   \frac{C_{2}L_{1}L_{L}R_{2}R_{L}s^{3}+s^{4}\left(C_{2}L_{1}L_{2}L_{L}R_{2}R_{L}g_{m}+C_{2}L_{1}L_{2}L_{L}R_{L}\right)+s^{2}\left(L_{1}L_{L}R_{2}R_{L}g_{m}+L_{1}L_{L}R_{L}\right)}{R_{2}R_{L}+s^{5}\left(C_{2}C_{L}L_{1}L_{2}L_{L}R_{2}R_{L}g_{m}+C_{2}L_{1}L_{2}L_{L}R_{2}R_{L}+C_{2}L_{1}L_{L}R_{2}R_{L}+C_{2}L_{1}L_{L}R_{2}R_{L}+C_{2}L_{1}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{2}L_{2}L_{L}R_{2}+C_{
10.134 INVALID-ORDER-134 Z(s) = \left(L_1 s, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
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 $\frac{s^5 \left(C_2 C_L L_1 L_2 L_L R_2 R_L g_m + C_2 C_L L_1 L_2 L_L R_2\right) + s^4 \left(C_2 C_L L_1 L_L R_2 R_L + C_2 L_1 L_2 L_L R_2 g_m + C_2 L_1 L_2 R_L g_m + C_2 L_1 L_2 R_L g_m + C_2 L_1 L_2 R_L g_m + C_2 L_1 L_2 R_2 R_L g_m + C_2 L_2 R_L g_m +$

10.135 INVALID-ORDER-135
$$Z(s) = \left(L_1 s, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

 $H(s) = \frac{C_2C_LL_1L_2R_2R_Ls^4 + C_2L_1R_2R_Ls^2 + s^5\left(C_2C_LL_1L_2L_LR_2\right) + s^3\left(C_2L_1L_2R_2R_Lg_m + C_2L_1L_2R_L + C_LL_1L_LR_2R_Lg_m + C_LL_1L_LR_2\right)}{R_2 + R_L + s^5\left(C_2C_LL_1L_2L_LR_2g_m + C_2C_LL_1L_2L_L\right) + s^4\left(C_2C_LL_1L_2R_L + C_2C_LL_1L_2R_L + C_2C_LL_1L_2R_L + C_2C_LL_1L_2R_L + C_2C_LL_1L_2R_L\right) + s^3\left(C_2C_LL_1L_2R_2R_L + C_2C_LL_1L_2R_L + C_2C_LL_1L_2R_L + C_2C_LL_1L_2R_L\right) + s^4\left(C_2C_LL_1L_2R_2R_L + C_2C_LL_1L_2R_L + C_2C_LL_1L_2R_L + C_2C_LL_1L_2R_L\right) + s^4\left(C_2C_LL_1L_2R_L + C_2C_LL_1L_2R_L + C_2C_LL_1L_2R_L + C_2C_LL_1L_2R_L\right) + s^4\left(C_2C_LL_1L_2R_L + C_2C_LL_1L_2R_L + C_2C_LL_1L_2R_L + C_2C_LL_1L_2R_L\right) + s^4\left(C_2C_LL_1L_2R_L + C_2C_LL_1L_2R_L\right) + s^4\left(C_2C_LL_1L_2R_L\right) + s^4\left(C_2$

10.136 INVALID-ORDER-136 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{R_2 R_L g_m + R_L}{R_2 g_m + s (C_1 R_2 + C_1 R_L) + 1}$$

10.137 INVALID-ORDER-137 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_2 g_m + 1}{C_1 C_L R_2 s^2 + s \left(C_1 + C_L R_2 g_m + C_L\right)}$$

10.138 INVALID-ORDER-138 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_2 g_m + s \left(C_L R_2 R_L g_m + C_L R_L \right) + 1}{s^2 \left(C_1 C_L R_2 + C_1 C_L R_L \right) + s \left(C_1 + C_L R_2 g_m + C_L \right)}$$

10.139 INVALID-ORDER-139 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_2 g_m + s^2 \left(C_L L_L R_2 g_m + C_L L_L \right) + 1}{C_1 C_L L_L s^3 + C_1 C_L R_2 s^2 + s \left(C_1 + C_L R_2 g_m + C_L \right)}$$

10.140 INVALID-ORDER-140 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{s \left(L_L R_2 g_m + L_L \right)}{C_1 C_L L_L R_2 s^3 + C_1 R_2 s + R_2 g_m + s^2 \left(C_1 L_L + C_L L_L R_2 g_m + C_L L_L \right) + 1}$$

10.141 INVALID-ORDER-141 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_2 g_m + s^2 \left(C_L L_L R_2 g_m + C_L L_L \right) + s \left(C_L R_2 R_L g_m + C_L R_L \right) + 1}{C_1 C_L L_L s^3 + s^2 \left(C_1 C_L R_2 + C_1 C_L R_L \right) + s \left(C_1 + C_L R_2 g_m + C_L \right)}$$

10.142 INVALID-ORDER-142 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{s\left(L_{L}R_{2}R_{L}g_{m} + L_{L}R_{L}\right)}{C_{1}C_{L}L_{L}R_{2}R_{L}s^{3} + R_{2}R_{L}g_{m} + R_{L} + s^{2}\left(C_{1}L_{L}R_{2} + C_{1}L_{L}R_{L} + C_{L}L_{L}R_{2}R_{L}g_{m} + C_{L}L_{L}R_{L}\right) + s\left(C_{1}R_{2}R_{L} + L_{L}R_{2}g_{m} + L_{L}\right)}$$

10.143 INVALID-ORDER-143 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{R_{2}R_{L}g_{m} + R_{L} + s^{2}\left(C_{L}L_{L}R_{2}R_{L}g_{m} + C_{L}L_{L}R_{L}\right) + s\left(L_{L}R_{2}g_{m} + L_{L}\right)}{R_{2}g_{m} + s^{3}\left(C_{1}C_{L}L_{L}R_{2} + C_{1}C_{L}L_{L}R_{L}\right) + s^{2}\left(C_{1}L_{L} + C_{L}L_{L}R_{2}g_{m} + C_{L}L_{L}\right) + s\left(C_{1}R_{2} + C_{1}R_{L}\right) + 1}$$

10.144 INVALID-ORDER-144 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

$$H(s) = \frac{R_2 R_L g_m + R_L + s^2 \left(C_L L_L R_2 R_L g_m + C_L L_L R_L \right)}{R_2 g_m + s^3 \left(C_1 C_L L_L R_2 + C_1 C_L L_L R_L \right) + s^2 \left(C_1 C_L R_2 R_L + C_L L_L R_2 g_m + C_L L_L \right) + s \left(C_1 R_2 + C_1 R_L + C_L R_2 R_L g_m + C_L R_L \right) + 1}$$

10.145 INVALID-ORDER-145
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 s + g_m}{C_L g_m s + s^2 \left(C_1 C_2 + C_1 C_L + C_2 C_L \right)}$$

10.146 INVALID-ORDER-146
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 C_L R_L s^2 + g_m + s \left(C_2 + C_L R_L g_m\right)}{C_1 C_2 C_L R_L s^3 + C_L g_m s + s^2 \left(C_1 C_2 + C_1 C_L + C_2 C_L\right)}$$

10.147 INVALID-ORDER-147
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 C_L L_L s^3 + C_2 s + C_L L_L g_m s^2 + g_m}{C_1 C_2 C_L L_L s^4 + C_L g_m s + s^2 (C_1 C_2 + C_1 C_L + C_2 C_L)}$$

10.148 INVALID-ORDER-148
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2 L_L s^2 + L_L g_m s}{C_L L_L g_m s^2 + g_m + s^3 \left(C_1 C_2 L_L + C_1 C_L L_L + C_2 C_L L_L \right) + s \left(C_1 + C_2 \right)}$$

10.149 INVALID-ORDER-149
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 C_L L_L s^3 + g_m + s^2 \left(C_2 C_L R_L + C_L L_L g_m \right) + s \left(C_2 + C_L R_L g_m \right)}{C_1 C_2 C_L L_L s^4 + C_1 C_2 C_L R_L s^3 + C_L g_m s + s^2 \left(C_1 C_2 + C_1 C_L + C_2 C_L \right)}$$

10.150 INVALID-ORDER-150
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_2 L_L R_L s^2 + L_L R_L g_m s}{R_L g_m + s^3 \left(C_1 C_2 L_L R_L + C_1 C_L L_L R_L + C_2 C_L L_L R_L \right) + s^2 \left(C_1 L_L + C_2 L_L + C_L L_L R_L g_m \right) + s \left(C_1 R_L + C_2 R_L + L_L g_m \right)}$$

10.151 INVALID-ORDER-151
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{{{C_2}{C_L}{L_L}{R_L}{s^3} + {R_L}{g_m} + {s^2}\left({{C_2}{L_L} + {C_L}{L_L}{R_L}{g_m}} \right) + s\left({{C_2}{R_L} + {L_L}{g_m}} \right)}{{{C_1}{C_2}{C_L}{L_L}{R_L}{s^4} + {g_m} + {s^3}\left({{C_1}{C_2}{L_L} + {C_1}{C_L}{L_L} + {C_2}{C_L}{L_L}} \right) + s^2\left({{C_1}{C_2}{R_L} + {C_L}{L_L}{g_m}} \right) + s\left({{C_1} + {C_2}{C_L}{L_L}} \right)}$$

10.152 INVALID-ORDER-152
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_2C_LL_LR_Ls^3 + C_2R_Ls + C_LL_LR_Lg_ms^2 + R_Lg_m}{C_1C_2C_LL_LR_Ls^4 + g_m + s^3\left(C_1C_LL_L + C_2C_LL_L\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_2C_LR_L + C_LL_Lg_m\right) + s\left(C_1 + C_2 + C_LR_Lg_m\right)}$$

10.153 INVALID-ORDER-153
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 R_2 s + R_2 g_m + 1}{s^2 \left(C_1 C_2 R_2 + C_1 C_L R_2 + C_2 C_L R_2 \right) + s \left(C_1 + C_L R_2 g_m + C_L \right)}$$

10.154 INVALID-ORDER-154
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2C_LR_2R_Ls^2 + R_2g_m + s\left(C_2R_2 + C_LR_2R_Lg_m + C_LR_L\right) + 1}{C_1C_2C_LR_2R_Ls^3 + s^2\left(C_1C_2R_2 + C_1C_LR_2 + C_1C_LR_2 + C_1C_LR_L + C_2C_LR_2\right) + s\left(C_1 + C_LR_2g_m + C_L\right)}$$

10.155 INVALID-ORDER-155
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2C_LL_LR_2s^3 + C_2R_2s + R_2g_m + s^2\left(C_LL_LR_2g_m + C_LL_L\right) + 1}{C_1C_2C_LL_LR_2s^4 + C_1C_LL_Ls^3 + s^2\left(C_1C_2R_2 + C_1C_LR_2 + C_2C_LR_2\right) + s\left(C_1 + C_LR_2g_m + C_L\right)}$$

10.156 INVALID-ORDER-156
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2 L_L R_2 s^2 + s \left(L_L R_2 g_m + L_L\right)}{R_2 g_m + s^3 \left(C_1 C_2 L_L R_2 + C_1 C_L L_L R_2 + C_2 C_L L_L R_2\right) + s^2 \left(C_1 L_L + C_L L_L R_2 g_m + C_L L_L\right) + s \left(C_1 R_2 + C_2 R_2\right) + 1}$$

10.157 INVALID-ORDER-157
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2C_LL_LR_2s^3 + R_2g_m + s^2\left(C_2C_LR_2R_L + C_LL_LR_2g_m + C_LL_L\right) + s\left(C_2R_2 + C_LR_2R_Lg_m + C_LR_L\right) + 1}{C_1C_2C_LL_LR_2s^4 + s^3\left(C_1C_2C_LR_2R_L + C_1C_LL_L\right) + s^2\left(C_1C_2R_2 + C_1C_LR_2 + C_1C_LR_2 + C_1C_LR_2\right) + s\left(C_1 + C_LR_2g_m + C_L\right)}$$

10.158 INVALID-ORDER-158
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_2 L_L R_2 R_L s^2 + s \left(L_L R_2 R_L g_m + L_L R_L \right)}{R_2 R_L g_m + R_L + s^3 \left(C_1 C_2 L_L R_2 R_L + C_1 C_L L_L R_2 R_L + C_2 C_L L_L R_2 R_L \right) + s^2 \left(C_1 L_L R_2 + C_1 L_L R_2 + C_L L_L R_2 R_L + C_L L_L R_2 R_L + C_2 R_L R_L + C_2 R_L R_L \right) + s \left(C_1 R_2 R_L + C_2 R_L R_L + C_2 R_L R_L \right) + s \left(C_1 R_2 R_L + C_2 R_L R_L + C_2 R_L R_L \right) + s \left(C_1 R_2 R_L + C_2 R_L R_L + C_2 R_L R_L \right) + s \left(C_1 R_2 R_L + C_2 R_L R_L + C_2 R_L R_L \right) + s \left(C_1 R_2 R_L + C_2 R_L R_L \right$$

10.159 INVALID-ORDER-159
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2C_LL_R_2R_Ls^3 + R_2R_Lg_m + R_L + s^2\left(C_2L_LR_2 + C_LL_LR_2R_Lg_m + C_LL_LR_L\right) + s\left(C_2R_2R_L + L_LR_2g_m + L_L\right)}{C_1C_2C_LL_R_2R_Ls^4 + R_2g_m + s^3\left(C_1C_2L_LR_2 + C_1C_LL_LR_2 + C_1C_LL_LR_L\right) + s^2\left(C_1C_2R_2R_L + C_1L_LR_2g_m + C_LL_L\right) + s\left(C_1R_2 + C_1R_L + C_2R_2\right) + 1}$$

10.160 INVALID-ORDER-160
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_2C_LL_R_2R_Ls^3 + C_2R_2R_Ls + R_2R_Lg_m + R_L + s^2\left(C_LL_LR_2R_Lg_m + C_LL_LR_L\right)}{C_1C_2C_LL_LR_2R_Ls^4 + R_2g_m + s^3\left(C_1C_LL_LR_2 + C_1C_LL_LR_L + C_2C_LL_LR_2\right) + s^2\left(C_1C_2R_2R_L + C_1C_LR_2R_L + C_2C_LR_2R_L + C_LL_LR_2g_m + C_LL_L\right) + s\left(C_1R_2 + C_1R_L + C_2R_2 + C_LR_2R_Lg_m + C_LR_L\right) + 1}$$

10.161 INVALID-ORDER-161 $Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{g_m + s \left(C_2 R_2 g_m + C_2 \right)}{C_1 C_2 C_L R_2 s^3 + C_L g_m s + s^2 \left(C_1 C_2 + C_1 C_L + C_2 C_L R_2 g_m + C_2 C_L \right)}$$

10.162 INVALID-ORDER-162 $Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_L g_m + s \left(C_2 R_2 R_L g_m + C_2 R_L \right)}{C_1 C_2 C_L R_2 R_L s^3 + g_m + s^2 \left(C_1 C_2 R_2 + C_1 C_2 R_L + C_1 C_L R_L + C_2 C_L R_2 R_L g_m + C_2 C_L R_L \right) + s \left(C_1 + C_2 R_2 g_m + C_2 + C_L R_L g_m \right)}$$

10.163 INVALID-ORDER-163 $Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{g_m + s^2 \left(C_2 C_L R_2 R_L g_m + C_2 C_L R_L \right) + s \left(C_2 R_2 g_m + C_2 + C_L R_L g_m \right)}{C_L g_m s + s^3 \left(C_1 C_2 C_L R_2 + C_1 C_2 C_L R_L \right) + s^2 \left(C_1 C_2 + C_1 C_L + C_2 C_L R_2 g_m + C_2 C_L \right)}$$

10.164 INVALID-ORDER-164 $Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_L L_L g_m s^2 + g_m + s^3 \left(C_2 C_L L_L R_2 g_m + C_2 C_L L_L \right) + s \left(C_2 R_2 g_m + C_2 \right)}{C_1 C_2 C_L L_L s^4 + C_1 C_2 C_L R_2 s^3 + C_L g_m s + s^2 \left(C_1 C_2 + C_1 C_L + C_2 C_L R_2 g_m + C_2 C_L \right)}$$

10.165 INVALID-ORDER-165
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_{L}g_{m}s + s^{2}\left(C_{2}L_{L}R_{2}g_{m} + C_{2}L_{L}\right)}{C_{1}C_{2}C_{L}L_{L}R_{2}s^{4} + g_{m} + s^{3}\left(C_{1}C_{2}L_{L} + C_{1}C_{L}L_{L} + C_{2}C_{L}L_{L}R_{2}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{2} + C_{L}L_{L}g_{m}\right) + s\left(C_{1} + C_{2}R_{2}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{2} + C_{L}L_{L}g_{m}\right) + s\left(C_{1} + C_{2}R_{2}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{2} + C_{L}L_{L}g_{m}\right) + s\left(C_{1} + C_{2}R_{2}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{2} + C_{L}L_{L}g_{m}\right) + s\left(C_{1} + C_{2}R_{2}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{2} + C_{L}L_{L}g_{m}\right) + s\left(C_{1} + C_{2}R_{2}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{2} + C_{L}L_{L}g_{m}\right) + s\left(C_{1} + C_{2}R_{2}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{2} + C_{L}L_{L}g_{m}\right) + s\left(C_{1} + C_{2}R_{2}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{2} + C_{L}L_{L}g_{m}\right) + s\left(C_{1} + C_{2}R_{2}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{2} + C_{L}L_{L}g_{m}\right) + s\left(C_{1} + C_{2}R_{2}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{2} + C_{L}L_{L}g_{m}\right) + s\left(C_{1} + C_{2}R_{2}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{2} + C_{L}L_{L}g_{m}\right) + s\left(C_{1} + C_{2}R_{2}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{2} + C_{L}L_{L}g_{m}\right) + s\left(C_{1} + C_{2}R_{2}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{2} + C_{L}L_{L}g_{m}\right) + s\left(C_{1} + C_{2}R_{2}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1} + C_{2}R_{2}g_{m} + C_{2}C_{L}\right) + s^{2}\left(C_{1} + C_{2}R_$$

10.166 INVALID-ORDER-166
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m + s^3 \left(C_2 C_L L_L R_2 g_m + C_2 C_L L_L \right) + s^2 \left(C_2 C_L R_2 R_L g_m + C_2 C_L R_L + C_L L_L g_m \right) + s \left(C_2 R_2 g_m + C_2 + C_L R_L g_m \right)}{C_1 C_2 C_L L_L s^4 + C_L g_m s + s^3 \left(C_1 C_2 C_L R_2 + C_1 C_2 C_L R_L \right) + s^2 \left(C_1 C_2 + C_1 C_L + C_2 C_L R_2 g_m + C_2 C_L \right)}$$

10.167 INVALID-ORDER-167
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{L_L R_L g_m s + s^2 \left(C_2 L_L R_2 R_L g_m + C_2 L_L R_L \right)}{C_1 C_2 C_L L_L R_2 R_L s^4 + R_L g_m + s^3 \left(C_1 C_2 L_L R_2 + C_1 C_2 L_L R_L + C_2 C_L L_L R_2 R_L g_m + C_2 C_L L_L R_L \right) + s^2 \left(C_1 C_2 R_2 R_L + C_1 L_L + C_2 L_L R_2 g_m + C_2 L_L + C_L L_L R_L g_m \right) + s \left(C_1 R_L + C_2 R_2 R_L g_m + C_2 R_L + L_L g_m \right)}$$

10.168 INVALID-ORDER-168
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

10.169 INVALID-ORDER-169
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

10.170 INVALID-ORDER-170 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty\right)$

$$H(s) = \frac{C_2 L_2 R_L g_m s^2 + C_2 R_L s + R_L g_m}{C_1 C_2 L_2 s^3 + g_m + s^2 \left(C_1 C_2 R_L + C_2 L_2 g_m \right) + s \left(C_1 + C_2 \right)}$$

10.171 INVALID-ORDER-171 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2 L_2 g_m s^2 + C_2 s + g_m}{C_1 C_2 C_L L_2 s^4 + C_2 C_L L_2 g_m s^3 + C_L g_m s + s^2 \left(C_1 C_2 + C_1 C_L + C_2 C_L \right)}$$

10.172 INVALID-ORDER-172 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{C_2L_2R_Lg_ms^2 + C_2R_Ls + R_Lg_m}{C_1C_2C_LL_2R_Ls^4 + g_m + s^3\left(C_1C_2L_2 + C_2C_LL_2R_Lg_m\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_2C_LR_L + C_2L_2g_m\right) + s\left(C_1 + C_2 + C_LR_Lg_m\right)}$$

10.173 INVALID-ORDER-173 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2 C_L L_2 R_L g_m s^3 + g_m + s^2 \left(C_2 C_L R_L + C_2 L_2 g_m \right) + s \left(C_2 + C_L R_L g_m \right)}{C_1 C_2 C_L L_2 s^4 + C_L g_m s + s^3 \left(C_1 C_2 C_L R_L + C_2 C_L L_2 g_m \right) + s^2 \left(C_1 C_2 + C_1 C_L + C_2 C_L \right)}$$

10.174 INVALID-ORDER-174
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 C_L L_2 L_L g_m s^4 + C_2 C_L L_L s^3 + C_2 s + g_m + s^2 \left(C_2 L_2 g_m + C_L L_L g_m \right)}{C_2 C_L L_2 g_m s^3 + C_L g_m s + s^4 \left(C_1 C_2 C_L L_2 + C_1 C_2 C_L L_L \right) + s^2 \left(C_1 C_2 + C_1 C_L + C_2 C_L \right)}$$

10.175 INVALID-ORDER-175
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2L_2L_Lg_ms^3 + C_2L_Ls^2 + L_Lg_ms}{C_1C_2C_LL_2L_Ls^5 + C_2C_LL_2L_Lg_ms^4 + g_m + s^3\left(C_1C_2L_2 + C_1C_2L_L + C_1C_LL_L + C_2C_LL_L\right) + s^2\left(C_2L_2g_m + C_LL_Lg_m\right) + s\left(C_1 + C_2\right)}$$

10.176 INVALID-ORDER-176
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2C_LL_2L_Lg_ms^4 + g_m + s^3\left(C_2C_LL_2R_Lg_m + C_2C_LL_L\right) + s^2\left(C_2C_LR_L + C_2L_2g_m + C_LL_Lg_m\right) + s\left(C_2 + C_LR_Lg_m\right)}{C_Lg_ms + s^4\left(C_1C_2C_LL_2 + C_1C_2C_LL_L\right) + s^3\left(C_1C_2C_LR_L + C_2C_LL_2g_m\right) + s^2\left(C_1C_2 + C_1C_L + C_2C_L\right)}$$

10.177 INVALID-ORDER-177
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_2L_2L_LR_Lg_ms^3 + C_2L_LR_Ls^2 + L_LR_Lg_ms}{C_1C_2C_LL_2L_LR_Ls^5 + R_Lg_m + s^4\left(C_1C_2L_2L_L + C_2C_LL_2L_LR_Lg_m\right) + s^3\left(C_1C_2L_2R_L + C_1C_2L_LR_L + C_1C_LL_LR_L + C_2C_LL_LR_L + C$$

10.178 INVALID-ORDER-178
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_R R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2C_LL_2L_LR_Lg_ms^4 + R_Lg_m + s^3\left(C_2C_LL_LR_L + C_2L_2L_Lg_m\right) + s^2\left(C_2L_2R_Lg_m + C_2L_L + C_LL_LR_Lg_m\right) + s\left(C_2R_L + L_Lg_m\right)}{C_1C_2C_LL_2L_Ls^5 + g_m + s^4\left(C_1C_2C_LL_LR_L + C_2C_LL_2L_Lg_m\right) + s^3\left(C_1C_2L_2 + C_1C_2L_L + C_1C_LL_L + C_2C_LL_L\right) + s^2\left(C_1C_2R_L + C_2L_2g_m + C_LL_Lg_m\right) + s\left(C_1C_2C_LL_LR_L + C_2C_LL_LR_L\right) + s^2\left(C_1C_2R_L + C_2C_LL_L\right) + s^2\left(C_1C_2R_L\right) + s^2\left(C_1$$

10.179 INVALID-ORDER-179
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_2C_LL_2L_LR_Lg_ms^4 + C_2C_LL_LR_Ls^3 + C_2R_Ls + R_Lg_m + s^2\left(C_2L_2R_Lg_m + C_LL_LR_Lg_m\right)}{C_1C_2C_LL_2L_Ls^5 + g_m + s^4\left(C_1C_2C_LL_2R_L + C_1C_2C_LL_LR_L + C_2C_LL_2L_Lg_m\right) + s^3\left(C_1C_2L_2 + C_1C_LL_L + C_2C_LL_2R_Lg_m + C_2C_LL_L\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_2C_LR_L + C_2C_LR_L + C_2C_LR_L\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_2C_LR_L + C_2C_LR_L\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_2C_LR_L + C_2C_LR_L\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_2C_LR_L\right) + s^2\left(C_1C_2R_L + C_1C_LR_L\right) + s^2\left(C_1C_2R_L + C_1C_LR_L\right) + s^2\left(C_1C_2R_L\right) + s^2\left(C$$

10.180 INVALID-ORDER-180 $Z(s) = \left(\frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$

$$H(s) = \frac{C_2 L_2 R_L g_m s^2 + R_L g_m + s \left(C_2 R_2 R_L g_m + C_2 R_L \right)}{C_1 C_2 L_2 s^3 + g_m + s^2 \left(C_1 C_2 R_2 + C_1 C_2 R_L + C_2 L_2 g_m \right) + s \left(C_1 + C_2 R_2 g_m + C_2 \right)}$$

10.181 INVALID-ORDER-181 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2 L_2 g_m s^2 + g_m + s \left(C_2 R_2 g_m + C_2\right)}{C_1 C_2 C_L L_2 s^4 + C_L g_m s + s^3 \left(C_1 C_2 C_L R_2 + C_2 C_L L_2 g_m\right) + s^2 \left(C_1 C_2 + C_1 C_L + C_2 C_L R_2 g_m + C_2 C_L\right)}$$

10.182 INVALID-ORDER-182
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_2L_2R_Lg_ms^2 + R_Lg_m + s\left(C_2R_2R_Lg_m + C_2R_L\right)}{C_1C_2C_LL_2R_Ls^4 + g_m + s^3\left(C_1C_2C_LR_2R_L + C_1C_2L_2 + C_2C_LL_2R_Lg_m\right) + s^2\left(C_1C_2R_2 + C_1C_2R_L + C_1C_LR_L + C_2C_LR_2R_Lg_m + C_2C_LR_L + C_2C_LR_2R_Lg_m\right) + s\left(C_1 + C_2R_2g_m + C_2 + C_LR_Lg_m\right)}$$

10.183 INVALID-ORDER-183
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2C_LL_2R_Lg_ms^3 + g_m + s^2\left(C_2C_LR_2R_Lg_m + C_2C_LR_L + C_2L_2g_m\right) + s\left(C_2R_2g_m + C_2 + C_LR_Lg_m\right)}{C_1C_2C_LL_2s^4 + C_Lg_ms + s^3\left(C_1C_2C_LR_2 + C_1C_2C_LR_L + C_2C_LL_2g_m\right) + s^2\left(C_1C_2 + C_1C_L + C_2C_LR_2g_m + C_2C_L\right)}$$

10.184 INVALID-ORDER-184
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2C_LL_2L_Lg_ms^4 + g_m + s^3\left(C_2C_LL_LR_2g_m + C_2C_LL_L\right) + s^2\left(C_2L_2g_m + C_LL_Lg_m\right) + s\left(C_2R_2g_m + C_2L_Lg_m\right) + s\left(C_2R_2g_m + C_2R_2g_m\right) + s\left(C_2R_2g_m\right) + s\left(C_2R_2g_m + C_2R_2g_m\right) + s\left(C_2R_2g_m\right) + s\left(C_2R_2g_m\right) + s\left(C$$

10.185 INVALID-ORDER-185
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2L_2L_Lg_ms^3 + L_Lg_ms + s^2\left(C_2L_LR_2g_m + C_2L_L\right)}{C_1C_2C_LL_LLs^5 + g_m + s^4\left(C_1C_2C_LL_LR_2 + C_2C_LL_Lg_m\right) + s^3\left(C_1C_2L_2 + C_1C_2L_L + C_1C_LL_L + C_2C_LL_LR_2g_m + C_2C_LL_L\right) + s^2\left(C_1C_2R_2 + C_2L_2g_m + C_LL_Lg_m\right) + s\left(C_1 + C_2R_2g_m + C_2L_L\right)}$$

10.186 INVALID-ORDER-186
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2C_LL_2L_Lg_ms^4 + g_m + s^3\left(C_2C_LL_2R_Lg_m + C_2C_LL_LR_2g_m + C_2C_LL_L\right) + s^2\left(C_2C_LR_2R_Lg_m + C_2C_LR_L + C_2L_2g_m + C_LL_Lg_m\right) + s\left(C_2R_2g_m + C_2 + C_LR_Lg_m\right) + s\left(C_2R_2g_m + C_2 + C_LR_Lg_m\right) + s\left(C_2R_2g_m + C_2R_Lg_m\right) + s\left(C_2R_2g_m\right) + s\left(C_2R$$

10.187 INVALID-ORDER-187
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_2L_2L_LR_Lg_ms^3 + L_LR_Lg_ms + s^2\left(C_2L_LR_2R_Lg_m + C_2L_LR_L\right)}{C_1C_2C_LL_LR_Ls^5 + R_Lg_m + s^4\left(C_1C_2C_LL_LR_2R_L + C_1C_LL_LR_Lg_m\right) + s^3\left(C_1C_2L_2R_L + C_1C_LL_LR_L + C_1C_LL_LR_L + C_2C_LL_LR_L + C_2C_LL_L$$

10.188 INVALID-ORDER-188
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2C_LL_2L_LR_Lg_ms^4 + R_Lg_m + s^3\left(C_2C_LL_LR_2R_Lg_m + C_2C_LL_LR_L + C_2L_2L_Lg_m\right) + s^2\left(C_2L_2R_Lg_m + C_2L_LR_2g_m + C_2L_L + C_LL_LR_Lg_m\right) + s\left(C_2R_2R_Lg_m + C_2R_L + L_Lg_m\right)}{C_1C_2C_LL_LL_2L_2s^5 + g_m + s^4\left(C_1C_2C_LL_LR_2 + C_1C_2L_LR_L + C_2C_LL_Lg_m\right) + s^3\left(C_1C_2L_2 + C_1C_2L_L + C_1C_LL_L + C_2C_LL_LR_2g_m + C_2C_LL_L\right) + s^2\left(C_1C_2R_2 + C_1C_2R_L + C_2L_Lg_m\right) + s\left(C_1C_2R_2 + C_1C_2R_L + C_2L_Lg_m\right) + s\left(C_1C_2R_2 + C_1C_2R_L + C_2L_Lg_m\right) + s\left(C_1C_2R_2 + C_1C_2R_L + C_2L_Lg_m\right) + s\left(C_1C_2R_L + C_2R_Lg_m + C_2R_L + C_2R_Lg_m\right) + s\left(C_1C_2R_L + C_2R_Lg_m + C_2R_Lg_m\right) + s\left(C_1C_2R_L + C_2R_Lg_m\right) + s\left(C_1C_2R_Lg_m\right) + s\left(C_1C_2R_Lg_m\right) + s\left(C_1C_2R_Lg_m\right) + s\left(C_1C_2R_Lg_m\right) + s\left(C_1C_2R_Lg_m\right)$$

10.189 INVALID-ORDER-189
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_2C_LL_2L_LR_2g_ms^4 + R_Lg_m + s^3\left(C_2C_LL_LR_2g_m + C_2C_LL_LR_L\right) + s^2\left(C_2L_2R_Lg_m + C_LL_LR_Lg_m\right) + s\left(C_2R_2R_Lg_m + C_2R_L\right)}{C_1C_2C_LL_2L_Ls^5 + g_m + s^4\left(C_1C_2C_LL_2R_L + C_1C_2L_LR_2 + C_1C_2L_LR_2 + C_1C_LL_LR_2 + C_1C_LR_2 + C_$$

10.190 INVALID-ORDER-190 $Z(s) = \left(\frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{L_2 R_L g_m s + R_2 R_L g_m + R_L + s^2 \left(C_2 L_2 R_2 R_L g_m + C_2 L_2 R_L \right)}{R_2 g_m + s^3 \left(C_1 C_2 L_2 R_2 + C_1 C_2 L_2 R_L \right) + s^2 \left(C_1 L_2 + C_2 L_2 R_2 g_m + C_2 L_2 \right) + s \left(C_1 R_2 + C_1 R_L + L_2 g_m \right) + 1}$$

10.191 INVALID-ORDER-191
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_2 g_m s + R_2 g_m + s^2 \left(C_2 L_2 R_2 g_m + C_2 L_2\right) + 1}{C_1 C_2 C_L L_2 R_2 s^4 + s^3 \left(C_1 C_2 L_2 + C_1 C_L L_2 + C_2 C_L L_2 R_2 g_m + C_2 C_L L_2\right) + s^2 \left(C_1 C_L R_2 + C_L L_2 g_m\right) + s \left(C_1 + C_L R_2 g_m + C_L\right)}$$

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10.192 INVALID-ORDER-192 Z(s) = \left(\frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)
                                        H(s) = \frac{L_2 R_L g_m s + R_2 R_L g_m + R_L + s^2 \left(C_2 L_2 R_2 R_L g_m + C_2 L_2 R_L\right)}{C_1 C_2 C_L L_2 R_2 R_L s^4 + R_2 g_m + s^3 \left(C_1 C_2 L_2 R_2 + C_1 C_2 L_2 R_L + C_2 C_L L_2 R_L g_m + C_2 C_L L_2 R_L\right) + s^2 \left(C_1 C_L R_2 R_L + C_1 L_2 + C_2 L_2 R_2 g_m + C_2 L_2 + C_L L_2 R_L g_m\right) + s \left(C_1 R_2 + C_1 R_L + C_L R_2 R_L g_m + C_L R_L + L_2 g_m\right) + 1}
10.193 INVALID-ORDER-193 Z(s) = \left(\frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)
                                                                                                                                                                   H(s) = \frac{R_2 g_m + s^3 \left(C_2 C_L L_2 R_2 R_L g_m + C_2 C_L L_2 R_L\right) + s^2 \left(C_2 L_2 R_2 g_m + C_2 L_2 + C_L L_2 R_L g_m\right) + s \left(C_L R_2 R_L g_m + C_L R_L + L_2 g_m\right) + 1}{s^4 \left(C_1 C_2 C_L L_2 R_2 + C_1 C_2 C_L L_2 R_L\right) + s^3 \left(C_1 C_2 L_2 + C_1 C_L L_2 + C_2 C_L L_2 R_2 g_m + C_2 C_L L_2\right) + s^2 \left(C_1 C_L R_2 + C_1 C_L R_L + C_L L_2 g_m\right) + s \left(C_1 + C_L R_2 g_m + C_L R_L\right)}
10.194 INVALID-ORDER-194 Z(s) = \left(\frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)
                                                                                                                                                                    H(s) = \frac{C_L L_2 L_L g_m s^3 + L_2 g_m s + R_2 g_m + s^4 \left(C_2 C_L L_2 L_L R_2 g_m + C_2 C_L L_2 L_L\right) + s^2 \left(C_2 L_2 R_2 g_m + C_2 L_2 + C_L L_L R_2 g_m + C_L L_L\right) + 1}{C_1 C_2 C_L L_2 L_L s^5 + C_1 C_2 C_L L_2 R_2 s^4 + s^3 \left(C_1 C_2 L_2 + C_1 C_L L_2 + C_1 C_L L_2 + C_2 C_L L_2 R_2 g_m + C_2 C_L L_2\right) + s^2 \left(C_1 C_L R_2 + C_L L_2 g_m\right) + s \left(C_1 + C_L R_2 g_m + C_L\right)}
10.195 INVALID-ORDER-195 Z(s) = \left(\frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                                    H(s) = \frac{L_2 L_L g_m s^2 + s^3 \left( C_2 L_2 L_L R_2 g_m + C_2 L_2 L_L \right) + s \left( L_L R_2 g_m + L_L \right)}{C_1 C_2 C_L L_2 L_L R_2 s^5 + R_2 g_m + s^4 \left( C_1 C_2 L_2 L_L + C_1 C_L L_2 L_L R_2 g_m + C_2 C_L L_2 L_L \right) + s^3 \left( C_1 C_2 L_2 R_2 + C_1 C_L L_L R_2 + C_L L_L L_2 L_2 g_m + S^2 \left( C_1 L_2 + C_1 L_L + C_2 L_2 R_2 g_m + C_2 L_2 + C_L L_L R_2 g_m + C_L L_L \right) + s \left( C_1 R_2 + L_2 g_m + C_2 L_2 L_2 R_2 g_m + C_2 L_2 R_2 g_
10.196 INVALID-ORDER-196 Z(s) = \left(\frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)
                                                                                      10.197 INVALID-ORDER-197 Z(s) = \left(\frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           L_{2}L_{L}R_{L}g_{m}s^{2}+s^{3}\left(C_{2}L_{2}L_{L}R_{2}R_{L}g_{m}+C_{2}L_{2}L_{L}R_{L}\right)+s\left(L_{L}R_{2}R_{L}g_{m}+L_{L}R_{L}\right)
H(s) = \frac{L_2L_LR_Lg_ms^2 + s^3\left(C_2L_2L_LR_2R_Lg_m + C_2L_2L_LR_L\right) + s\left(L_LR_2R_Lg_m + L_LR_L\right)}{C_1C_2C_LL_2L_LR_2R_Lg_m + R_L + s^4\left(C_1C_2L_2L_LR_2 + C_1C_2L_2L_LR_L + C_2C_LL_2L_LR_L\right) + s^3\left(C_1C_2L_2R_LR_L + C_1C_LL_LR_2R_L + C_1C_LL_LR_L\right) + s^3\left(C_1C_2L_2R_LR_L + C_1C_LL_LR_2R_L + C_1C_LL_LR_L\right) + s^3\left(C_1C_2L_2R_LR_L + C_1C_LL_LR_L + C_2C_LL_LR_L\right) + s^3\left(C_1C_2L_2R_LR_L + C_1C_LL_LR_L\right) + s^3\left(C_1C_2L_2R_L + C_1C_LL_LR_L\right) + s^3\left(C_1C_2L_2R_L\right) + s^3\left(C_1C_2L_2R_L\right) + s^3\left(C_1C_2L_2R_L\right) + s^3\left(C_1C_2L_2R_L\right) + s^3\left(C_1C_2R_L\right) + s^
10.198 INVALID-ORDER-198 Z(s) = \left(\frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
                           \frac{R_{2}R_{L}g_{m}+R_{L}+s^{4}\left(C_{2}C_{L}L_{2}L_{L}R_{2}g_{m}+C_{2}L_{L}L_{L}R_{2}g_{m}+C_{2}L_{L}L_{L}R_{2}g_{m}+C_{2}L_{L}L_{L}R_{2}g_{m}+C_{2}L_{L}L_{L}R_{2}g_{m}+C_{2}L_{L}L_{L}R_{2}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2}L_{L}R_{L}g_{m}+C_{2
10.199 INVALID-ORDER-199 Z(s) = \left(\frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.200 INVALID-ORDER-200 Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, R_L\right)
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 $H(s) = \frac{C_2R_2R_Ls + R_2R_Lg_m + R_L + s^2\left(C_2L_2R_2R_Lg_m + C_2L_2R_L\right)}{R_2g_m + s^3\left(C_1C_2L_2R_2 + C_1C_2L_2R_L\right) + s^2\left(C_1C_2R_2R_L + C_2L_2R_2g_m + C_2L_2\right) + s\left(C_1R_2 + C_1R_L + C_2R_2\right) + 1}$

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10.201 INVALID-ORDER-201 Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                                                                                                H(s) = \frac{{{C_2}{R_2}s + {R_2}{g_m} + {s^2}\left( {{C_2}{L_2}{R_2}{g_m} + {C_2}{L_2}} \right) + 1}}{{{C_1}{C_2}{C_L}{L_2}{R_2}{s^4} + {s^3}\left( {{C_1}{C_2}{L_2} + {C_2}{C_L}{L_2}{R_2}{g_m} + {C_2}{C_L}{L_2}} \right) + {s^2}\left( {{C_1}{C_2}{R_2} + {C_1}{C_L}{R_2} + {C_2}{C_L}{R_2}} \right) + s\left( {{C_1} + {C_L}{R_2}{g_m} + {C_L}} \right)}}
10.202 INVALID-ORDER-202 Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)
                                                                               H(s) = \frac{C_2 R_2 R_L s + R_2 R_L g_m + R_L + s^2 \left(C_2 L_2 R_2 R_L g_m + C_2 L_2 R_L\right)}{C_1 C_2 C_L L_2 R_2 R_L s^4 + R_2 g_m + s^3 \left(C_1 C_2 L_2 R_2 + C_1 C_2 L_2 R_L + C_2 C_L L_2 R_L\right) + s^2 \left(C_1 C_2 R_2 R_L + C_1 C_L R_2 R_L + C_2 C_L R_2 
10.203 INVALID-ORDER-203 Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)
                                                                                                                                                                                                        10.204 INVALID-ORDER-204 Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)
                                                                                                                                                                                                    H(s) = \frac{C_2C_LL_LR_2s^3 + C_2R_2s + R_2g_m + s^4\left(C_2C_LL_2L_LR_2g_m + C_2C_LL_2L_L\right) + s^2\left(C_2L_2R_2g_m + C_2L_2 + C_LL_LR_2g_m + C_LL_L\right) + 1}{C_1C_2C_LL_2L_Ls^5 + s^4\left(C_1C_2C_LL_2R_2 + C_1C_2C_LL_R\right) + s^3\left(C_1C_2L_2 + C_1C_LL_2 + C_2C_LL_2R_2g_m + C_2C_LL_2\right) + s^2\left(C_1C_2R_2 + C_1C_LR_2 + C_2C_LR_2\right) + s\left(C_1C_2R_2 + C_1C_LR_2\right) + s\left(C_1C_2R_2 + C_1C_LR_2\right) + s\left(C_1C_2R_2 + C_1C_LR_2\right) + s\left(C_1C_2R_2 + C_1C_LR_2\right) + s\left(C_1C_2R_2\right) + s\left(C_1C_2R_2R_2\right) + s\left(C_1C_2R_2\right) 
10.205 INVALID-ORDER-205 Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^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_2L_LR_2s^2 + s^3\left(C_2L_2L_LR_2g_m + C_2L_2L_L\right) + s\left(L_LR_2g_m + L_L\right)}{C_1C_2C_LL_2L_LR_2s^5 + R_2g_m + s^4\left(C_1C_2L_2L_L + C_2C_LL_2L_LR_2g_m + C_2C_LL_2L_L\right) + s^3\left(C_1C_2L_2R_2 + C_1C_2L_LR_2 + C_1C_LL_LR_2 + C_2C_LL_LR_2\right) + s^2\left(C_1L_L + C_2L_2R_2g_m + C_2L_L + C_2L_LR_2g_m + C_LL_L\right) + s\left(C_1R_2 + C_2R_2\right) + 1}
10.206 INVALID-ORDER-206 Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)
                                                                                 H(s) = \frac{R_2 g_m + s^4 \left(C_2 C_L L_2 L_L R_2 g_m + C_2 C_L L_2 L_L\right) + s^3 \left(C_2 C_L L_2 R_L g_m + C_2 C_L L_2 R_L + C_2 C_L L_2 R_L\right) + s^2 \left(C_2 C_L R_2 R_L + C_2 L_2 R_2 g_m + C_2 L_2 + C_L L_L R_2 g_m + C_L L_L\right) + s \left(C_2 R_2 + C_L R_2 R_L g_m + C_L R_L\right) + 1}{C_1 C_2 C_L L_2 L_L L_2^5 + s^4 \left(C_1 C_2 C_L L_2 R_2 + C_1 C_L L_2 R_L + C_1 C_L L_L R_2\right) + s^3 \left(C_1 C_2 C_L R_2 R_L + C_1 C_L L_2 + C_1 C_L L_L + C_2 C_L L_2 R_2 g_m + C_2 C_L L_2\right) + s^2 \left(C_1 C_2 R_2 + C_1 C_L R_2 + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right) + s \left(C_1 C_2 R_2 R_L + C_1 C_L R_2\right)
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10.207 INVALID-ORDER-207 $Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

10.208 INVALID-ORDER-208 $Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

10.209 INVALID-ORDER-209 $Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

 $H(s) = \frac{C_2L_LR_2R_Ls^2 + s^3\left(C_2L_2L_LR_2R_Lg_m + C_2L_2L_LR_L\right) + s\left(L_LR_2R_Lg_m + L_LR_L\right)}{C_1C_2C_LL_2L_LR_2R_Ls^5 + R_2R_Lg_m + R_L + s^4\left(C_1C_2L_2L_LR_2 + C_1C_2L_LR_2R_Lg_m + C_2C_LL_LR_2\right) + s^3\left(C_1C_2L_2R_2R_L + C_1C_LL_LR_2R_L + C_2C_LL_LR_2R_L +$

 $H(s) = \frac{R_2 R_L g_m + R_L + s^4 \left(C_2 C_L L_2 L_L R_2 R_L g_m + C_2 C_L L_2 L_L R_2 R_L + C_2 L_2 L_L R_2 g_m + C_2 L_2 R_L + C_2 L_L R_2 R_L g_m + C_2$

10.210 INVALID-ORDER-210
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L}{R_1 R_2 g_m + R_1 + R_2 + R_L + s \left(C_1 R_1 R_2 + C_1 R_1 R_L\right)}$$

10.211 INVALID-ORDER-211
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s^2 \left(C_L L_L R_1 R_2 g_m + C_L L_L R_1 \right)}{C_1 C_L L_L R_1 s^3 + s^2 \left(C_1 C_L R_1 R_2 + C_L L_L \right) + s \left(C_1 R_1 + C_L R_1 R_2 g_m + C_L R_1 + C_L R_2 \right) + 1}$$

10.212 INVALID-ORDER-212
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{s\left(L_{L}R_{1}R_{2}g_{m} + L_{L}R_{1}\right)}{C_{1}C_{L}L_{L}R_{1}R_{2}s^{3} + R_{1}R_{2}g_{m} + R_{1} + R_{2} + s^{2}\left(C_{1}L_{L}R_{1} + C_{L}L_{L}R_{1}R_{2}g_{m} + C_{L}L_{L}R_{1} + C_{L}L_{L}R_{2}\right) + s\left(C_{1}R_{1}R_{2} + L_{L}\right)}$$

10.213 INVALID-ORDER-213
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s^2 \left(C_L L_L R_1 R_2 g_m + C_L L_L R_1 \right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1 R_L \right)}{C_1 C_L L_L R_1 s^3 + s^2 \left(C_1 C_L R_1 R_2 + C_1 C_L R_1 R_L + C_L L_L \right) + s \left(C_1 R_1 + C_L R_1 R_2 g_m + C_L R_1 + C_L R_2 + C_L R_L \right) + 1}$$

10.214 INVALID-ORDER-214
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{s\left(L_{L}R_{1}R_{2}R_{L}g_{m} + L_{L}R_{1}R_{L}\right)}{C_{1}C_{L}L_{L}R_{1}R_{2}R_{L}s^{3} + R_{1}R_{2}R_{L}g_{m} + R_{1}R_{L} + R_{2}R_{L} + s^{2}\left(C_{1}L_{L}R_{1}R_{2} + C_{1}L_{L}R_{1}R_{L} + C_{L}L_{L}R_{1}R_{L} + C_{L}L_{L}R_{1}R_{L} + C_{L}L_{L}R_{2}R_{L}\right) + s\left(C_{1}R_{1}R_{2}R_{L} + L_{L}R_{1}R_{2}g_{m} + L_{L}R_{1} + L_{L}R_{2} + L_{L}R_{L}R_{L}\right)}{s\left(C_{1}R_{1}R_{2}R_{L}g_{m} + R_{1}R_{L} + R_{2}R_{L} + s^{2}\left(C_{1}L_{L}R_{1}R_{2} + C_{L}L_{L}R_{1}R_{L} + C_{L}L_{L}R_{1}R_{L} + C_{L}L_{L}R_{2}R_{L}\right) + s\left(C_{1}R_{1}R_{2}R_{L} + L_{L}R_{1}R_{2} + L_{L}R_{1} + L_{L}R_{1}R_{L} + C_{L}L_{L}R_{1}R_{L}\right)}{s\left(C_{1}R_{1}R_{2}R_{L} + R_{1}R_{L} + R_{2}R_{L} + s^{2}\left(C_{1}L_{L}R_{1}R_{2} + C_{L}L_{L}R_{1}R_{L} + C_{L}L_{L}R_{1}R_{L} + C_{L}L_{L}R_{2}R_{L}\right) + s\left(C_{1}R_{1}R_{2}R_{L} + L_{L}R_{1}R_{2}R_{L} + L_{L}R_{1}R_{L} + L_{L}R_{1}R_{L} + L_{L}R_{1}R_{L}\right)}{s\left(C_{1}R_{1}R_{2}R_{L} + R_{1}R_{L} + R_{2}R_{L} + R_{1}R_{L}R_{L} + L_{L}R_{1}R_{L}\right)}$$

10.215 INVALID-ORDER-215 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{R_{1}R_{2}R_{L}g_{m} + R_{1}R_{L} + s^{2}\left(C_{L}L_{L}R_{1}R_{2}R_{L}g_{m} + C_{L}L_{L}R_{1}R_{L}\right) + s\left(L_{L}R_{1}R_{2}g_{m} + L_{L}R_{1}\right)}{R_{1}R_{2}g_{m} + R_{1} + R_{2} + R_{L} + s^{3}\left(C_{1}C_{L}L_{L}R_{1}R_{L}\right) + s^{2}\left(C_{1}L_{L}R_{1} + C_{L}L_{L}R_{1}R_{2}g_{m} + C_{L}L_{L}R_{1} + C_{L}L_{L}R_{2} + C_{L}L_{L}R_{L}\right) + s\left(C_{1}R_{1}R_{2} + C_{1}R_{1}R_{L} + L_{L}\right)}$$

10.216 INVALID-ORDER-216 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

$$H(s) = \frac{R_{1}R_{2}R_{L}g_{m} + R_{1}R_{L} + s^{2}\left(C_{L}L_{L}R_{1}R_{2}R_{L}g_{m} + C_{L}L_{L}R_{1}R_{L}\right)}{R_{1}R_{2}g_{m} + R_{1} + R_{2} + R_{L} + s^{3}\left(C_{1}C_{L}L_{L}R_{1}R_{2} + C_{1}C_{L}L_{R}R_{L}\right) + s^{2}\left(C_{1}C_{L}R_{1}R_{2}R_{L} + C_{L}L_{L}R_{1}R_{2}g_{m} + C_{L}L_{L}R_{1} + C_{L}L_{L}R_{1} + C_{L}L_{L}R_{1} + C_{L}L_{R}R_{2} + C_{L}R_{1}R_{L} + C_{L}R_{1}R_{2} + C_{L}R_{1}R_{L} + C_{L}R$$

10.217 INVALID-ORDER-217 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2 R_1 s + R_1 g_m}{s^2 \left(C_1 C_2 R_1 + C_1 C_L R_1 + C_2 C_L R_1 \right) + s \left(C_2 + C_L R_1 g_m + C_L \right)}$$

10.218 INVALID-ORDER-218 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2C_LR_1R_Ls^2 + R_1g_m + s\left(C_2R_1 + C_LR_1R_Lg_m\right)}{C_1C_2C_LR_1R_Ls^3 + s^2\left(C_1C_2R_1 + C_1C_LR_1 + C_2C_LR_1 + C_2C_LR_L\right) + s\left(C_2 + C_LR_1g_m + C_L\right)}$$

10.219 INVALID-ORDER-219 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2C_LL_LR_1s^3 + C_2R_1s + C_LL_LR_1g_ms^2 + R_1g_m}{C_1C_2C_LL_LR_1s^4 + C_2C_LL_Ls^3 + s^2\left(C_1C_2R_1 + C_1C_LR_1 + C_2C_LR_1\right) + s\left(C_2 + C_LR_1g_m + C_L\right)}$$

10.220 INVALID-ORDER-220
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2L_LR_1s^2 + L_LR_1g_ms}{R_1g_m + s^3\left(C_1C_2L_LR_1 + C_1C_LL_LR_1 + C_2C_LL_LR_1\right) + s^2\left(C_2L_L + C_LL_LR_1g_m + C_LL_L\right) + s\left(C_1R_1 + C_2R_1\right) + 1}$$

10.221 INVALID-ORDER-221
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2C_LL_LR_1s^3 + R_1g_m + s^2\left(C_2C_LR_1R_L + C_LL_LR_1g_m\right) + s\left(C_2R_1 + C_LR_1R_Lg_m\right)}{C_1C_2C_LL_LR_1s^4 + s^3\left(C_1C_2C_LR_1R_L + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_1C_LR_1 + C_2C_LR_1 + C_2C_LR_L\right) + s\left(C_2 + C_LR_1g_m + C_L\right)}$$

10.222 INVALID-ORDER-222
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_2 L_L R_1 R_L s^2 + L_L R_1 R_L g_m s}{R_1 R_L g_m + R_L + s^3 \left(C_1 C_2 L_L R_1 R_L + C_1 C_L L_L R_1 R_L + C_2 C_L L_L R_1 R_L \right) + s^2 \left(C_1 L_L R_1 + C_2 L_L R_1 + C_2 L_L R_1 + C_2 L_L R_1 R_L + C_L L_L R_1 R_L g_m + C_L L_L R_1 \right) + s \left(C_1 R_1 R_L + C_2 R_1 R_L + L_L R_1 g_m + L_L \right)}$$

10.223 INVALID-ORDER-223
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2C_LL_LR_1R_Ls^3 + R_1R_Lg_m + s^2\left(C_2L_LR_1 + C_LL_LR_1R_Lg_m\right) + s\left(C_2R_1R_L + L_LR_1g_m\right)}{C_1C_2C_LL_LR_1R_Ls^4 + R_1g_m + s^3\left(C_1C_2L_LR_1 + C_2C_LL_LR_1 + C_2C_LL_LR_1\right) + s^2\left(C_1C_2R_1R_L + C_2L_LR_1g_m + C_LL_L\right) + s\left(C_1R_1 + C_2R_1 + C_2R_L\right) + 1}$$

10.224 INVALID-ORDER-224
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_2C_LL_LR_1R_Ls^3 + C_2R_1R_Ls + C_LL_LR_1R_Lg_ms^2 + R_1R_Lg_m}{C_1C_2C_LL_LR_1R_Ls^4 + R_1g_m + s^3\left(C_1C_LL_LR_1 + C_2C_LL_LR_1 + C_2C_LL_LR_1\right) + s^2\left(C_1C_2R_1R_L + C_1C_LR_1R_L + C_2C_LR_1R_L + C_LL_LR_1g_m + C_LL_L\right) + s\left(C_1R_1 + C_2R_1 + C_2R_L + C_LR_1R_Lg_m + C_LR_L\right) + 1}$$

10.225 INVALID-ORDER-225
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2C_LR_1R_2R_Ls^2 + R_1R_2g_m + R_1 + s\left(C_2R_1R_2 + C_LR_1R_2R_Lg_m + C_LR_1R_L\right)}{C_1C_2C_LR_1R_2R_Ls^3 + s^2\left(C_1C_2R_1R_2 + C_1C_LR_1R_2 + C_1C_LR_1R_2 + C_2C_LR_1R_2 + C_2C_LR_2R_L\right) + s\left(C_1R_1 + C_2R_2 + C_LR_1R_2g_m + C_LR_1 + C_LR_2 + C_LR_L\right) + 1}$$

10.226 INVALID-ORDER-226
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2C_LL_LR_1R_2s^3 + C_2R_1R_2s + R_1R_2g_m + R_1 + s^2\left(C_LL_LR_1R_2g_m + C_LL_LR_1\right)}{C_1C_2C_LL_LR_1R_2s^4 + s^3\left(C_1C_LL_LR_1 + C_2C_LL_LR_2\right) + s^2\left(C_1C_2R_1R_2 + C_1C_LR_1R_2 + C_2C_LR_1R_2 + C_LL_L\right) + s\left(C_1R_1 + C_2R_2 + C_LR_1R_2g_m + C_LR_1 + C_LR_2\right) + 1}$$

10.227 INVALID-ORDER-227 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{C_2 L_L R_1 R_2 s^2 + s \left(L_L R_1 R_2 g_m + L_L R_1 \right)}{R_1 R_2 g_m + R_1 + R_2 + s^3 \left(C_1 C_2 L_L R_1 R_2 + C_1 C_L L_L R_1 R_2 + C_2 C_L L_L R_1 R_2 \right) + s^2 \left(C_1 L_L R_1 + C_2 L_L R_1 R_2 g_m + C_L L_L R_1 + C_L L_L R_1 \right) + s \left(C_1 R_1 R_2 + C_2 R_1 R_2 + L_L \right)}$$

10.228 INVALID-ORDER-228
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2C_LL_LR_1R_2s^3 + R_1R_2g_m + R_1 + s^2\left(C_2C_LR_1R_2R_L + C_LL_LR_1R_2g_m + C_LL_LR_1\right) + s\left(C_2R_1R_2 + C_LR_1R_2R_Lg_m + C_LR_1R_2\right)}{C_1C_2C_LL_LR_1R_2s^4 + s^3\left(C_1C_2C_LR_1R_2R_L + C_1C_LL_RR_1 + C_2C_LR_1R_2 + C_1C_LR_1R_2 + C_2C_LR_1R_2 +$$

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10.230 INVALID-ORDER-230 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{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
H(s) = \frac{C_2C_LL_LR_1R_2R_Ls^3 + R_1R_2R_Lg_m + R_1R_L + s^2\left(C_2L_LR_1R_2 + C_LL_LR_1R_2R_Lg_m + C_LL_LR_1R_L\right) + s\left(C_2R_1R_2R_L + L_LR_1R_2g_m + L_LR_1\right)}{C_1C_2C_LL_LR_1R_2R_Ls^4 + R_1R_2g_m + R_1 + R_2 + R_L + s^3\left(C_1C_2L_LR_1R_2 + C_1C_LL_LR_1R_2 + C_2C_LL_LR_1R_2 + C_2C_LL_LR_1R_2 + C_2C_LL_LR_1R_2 + C_2C_LL_RR_1R_2 + C_2C_L
10.231 INVALID-ORDER-231 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 L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_2C_LL_LR_1R_2R_Ls^3 + C_2R_1R_2R_Ls + R_1R_2R_Lg_m + R_1R_L + s^2\left(C_LL_LR_1R_2R_Lg_m + C_LL_LR_1R_L\right)}{C_1C_2C_LL_LR_1R_2R_Ls^4 + R_1R_2g_m + R_1 + R_2 + R_L + s^3\left(C_1C_LL_LR_1R_2 + C_2C_LL_LR_1R_2 + C_2C_LL_LR_2R_L\right) + s^2\left(C_1C_2R_1R_2R_L + C_1C_LR_1R_2R_L + C_2C_LR_1R_2R_L + C_2C_L
10.232 INVALID-ORDER-232 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{R_1 g_m + s \left(C_2 R_1 R_2 g_m + C_2 R_1\right)}{C_1 C_2 C_L R_1 R_2 s^3 + s^2 \left(C_1 C_2 R_1 + C_1 C_L R_1 + C_2 C_L R_1 R_2 g_m + C_2 C_L R_1 + C_2 C_L R_2\right) + s \left(C_2 + C_L R_1 g_m + C_L\right)}
10.233 INVALID-ORDER-233 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{R_1 R_L g_m + s \left( C_2 R_1 R_2 R_L g_m + C_2 R_1 R_L \right)}{C_1 C_2 C_L R_1 R_2 R_L s^3 + R_1 g_m + s^2 \left( C_1 C_2 R_1 R_2 + C_1 C_2 R_1 R_L + C_1 C_L R_1 R_L + C_2 C_L R_1 R_2 R_L g_m + C_2 C_L R_1 R_L + C_2 C_L R_2 R_L \right) + s \left( C_1 R_1 + C_2 R_1 R_2 g_m + C_2 R_1 + C_2 R_2 + C_2 R_L + C_L R_1 R_L g_m + C_L R_L \right) + 1 \left( C_1 R_1 R_2 R_L g_m + C_2 R_1 R_2 R_L g_m
10.234 INVALID-ORDER-234 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{R_1 g_m + s^2 \left( C_2 C_L R_1 R_2 R_L g_m + C_2 C_L R_1 R_L \right) + s \left( C_2 R_1 R_2 g_m + C_2 R_1 + C_L R_1 R_L g_m \right)}{s^3 \left( C_1 C_2 C_L R_1 R_2 + C_1 C_2 C_L R_1 R_L \right) + s^2 \left( C_1 C_2 R_1 + C_1 C_L R_1 + C_2 C_L R_1 R_2 g_m + C_2 C_L R_1 + C_2 C_L R_2 + C_2 C_L R_1 \right) + s \left( C_2 + C_L R_1 g_m + C_L \right)}
10.235 INVALID-ORDER-235 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 R_1 g_m s^2 + R_1 g_m + s^3 \left(C_2 C_L L_L R_1 R_2 g_m + C_2 C_L L_L R_1\right) + s \left(C_2 R_1 R_2 g_m + C_2 R_1\right)}{C_1 C_2 C_L L_L R_1 s^4 + s^3 \left(C_1 C_2 C_L R_1 R_2 + C_2 C_L L_L\right) + s^2 \left(C_1 C_2 R_1 + C_1 C_L R_1 + C_2 C_L R_1 R_2 g_m + C_2 C_L R_1 + C_2 C_L R_1\right) + s \left(C_2 + C_L R_1 g_m + C_L R_1\right)}
10.236 INVALID-ORDER-236 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)
                                                                                                        10.237 INVALID-ORDER-237 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{R_{1}g_{m} + s^{3}\left(C_{2}C_{L}L_{L}R_{1}R_{2}g_{m} + C_{2}C_{L}L_{L}R_{1}\right) + s^{2}\left(C_{2}C_{L}R_{1}R_{2}R_{L}g_{m} + C_{2}C_{L}R_{1}R_{L} + C_{L}L_{L}R_{1}g_{m}\right) + s\left(C_{2}R_{1}R_{2}g_{m} + C_{2}R_{1} + C_{L}R_{1}R_{L}g_{m}\right)}{C_{1}C_{2}C_{L}L_{L}R_{1}s^{4} + s^{3}\left(C_{1}C_{2}C_{L}R_{1}R_{2} + C_{1}C_{2}C_{L}R_{1}R_{L} + C_{2}C_{L}R_{1} + C_{1}C_{L}R_{1} + C_{2}C_{L}R_{1}R_{2}g_{m} + C_{2}C_{L}R_{1} + C_{2}C_{
10.238 INVALID-ORDER-238 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 R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     L_L R_1 R_L g_m s + s^2 (C_2 L_L R_1 R_2 R_L g_m + C_2 L_L R_1 R_L)
                                     \frac{L_L R_1 R_2 R_L s^4 + R_1 R_L g_m + R_L + s^3 \left(C_1 C_2 L_L R_1 R_2 + C_1 C_2 L_L R_1 R_L + C_2 C_L L_L R_1 R_2 R_L g_m + C_2 L_L R_1 R_2 R_L g_
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 $H(s) = \frac{C_2 L_L R_1 R_2 R_L s^2 + s \left(L_L R_1 R_2 R_L g_m + L_L R_1 R_L\right)}{R_1 R_2 R_L g_m + R_1 R_L + R_2 R_L + s^3 \left(C_1 C_2 L_L R_1 R_2 R_L + C_1 C_L L_L R_1 R_2 R_L\right) + s^2 \left(C_1 L_L R_1 R_2 + C_2 L_L R_$

10.229 INVALID-ORDER-229 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

10.239 INVALID-ORDER-239 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$ $H(s) = \frac{R_1 R_L g_m + s^3 \left(C_2 C_L L_L R_1 R_2 R_L g_m + C_2 C_L L_L R_1 R_L g_m + C_2 L_L R_1 R_L g_m + s^2 \left(C_2 L_L R_1 R_2 g_m + C_2 L_L R_1 R_L g_m \right) + s \left(C_2 R_1 R_2 R_L g_m + C_2 R_1 R_L + L_L R_1 g_m \right)}{R_1 g_m + s^4 \left(C_1 C_2 C_L L_L R_1 R_2 + C_1 C_2 C_L L_L R_1 R_2 + C_2 C_L L_L R_1 + C_2 C_L L_L R_$ 10.240 INVALID-ORDER-240 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$ **10.241** INVALID-ORDER-241 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$ $H(s) = \frac{C_2L_2R_1R_Lg_ms^2 + C_2R_1R_Ls + R_1R_Lg_m}{C_1C_2L_2R_1s^3 + R_1g_m + s^2\left(C_1C_2R_1R_L + C_2L_2R_1g_m + C_2L_2\right) + s\left(C_1R_1 + C_2R_1 + C_2R_L\right) + 1}$ **10.242** INVALID-ORDER-242 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$ $H(s) = \frac{C_2 L_2 R_1 g_m s^2 + C_2 R_1 s + R_1 g_m}{C_1 C_2 C_L L_2 R_1 s^4 + s^3 \left(C_2 C_L L_2 R_1 g_m + C_2 C_L L_2 \right) + s^2 \left(C_1 C_2 R_1 + C_1 C_L R_1 + C_2 C_L R_1 \right) + s \left(C_2 + C_L R_1 g_m + C_L \right)}$ **10.243** INVALID-ORDER-243 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$ $H(s) = \frac{C_2L_2R_1R_Lg_ms^2 + C_2R_1R_Ls + R_1R_Lg_m}{C_1C_2C_LL_2R_1R_Ls^4 + R_1g_m + s^3\left(C_1C_2L_2R_1 + C_2C_LL_2R_1R_Lg_m + C_2C_LL_2R_L\right) + s^2\left(C_1C_2R_1R_L + C_1C_LR_1R_L + C_2C_LR_1g_m + C_2L_2\right) + s\left(C_1R_1 + C_2R_1 + C_2R_1 + C_2R_1R_Lg_m + C_2R_L\right) + 1}$ **10.244** INVALID-ORDER-244 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$ $H(s) = \frac{C_2C_LL_2R_1R_Lg_ms^3 + R_1g_m + s^2\left(C_2C_LR_1R_L + C_2L_2R_1g_m\right) + s\left(C_2R_1 + C_LR_1R_Lg_m\right)}{C_1C_2C_LL_2R_1s^4 + s^3\left(C_1C_2C_LR_1R_L + C_2C_LL_2R_1g_m + C_2C_LL_2\right) + s^2\left(C_1C_2R_1 + C_1C_LR_1 + C_2C_LR_1 + C_2C_LR_1\right) + s\left(C_2 + C_LR_1g_m + C_L\right)}$ **10.245** INVALID-ORDER-245 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$ $H(s) = \frac{C_2C_LL_2L_LR_1g_ms^4 + C_2C_LL_LR_1s^3 + C_2R_1s + R_1g_m + s^2\left(C_2L_2R_1g_m + C_LL_LR_1g_m\right)}{s^4\left(C_1C_2C_LL_2R_1 + C_1C_2C_LL_LR_1\right) + s^3\left(C_2C_LL_2R_1g_m + C_2C_LL_2 + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_1C_LR_1 + C_2C_LR_1\right) + s\left(C_2 + C_LR_1g_m + C_L\right)}$ 10.246 INVALID-ORDER-246 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$ $H(s) = \frac{C_2L_2L_LR_1g_ms^3 + C_2L_LR_1s^2 + L_LR_1g_ms}{C_1C_2C_LL_2L_LR_1s^5 + R_1g_m + s^4\left(C_2C_LL_2L_LR_1g_m + C_2C_LL_2L_L\right) + s^3\left(C_1C_2L_2R_1 + C_1C_2L_LR_1 + C_1C_LL_LR_1 + C_2C_LL_LR_1\right) + s^2\left(C_2L_2R_1g_m + C_2L_2 + C_2L_L + C_LL_LR_1g_m + C_LL_L\right) + s\left(C_1R_1 + C_2R_1\right) + 1}$

 $\begin{aligned} \textbf{10.247} \quad \textbf{INVALID-ORDER-247} \ Z(s) &= \left(\frac{R_1}{C_1 R_1 s + 1}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right) \\ & H(s) &= \frac{C_2 C_L L_2 L_L R_1 g_m s^4 + R_1 g_m + s^3 \left(C_2 C_L L_2 R_1 R_L g_m + C_2 C_L L_L R_1\right) + s^2 \left(C_2 C_L R_1 R_L + C_2 L_2 R_1 g_m + C_L L_L R_1 g_m\right) + s \left(C_2 R_1 + C_L R_1 R_L g_m\right)}{s^4 \left(C_1 C_2 C_L L_2 R_1 + C_1 C_2 C_L L_L R_1\right) + s^3 \left(C_1 C_2 C_L R_1 R_L + C_2 C_L L_2 R_1 g_m + C_2 C_L L_2 + C_2 C_L L_L\right) + s^2 \left(C_1 C_2 R_1 + C_1 C_L R_1 + C_2 C_L R_1\right) + s \left(C_2 + C_L R_1 g_m + C_L\right)} \end{aligned}$

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10.248 INVALID-ORDER-248 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 R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
H(s) = \frac{C_2L_2L_LR_1R_Lg_ms^3 + C_2L_LR_1R_Ls^2 + L_LR_1R_Lg_ms}{C_1C_2C_LL_2L_LR_1R_Ls^5 + R_1R_Lg_m + R_L + s^4\left(C_1C_2L_2L_LR_1 + C_2C_LL_2L_LR_1 + C_2C_LL_2L_RR_1 + C_1C_2L_LR_1R_L + C_1C_LL_RR_1R_L + C_2C_LL_RR_1R_L + C_
10.249 INVALID-ORDER-249 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
H(s) = \frac{C_2C_LL_2L_LR_1R_Lg_ms^4 + R_1R_Lg_m + s^3\left(C_2C_LL_LR_1R_L + C_2L_2L_LR_1g_m\right) + s^2\left(C_2L_2R_1R_Lg_m + C_2L_LR_1 + C_LL_LR_1R_Lg_m\right) + s\left(C_2R_1R_L + L_LR_1g_m\right) + s\left(C_2R_1R_1R_1R_1 + L_LR_1g_m\right) + s\left(C_2R
10.250 INVALID-ORDER-250 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_2C_LL_2L_LR_1R_Lg_ms^4 + C_2C_LL_LR_1R_Ls^3 + C_2R_1R_Ls + R_1R_Lg_m + s^2\left(C_2L_2R_1R_Lg_m + C_LL_LR_1R_Lg_m\right)}{C_1C_2C_LL_2L_LR_1s^5 + R_1g_m + s^4\left(C_1C_2C_LL_2R_1R_L + C_2C_LL_2R_1R_L + C_2C_LL_2R_1 + C_2C_LL_2R
10.251 INVALID-ORDER-251 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{C_2L_2R_1R_Lg_ms^2 + R_1R_Lg_m + s\left(C_2R_1R_2R_Lg_m + C_2R_1R_L\right)}{C_1C_2L_2R_1s^3 + R_1g_m + s^2\left(C_1C_2R_1R_2 + C_1C_2R_1R_L + C_2L_2R_1g_m + C_2L_2\right) + s\left(C_1R_1 + C_2R_1R_2g_m + C_2R_1 + C_2R_2 + C_2R_L\right) + 1}
10.252 INVALID-ORDER-252 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_2L_2R_1g_ms^2 + R_1g_m + s\left(C_2R_1R_2g_m + C_2R_1\right)}{C_1C_2C_LL_2R_1s^4 + s^3\left(C_1C_2C_LR_1R_2 + C_2C_LL_2R_1q_m + C_2C_LL_2\right) + s^2\left(C_1C_2R_1 + C_1C_LR_1 + C_2C_LR_1R_2q_m + C_2C_LR_1 + C_2C_LR_1\right) + s\left(C_2 + C_LR_1q_m + C_L\right)}
10.253 INVALID-ORDER-253 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_2L_2R_1R_Lg_ms^2 + R_1R_Lg_m + s\left(C_2R_1R_2R_Lg_m + C_2R_1R_L\right)}{C_1C_2C_LL_2R_1R_Ls^4 + R_1g_m + s^3\left(C_1C_2C_LR_1R_2R_L + C_1C_2L_2R_1 + C_2C_LL_2R_1R_Lg_m + C_2C_LL_2R_1R_L + C_1C_LR_1R_L + C_2C_LR_1R_L + C_2C_LR_1R
10.254 INVALID-ORDER-254 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_2C_LL_2R_1R_Lg_ms^3 + R_1g_m + s^2\left(C_2C_LR_1R_2R_Lg_m + C_2C_LR_1R_L + C_2L_2R_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1 + C_LR_1R_Lg_m\right)}{C_1C_2C_LL_2R_1s^4 + s^3\left(C_1C_2C_LR_1R_2 + C_1C_2C_LR_1R_L + C_2C_LR_1g_m + C_2C_LR_1 + C_1C_LR_1 + C_2C_LR_1R_2g_m + C_2C_LR_1 + C_2C_L
10.255 INVALID-ORDER-255 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{C_2C_LL_2L_LR_1g_ms^4 + R_1g_m + s^3\left(C_2C_LL_LR_1R_2g_m + C_2C_LL_LR_1\right) + s^2\left(C_2L_2R_1g_m + C_LL_LR_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1\right)}{s^4\left(C_1C_2C_LL_2R_1 + C_1C_2C_LL_RR_1\right) + s^3\left(C_1C_2C_LR_1R_2 + C_2C_LL_RR_1g_m + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_1C_LR_1 + C_2C_LR_1R_2g_m + C_2C_LR_1\right) + s\left(C_2R_1R_2g_m + C_2C_LR_1\right) + s\left(C_2R
10.256 INVALID-ORDER-256 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)
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 $H(s) = \frac{C_2L_2L_R_1g_ms^3 + L_LR_1g_ms + s^2\left(C_2L_LR_1R_2g_m + C_2L_LR_1\right)}{C_1C_2C_LL_2L_R_1s^5 + R_1g_m + s^4\left(C_1C_2C_LL_LR_1R_2 + C_2C_LL_LR_1g_m + C_2C_LL_LR_1 + C_1C_LL_RR_1 + C_2C_LL_LR_1 +$

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H(s) = \frac{C_2C_LL_2L_LR_1g_ms^4 + R_1g_m + s^3\left(C_2C_LL_2R_1R_Lg_m + C_2C_LL_LR_1R_2g_m + C_2C_LL_LR_1\right) + s^2\left(C_2C_LR_1R_2R_Lg_m + C_2C_LR_1R_L + C_2L_2R_1g_m + C_LL_LR_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1R_Lg_m + C_2R_1R_Lg_m + C_2R_1R_Lg_m\right)}{s^4\left(C_1C_2C_LL_2R_1 + C_1C_2C_LL_RR_1\right) + s^3\left(C_1C_2C_LR_1R_L + C_2C_LL_RR_1g_m + C_2C_LR_1R_L + C_2C_LR_1R_2g_m + C_2C_LR_1R
10.258 INVALID-ORDER-258 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 R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C_2L_2L_LR_1R_Lg_ms^3 + L_LR_1R_Lg_ms + s^2(C_2L_LR_1)
H(s) = \frac{C_2L_2L_LR_1R_Lg_m s + L_LR_1R_Lg_m s + s + C_2L_LLR_1}{C_1C_2C_LL_2L_LR_1R_Ls^5 + R_1R_Lg_m + R_L + s^4\left(C_1C_2C_LL_LR_1R_2R_L + C_1C_2L_LR_1R_Lg_m + C_2C_LL_LR_1R_L + C_1C_LL_LR_1R_L + C_1C_LL_LR_1R_L + C_1C_LL_LR_1R_L + C_2C_LL_LR_1R_L + C_2C_LL_LR_1
10.259 INVALID-ORDER-259 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{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
H(s) = \frac{C_2C_LL_2L_RR_1R_Lg_m + s^3\left(C_2C_LL_LR_1R_2R_Lg_m + C_2C_LL_RR_1R_Lg_m + C_2L_LR_1R_2g_m +
10.260 INVALID-ORDER-260 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, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C_2C_LL_2L_LR_1R_Lg_ms^4 + R_1R_Lg_m + s^3\left(C_2C_LL_LR_1R_2R_Lg_m + C_2C_LL_LR_1R_L\right) + s^2\left(C_2C_LL_LR_1R_Lg_m + C_2C_LL_LR_1R_L\right)
H(s) = \frac{C_2C_LL_2L_LR_1R_Lg_ms^4 + R_1R_Lg_m + s^3\left(C_2C_LL_LR_1R_2R_Lg_m + C_2C_LL_LR_1R_L\right) + s^2\left(C_2C_LL_LR_1R_Lg_m + s^3\left(C_2C_LL_LR_1R_Lg_m + s^3\left(C_2C_LL_LR_1R_Lg_m + C_2C_LL_LR_1R_L\right) + s^2\left(C_2C_LL_LR_1R_Lg_m + s^3\left(C_2C_LL_LR_1R_Lg_m + s^3\left(C_2C_LL_LR_1R_Lg_m + C_2C_LL_LR_1R_Lg_m + c^3C_LL_LR_1R_Lg_m + c^3C_LL_LR_1R_1g_m + c^3C_LL_LR_1g_m 
10.261 INVALID-ORDER-261 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, R_L\right)
                                                                                                                                                                                                                              H(s) = \frac{L_2 R_1 R_L g_m s + R_1 R_2 R_L g_m + R_1 R_L + s^2 \left(C_2 L_2 R_1 R_2 R_L g_m + C_2 L_2 R_1 R_L\right)}{R_1 R_2 g_m + R_1 + R_2 + R_L + s^3 \left(C_1 C_2 L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_L\right) + s^2 \left(C_1 L_2 R_1 + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1 + C_2 L_2 R_2 + C_2 L_2 R_L\right) + s \left(C_1 R_1 R_2 + C_1 R_1 R_L + L_2 R_1 g_m + L_2\right)}
10.262 INVALID-ORDER-262 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)
                                                                                                                                                            H(s) = \frac{L_2 R_1 g_m s + R_1 R_2 g_m + R_1 + s^2 \left(C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right)}{C_1 C_2 C_L L_2 R_1 R_2 s^4 + s^3 \left(C_1 C_2 L_2 R_1 + C_1 C_L L_2 R_1 + C_2 C_L L_2 
10.263 INVALID-ORDER-263 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              L_{2}R_{1}R_{L}g_{m}s+R_{1}R_{2}R_{L}g_{m}+R_{1}R_{L}+s^{2}\left(C_{2}L_{2}R_{1}R_{2}R_{L}g_{m}+C_{2}L_{2}R_{1}R_{L}\right)
H(s) = \frac{L_2 R_1 R_L g_m s + R_1 R_2 R_L g_m + R_1 R_L + s^2 \left(C_2 L_2 R_1 R_2 R_L g_m + C_2 L_2 R_1 R_L\right)}{C_1 C_2 C_L L_2 R_1 R_2 R_L s^4 + R_1 R_2 g_m + R_1 + R_2 + R_L + s^3 \left(C_1 C_2 L_2 R_1 R_L + C_1 C_L L_2 R_1 R_L + C_2 C_L L_2 R_1 R_L + C_1 L_2 R_1 + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1 R_2 R_L + C_
10.264 INVALID-ORDER-264 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)
H(s) = \frac{R_1 R_2 g_m + R_1 + s^3 \left(C_2 C_L L_2 R_1 R_2 R_L g_m + C_2 C_L L_2 R_1 R_2 g_m + C_2 L_2 R_1 + C_L L_2 R_1 R_L g_m + s \left(C_L R_1 R_2 R_L g_m + C_L R_1 R_L + L_2 R_1 g_m\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1 R_L + L_2 R_1 g_m\right)}{s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 + C_1 C_L L_2 R_1 + C_2 C_L L_
10.265 INVALID-ORDER-265 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)
H(s) = \frac{C_L L_2 L_L R_1 g_m s^3 + L_2 R_1 g_m s + R_1 R_2 g_m + R_1 + s^4 \left(C_2 C_L L_2 L_L R_1 R_2 g_m + C_2 C_L L_2 L_L R_1\right) + s^2 \left(C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1 + C_L L_L R_1 R_2 g_m + C_L L_L R_1\right)}{C_1 C_2 C_L L_2 L_L R_1 s^5 + s^4 \left(C_1 C_2 L_L R_1 R_2 + C_2 C_L L_2 L_L\right) + s^3 \left(C_1 C_2 L_2 R_1 + C_1 C_L L_2 R_1 + C_1 C_L L_2 R_1 + C_2 C_L L_2 R_1 R_2 g_m + C_2 C_L L_2 R_1\right) + s^2 \left(C_1 C_L R_1 R_2 + C_2 L_2 R_1 R_2 + C_2 L_2 R_1 R_2 + C_2 L_2 R_1 R_2 R_1 R_2 R_1 + C_2 L_2 R_1 R_2 R_1 R_2 R_1 R_2 R_1 + C_2 L_2 R_1 R_2 R_1 R_
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10.257 INVALID-ORDER-257 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$

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10.266 INVALID-ORDER-266 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)
H(s) = \frac{L_2L_LR_1g_ms^2 + s^3\left(C_2L_2L_LR_1R_2g_m + C_2L_2L_LR_1\right) + s\left(L_LR_1R_2g_m + L_LR_1\right)}{C_1C_2C_LL_2L_LR_1R_2s^5 + R_1R_2g_m + R_1 + R_2 + s^4\left(C_1C_2L_2L_LR_1 + C_2C_LL_2L_LR_1 + C_2C_LL_2L_LR_1 + C_2C_LL_2L_LR_1 + C_2C_LL_2L_LR_1 + C_2C_LL_2L_LR_1 + C_2C_LL_2L_RR_1 + C_2C_LL_2L_2R_1 + 
10.267 INVALID-ORDER-267 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)
H(s) = \frac{R_1 R_2 g_m + R_1 + s^4 \left(C_2 C_L L_2 L_L R_1 R_2 g_m + C_2 C_L L_2 L_L R_1\right) + s^3 \left(C_2 C_L L_2 R_1 R_2 R_L g_m + C_2 C_L L_2 R_1 R_L + C_L L_2 L_L R_1 g_m\right) + s^2 \left(C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1 + C_L L_2 R_1 R_2 g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_1 R_2 R_L g_m + C_L
10.268 INVALID-ORDER-268 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
H(s) = \frac{L_2L_LR_1R_2}{C_1C_2C_LL_2L_LR_1R_2R_Ls^5 + R_1R_2R_Lg_m + R_1R_L + R_2R_L + s^4\left(C_1C_2L_2L_LR_1R_2 + C_1C_2L_2L_LR_1R_L + C_2C_LL_2L_LR_1R_L + C_2C_LL_2L_RR_1R_L + C_2C_LL_2L_2R_1R_L + C_2C_LL_2L_2R_1R_L + C_2C_LL_2R_1R_L + C_2C_LL_2R_1R_L + C_2C_LL_2R_1R_L + C_2C_LL_2R_1R_1R_L + C_2C_LL_2R_1R_1R_L + C_2C_LL_2R_1R_1R_L + C_2C_LL_2R_1R_1R_L + C_2C_LL_2
10.269 INVALID-ORDER-269 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L + s^4 \left( C_2 C_L L_2 L_L R_1 R_2 g_m + C_2 C_L L_2 L_L R_1 R_2 g_m + C_2 L_2 L_L R_1 + C_L L_2 L_L R_1 R_L g_m \right) + s^2 \left( C_2 L_2 R_1 R_2 R_L g_m + C_2 C_L L_2 L_L R_1 R_2 g_m + C_2 L_2 L_L R_1 R_2 + C_2 C_L L_2 L_
10.270 INVALID-ORDER-270 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C_L L_2 L_L R_1 R_L g_m s^3 + L_2 R_1 R_L g_m s + R_1 R_2
                                            \frac{C_L L_2 L_L r_1 r_L y_m s + L_2 r_1 r_L y_
10.271 INVALID-ORDER-271 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)
                                                                                                                                                                                               H(s) = \frac{C_2R_1R_2R_Ls + R_1R_2R_Lg_m + R_1R_L + s^2\left(C_2L_2R_1R_2R_Lg_m + C_2L_2R_1R_L\right)}{R_1R_2g_m + R_1 + R_2 + R_L + s^3\left(C_1C_2L_2R_1R_2 + C_1C_2L_2R_1R_L\right) + s^2\left(C_1C_2R_1R_2R_L + C_2L_2R_1R_2g_m + C_2L_2R_1 + C_2L_2R_2 + C_2L_2R_L\right) + s\left(C_1R_1R_2 + C_1R_1R_L + C_2R_1R_2 + C_2R_2R_L\right)}
10.272 INVALID-ORDER-272 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)
                                                                                                                                                              H(s) = \frac{C_2R_1R_2s + R_1R_2g_m + R_1 + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1\right)}{C_1C_2C_LL_2R_1R_2s^4 + s^3\left(C_1C_2L_2R_1 + C_2C_LL_2R_1R_2g_m + C_2C_LL_2R_1 + C_2C_LL_2R_1
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$$\textbf{10.272} \quad \textbf{INVALID-ORDER-272} \ \ Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls}\right) \\ H(s) = \frac{C_2R_1R_2s+R_1R_2g_m+R_1+s^2\left(C_2L_2R_1R_2g_m+C_2L_2R_1\right)}{C_1C_2C_LL_2R_1R_2s^4+s^3\left(C_1C_2L_2R_1+C_2C_LL_2R_1R_2g_m+C_2C_LL_2R_1+C_2C_LL_2R_2\right)+s^2\left(C_1C_2R_1R_2+C_2C_LR_1+$$

10.273 INVALID-ORDER-273
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

 $H(s) = \frac{C_2 R_1 R_2 R_L s + R_1 R_2 R_L g_m + R_1 R_L + s^2 \left(C_2 L_2 R_1 R_2 R_L g_m + C_2 L_2 R_1 R_L\right)}{C_1 C_2 C_L L_2 R_1 R_2 R_L s^4 + R_1 R_2 g_m + R_1 + R_2 + R_L + s^3 \left(C_1 C_2 L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 + C_2 C_L L_2 R_1 R_2 + C_2 C_L L_2 R_1 R_2 R_L + C_2 C_L L_2 R_1 R_2 R_L + C_2 C_L L_2 R_1 R_2 R_L + C_2 C_L R_1 R_2 R_L + C_2$

10.274 INVALID-ORDER-274
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^3 \left(C_2 C_L L_2 R_1 R_2 R_L g_m + C_2 C_L L_2 R_1 R_2 g_m + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1 \right) + s \left(C_2 R_1 R_2 R_L + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1 \right) + s \left(C_2 R_1 R_2 + C_L R_1 R_2 R_L g_m + C_L R_1 R_2 \right)}{s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 + C_1 C_L L_2 R_1 R_2 + C_2 C_L L_2 R_1 + C_2 C_L L_2$

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10.275 INVALID-ORDER-275 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)
H(s) = \frac{C_2C_LL_RR_1R_2s^3 + C_2R_1R_2s + R_1R_2g_m + R_1 + s^4\left(C_2C_LL_2L_RR_1R_2g_m + C_2L_LR_1\right) + s^2\left(C_2L_2R_1R_2g_m + C_2L_LR_1R_2g_m + C_LL_LR_1\right)}{C_1C_2C_LL_2L_RR_1s^5 + s^4\left(C_1C_2C_LL_2R_1R_2 + C_1C_LL_RR_1R_2 + C_2C_LL_RR_1 + C_2C_LL_RR_1R_2 + C_2C_LL_RR_1 + C_2C_LR_1 + C_2C_LR_1
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10.276 INVALID-ORDER-276
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

 $H(s) = \frac{C_2L_LR_1R_2s^2 + s^3\left(C_2L_2L_LR_1R_2g_m + C_2L_2L_LR_1\right) + s\left(L_LR_1R_2g_m + L_LR_1\right)}{C_1C_2C_LL_2L_LR_1R_2s^5 + R_1R_2g_m + R_1 + R_2 + s^4\left(C_1C_2L_2L_LR_1 + C_2C_LL_2L_LR_1 + C_2C_LL_2L_LR_2\right) + s^3\left(C_1C_2L_2R_1R_2 + C_1C_2L_LR_1R_2 + C_2C_LL_LR_1R_2 + C_2C_LL_LR_$

10.277 INVALID-ORDER-277 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^4 \left(C_2 C_L L_2 L_L R_1 R_2 g_m + C_2 C_L L_2 L_L R_1\right) + s^3 \left(C_2 C_L L_2 R_1 R_2 R_L + C_2 C_L L_L R_1 R_2\right) + s^2 \left(C_2 C_L R_1 R_2 R_L + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1 + C_L L_L R_1 R_2 g_m + C_2 L_2 R_1 R_2 R_L + C_2 C_L L_2 R_1 R_2 R_L$

10.278 INVALID-ORDER-278 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

10.279 INVALID-ORDER-279 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

 $H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L + s^4 \left(C_2 C_L L_2 L_L R_1 R_2 R_L g_m + C_2 C_L L_2 L_L R_1 R_2 \right) + s^3 \left(C_2 C_L L_L R_1 R_2 R_L + C_2 L_2 L_L R_1 R_2 g_m + C_2 L_2 L_2 R_1 R_2 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 L_2 R_1 R_2 + C_1 C_2 L_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 L_2 R_1 R_2 + C_1 C_2 L_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 L_2 R_1 R_2 + C_1 C_2 L_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 L_2 R_1 R_2 + C_1 C_2 L_2 L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 + C_1 C_2 L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 \right)$

10.280 INVALID-ORDER-280 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

 $H(s) = \frac{C_2C_LL_LR_1R_2R_Ls^3 + C_2R_1R_2R_Ls + R_1R_2R_Ls}{R_1R_2g_m + R_1 + R_2 + R_L + s^5\left(C_1C_2C_LL_2L_LR_1R_2 + C_1C_2C_LL_2L_RR_1R_2 + C_1C_2C_LL_2R_1R_2 + C_1C_2C_LL$

10.281 INVALID-ORDER-281 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{R_2 R_L g_m + R_L + s \left(C_1 R_1 R_2 R_L g_m + C_1 R_1 R_L \right)}{R_2 g_m + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + C_1 R_2 + C_1 R_L \right) + 1}$$

10.282 INVALID-ORDER-282 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_2 g_m + s \left(C_1 R_1 R_2 g_m + C_1 R_1 \right) + 1}{s^2 \left(C_1 C_L R_1 R_2 g_m + C_1 C_L R_1 + C_1 C_L R_2 \right) + s \left(C_1 + C_L R_2 g_m + C_L \right)}$$

10.283 INVALID-ORDER-283 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_2 g_m + s^2 \left(C_1 C_L R_1 R_2 R_L g_m + C_1 C_L R_1 R_L \right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + C_L R_2 R_L g_m + C_L R_L \right) + 1}{s^2 \left(C_1 C_L R_1 R_2 g_m + C_1 C_L R_1 + C_1 C_L R_2 + C_1 C_L R_L \right) + s \left(C_1 + C_L R_2 g_m + C_L \right)}$$

10.284 INVALID-ORDER-284
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_2 g_m + s^3 \left(C_1 C_L L_L R_1 R_2 g_m + C_1 C_L L_L R_1 \right) + s^2 \left(C_L L_L R_2 g_m + C_L L_L \right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 \right) + 1}{C_1 C_L L_L s^3 + s^2 \left(C_1 C_L R_1 R_2 g_m + C_1 C_L R_1 + C_1 C_L R_2 \right) + s \left(C_1 + C_L R_2 g_m + C_L \right)}$$

10.285 INVALID-ORDER-285
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{s^2 \left(C_1 L_L R_1 R_2 g_m + C_1 L_L R_1 \right) + s \left(L_L R_2 g_m + L_L \right)}{R_2 g_m + s^3 \left(C_1 C_L L_L R_1 R_2 g_m + C_1 C_L L_L R_1 + C_1 C_L L_L R_2 \right) + s^2 \left(C_1 L_L + C_L L_L R_2 g_m + C_L L_L \right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + C_1 R_2 \right) + 1}$$

10.286 INVALID-ORDER-286
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_2 g_m + s^3 \left(C_1 C_L L_L R_1 R_2 g_m + C_1 C_L L_L R_1 \right) + s^2 \left(C_1 C_L R_1 R_2 R_L g_m + C_1 C_L R_1 R_L + C_L L_L R_2 g_m + C_L L_L \right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + C_L R_2 R_L g_m + C_L R_L \right) + 1}{C_1 C_L L_L s^3 + s^2 \left(C_1 C_L R_1 R_2 g_m + C_1 C_L R_1 + C_1 C_L R_2 + C_1 C_L R_L \right) + s \left(C_1 + C_L R_2 g_m + C_L R_L \right) + s \left(C_1 + C_L R_2 g$$

10.287 INVALID-ORDER-287
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{s^2 \left(C_1 L_L R_1 R_2 R_L g_m + C_1 L_L R_1 R_L \right) + s \left(L_L R_2 R_L g_m + L_L R_L \right)}{R_2 R_L g_m + R_L + s^3 \left(C_1 C_L L_L R_1 R_2 R_L g_m + C_1 C_L L_L R_1 R_L + C_1 C_L L_L R_2 R_L \right) + s^2 \left(C_1 L_L R_1 R_2 g_m + C_1 L_L R_1 + C_1 L_L R_2 + C_1 L_L R_2 + C_1 L_L R_2 R_L g_m + C_L L_L R_2 \right) + s \left(C_1 R_1 R_2 R_L g_m + C_1 R_1 R_L + C_1 R_2 R_L g_m + C_1 L_L R_2 R_L g_m + C_1 R_2 R_L g$$

10.288 INVALID-ORDER-288
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{C_L L_R L_s^2 + L_L s + R_L}{C_L L_s^2 + 1}\right)$$

$$H(s) = \frac{R_2 R_L g_m + R_L + s^3 \left(C_1 C_L L_L R_1 R_2 R_L g_m + C_1 C_L L_L R_1 R_L \right) + s^2 \left(C_1 L_L R_1 R_2 g_m + C_1 L_L R_1 + C_L L_L R_2 R_L g_m + C_L L_L R_L \right) + s \left(C_1 R_1 R_2 R_L g_m + C_1 R_1 R_L + L_L R_2 g_m + L_L \right)}{R_2 g_m + s^3 \left(C_1 C_L L_L R_1 R_2 g_m + C_1 C_L L_L R_1 + C_1 C_L L_L R_2 + C_1 C_L L_L R_L \right) + s^2 \left(C_1 L_L + C_L L_L R_2 g_m + C_L L_L \right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + C_1 R_2 + C_1 R_L \right) + 1}$$

10.289 INVALID-ORDER-289
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_{2}R_{L}g_{m} + R_{L} + s^{3}\left(C_{1}C_{L}L_{L}R_{1}R_{2}R_{L}g_{m} + C_{1}C_{L}L_{L}R_{1}R_{L}\right) + s^{2}\left(C_{L}L_{L}R_{2}R_{L}g_{m} + C_{L}L_{L}R_{L}\right) + s\left(C_{1}R_{1}R_{2}R_{L}g_{m} + C_{1}R_{1}R_{L}\right)}{R_{2}g_{m} + s^{3}\left(C_{1}C_{L}L_{L}R_{1}R_{2}g_{m} + C_{1}C_{L}L_{L}R_{1}\right) + s^{2}\left(C_{1}C_{L}R_{1}R_{2}R_{L}g_{m} + C_{1}L_{L}R_{1}\right) + s\left(C_{1}R_{1}R_{2}R_{L}g_{m} + C_{1}R_{1}R_{L}\right) + s\left(C_{1}R_{1}R_{2}R_{L}g_{m} + C_{1}R_{L}\right) + s\left(C_{1}R_{1}R_{L}\right) + s\left(C_{$$

10.290 INVALID-ORDER-290 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1C_2R_1s^2 + g_m + s\left(C_1R_1g_m + C_2\right)}{C_1C_2C_LR_1s^3 + C_Lg_ms + s^2\left(C_1C_2 + C_1C_LR_1g_m + C_1C_L + C_2C_L\right)}$$

10.291 INVALID-ORDER-291 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{C_1C_2R_1R_Ls^2 + R_Lg_m + s\left(C_1R_1R_Lg_m + C_2R_L\right)}{C_1C_2C_LR_1R_Ls^3 + g_m + s^2\left(C_1C_2R_1 + C_1C_2R_L + C_1C_LR_1R_Lg_m + C_1C_LR_L + C_2C_LR_L\right) + s\left(C_1R_1g_m + C_1 + C_2 + C_LR_Lg_m\right)}$$

10.292 INVALID-ORDER-292
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_1 C_2 C_L R_1 R_L s^3 + g_m + s^2 \left(C_1 C_2 R_1 + C_1 C_L R_1 R_L g_m + C_2 C_L R_L \right) + s \left(C_1 R_1 g_m + C_2 + C_L R_L g_m \right)}{C_L g_m s + s^3 \left(C_1 C_2 C_L R_1 + C_1 C_2 C_L R_L \right) + s^2 \left(C_1 C_2 + C_1 C_L R_1 g_m + C_1 C_L + C_2 C_L \right)}$$

10.293 INVALID-ORDER-293
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_1C_2C_LL_LR_1s^4 + g_m + s^3\left(C_1C_LL_LR_1g_m + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_LL_Lg_m\right) + s\left(C_1R_1g_m + C_2\right)}{C_1C_2C_LL_Ls^4 + C_1C_2C_LR_1s^3 + C_Lg_ms + s^2\left(C_1C_2 + C_1C_LR_1g_m + C_1C_L + C_2C_L\right)}$$

10.294 INVALID-ORDER-294
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_1C_2L_LR_1s^3 + L_Lg_ms + s^2\left(C_1L_LR_1g_m + C_2L_L\right)}{C_1C_2C_LL_LR_1s^4 + g_m + s^3\left(C_1C_2L_L + C_1C_LL_LR_1g_m + C_1C_LL_L + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_LL_Lg_m\right) + s\left(C_1R_1g_m + C_1 + C_2C_LL_L\right)}$$

10.295 INVALID-ORDER-295
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_{1}C_{2}C_{L}L_{L}R_{1}s^{4} + g_{m} + s^{3}\left(C_{1}C_{2}C_{L}R_{1}R_{L} + C_{1}C_{L}L_{L}R_{1}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}C_{L}R_{1}R_{L}g_{m} + C_{2}C_{L}R_{L} + C_{L}L_{L}g_{m}\right) + s\left(C_{1}R_{1}g_{m} + C_{2} + C_{L}R_{L}g_{m}\right) + s\left(C_{1}R_{1}g_{m} + C_{2}C_{L}R_{L}\right) + s^{2}\left(C_{1}C_{2}C_{L}R_{L} + C_{1}C_{L}R_{1}g_{m} + C_{1}C_{L}R_{L}g_{m}\right) + s\left(C_{1}R_{1}g_{m} + C_{2}C_{L}R_{L}g_{m}\right) + s\left(C_{1}R_{1}g_{m} + C_{2}C_{L}R_{L}g_{m}\right$$

10.296 INVALID-ORDER-296
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{C_1C_2L_LR_1R_Ls^3 + L_LR_Lg_ms + s^2\left(C_1L_LR_1R_Lg_m + C_2L_LR_L\right)}{C_1C_2C_LL_LR_1R_Ls^4 + R_Lg_m + s^3\left(C_1C_2L_LR_1 + C_1C_LL_LR_1R_Lg_m + C_1C_LL_LR_L\right) + s^2\left(C_1C_2R_1R_L + C_1L_LR_1g_m + C_1L_L + C_2L_LR_Lg_m\right) + s\left(C_1R_1R_Lg_m + C_1R_L + C_2R_L + L_Lg_m\right)}$$

10.297 INVALID-ORDER-297
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_R L_S^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_{1}C_{2}C_{L}L_{L}R_{1}R_{L}s^{4} + R_{L}g_{m} + s^{3}\left(C_{1}C_{2}L_{L}R_{1} + C_{1}C_{L}L_{L}R_{1}g_{m} + C_{2}C_{L}L_{L}R_{L}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{L} + C_{1}L_{L}R_{1}g_{m} + C_{2}L_{L} + C_{L}L_{L}R_{2}g_{m}\right) + s\left(C_{1}R_{1}R_{L}g_{m} + C_{2}R_{L} + L_{L}g_{m}\right)}{g_{m} + s^{4}\left(C_{1}C_{2}C_{L}L_{L}R_{1} + C_{1}C_{2}C_{L}L_{L}R_{L}\right) + s^{3}\left(C_{1}C_{2}L_{L} + C_{1}C_{L}L_{R}g_{m} + C_{1}C_{L}L_{L} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}C_{2}R_{L} + C_{L}L_{L}g_{m}\right) + s\left(C_{1}R_{1}g_{m} + C_{1}C_{L}L_{L}R_{1}g_{m} + C_{1}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}C_{2}R_{L} + C_{L}L_{L}g_{m}\right) + s\left(C_{1}R_{1}R_{L}g_{m} + C_{2}R_{L} + L_{L}g_{m}\right) + s\left(C_{1}R_{1}R_{L}g_{m} + C_{1}C_{L}L_{L}R_{L}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}C_{2}R_{L} + C_{L}L_{L}g_{m}\right) + s\left(C_{1}R_{1}g_{m} + C_{1}C_{L}L_{L}R_{L}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}C_{2}R_{L} + C_{L}L_{L}g_{m}\right) + s\left(C_{1}R_{1}g_{m} + C_{1}C_{L}L_{L}R_{L}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}C_{2}R_{L} + C_{L}L_{L}g_{m}\right) + s\left(C_{1}R_{1}g_{m} + C_{1}C_{L}L_{L}R_{L}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}C_{2}R_{L} + C_{1}C_{L}R_{L}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}C_{2}R_{L}\right) + s^{2}\left(C$$

10.298 INVALID-ORDER-298
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_{1}C_{2}C_{L}L_{L}R_{1}R_{L}s^{4} + R_{L}g_{m} + s^{3}\left(C_{1}C_{L}L_{L}R_{1}R_{L}g_{m} + C_{2}C_{L}L_{L}R_{L}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{L} + C_{L}L_{L}R_{L}g_{m}\right) + s\left(C_{1}R_{1}R_{L}g_{m} + C_{2}R_{L}\right)}{g_{m} + s^{4}\left(C_{1}C_{2}C_{L}L_{L}R_{1} + C_{1}C_{2}L_{L}R_{L}\right) + s^{3}\left(C_{1}C_{2}C_{L}R_{1}R_{L} + C_{1}C_{L}L_{L}R_{1}g_{m} + C_{1}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}C_{L}R_{1}R_{L}g_{m} + C_{1}C_{L}R_{L}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{L} + C_{1}C_{L}R_{1}R_{L}g_{m} + C_{1}C_{L}R_{L}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{L} + C_{1}C_{L}R_{L}R_{L}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{L}\right) + s^{2}\left($$

10.299 INVALID-ORDER-299 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1C_2R_1R_2s^2 + R_2g_m + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2\right) + 1}{C_1C_2C_LR_1R_2s^3 + s^2\left(C_1C_2R_2 + C_1C_LR_1R_2g_m + C_1C_LR_1 + C_1C_LR_2 + C_2C_LR_2\right) + s\left(C_1 + C_LR_2g_m + C_L\right)}$$

10.300 INVALID-ORDER-300 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{C_1C_2R_1R_2R_Ls^2 + R_2R_Lg_m + R_L + s\left(C_1R_1R_2R_Lg_m + C_1R_1R_L + C_2R_2R_L\right)}{C_1C_2C_LR_1R_2R_Ls^3 + R_2g_m + s^2\left(C_1C_2R_1R_2 + C_1C_2R_2R_L + C_1C_LR_1R_2R_Lg_m + C_1C_LR_1R_L + C_2C_LR_2R_L\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_1R_2 + C_1R_1 + C_2R_2 + C_LR_2R_Lg_m + C_LR_L\right) + 1}$$

10.301 INVALID-ORDER-301
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_1C_2C_LR_1R_2R_Ls^3 + R_2g_m + s^2\left(C_1C_2R_1R_2 + C_1C_LR_1R_2R_Lg_m + C_1C_LR_1R_L + C_2C_LR_2R_L\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2 + C_LR_2R_Lg_m + C_LR_L\right) + 1}{s^3\left(C_1C_2C_LR_1R_2 + C_1C_LR_2R_L\right) + s^2\left(C_1C_2R_2 + C_1C_LR_1R_2g_m + C_1C_LR_1 + C_1C_LR_2 + C_1C_LR_1 + C_2C_LR_2\right) + s\left(C_1C_2R_2R_L\right) +$$

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10.302 INVALID-ORDER-302 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{C_1C_2C_LL_LR_1R_2s^4 + R_2g_m + s^3\left(C_1C_LL_LR_1R_2g_m + C_1C_LL_LR_1 + C_2C_LL_LR_2\right) + s^2\left(C_1C_2R_1R_2 + C_LL_LR_2g_m + C_LL_L\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2\right) + 1}{C_1C_2C_LL_LR_2s^4 + s^3\left(C_1C_2C_LR_1R_2 + C_1C_LL_L\right) + s^2\left(C_1C_2R_2 + C_1C_LR_1R_2g_m + C_1C_LR_1 + C_2C_LR_2\right) + s\left(C_1C_2R_1R_2 + C_1C_LR_1R_2g_m + C_1C_LR_1\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2\right) + s\left(C_1C_2R_1R_2 + C_1C_LR_1R_2g_m + C_1C_LR_1\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2\right) + s\left(C_1C_2R_1R_2 + C_1C_LR_1R_2g_m + C_1C_LR_1\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2\right) + s\left(C_1C_2R_1R_2 + C_1C_LR_1\right) + s\left(C_1R_1R_2g_m + C_1R_1\right) + s\left(C_1R_1R_1R_2g_m + C_1R_1\right) + s\left(C_1R_1R_1R_2g_m + C_1R_1R_2g_m + C_1R_1R_2g_m\right) + s\left(C_1R_1R_2g_m + C_1R_1R_2g_m + C_1R_1R_2g_m\right) + s\left
10.303 INVALID-ORDER-303 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{C_1C_2L_LR_1R_2s^3 + s^2\left(C_1L_LR_1R_2g_m + C_1L_LR_1 + C_2L_LR_2\right) + s\left(L_LR_2g_m + L_L\right)}{C_1C_2C_LL_LR_1R_2s^4 + R_2g_m + s^3\left(C_1C_2L_LR_2 + C_1C_LL_LR_1R_2g_m + C_1C_LL_LR_2 + C_2C_LL_LR_2\right) + s^2\left(C_1C_2R_1R_2 + C_1L_L + C_LL_LR_2g_m + C_LL_L\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_1R_2 + C_2R_2\right) + 1}
10.304 INVALID-ORDER-304 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{C_1C_2C_LL_LR_1R_2s^4 + R_2g_m + s^3\left(C_1C_2C_LR_1R_2R_L + C_1C_LL_LR_1R_2g_m + C_1C_LL_LR_1 + C_2C_LL_RR_2\right) + s^2\left(C_1C_2R_1R_2 + C_1C_LR_1R_2R_Lg_m + C_1C_LR_1R_L + C_2C_LR_2R_L + C_LL_LR_2g_m + C_LL_L\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2 + C_LR_2R_Lg_m + C_LR_L\right) + s\left(C_1R_1R_2g_m + C_1L_L\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2 + C_LR_2R_Lg_m + C_LR_L\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2R_L + C_1R_1R_2g_m + C_1R_1R_2g_
10.305 INVALID-ORDER-305 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 R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
10.306 INVALID-ORDER-306 Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{C_L L_R L_S^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
10.307 INVALID-ORDER-307 Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_1C_2C_LL_R_1R_2R_Ls^4 + R_2R_Lg_m + R_L + s^3\left(C_1C_LL_R_1R_2R_Lg_m + C_1C_LL_R_1R_L + C_2C_LL_R_2R_L\right) + s^2\left(C_1C_2R_1R_2R_L + C_LL_R_2R_Lg_m + C_LL_RL\right) + s\left(C_1R_1R_2R_Lg_m + C_1R_1R_2R_Lg_m + 
10.308 INVALID-ORDER-308 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{g_m + s^2 \left( C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 \right) + s \left( C_1 R_1 g_m + C_2 R_2 g_m + C_2 \right)}{C_L g_m s + s^3 \left( C_1 C_2 C_L R_1 R_2 g_m + C_1 C_2 C_L R_1 + C_1 C_2 C_L R_2 \right) + s^2 \left( C_1 C_2 + C_1 C_L R_1 g_m + C_1 C_L + C_2 C_L R_2 g_m + C_2 C_L \right)}
10.309 INVALID-ORDER-309 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{R_L g_m + s^2 \left( C_1 C_2 R_1 R_2 R_L g_m + C_1 C_2 R_1 R_L \right) + s \left( C_1 R_1 R_L g_m + C_2 R_2 R_L g_m + C_2 R_L \right)}{g_m + s^3 \left( C_1 C_2 C_L R_1 R_2 R_L g_m + C_1 C_2 R_1 R_L \right) + s^2 \left( C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 + C_1 C_2 R_2 + C_1 C_2 R_L + C_1 C_2 R_1 R_L g_m + C_2 C_L R_2 R_L g_m + C_2 C_L R_2 R_L g_m + C_1 C_2 R_2 R_L g_m + C
10.310 INVALID-ORDER-310 Z(s) = \left(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)
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 $H(s) = \frac{g_m + s^3 \left(C_1 C_2 C_L R_1 R_2 R_L g_m + C_1 C_2 C_L R_1 R_L\right) + s^2 \left(C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 + C_1 C_L R_1 R_L g_m + C_2 C_L R_2 R_L g_m + C_2 C_L R_L\right) + s \left(C_1 R_1 g_m + C_2 R_2 g_m + C_2 + C_L R_L g_m\right)}{C_L g_m s + s^3 \left(C_1 C_2 C_L R_1 R_2 g_m + C_1 C_2 C_L R_1 + C_1 C_2 C_L R_2 + C_1 C_2 C_L R_L\right) + s^2 \left(C_1 C_2 + C_1 C_L R_1 g_m + C_1 C_L R_2 g_m + C_2 C_L R_2\right)}$

 $\textbf{10.311} \quad \textbf{INVALID-ORDER-311} \ \ Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s} \right)$ $H(s) = \frac{g_m + s^4 \left(C_1 C_2 C_L L_L R_1 R_2 g_m + C_1 C_2 C_L L_L R_1 \right) + s^3 \left(C_1 C_L L_L R_1 g_m + C_2 C_L L_L R_2 g_m + C_2 C_L L_L \right) + s^2 \left(C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 + C_L L_L g_m \right) + s \left(C_1 R_1 g_m + C_2 R_2 g_m + C_2 C_L L_L R_1 R_2 g_m + C_1 C_2 C_L R_2 g_m + C_2$

10.312 INVALID-ORDER-312 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

 $H(s) = \frac{L_{L}g_{m}s + s^{3}\left(C_{1}C_{2}L_{L}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{L}R_{1}\right) + s^{2}\left(C_{1}L_{L}R_{1}g_{m} + C_{2}L_{L}R_{2}g_{m} + C_{2}L_{L}\right)}{g_{m} + s^{4}\left(C_{1}C_{2}L_{L}L_{R}R_{2}g_{m} + C_{1}C_{2}L_{L}L_{R}R_{2}g_{m} + C_{1}C_{2}L_{L}R_{1} + C_{1}C_{2}L_{L}R_{1}g_{m} + C_{1}C_{L}L_{L}R_{2}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{2}g_{m} + C_{1}C_{2}R_{1} +$

10.313 INVALID-ORDER-313 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$

 $H(s) = \frac{g_m + s^4 \left(C_1 C_2 C_L L_L R_1 R_2 g_m + C_1 C_2 C_L L_L R_1 \right) + s^3 \left(C_1 C_2 C_L R_1 R_2 R_L g_m + C_1 C_2 C_L R_1 R_L + C_1 C_L L_L R_1 g_m + C_2 C_L L_L R_2 g_m + C_1 C_2 R_1 R_2$

10.314 INVALID-ORDER-314 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

 $H(s) = \frac{L_L R_L g_m s + s^3 \left(C_1 C_2 L_L R_1 R_2 R_L g_m + C_1 C_2 L_L R_1 R_L \right) + s^2 \left(C_1 L_L R_1 R_L g_m + C_2 L_L R_2 R_L g_m + C_2 L_L R_L \right)}{R_L g_m + s^4 \left(C_1 C_2 C_L L_L R_1 R_2 R_L g_m + C_1 C_2 L_L R_1 R_2 R_L g_m + C_1 C_2 L_L R_1 R_2 g_m + C_1 C_2 L_L R_1$

10.315 INVALID-ORDER-315 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

 $H(s) = \frac{R_L g_m + s^4 \left(C_1 C_2 C_L L_L R_1 R_2 R_L g_m + C_1 C_2 C_L L_L R_1 R_L \right) + s^3 \left(C_1 C_2 L_L R_1 R_2 g_m + C_1 C_2 L_L R_1 R_2 g_m + C_1 C_2 L_L R_1 R_2 g_m + C_2 C_L L_L R_2 R_L g_m + C_2 C_L L_L R_2 R_L g_m + C_1 C_2 R_1 R_L + C_1 L_L R_1 g_m + C_2 L_L R_2 g_m + C_2 C_L R_$

10.316 INVALID-ORDER-316 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

 $H(s) = \frac{R_L g_m + s^4 \left(C_1 C_2 C_L L_L R_1 R_2 g_m + C_1 C_2 C_L L_L R_1 R_L g_m + C_2 C_L L_L R_2 R_L g_m + C_2 C_L L_L R_2 \right) + s^2 \left(C_1 C_2 R_1 R_2 R_L g_m + C_1 C_2 R_1 R_L + C_L L_L R_L g_m \right) + s \left(C_1 R_2 R_1 R_2 R_L g_m + C_1 C_2 R_1 R_$

10.317 INVALID-ORDER-317 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$

 $H(s) = \frac{C_1C_2L_2R_1R_Lg_ms^3 + R_Lg_m + s^2\left(C_1C_2R_1R_L + C_2L_2R_Lg_m\right) + s\left(C_1R_1R_Lg_m + C_2R_L\right)}{g_m + s^3\left(C_1C_2L_2R_1g_m + C_1C_2L_2\right) + s^2\left(C_1C_2R_1 + C_1C_2R_L + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_1 + C_2\right)}$

10.318 INVALID-ORDER-318 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

 $H(s) = \frac{C_1C_2L_2R_1g_ms^3 + g_m + s^2\left(C_1C_2R_1 + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_2\right)}{C_Lg_ms + s^4\left(C_1C_2C_LL_2R_1g_m + C_1C_2C_LL_2\right) + s^3\left(C_1C_2C_LR_1 + C_2C_LL_2g_m\right) + s^2\left(C_1C_2 + C_1C_LR_1g_m + C_1C_L + C_2C_L\right)}$

10.319 INVALID-ORDER-319 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

 $H(s) = \frac{C_1C_2L_2R_1R_Lg_ms^3 + R_Lg_m + s^2\left(C_1C_2R_1R_L + C_2L_2R_Lg_m\right) + s\left(C_1R_1R_Lg_m + C_2R_L\right)}{g_m + s^4\left(C_1C_2C_LL_2R_1R_Lg_m + C_1C_2L_2R_1g_m + C_1C_2L_2R_1g_m + C_1C_2L_2R_Lg_m\right) + s^2\left(C_1C_2R_1 + C_1C_2R_L + C_1C_LR_L + C_2C_LR_L + C_2C_$

10.320 INVALID-ORDER-320 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$ $H(s) = \frac{C_{1}C_{2}C_{L}L_{2}R_{1}R_{L}g_{m}s^{4} + g_{m} + s^{3}\left(C_{1}C_{2}C_{L}R_{1}R_{L} + C_{1}C_{2}L_{2}R_{1}g_{m} + C_{2}C_{L}L_{2}R_{L}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}C_{L}R_{1}R_{L}g_{m} + C_{2}C_{L}R_{L} + C_{2}L_{2}g_{m}\right) + s\left(C_{1}R_{1}g_{m} + C_{2}C_{L}R_{1}g_{m} + C_{2}C_{L}R_{1}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}C_{L}R_{1}R_{L}g_{m} + C_{2}C_{L}R_{1} + C_{1}C_{L}R_{1}g_{m}\right) + s^{2}\left(C_{1}C_{2}C_{L}R_{1} + C_{1}C_{L}R_{1}g_{m} + C_{1}C_{L}R_{1}g_{m}\right) + s^{2}\left(C_{1}C_{2}C_{L}R_{1} + C_{1}C_{L}R_{1}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{1} + C_{1}C_{L}R_{1}g_{m}\right) + s^{2}\left(C_{1}C_{1}R_{1}R_{1} + C_{1}C_{1}R_{1}R_{1}\right) + s^{2}\left(C_{1}C_{1}R_{1}R_{1} + C_{1}C_{1}R_{1}R_{1}\right) + s^{2}\left(C_{1}C_{1}R_{1}R_{1} + C_{1}C_{1}R_{1}R_{1}\right) + s^{2}\left(C_{1}C_{1}R_{1}R_{1} + C_{1}C_{1}R_{1}R_{1}\right) + s^{2}\left(C_{1}R_{1}R_{1} + C_{1}C_{1}R_{1}R_{1}\right)$ 10.321 INVALID-ORDER-321 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$ $H(s) = \frac{C_1C_2C_LL_2L_LR_1g_ms^5 + g_m + s^4\left(C_1C_2C_LL_LR_1 + C_2C_LL_2L_g_m\right) + s^3\left(C_1C_2L_2R_1g_m + C_1C_LL_LR_1g_m + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m + C_LL_Lg_m\right) + s\left(C_1R_1g_m + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m\right) + s^2\left(C_1C_2R_1 + C_2L_2R_1g_m\right) + s^2\left(C_1C_2R_1 + C$ 10.322 INVALID-ORDER-322 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$ $H(s) = \frac{C_1C_2L_LR_1g_ms^4 + L_Lg_ms + s^3\left(C_1C_2L_LR_1 + C_2L_2L_Lg_m\right) + s^2\left(C_1L_LR_1g_m + C_2L_L\right)}{g_m + s^5\left(C_1C_2L_LL_2L_Lg_m + C_1C_2L_LL_L\right) + s^4\left(C_1C_2C_LL_LR_1 + C_2C_LL_LL_g_m\right) + s^3\left(C_1C_2L_2R_1g_m + C_1C_2L_L + C_1C_LL_LR_1g_m + C_1C_LL_L\right) + s^2\left(C_1C_2R_1 + C_2L_Lg_m\right) + s^2\left(C_1R_1g_m + C_1C_2L_L\right) + s^2\left(C_1C_2R_1 + C_2L_Lg_m\right) + s^2\left(C_1R_1g_m + C_1C_2L_L\right) + s^2\left(C_1C_2R_1 + C_2L_Lg_m\right) + s^2\left(C_1C_2R_1 + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_2C_LL\right) + s^2\left(C_1C_2R_1 + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_2C_LL\right) + s^2\left(C_1C_2R_$ 10.323 INVALID-ORDER-323 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$ $H(s) = \frac{C_1C_2C_LL_2L_LR_1g_ms^5 + g_m + s^4\left(C_1C_2C_LL_2R_1R_Lg_m + C_1C_2L_LL_R_1 + C_2C_LL_2R_1g_m + C_1C_LL_RR_1g_m + C_2C_LL_LR_1g_m + C_2C_LL_1R_1g_m + C_2C_LL_1R_1g_m + C_2C_LL_1R_1g_m + C_2C_LR_1R_1g_m + C_2C_LR_1g_m + C_2C_LR_1$ 10.324 INVALID-ORDER-324 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$ $C_1C_2L_2L_LR_1R_Lg_ms^4 + L_LR_Lg_ms + s^3\left(C_1C_2L_LR_1R_L + C_2L_2L_LR_Lg_m\right) + s^2\left(C_1L_LR_1R_Lg_m + C_2L_LR_L\right)$ $\frac{C_1C_2L_2L_LR_1R_Lg_ms^+ + L_LR_Lg_ms^+ + L_LR_Lg_ms^+ + C_2L_2L_LR_1R_L + C_2L_2L_LR_1R_Lg_m + C_2L_LR_LR_L}{R_Lg_m + s^5\left(C_1C_2C_LL_2L_LR_1R_Lg_m + C_1C_2L_LR_1R_L + C_2C_LL_LR_1R_L + C_2C_LL_LR_LR_Lg_m\right) + s^3\left(C_1C_2L_2R_1R_Lg_m + C_1C_2L_LR_1 + C_1C_2$ 10.325 INVALID-ORDER-325 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$ $H(s) = \frac{C_1C_2C_LL_2L_LR_1R_Lg_ms^5 + R_Lg_m + s^4\left(C_1C_2C_LL_LR_1R_L + C_1C_LL_LR_1g_m + C_2C_LL_LR_1g_m + C_1C_LL_LR_1g_m + C_1C_LL_LR_1g_m + C_1C_LL_LR_1R_Lg_m + C_1C_LL_LR_1R_Lg_m + C_1C_LL_LR_1R_Lg_m + C_1C_LL_LR_1g_m + C_1C_LL_1R_1g_m + C_1C_LL_1R_1g_m + C_1C_LL_1R_1g_m + C_1C_LL_1R_1g_m +$ 10.326 INVALID-ORDER-326 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$ $H(s) = \frac{C_1C_2C_LL_2L_LR_1R_Lg_ms^5 + R_Lg_m + s^4\left(C_1C_2C_LL_LR_1R_L + C_2C_LL_LR_1g_m\right) + s^3\left(C_1C_2L_2R_1R_Lg_m + C_1C_LL_LR_1R_Lg_m + C_2C_LL_LR_L\right) + s^2\left(C_1C_2R_1R_L + C_2L_2R_Lg_m + C_LL_LR_1R_Lg_m\right) + s^3\left(C_1C_2L_LR_1R_Lg_m + C_1C_LL_LR_1g_m + C_1C_LL_LR_1R_Lg_m + C_1C_LL_LR_1g_m\right) + s^3\left(C_1C_2L_LR_1R_Lg_m + C_1C_LL_LR_1g_m + C_1C_LL_LR_1g_m + C_1C_LL_LR_1g_m\right) + s^3\left(C_1C_2C_LL_2R_1R_L + C_1C_LL_LR_1g_m + C_1C_LL_LR_1g_m\right) + s^3\left(C_1C_2C_LL_2R_1R_L + C_1C_LL_2R_1g_m + C_1C_LL_LR_1g_m\right) + s^3\left(C_1C_2C_LL_2R_1R_L + C_1C_2C_LL_2R_1g_m + C_1C_LL_2R_1g_m\right) + s^3\left(C_1C_2C_LL_2R_1R_L + C_1C_2C_LL_2R_1g_m + C_1C_LL_2R_1g_m\right) + s^3\left(C_1C_2C_LL_2R_1R_L + C_1C_2C_LL_2R_1g_m + C_1C_2C_LL_2R_1g_m\right) + s^3\left(C_1C_2C_LL_2R_1g_m + C_1C_2C_LL_2R_1g_m + C_1C_LL_2R_1g_m\right) + s^3\left(C_1C_2C_LL_2R_1g_m + C_1C_LL_2R_1g_m + C_1C_LL_2R_1g_m\right) + s^3\left(C_1C_2C_LL_2R_1g_m + C_1C_LL_2R_1g_m + C_1C_LL_2R_1g_m\right) + s^3\left(C_1C_2C_LL_2R_1g_m + C_1C_LL_2R_1g_m + C_1C_LL_2R_1g_m\right) + s^3\left(C_1C_2C_LL_2R_1g_m + C_1C_2C_LL_2R_1g_m\right) + s^3\left(C_1C_2C_LL_2R_1g_m + C_1C_2C_LL_2R_1g_m\right) + s^3\left(C_1C_2C_LL_2R_1g_m\right) + s^3\left($

$$H(s) = \frac{C_1C_2C_LL_2L_LR_1R_Lg_ms^5 + R_Lg_m + s^4\left(C_1C_2C_LL_LR_1R_L + C_2C_LL_2L_LR_1g_m\right) + s^3\left(C_1C_2L_2R_1R_Lg_m + C_1C_LL_LR_1R_Lg_m + C_2C_LL_LR_1\right) + s^2\left(C_1C_2R_1R_L + C_2L_2R_Lg_m + C_2L_LR_1\right) + s^2\left(C_1C_2R_1R_L + C_2L_2R_Lg_m + C_2R_LR_1\right) + s^2\left(C_1C_2R_1R_L + C_2R_LR_1\right) + s^2\left(C_1C_2R_1R_1 + C_2R_1R_1\right) + s^2\left(C_1C_2R_1R_1$$

10.327 INVALID-ORDER-327
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{C_1C_2L_2R_1R_Lg_ms^3 + R_Lg_m + s^2\left(C_1C_2R_1R_2R_Lg_m + C_1C_2R_1R_L + C_2L_2R_Lg_m\right) + s\left(C_1R_1R_Lg_m + C_2R_2R_Lg_m + C_2R_L\right)}{g_m + s^3\left(C_1C_2L_2R_1g_m + C_1C_2L_2\right) + s^2\left(C_1C_2R_1R_2g_m + C_1C_2R_1 + C_1C_2R_2 + C_1C_2R_L + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_1 + C_2R_2g_m + C_2R_2g_m + C_2R_2g_m\right)}$$

$$\begin{aligned} \textbf{10.328} \quad \textbf{INVALID-ORDER-328} \ \ Z(s) &= \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s} \right) \\ H(s) &= \frac{C_1 C_2 L_2 R_1 g_m s^3 + g_m + s^2 \left(C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 + C_2 L_2 g_m \right) + s \left(C_1 R_1 g_m + C_2 R_2 g_m + C_2 \right)}{C_L g_m s + s^4 \left(C_1 C_2 C_L L_2 R_1 g_m + C_1 C_2 C_L L_2 \right) + s^3 \left(C_1 C_2 C_L R_1 R_2 g_m + C_1 C_2 C_L R_1 + C_1 C_2 C_L R_2 + C_2 C_L L_2 g_m \right) + s^2 \left(C_1 C_2 + C_1 C_L R_1 g_m + C_1 C_L + C_2 C_L R_2 g_m + C_2 C_L \right)} \end{aligned}$$

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10.329 INVALID-ORDER-329 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}{C_L R_L s + 1}\right)
H(s) = \frac{C_1C_2L_2R_1R_Lg_ms^3 + R_Lg_m + s^2\left(C_1C_2R_1R_2R_Lg_m + C_1C_2R_Lg_m\right) + s\left(C_1R_1R_Lg_m + C_2R_2R_Lg_m + C_2R_L\right)}{g_m + s^4\left(C_1C_2C_LL_2R_1R_Lg_m + C_1C_2L_LR_Lg_m\right) + s^2\left(C_1C_2R_1R_Lg_m + C_1C_2R_Lg_m\right) + s^2\left(C_1C_2R_1R_Lg_m 
10.330 INVALID-ORDER-330 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{C_1C_2C_LL_2R_1R_Lg_ms^4 + g_m + s^3\left(C_1C_2C_LR_1R_2R_Lg_m + C_1C_2C_LR_1R_L + C_1C_2L_2R_1g_m + C_2C_LL_2R_Lg_m\right) + s^2\left(C_1C_2R_1R_2g_m + C_1C_2R_1R_Lg_m + C_2C_LR_2R_Lg_m + C_2C_LR_2R_Lg_m + C_2C_LR_2R_Lg_m + C_2C_LR_L + C_2C_LR_2R_Lg_m + C_2C_LR_L + C_2C_LR_2g_m\right) + s\left(C_1R_1g_m + C_2C_LR_1R_2g_m + C_2C_LR_2R_Lg_m + C_2C_LR_2R_Lg_m\right) + s^2\left(C_1C_2R_1R_2g_m + C_2C_LR_2R_Lg_m + C_2C_LR_2R_Lg_m\right) + s^2\left(C_1C_2R_1R_2g_m + C_2C_LR_2R_Lg_m + C_2C_L
10.331 INVALID-ORDER-331 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{C_1C_2C_LL_2L_LR_1g_ms^5 + g_m + s^4\left(C_1C_2C_LL_LR_1R_2g_m + C_1C_2C_LL_LR_1 + C_2C_LL_Lg_m\right) + s^3\left(C_1C_2L_2R_1g_m + C_1C_LL_Rg_m + C_2C_LL_LR_2g_m + C_2C_LL_L\right) + s^2\left(C_1C_2R_1R_2g_m + C_1C_2R_1 + C_2L_2g_m + C_LL_Lg_m\right) + s\left(C_1R_1g_m + C_2R_2g_m + C_1C_2R_1g_m + C_1C_2R_1g
10.332 INVALID-ORDER-332 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_1C_2L_LR_1g_ms^4 + L_Lg_ms + s^3\left(C_1C_2L_LR_1R_2g_m + C_1C_2L_LR_1 + C_2L_LLg_m\right) + s^2\left(C_1L_LR_1g_m + C_2L_LR_2g_m + C_2L_L\right)}{g_m + s^5\left(C_1C_2L_LL_1R_1g_m + C_1C_2L_LL_1R_1g_m + C_1C_2L_LR_1 + C_2C_LL_1R_1g_m + C_1C_2L_LR_1g_m +
10.333 INVALID-ORDER-333 Z(s) = \left(R_1 + \frac{1}{C_{1s}}, L_2 s + R_2 + \frac{1}{C_{2s}}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_{Ls}}\right)
H(s) = \frac{C_1C_2C_LL_2L_LR_1g_ms^5 + g_m + s^4\left(C_1C_2C_LL_2R_1R_Lg_m + C_1C_2C_LL_LR_1R_2g_m + C_1C_2C_LL_LR_1 + C_2C_LL_LR_1g_m + C_1C_2C_LR_1R_L + C_1C_2C_LR_1R_L + C_1C_2L_LR_1g_m + C_1C_LL_LR_1g_m + C_2C_LL_LR_2g_m + C_2C_LL_LR_2g_m + C_2C_LL_LR_2g_m + C_2C_LL_LR_2g_m + C_2C_LL_LR_2g_m + C_2C_LL_LR_2g_m + C_2C_LL_RR_2g_m + C_2C_LR_2g_m +
10.334 INVALID-ORDER-334 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 R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C_1C_2L_2L_LR_1R_Lg_ms^4 + L_LR_Lg_ms + s^3(C_1C_2L_LR_1R_2R_Lg_ms^4)
10.335 INVALID-ORDER-335 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_R R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
H(s) = \frac{C_1C_2C_LL_2L_LR_1R_Lg_ms^5 + R_Lg_m + s^4\left(C_1C_2C_LL_LR_1R_2R_Lg_m + C_1C_2L_LR_1R_Lg_m + C_1C_2L_LR_1R_2g_m + C_1C_2L_LR_
10.336 INVALID-ORDER-336 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(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C_{1}C_{2}C_{L}L_{2}L_{L}R_{1}R_{L}g_{m}s^{5} + R_{L}g_{m} + s^{4}\left(C_{1}C_{2}C_{L}L_{L}R_{1}R_{2}R_{L}g_{m} + C_{1}C_{2}C_{L}L_{L}R_{1}R_{L} + C_{2}C_{L}L_{2}L_{L}R_{L}g_{m}\right) + s^{3}\left(C_{1}C_{2}L_{2}R_{1}R_{L}g_{m} + C_{1}C_{L}L_{L}R_{1}R_{L}g_{m}\right) + s^{4}\left(C_{1}C_{2}C_{L}L_{L}R_{1}R_{L}g_{m} + C_{1}C_{L}L_{L}R_{1}R_{L}g_{m}\right) + s^{4}\left(C_{1}C_{2}C_{L}L_{L}R_{L}g_{m} + C_{1}C_{L}L_{L}R_{1}R_{L}g_{m}\right) + s^{4}\left(C_{1}C_{2}C_{L}L_{L}R_{1}R_{L}g_{m} + C_{1}C_{L}L_{L}R_{1}R_{L}g_{m}\right) + s^{4}\left(C_{1}C_{2}C_{L}L_{L}R_{1}R_{L}g_{m}\right) + s^{4}\left(C_{1}C_{2}C_{L}L_{L
H(s) = \frac{C_1C_2C_LL_2L_LR_1R_Lg_ms^s + R_Lg_m + s^*\left(C_1C_2C_LL_LR_1R_2R_Lg_m + C_1C_2C_LL_LR_1R_L + C_2C_LL_LR_1R_Lg_m + s^*\left(C_1C_2C_LL_LR_1R_Lg_m + C_1C_2C_LL_LR_1R_Lg_m + C_1C_LL_LR_1R_Lg_m + 
10.337 INVALID-ORDER-337 Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, R_L\right)
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10.338 INVALID-ORDER-338 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{1}{C_1 s}\right)$

 $H(s) = \frac{R_2 g_m + s^3 \left(C_1 C_2 L_2 R_1 R_2 g_m + C_1 C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 g_m + C_2 L_2 R_2 g_m + C_2 L_2\right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + L_2 g_m\right) + 1}{s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 g_m + C_1 C_L L_2 R_1\right) + s^3 \left(C_1 C_2 L_2 R_1 R_2 g_m + C_1 C_L L_2 R_2 g_m + C_2 C_L L_2\right) + s^2 \left(C_1 C_L R_1 R_2 g_m + C_1 C_L R_1 + C_1 C_L R_2 + C_L L_2 g_m\right) + s \left(C_1 + C_L R_2 g_m + C_1 C_L R_1 R_2 g_m + C_1 C_L R_1 R_2 g_m + C_1 C_L R_1 R_2 g_m\right) + s \left(C_1 + C_L R_2 g_m + C_1 C_L R_1 R_2 g_m + C_1 C_L R_1 R_2 g_m\right) + s \left(C_1 + C_L R_2 g_m + C_1 C_L R_1 R_2 g_m + C_1 C_L R_1 R_2 g_m\right) + s \left(C_1 + C_L R_2 R_1 R_2 g_m + C_1 C_L R_1 R_2 g_m\right) + s \left(C_1 + C_L R_1 R_2 R_1 R_2 g_m + C_1 C_L R_1 R_2 g_m\right) + s \left(C_1 + C_L R_1 R_2 R_1 R_2$

10.339 INVALID-ORDER-339 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

 $R_{2}R_{L}g_{m}+R_{L}+s^{3}\left(C_{1}C_{2}L_{2}R_{1}R_{2}R_{L}g_{m}+C_{1}C_{2}L_{2}R_{1}R_{L}\right)+s^{2}\left(C_{1}L_{2}R_{1}R_{L}g_{m}+C_{2}L_{2}R_{2}R_{L}g_{m}+C_{2}L_{2}R_{L}\right)+s\left(C_{1}R_{1}R_{2}R_{L}g_{m}+C_{1}R_{1}R_{2}R_{L}g_{m}+C_{2}R_{2}R_{$ $H(s) = \frac{R_2 R_L g_m + R_L + s^* \left(C_1 C_2 L_2 R_1 R_2 R_L g_m + C_1 C_2 L_2 R_1 R_L\right) + s^* \left(C_1 L_2 R_1 R_L g_m + C_2 L_2 R_L g_m + C_2 L_2 R_L\right) + s \left(C_1 R_1 R_2 R_L g_m + C_1 R_L g_m + C_1 R_L g_m + C_2 R$

10.340 INVALID-ORDER-340 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

 $H(s) = \frac{R_2 g_m + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L g_m + C_1 C_2 C_L L_2 R_1 R_L \right) + s^3 \left(C_1 C_2 L_2 R_1 R_2 g_m + C_1 C_L L_2 R_1 R_L g_m + C_2 C_L L_2 R_L g_m + C_2 C_L L_2 R_L g_m + C_2 C_L L_2 R_L g_m + C_1 C_L R_1 R_L + C_1 L_2 R_1 g_m + C_2 L_2 R_2 g_$

10.341 INVALID-ORDER-341 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

 $H(s) = \frac{R_2 g_m + s^5 \left(C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1\right) + s^4 \left(C_1 C_L L_2 L_L R_1 g_m + C_2 C_L L_2 L_L R_2 g_m + C_2 C_L L_2 L_L\right) + s^3 \left(C_1 C_2 L_2 R_1 R_2 g_m + C_1 C_L L_L R_1 R_2 g_m + C_1 C_L R_1 R_2 g$

10.342 INVALID-ORDER-342 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

 $\frac{s^4 \left(C_1 C_2 L_2 L_L R_1 g_m + C_1 C_2 L_2 L_L R_1 g_m + C_2 L_2 L_L R_2 g_m + C_2 L_2 L_L \right) + s^2 \left(C_1 L_L R_1 g_m + C_1 L_L R_1 + L_2 L_L g_m \right) + s^2 \left(C_1 L_L R_1 R_2 g_m + C_1 C_2 L_L L_R R_2 g_m + C_1 C_2 L_L R_1 R_2 g_m + C_1 C_2 L_L R_1$ $s^{4}\left(C_{1}C_{2}L_{2}L_{L}R_{1}R_{2}g_{m}+C_{1}C_{2}L_{2}L_{L}R_{1}\right)+s^{3}\left(C_{1}L_{2}L_{L}R_{1}g_{m}+C_{2}L_{2}L_{L}R_{2}g_{m}+C_{2}L_{2}L_{L}\right)+s^{2}\left(C_{1}L_{L}R_{1}R_{2}g_{m}+C_{1}L_{L}R_{1}+L_{2}L_{L}g_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}R_{2}g_{m}+C_{1}L_{L}R_{1}+L_{2}L_{L}g_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}R_{2}g_{m}+C_{1}L_{L}R_{1}+L_{2}L_{L}g_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}R_{2}g_{m}+C_{1}L_{L}R_{1}+L_{2}L_{L}g_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}R_{2}g_{m}+C_{1}L_{L}R_{1}+L_{2}L_{L}g_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}R_{2}g_{m}+C_{1}L_{L}R_{1}+L_{2}L_{L}g_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}R_{2}g_{m}+C_{1}L_{L}R_{1}+L_{2}L_{L}g_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}R_{2}g_{m}+C_{1}L_{L}R_{1}+L_{2}L_{L}g_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}R_{2}g_{m}+C_{1}L_{L}R_{1}+L_{2}L_{L}g_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}R_{2}g_{m}+C_{1}L_{L}R_{1}+L_{2}L_{L}g_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}R_{2}g_{m}+C_{1}L_{L}R_{1}+L_{2}L_{L}g_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}R_{2}g_{m}+C_{1}L_{L}R_{1}+L_{2}L_{L}g_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}R_{2}g_{m}+C_{1}L_{L}R_{1}+L_{2}L_{L}g_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}R_{1}+L_{2}L_{L}R_{1}+L_{2}$

10.343 INVALID-ORDER-343 $Z(s) = \left(R_1 + \frac{1}{C_{1s}}, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_{Ls}}\right)$

 $H(s) = \frac{R_2 g_m + s^5 \left(C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 L_L L_R L_1\right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_2 m + C_1 C_L L_2 R_1 R_2 g_m +$

10.344 INVALID-ORDER-344 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

 $\frac{s_{1}}{R_{2}R_{L}g_{m}+R_{L}+s_{5}}(C_{1}C_{2}C_{L}L_{2}L_{L}R_{1}R_{2}R_{L}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{1}R_{L}+C_{1}C_$

10.345 INVALID-ORDER-345 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

 $H(s) = \frac{R_2 R_L g_m + R_L + s^5 \left(C_1 C_2 C_L L_2 L_L R_1 R_2 R_L g_m + C_1 C_2 L_L L_R R_1 R_2 g_m + C_2 C_L L_L L_R R_2 R_L g_m + C_1 C_2 L_L R_1 R_2 R$

10.346 INVALID-ORDER-346 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

 $R_{2}R_{L}g_{m} + R_{L} + s^{5}\left(C_{1}C_{2}C_{L}L_{2}L_{L}R_{1}R_{2}R_{L}g_{m} + C_{1}C_{2}C_{L}L_{2}L_{L}R_{1}R_{L}\right) + s^{4}\left(C_{1}C_{L}L_{2}L_{L}R_{1}R_{L}g_{m} + C_{2}C_{L}L_{2}L_{L}R_{1}R_{L}\right) + s^{4}\left(C_{1}C_{L}L_{2}L_{L}R_{1}R_{L}g_{m} + C_{2}C_{L}L_{2}R_{L}R_{1}R_{L}\right) + s^{4}\left(C_{1}C_{L}L_{2}L_{L}R_{1}R_{L}g_{m} + C_{2}C_{L}L_{2}R_{L}R_{L}g_{m}\right) + s^{$ $H(s) = \frac{R_2 R_L g_m + R_L + s \cdot (C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_2 C_L L_2 L_L R_1 R_2 g_m + C_2 C_L L_2 L_L R_1 + C_1 C_2 C_L L_2 L_L R_1 + C_2 C_L L_2 L_L R_1 R_2 g_m + C_2 C_L L_2 L_L R_2 g_m + C_$

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 \begin{aligned} \textbf{10.347} \quad \textbf{INVALID-ORDER-347} \ \ Z(s) &= \left( R_1 + \frac{1}{C_1 s}, \ \frac{R_2 \left( C_2 L_2 s^2 + 1 \right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L \right) \\ & H(s) &= \frac{R_2 R_L g_m + R_L + s^3 \left( C_1 C_2 L_2 R_1 R_2 R_L g_m + C_1 C_2 L_2 R_1 R_L \right) + s^2 \left( C_1 C_2 R_1 R_2 R_L + C_2 L_2 R_2 R_L g_m + C_2 L_2 R_L \right) + s \left( C_1 R_1 R_2 R_L g_m + C_1 R_1 R_L + C_2 R_2 R_L \right)}{R_2 g_m + s^3 \left( C_1 C_2 L_2 R_1 R_2 g_m + C_1 C_2 L_2 R_1 + C_1 C_2 L_2 R_L \right) + s^2 \left( C_1 C_2 R_1 R_2 + C_1 C_2 R_2 R_L + C_2 L_2 R_2 g_m + C_2 L_2 \right) + s \left( C_1 R_1 R_2 g_m + C_1 R_1 + C_1 R_2 + C_1 R_2 + C_1 R_2 R_2 \right) + 1 \end{aligned}
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10.348 INVALID-ORDER-348
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

 $H(s) = \frac{R_2 g_m + s^3 \left(C_1 C_2 L_2 R_1 R_2 g_m + C_1 C_2 L_2 R_1\right) + s^2 \left(C_1 C_2 R_1 R_2 + C_2 L_2 R_2 g_m + C_2 L_2\right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + C_2 R_2\right) + 1}{s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 g_m + C_1 C_2 C_L L_2 R_2\right) + s^3 \left(C_1 C_2 C_L R_1 R_2 + C_1 C_2 L_2 + C_2 C_L L_2 R_2 g_m + C_2 C_L L_2\right) + s^2 \left(C_1 C_2 R_2 + C_1 C_L R_1 R_2 g_m + C_1 C_L R_1 + C_1 C_L R_2 + C_2 C_L R_2\right) + s \left(C_1 C_2 R_1 R_2 + C_1 C_L R_1 R_2 g_m + C_1 C_L R_1 R_2 g_$

10.349 INVALID-ORDER-349
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

 $H(s) = \frac{R_2 R_L g_m + R_L + s^3 \left(C_1 C_2 L_2 R_1 R_2 R_L g_m + C_1 C_2 L_2 R_1 R_L \right) + s^2 \left(C_1 C_2 R_1 R_2 R_L + C_2 L_2 R_2 R_L g_m + C_2 L_2 R_L \right) + s \left(C_1 R_1 R_2 R_L g_m + C_1 R_1 R_L + C_1 R_2 R_L g_m + C_1 R_2$

10.350 INVALID-ORDER-350
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

 $H(s) = \frac{R_2 g_m + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L g_m + C_1 C_2 C_L L_2 R_1 R_L \right) + s^3 \left(C_1 C_2 C_L R_1 R_2 R_L + C_1 C_2 L_2 R_1 R_2 g_m + C_1 C_2 L_2 R_2 R_2 g_m + C_2 C_L L_2 R_2 g_$

10.351 INVALID-ORDER-351
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

10.352 INVALID-ORDER-352
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

 $H(s) = \frac{s^4 \left(C_1 C_2 L_L R_1 R_2 g_m + C_1 C_2 L_L R_1 R_2 + C_2 L_L L_R g_m + C_2 L_2 L_L R_2 g_m + C_2 L_2 L_L \right) + s^2 \left(C_1 L_L R_1 R_2 g_m + C_1 L_L R_1 + C_2 L_L R_2 \right) + s \left(L_1 R_1 R_2 g_m + C_1 L_L R_1 R_$

10.353 INVALID-ORDER-353
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

 $H(s) = \frac{R_2 g_m + s^5 \left(C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1\right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 + C_2 C_L L_2 L_L R_1 R_2 + C_2 C_L L_2 L_L R_2 g_m + C_1 C_2 L_2 R_1 R_2 g_m$

10.354 INVALID-ORDER-354
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

 $) = \frac{s^4 \left(C_1 C_2 L_2 L_L R_1 R_2 R_L g_m + C_1 C_2 L_L R_1 R_2 R_L g_m$

10.355 INVALID-ORDER-355
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

 $H(s) = \frac{R_2 R_L g_m + R_L + s^5 \left(C_1 C_2 C_L L_2 L_L R_1 R_2 R_L g_m + C_1 C_2 L_L L_R R_1 R_2 R_L + C_1 C_2 L_L L_R R_2 R_L + C_1 C_2 L_L L_R R_1 R_2 R_L + C_1 C_2 L_L R_1 R_2 R_L + C_1 C_2 L_L L_R R_1 R_2 R_L + C_1 C_2 L_L R_1 R_2 R_L + C$

10.356 INVALID-ORDER-356
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

 $H(s) = \frac{R_2 R_L g_m + R_L + s^5 \left(C_1 C_2 C_L L_2 L_L R_1 R_2 R_L g_m + C_1 C_2 C_L L_2 L_L R_1 R_L \right) + s^4 \left(C_1 C_2 C_L L_L R_1 R_2 R_L + C_2 C_L L_2 L_L R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 L_L R_1 R_2 R_L + C_2 C_L L_2 L_L R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 L_L R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 L_L R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L \right) + s^4 \left(C_1 C_2 C_L L_2 R_1 R_2 R_L$

10.357 INVALID-ORDER-357
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_2 g_m + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 \right) + 1}{C_1 C_L R_2 s^2 + s^3 \left(C_1 C_L L_1 R_2 g_m + C_1 C_L L_1 \right) + s \left(C_1 + C_L R_2 g_m + C_L \right)}$$

10.358 INVALID-ORDER-358
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_{2}R_{L}g_{m} + R_{L} + s^{2}\left(C_{1}L_{1}R_{2}R_{L}g_{m} + C_{1}L_{1}R_{L}\right)}{R_{2}g_{m} + s^{3}\left(C_{1}C_{L}L_{1}R_{2}R_{L}g_{m} + C_{1}C_{L}L_{1}R_{L}\right) + s^{2}\left(C_{1}C_{L}R_{2}R_{L} + C_{1}L_{1}R_{2}g_{m} + C_{1}L_{1}\right) + s\left(C_{1}R_{2} + C_{1}R_{L} + C_{L}R_{2}R_{L}g_{m} + C_{L}R_{L}\right) + 1}$$

10.359 INVALID-ORDER-359
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_2 g_m + s^3 \left(C_1 C_L L_1 R_2 R_L g_m + C_1 C_L L_1 R_L \right) + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 \right) + s \left(C_L R_2 R_L g_m + C_L R_L \right) + 1}{s^3 \left(C_1 C_L L_1 R_2 g_m + C_1 C_L L_1 \right) + s^2 \left(C_1 C_L R_2 + C_1 C_L R_L \right) + s \left(C_1 + C_L R_2 g_m + C_L \right)}$$

10.360 INVALID-ORDER-360
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_2 g_m + s^4 \left(C_1 C_L L_1 L_L R_2 g_m + C_1 C_L L_1 L_L \right) + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 + C_L L_L R_2 g_m + C_L L_L \right) + 1}{C_1 C_L R_2 s^2 + s^3 \left(C_1 C_L L_1 R_2 g_m + C_1 C_L L_1 + C_1 C_L L_L \right) + s \left(C_1 + C_L R_2 g_m + C_L \right)}$$

10.361 INVALID-ORDER-361
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{s^3 \left(C_1 L_1 L_L R_2 g_m + C_1 L_1 L_L \right) + s \left(L_L R_2 g_m + L_L \right)}{C_1 C_L L_L R_2 s^3 + C_1 R_2 s + R_2 g_m + s^4 \left(C_1 C_L L_1 L_L R_2 g_m + C_1 C_L L_1 L_L \right) + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 + C_1 L_L + C_L L_L R_2 g_m + C_L L_L \right) + 1}$$

10.362 INVALID-ORDER-362
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_2 g_m + s^4 \left(C_1 C_L L_1 L_L R_2 g_m + C_1 C_L L_1 L_L\right) + s^3 \left(C_1 C_L L_1 R_2 R_L g_m + C_1 C_L L_1 R_L\right) + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 + C_L L_L R_2 g_m + C_L L_L\right) + s \left(C_L R_2 R_L g_m + C_L R_L\right) + 1}{s^3 \left(C_1 C_L L_1 R_2 g_m + C_1 C_L L_1 + C_1 C_L L_L\right) + s^2 \left(C_1 C_L R_2 + C_1 C_L R_L\right) + s \left(C_1 + C_L R_2 g_m + C_L L_L\right) + s \left(C_1 R_2 R_L g_m + C_L R_L\right) + s \left(C_1 R_L g_m$$

10.363 INVALID-ORDER-363
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$H(s) = \frac{s^3 \left(C_1 L_1 L_2 R_L g_m + C_1 L_1 L_L R_L \right) + s \left(L_L R_2 R_L g_m + L_L R_L \right)}{R_2 R_L g_m + R_L + s^4 \left(C_1 C_L L_1 L_L R_2 R_L g_m + C_1 C_L L_L L_L R_2 R_L + C_1 L_L L_L R_2 R_L g_m + C_1 L_1 L_L \right) + s^2 \left(C_1 L_1 R_2 R_L g_m + C_1 L_1 R_L + C_1 L_L R_2 + C_1 L_L R_2 R_L g_m + C_1 L_L R_L \right) + s \left(C_1 R_2 R_L + L_L R_2 R_L g_m + C_1 L_L R_L \right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_2 R_L g_m + C_1 L_L R_L \right) + s \left(C_1 R_2 R_L g_m + C_1 R_L R_L \right) + s \left(C_1 R_2 R_L g_m + C_1 R_L R_L \right) + s \left(C_1 R_2 R_L g_m + C_1 R_L R_L \right) + s \left(C_1 R_2 R_L g_m + C_1 R_L R_L \right) + s \left(C_1 R_2$$

10.364 INVALID-ORDER-364
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{R_2 R_L g_m + R_L + s^4 \left(C_1 C_L L_1 L_L R_2 R_L g_m + C_1 C_L L_1 L_L R_L\right) + s^3 \left(C_1 L_1 L_L R_2 g_m + C_1 L_1 L_L\right) + s^2 \left(C_1 L_1 R_2 R_L g_m + C_1 L_1 R_L + C_L L_L R_2 R_L g_m + C_L L_L R_L\right) + s \left(L_L R_2 g_m + L_L\right)}{R_2 g_m + s^4 \left(C_1 C_L L_1 L_L R_2 g_m + C_1 C_L L_L L_L\right) + s^3 \left(C_1 C_L L_L R_2 + C_1 C_L L_L R_L\right) + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 + C_1 L_L + C_L L_L R_2 g_m + C_L L_L\right) + s \left(C_1 R_2 + C_1 R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L\right) + s \left(C_1 R_2 R_L g_m + C_1 L_L\right) + s \left(C_1 R_2 R_L g_m + C_1 R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 R_L\right) + s \left(C_1 R_2 R_L g_m + C_1 R_L\right) + s \left(C_1 R_$$

$$\textbf{10.365} \quad \textbf{INVALID-ORDER-365} \ Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(C_L L_L s^2 + 1 \right)}{C_L L_L s^2 + C_L R_L s + 1} \right) \\ H(s) = \frac{R_2 R_L g_m + R_L + s^4 \left(C_1 C_L L_1 L_L R_2 R_L g_m + C_1 C_L L_1 L_L R_L \right) + s^2 \left(C_1 L_1 R_2 R_L g_m + C_1 L_1 R_L + C_L L_L R_2 R_L g_m + C_L L_L R_L \right)}{R_2 g_m + s^4 \left(C_1 C_L L_1 L_L \right) + s^3 \left(C_1 C_L L_1 R_2 R_L g_m + C_1 C_L L_L R_L \right) + s^2 \left(C_1 C_L R_2 R_L + C_1 L_1 R_2 g_m + C_1 L_1 + C_L L_L R_2 g_m + C_L L_L \right) + s \left(C_1 R_2 R_L + C_1 R_L R_2 R_L g_m + C_L R_L \right) + 1} \\ + \frac{R_2 R_L g_m + R_L + s^4 \left(C_1 C_L L_1 L_L R_2 R_L g_m + C_1 C_L L_1 L_L R_2 R_L g_m + C_1 L_L R_2 R_L g_m + C_1 L_L R_2 R_L g_m + C_L L_L R_2 R_L g_m + C_L R_L R_2 R_L g_m + C_L R_L R_2 R_L g_m + C_L R_2 R_L g_m + C_L$$

10.366 INVALID-ORDER-366 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{C_1 C_2 L_1 R_L s^3 + C_1 L_1 R_L g_m s^2 + C_2 R_L s + R_L g_m}{C_1 C_2 L_1 s^3 + g_m + s^2 \left(C_1 C_2 R_L + C_1 L_1 g_m \right) + s \left(C_1 + C_2 \right)}$$

10.367 INVALID-ORDER-367 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1 C_2 L_1 s^3 + C_1 L_1 g_m s^2 + C_2 s + g_m}{C_1 C_2 C_L L_1 s^4 + C_1 C_L L_1 g_m s^3 + C_L g_m s + s^2 \left(C_1 C_2 + C_1 C_L + C_2 C_L \right)}$$

10.368 INVALID-ORDER-368 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{C_1C_2L_1R_Ls^3 + C_1L_1R_Lg_ms^2 + C_2R_Ls + R_Lg_m}{C_1C_2C_LL_1R_Ls^4 + g_m + s^3\left(C_1C_2L_1 + C_1C_LL_1R_Lg_m\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_1L_1g_m + C_2C_LR_L\right) + s\left(C_1 + C_2 + C_LR_Lg_m\right)}$$

10.369 INVALID-ORDER-369 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1C_2C_LL_1R_Ls^4 + g_m + s^3\left(C_1C_2L_1 + C_1C_LL_1R_Lg_m\right) + s^2\left(C_1L_1g_m + C_2C_LR_L\right) + s\left(C_2 + C_LR_Lg_m\right)}{C_1C_2C_LL_1s^4 + C_Lg_ms + s^3\left(C_1C_2C_LR_L + C_1C_LL_1g_m\right) + s^2\left(C_1C_2 + C_1C_L + C_2C_L\right)}$$

10.370 INVALID-ORDER-370 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1 C_2 C_L L_1 L_L s^5 + C_1 C_L L_1 L_L g_m s^4 + C_2 s + g_m + s^3 \left(C_1 C_2 L_1 + C_2 C_L L_L\right) + s^2 \left(C_1 L_1 g_m + C_L L_L g_m\right)}{C_1 C_L L_1 g_m s^3 + C_L g_m s + s^4 \left(C_1 C_2 C_L L_1 + C_1 C_2 C_L L_L\right) + s^2 \left(C_1 C_2 + C_1 C_L + C_2 C_L\right)}$$

10.371 INVALID-ORDER-371 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

10.372 INVALID-ORDER-372 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_{1}C_{2}C_{L}L_{1}L_{L}s^{5} + g_{m} + s^{4}\left(C_{1}C_{2}C_{L}L_{1}R_{L} + C_{1}C_{L}L_{1}L_{L}g_{m}\right) + s^{3}\left(C_{1}C_{2}L_{1} + C_{1}C_{L}L_{1}R_{L}g_{m} + C_{2}C_{L}L_{L}\right) + s^{2}\left(C_{1}L_{1}g_{m} + C_{2}C_{L}R_{L} + C_{L}L_{L}g_{m}\right) + s\left(C_{2} + C_{L}R_{L}g_{m}\right) + s\left(C_{2} + C_{L}R_{L}g_{m}\right) + s\left(C_{1}C_{2}C_{L}R_{L} + C_{1}C_{L}L_{1}g_{m}\right) + s^{2}\left(C_{1}C_{2} + C_{1}C_{L} + C_{2}C_{L}\right)}$$

10.373 INVALID-ORDER-373 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{C_{1}C_{2}L_{1}L_{L}R_{L}s^{4} + C_{1}L_{1}L_{L}R_{L}g^{3} + C_{2}L_{L}R_{L}s^{2} + L_{L}R_{L}g_{m}s}{C_{1}C_{2}C_{L}L_{1}L_{L}R_{L}s^{5} + R_{L}g_{m} + s^{4}\left(C_{1}C_{2}L_{1}L_{L} + C_{1}C_{L}L_{L}R_{L}g_{m}\right) + s^{3}\left(C_{1}C_{2}L_{1}R_{L} + C_{1}C_{L}L_{L}R_{L} + C_{1}C_{L}L_{L}R_{L} + C_{1}L_{L}L_{L}R_{L}\right) + s^{2}\left(C_{1}L_{1}R_{L}g_{m} + C_{1}L_{L} + C_{2}L_{L} + C_{L}L_{L}R_{L}g_{m}\right) + s\left(C_{1}R_{L} + C_{2}L_{L}R_{L} + C_{2}L_{L}R_{L}g_{m}\right) + s\left(C_{1}R_{L} + C_{2}L_{L}R_{L}g_{m}\right) + s\left(C_{1}R_{L}$$

10.374 INVALID-ORDER-374 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{C_{1}C_{2}C_{L}L_{1}L_{L}R_{L}s^{5} + R_{L}g_{m} + s^{4}\left(C_{1}C_{2}L_{1}L_{L} + C_{1}C_{L}L_{1}L_{L}R_{L}g_{m}\right) + s^{3}\left(C_{1}C_{2}L_{1}R_{L} + C_{1}L_{L}L_{L}g_{m} + C_{2}C_{L}L_{L}R_{L}\right) + s^{2}\left(C_{1}L_{1}R_{L}g_{m} + C_{2}L_{L} + C_{L}L_{L}R_{L}g_{m}\right) + s\left(C_{2}R_{L} + L_{L}g_{m}\right)}{C_{1}C_{2}C_{L}L_{1}L_{L}s^{5} + g_{m} + s^{4}\left(C_{1}C_{2}C_{L}L_{L}R_{L} + C_{1}C_{L}L_{L}g_{m}\right) + s^{3}\left(C_{1}C_{2}L_{1} + C_{1}C_{L}L_{L} + C_{1}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{L} + C_{1}L_{L}g_{m}\right) + s\left(C_{1}C_{2}R_{L} + L_{L}g_{m}\right) + s\left(C_{1}C_{2}R_{L} + C_{1}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{L} + C_{1}L_{L}g_{m}\right) + s\left(C_{1}C_{2}R_{L} + C_{1}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{L} + C_{1}L_{L}R_{L}g_{m}\right) + s\left(C_{1}C_{2}R_{L} + C_{1}L_{L}g_{m}\right) + s\left(C_{1}C_{2}R_{L} + C_{1}C_{L}L_{L}\right) + s^{2}\left(C_{1}C_{2}R_{L} + C_{1}L_{L}g_{m}\right) + s\left(C_{1}C_{2}R_{L} + C_{1}L_{L}g_{m}\right) + s\left(C_$$

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10.375 INVALID-ORDER-375 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)
                                                                            H(s) = \frac{C_1C_2C_LL_1L_LR_Ls^5 + C_1C_LL_1L_LR_Lg_ms^4 + C_2R_Ls + R_Lg_m + s^3\left(C_1C_2L_1R_L + C_2C_LL_LR_L\right) + s^2\left(C_1L_1R_Lg_m + C_LL_LR_Lg_m\right)}{C_1C_2C_LL_1L_Ls^5 + g_m + s^4\left(C_1C_2C_LL_1R_L + C_1C_LL_1L_Lg_m\right) + s^3\left(C_1C_2L_1 + C_1C_LL_1R_Lg_m + C_1C_LL_L\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_1L_LR_Lg_m\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_1C_LR_Lg_m\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_2C_LL_L\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_2C_LR_L + C_2C_LR_L\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_2C_LR_L\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_2C_LR_L\right) + s^2\left(C_1C_2R_L + C_1C_LR_L\right) + s^2\left(C_1C_2R_L\right) + s^2
10.376 INVALID-ORDER-376 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{C_1 C_2 L_1 R_2 R_L s^3 + C_2 R_2 R_L s + R_2 R_L g_m + R_L + s^2 \left( C_1 L_1 R_2 R_L g_m + C_1 L_1 R_L \right)}{C_1 C_2 L_1 R_2 s^3 + R_2 g_m + s^2 \left( C_1 C_2 R_2 R_L + C_1 L_1 R_2 g_m + C_1 L_1 \right) + s \left( C_1 R_2 + C_1 R_L + C_2 R_2 \right) + 1}
10.377 INVALID-ORDER-377 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_1C_2L_1R_2s^3 + C_2R_2s + R_2g_m + s^2\left(C_1L_1R_2g_m + C_1L_1\right) + 1}{C_1C_2C_LL_1R_2s^4 + s^3\left(C_1C_LL_1R_2g_m + C_1C_LL_1\right) + s^2\left(C_1C_2R_2 + C_1C_LR_2 + C_2C_LR_2\right) + s\left(C_1 + C_LR_2g_m + C_L\right)}
10.378 INVALID-ORDER-378 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{C_1C_2L_1R_2R_Ls^3 + C_2R_2R_Ls + R_2R_Lg_m + R_L + s^2\left(C_1L_1R_2R_Lg_m + C_1L_1R_L\right)}{C_1C_2C_LL_1R_2R_Ls^4 + R_2g_m + s^3\left(C_1C_2L_1R_2 + C_1C_LL_1R_2R_Lg_m + C_1L_1R_L\right) + s^2\left(C_1C_2R_2R_L + C_1C_LR_2R_L + C_1L_1R_2g_m + C_1L_1 + C_2C_LR_2R_L\right) + s\left(C_1R_2 + C_1R_L + C_2R_2 + C_LR_2R_Lg_m + C_LR_L\right) + 1}
10.379 INVALID-ORDER-379 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_1C_2C_LL_1R_2R_Ls^4 + R_2g_m + s^3\left(C_1C_2L_1R_2 + C_1C_LL_1R_2R_Lg_m + C_1C_LL_1R_L\right) + s^2\left(C_1L_1R_2g_m + C_1L_1 + C_2C_LR_2R_L\right) + s\left(C_2R_2 + C_LR_2R_Lg_m + C_LR_L\right) + 1}{C_1C_2C_LL_1R_2s^4 + s^3\left(C_1C_2C_LR_2R_L + C_1C_LL_1R_2g_m + C_1C_LL_1\right) + s^2\left(C_1C_2R_2 + C_1C_LR_2 + C_1C_LR_2 + C_1C_LR_2\right) + s\left(C_1C_2R_2 + C_1C_LR_2\right) + s\left(C_1C_2R_2\right) + s\left(C_
10.380 INVALID-ORDER-380 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_1C_2C_LL_1L_LR_2s^5 + C_2R_2s + R_2g_m + s^4\left(C_1C_LL_1L_LR_2g_m + C_1C_LL_1L_L\right) + s^3\left(C_1C_2L_1R_2 + C_2C_LL_LR_2\right) + s^2\left(C_1L_1R_2g_m + C_1L_1 + C_LL_R2g_m + C_LL_L\right) + 1}{s^4\left(C_1C_2C_LL_1R_2 + C_1C_2C_LL_R2\right) + s^3\left(C_1C_LL_1R_2g_m + C_1C_LL_1 + C_1C_LL_1\right) + s^2\left(C_1C_2R_2 + C_1C_LR_2\right) + s\left(C_1 + C_LR_2g_m + C_LL_L\right) + 1}
10.381 INVALID-ORDER-381 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{C_1C_2L_1L_LR_2s^4 + C_2L_LR_2s^2 + s^3\left(C_1L_1L_LR_2g_m + C_1L_1L_L\right) + s\left(L_LR_2g_m + L_L\right)}{C_1C_2C_LL_1L_LR_2s^5 + R_2g_m + s^4\left(C_1C_LL_1L_LR_2g_m + C_1C_LL_1L_L\right) + s^3\left(C_1C_2L_1R_2 + C_1C_LL_LR_2 + C_1C_LL_LR_2\right) + s^2\left(C_1L_1R_2g_m + C_1L_1 + C_1L_L + C_LL_LR_2g_m + C_LL_L\right) + s\left(C_1R_2 + C_2R_2\right) + 1}
10.382 INVALID-ORDER-382 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_1C_2C_LL_1L_LR_2s^5 + R_2g_m + s^4\left(C_1C_2C_LL_1R_2R_L + C_1C_LL_1L_LR_2g_m + C_1C_LL_1L_L\right) + s^3\left(C_1C_2L_1R_2 + C_1C_LL_1R_2R_Lg_m + C_1C_LL_1R_2\right) + s^2\left(C_1L_1R_2g_m + C_1L_1 + C_2C_LR_2R_L + C_LL_LR_2g_m + C_LL_L\right) + s\left(C_2R_2 + C_LR_2R_Lg_m + C_LL_L\right) + s\left(C_2R_2 + C_LR_2R_L + C_LL_RR_2g_m + C_LL_L\right) + s\left(C_2R_2 + C_LR_2R_L + C_LL_RR_2g_m + C_LL_L\right) + s\left(C_2R_2 + C_LR_2R_L + C_LL_RR_2g_m + C_LR_L\right) + s\left(C_2R_2 + C_LR_2R_L + C_LR_2R_L + C_LR_2R_L + C_LR_2R_L + C_LR_2R_L\right) + s\left(C_2R_2 + C_LR_2R_L + C_LR_2R_L + C_LR_2R_L + C_LR_2R_L\right) + s\left(C_2R_2 + C_LR_2R_L + C_LR_2R_L + C_LR_2R_L + C_LR_2R_L\right) + s\left(C_2R_2 + C_LR_2R_L + C_LR_2R_L\right) + s\left(C_2R_2 + C_LR_2R_L + C_LR_2R_L\right) + s\left(C_2R_2 + C_LR_2R_L\right) + s\left(C_2R_2 + C_LR_2R_L\right) + s\left(C_2R_2 + C_LR_2R_L\right) + s\left(C_2R_2R_L + C_LR_2R_L\right) + s\left(C_2R_2R_L\right) + s\left(C_2R
10.383 INVALID-ORDER-383 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 R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
H(s) = \frac{C_1C_2L_1L_LR_2R_Ls^4 + C_2L_LR_2R_Ls^2 + s^3\left(C_1L_1L_LR_2R_Lg_m + C_1L_1L_LR_L\right) + s\left(L_LR_2R_Lg_m + L_LR_L\right)}{C_1C_2C_LL_1L_LR_2R_Ls^5 + R_2R_Lg_m + R_L + s^4\left(C_1C_2L_1L_LR_2 + C_1C_LL_1L_LR_2\right) + s^3\left(C_1C_2L_1R_2R_L + C_1C_LL_LR_2R_L + C_1C_LL_LR_
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 $H(s) = \frac{C_1C_2C_LL_1L_LR_2R_Ls^5 + R_2R_Lg_m + R_L + s^4\left(C_1C_2L_1L_LR_2 + C_1C_LL_1L_LR_2R_Lg_m + C_1L_1L_LR_2g_m + C_1L_1L_LR_2g_m + C_1L_1L_LR_2g_m + C_1L_1L_LR_2g_m + C_1L_1L_LR_2g_m + C_1L_1L_LR_2g_m + C_1L_1R_2R_Lg_m + C_1R_2R_Lg_m + C_1R_$

10.384 INVALID-ORDER-384 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

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10.385 INVALID-ORDER-385 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_1C_2C_LL_1L_LR_2R_Ls^5 + C_2R_2R_Ls + R_2R_Lg_m + R_L + s^4\left(C_1C_LL_1L_LR_2R_Lg_m + C_1C_LL_1L_LR_2\right) + s^3\left(C_1C_2L_1R_2R_L + C_2C_LL_R2R_L\right) + s^2\left(C_1L_1R_2R_Lg_m + C_1L_1R_L + C_LL_LR_2R_Lg_m + C_1L_LR_2R_Lg_m 
10.386 INVALID-ORDER-386 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)
                                                                                                                                                                                                                                                                                                                                                                                                                              H(s) = \frac{C_1 L_1 R_L g_m s^2 + R_L g_m + s^3 \left( C_1 C_2 L_1 R_2 R_L g_m + C_1 C_2 L_1 R_L \right) + s \left( C_2 R_2 R_L g_m + C_2 R_L \right)}{q_m + s^3 \left( C_1 C_2 L_1 R_2 q_m + C_1 C_2 L_1 \right) + s^2 \left( C_1 C_2 R_2 + C_1 C_2 R_L + C_1 L_1 q_m \right) + s \left( C_1 + C_2 R_2 q_m + C_2 \right)}
10.387 INVALID-ORDER-387 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}\right)
                                                                                                                                                                                                                                                                                                                                                             H(s) = \frac{C_1L_1g_ms^2 + g_m + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1\right) + s\left(C_2R_2g_m + C_2\right)}{C_Lg_ms + s^4\left(C_1C_2C_LL_1R_2g_m + C_1C_2C_LL_1\right) + s^3\left(C_1C_2C_LR_2 + C_1C_LL_1g_m\right) + s^2\left(C_1C_2 + C_1C_L + C_2C_LR_2g_m + C_2C_L\right)}
10.388 INVALID-ORDER-388 Z(s) = \left(L_1 s + \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_1L_1R_Lg_ms^2 + R_Lg_m + s^3\left(C_1C_2L_1R_2R_Lg_m + C_1C_2L_1R_L\right) + s\left(C_2R_2R_Lg_m + C_2R_L\right)}{g_m + s^4\left(C_1C_2C_LL_1R_2R_Lg_m + C_1C_2L_1R_2R_Lg_m + C_1C_2L_1R_Lg_m\right) + s^2\left(C_1C_2R_2 + C_1C_2R_L + C_1C_LR_L + C_1C_LR_Lg_m\right) + s^2\left(C_1C_2R_2 + C_1C_2R_L + C_1C_LR_L + C_1C_LR_Lg_m\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_1C_LR_L + C_1C_LR_Lg_m\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_
10.389 INVALID-ORDER-389 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)
                                                                                                                                                                                                                   H(s) = \frac{g_m + s^4 \left( C_1 C_2 C_L L_1 R_2 R_L g_m + C_1 C_2 C_L L_1 R_L \right) + s^3 \left( C_1 C_2 L_1 R_2 g_m + C_1 C_2 L_1 + C_1 C_L L_1 R_L g_m \right) + s^2 \left( C_1 L_1 g_m + C_2 C_L R_2 R_L g_m + C_2 C_L R_L \right) + s \left( C_2 R_2 g_m + C_2 + C_L R_L g_m \right)}{C_L g_m s + s^4 \left( C_1 C_2 C_L L_1 R_2 g_m + C_1 C_2 C_L L_1 \right) + s^3 \left( C_1 C_2 C_L R_2 + C_1 C_2 C_L R_L + C_1 C_L L_1 g_m \right) + s^2 \left( C_1 C_2 + C_1 C_L + C_2 C_L R_2 g_m + C_2 C_L R_2 g_m + C_2 C_L R_2 g_m \right)}
10.390 INVALID-ORDER-390 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{C_1C_LL_1L_Lg_ms^4 + g_m + s^5\left(C_1C_2C_LL_1L_LR_2g_m + C_1C_2C_LL_1L_L\right) + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1 + C_2C_LL_LR_2g_m + C_2C_LL_L\right) + s^2\left(C_1L_1g_m + C_LL_Lg_m\right) + s\left(C_2R_2g_m + C_2C_LL_L\right) + s^2\left(C_1C_2C_LL_1R_2g_m + C_2C_LL_L\right) + s^2\left(C_1C_2C_LR_2 + C_2C_LL_1R_2g_m + C_2C_LL\right) + s^2\left(C_1C_2C_LR_2 + C_2C_LL_1R_2g_m + C_2C_LL\right) + s^2\left(C_1C_2C_LR_2 + C_2C_LR_2 + C_2C_LR_2\right) + s^2\left(C_1C_2C_LR_2 + C_2C_LR_2\right) + s^2\left(C_1C_2C_LR_2 + C_2C_LR_2\right) + s^2\left(C_1C_2C_LR_2 + C_2C_LR_2\right) + s^2\left(C_1C_2C_LR_2\right) 
10.391 INVALID-ORDER-391 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_1L_1L_2g_ms^3 + L_Lg_ms + s^4\left(C_1C_2L_1L_LR_2g_m + C_1C_2L_1L_L\right) + s^2\left(C_2L_LR_2g_m + C_2L_L\right)}{g_m + s^5\left(C_1C_2L_LL_1L_2g_m + C_1C_2L_LL_L\right) + s^4\left(C_1C_2L_LL_2g_m + C_1C_LL_1L_2g_m\right) + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_L + C_1C_LL_L + C_2C_LL_LR_2g_m + C_2C_LL_L\right) + s^2\left(C_1C_2R_2 + C_1L_1g_m + C_LL_2g_m\right) + s\left(C_1C_2R_2 + C_1C_2R_2 + C
10.392 INVALID-ORDER-392 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{g_m + s^5 \left( C_1 C_2 C_L L_1 L_L R_2 g_m + C_1 C_2 C_L L_1 L_L \right) + s^4 \left( C_1 C_2 C_L L_1 R_2 R_L g_m + C_1 C_2 L_L L_1 L_2 g_m \right) + s^3 \left( C_1 C_2 L_1 R_2 g_m + C_1 C_2 L_1 + C_1 C_L L_1 R_2 g_m + C_2 C_L L_L \right) + s^2 \left( C_1 L_1 g_m + C_2 C_L R_2 R_L g_m \right) + s \left( C_2 R_2 g_m + C_2 C_L R_2 R_L g_m \right) + s \left( C_1 R_2 R_L g_m + C_2 C_L R_2 
10.393 INVALID-ORDER-393 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
H(s) = \frac{C_1L_1L_RLg_ms^3 + L_LR_Lg_ms + s^4\left(C_1C_2L_1L_LR_2R_Lg_m + C_1C_2L_1L_LR_L\right) + s^2\left(C_2L_LR_2R_Lg_m + C_2L_LR_L\right)}{R_Lg_m + s^5\left(C_1C_2C_LL_1L_LR_2R_Lg_m + C_1C_2L_LL_LR_2R_Lg_m + C_1C_2L_LL_RL_L\right) + s^4\left(C_1C_2C_LL_LR_2R_L + C_1C_2L_LL_RL_LR_L\right) + s^4\left(C_1C_2C_LL_LR_2R_L + C_1C_2L_LR_L + C_1
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 $H(s) = \frac{R_L g_m + s^5 \left(C_1 C_2 C_L L_1 L_L R_2 R_L g_m + C_1 C_2 C_L L_1 L_L R_2 \right) + s^4 \left(C_1 C_2 L_1 L_L R_2 g_m + C_1 C_2 L_L R_2 R_L g_m + C_1 C_2 L_L R_2 R_L g_m + C_2 C_L L_L R_2 R_L g_m + C_2 C_L L_L R_2 R_L g_m + C_2 C_L L_L R_2 g_m + C_2$

10.394 INVALID-ORDER-394 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

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10.395 INVALID-ORDER-395 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_1C_LL_1L_LR_2g_ms^4 + R_Lg_m + s^5\left(C_1C_2C_LL_1L_LR_2g_m + C_1C_2L_LL_RL_2\right) + s^3\left(C_1C_2L_1R_2R_Lg_m + C_1C_2L_LR_2R_Lg_m + C_1C_2L_LR_2\right) + s^2\left(C_1L_1R_Lg_m + C_1L_LR_2g_m + C_1C_2L_LR_2\right) + s^2\left(C_1L_1R_Lg_m + C_1L_LR_2g_m + C_1C_2L_LR_2\right) + s^2\left(C_1L_1R_Lg_m + C_1C_2L_LR_2g_m + C_1C_2L_LR_2\right) + s^2\left(C_1L_1R_Lg_m + C_1C_2L_LR_2\right) + s^2\left(C_1L_1R_Lg_m + C_1C_2L_LR_2\right) + s^2\left(C_1L_1R_2g_m + C_1C_2L_1R_2\right) + s^2\left(C_1L_1R_2g_m + C_1C_2L_1R_2g_m + C_1C_2L_1R_2\right) + s^2\left(C_1L_1R_2g_m + C_1C_2L_1R_2\right) + s^2\left(C_1L_
10.396 INVALID-ORDER-396 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                H(s) = \frac{C_1 C_2 L_1 L_2 R_L g_m s^4 + C_1 C_2 L_1 R_L s^3 + C_2 R_L s + R_L g_m + s^2 \left( C_1 L_1 R_L g_m + C_2 L_2 R_L g_m \right)}{C_1 C_2 L_1 L_2 g_m s^4 + g_m + s^3 \left( C_1 C_2 L_1 + C_1 C_2 L_2 \right) + s^2 \left( C_1 C_2 R_L + C_1 L_1 g_m + C_2 L_2 g_m \right) + s \left( C_1 + C_2 \right)}
10.397 INVALID-ORDER-397 Z(s) = \left(L_1 s + \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_1C_2L_1L_2g_ms^4 + C_1C_2L_1s^3 + C_2s + g_m + s^2\left(C_1L_1g_m + C_2L_2g_m\right)}{C_1C_2C_LL_1L_2g_ms^5 + C_Lg_ms + s^4\left(C_1C_2C_LL_1 + C_1C_2C_LL_2\right) + s^3\left(C_1C_LL_1g_m + C_2C_LL_2g_m\right) + s^2\left(C_1C_2 + C_1C_L + C_2C_L\right)}
10.398 INVALID-ORDER-398 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}{C_L R_L s + 1}\right)
                                                            H(s) = \frac{C_1C_2L_1L_2R_Lg_ms^4 + C_1C_2L_1R_Ls^3 + C_2R_Ls + R_Lg_m + s^2\left(C_1L_1R_Lg_m + C_2L_2R_Lg_m\right)}{C_1C_2C_LL_1L_2R_Lg_ms^5 + g_m + s^4\left(C_1C_2C_LL_1R_L + C_1C_2L_1L_2g_m\right) + s^3\left(C_1C_2L_1 + C_1C_2L_2 + C_1C_LL_1R_Lg_m + C_2C_LL_2R_Lg_m\right) + s^2\left(C_1C_2R_L + C_1C_LR_L + C_1L_1g_m + C_2C_LR_L + C_1C_LR_L + C_1L_1g_m + C_2C_LR_L + C_1C_LR_L + C_
10.399 INVALID-ORDER-399 Z(s) = \left(L_1 s + \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{C_1C_2C_LL_1L_2R_Lg_ms^5 + g_m + s^4\left(C_1C_2C_LL_1R_L + C_1C_2L_1L_2g_m\right) + s^3\left(C_1C_2L_1 + C_1C_LL_1R_Lg_m + C_2C_LL_2R_Lg_m\right) + s^2\left(C_1L_1g_m + C_2C_LR_L + C_2L_2g_m\right) + s\left(C_2 + C_LR_Lg_m\right)}{C_1C_2C_LL_1L_2g_ms^5 + C_Lg_ms + s^4\left(C_1C_2C_LL_1 + C_1C_2C_LL_2\right) + s^3\left(C_1C_2C_LR_L + C_1C_LL_2g_m\right) + s^2\left(C_1L_2g_m\right) + s^
10.400 INVALID-ORDER-400 Z(s) = \left(L_1 s + \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)
                                                                                                                                                                                                                              10.401 INVALID-ORDER-401 Z(s) = \left(L_1 s + \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_1C_2L_1L_2L_Lg_ms^5 + C_1C_2L_1L_Ls^4 + C_2L_Ls^2 + L_Lg_ms + s^3\left(C_1L_1L_Lg_m + C_2L_LLg_m\right)}{C_1C_2C_LL_1L_2L_Lg_ms^6 + g_m + s^5\left(C_1C_2C_LL_1L_L + C_1C_2L_LL_L\right) + s^4\left(C_1C_2L_1L_2g_m + C_1C_LL_LL_g_m\right) + s^3\left(C_1C_2L_1 + C_1C_2L_L + C_1C_LL_L\right) + s^2\left(C_1L_1g_m + C_2L_2g_m\right) + s^3\left(C_1C_2L_1L_L + C_1C_LL_L + C_2C_LL_L\right) + s^2\left(C_1L_1g_m + C_2L_2g_m\right) + s^3\left(C_1C_2L_1L_L + C_1C_2L_L + C_1C_LL_L\right) + s^2\left(C_1L_1g_m + C_2L_2g_m\right) + s^3\left(C_1C_2L_1L_L\right) + s^3\left(C_1C_
10.402 INVALID-ORDER-402 Z(s) = \left(L_1 s + \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_1C_2C_LL_1L_2L_Lg_ms^6 + g_m + s^5\left(C_1C_2C_LL_1L_2R_Lg_m + C_1C_2C_LL_1L_L\right) + s^4\left(C_1C_2C_LL_1L_Lg_m + C_1C_LL_1L_Lg_m + C_2C_LL_2L_Lg_m\right) + s^3\left(C_1C_2L_1 + C_1C_LL_1R_Lg_m + C_2C_LL_2R_Lg_m + C_2C_LL_L\right) + s^2\left(C_1L_1g_m + C_2C_LL_L\right) + s^2\left(C_1L_1g_m + C_2C_LL_1L_1g_m + C_2C_LL_1g_m + C
10.403 INVALID-ORDER-403 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
H(s) = \frac{C_1C_2L_1L_2L_LR_Lg_ms^5 + C_1C_2L_1L_LR_Ls^4 + C_2L_LR_Ls^2 + L_LR_Lg_ms + s^3\left(C_1L_1L_LR_Lg_m + C_2L_2L_LR_Lg_m\right)}{C_1C_2C_LL_1L_2L_LR_Lg_ms^6 + R_Lg_m + s^5\left(C_1C_2C_LL_1L_LR_L + C_1C_2L_LL_LR_Lg_m\right) + s^4\left(C_1C_2L_1L_2R_Lg_m + C_1C_2L_1L_LR_Lg_m + C_2C_LL_2L_RL_g_m\right) + s^4\left(C_1C_2L_1L_2R_Lg_m + C_1C_2L_1L_RL_g_m + C_2C_LL_2L_RL_g_m\right) + s^4\left(C_1C_2L_1L_2R_Lg_m + C_1C_2L_1L_RL_g_m + C_2C_LL_2L_RL_g_m\right) + s^4\left(C_1C_2L_1L_2R_Lg_m + C_1C_2L_1L_RL_g_m + C_1C_2L_1L_RL_g_m\right) + s^4\left(C_1C_2L_1L_2R_Lg_m + C_1C_2L_1L_RL_g_m + C_1C_2L_1L_RL_g_m\right) + s^4\left(C_1C_2L_1L_2R_Lg_m + C_1C_2L_1L_RL_g_m + C_1C_2L_1L_RL_g_m\right) + s^4\left(C_1C_2L_1L_2R_Lg_m + C_1C_2L_1L_RL_g_m + C_1C_2L_1R_L + C_1C_2L_1R_L
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 $H(s) = \frac{C_1C_2C_LL_1L_2L_LR_ug_ms^6 + R_Lg_m + s^5\left(C_1C_2C_LL_1L_LR_L + C_1C_2L_1L_2L_ug_m\right) + s^4\left(C_1C_2L_1L_LR_ug_m + C_1C_2L_1L_LR_ug_m + C_2C_LL_2L_uR_ug_m\right) + s^3\left(C_1C_2L_1R_L + C_1L_1L_uR_ug_m + C_2C_LL_uR_u + C_2C_LL_uR_ug_m\right) + s^2\left(C_1L_1R_ug_m + C_2L_uR_ug_m\right) + s^2\left(C_1L_1R_ug_m + C_2L_uR_$

10.404 INVALID-ORDER-404 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

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10.405 INVALID-ORDER-405 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(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_1C_2C_LL_1L_2L_RLg_ms^6 + C_1C_2C_LL_1L_LR_Ls^5 + C_2R_Ls + R_Lg_m + s^4\left(C_1C_2L_1L_2R_Lg_m + C_1C_LL_1L_RLg_m + C_2C_LL_2L_RLg_m\right) + s^3\left(C_1C_2L_1R_L + C_2C_LL_RL\right) + s^2\left(C_1L_1R_L + C_1C_2C_LL_1R_L + C_1C_2C_LL
10.406 INVALID-ORDER-406 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{C_1C_2L_1L_2R_Lg_ms^4 + R_Lg_m + s^3\left(C_1C_2L_1R_2R_Lg_m + C_1C_2L_1R_L\right) + s^2\left(C_1L_1R_Lg_m + C_2L_2R_Lg_m\right) + s\left(C_2R_2R_Lg_m + C_2R_L\right)}{C_1C_2L_1L_2g_ms^4 + g_m + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1 + C_1C_2L_2\right) + s^2\left(C_1C_2R_2 + C_1C_2R_L + C_1L_1g_m + C_2L_2g_m\right) + s\left(C_1+C_2R_2g_m + C_2R_L\right)}
10.407 INVALID-ORDER-407 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_1C_2L_1L_2g_ms^4 + g_m + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1\right) + s^2\left(C_1L_1g_m + C_2L_2g_m\right) + s\left(C_2R_2g_m + C_2\right)}{C_1C_2C_LL_1L_2g_ms^5 + C_Lg_ms + s^4\left(C_1C_2C_LL_1R_2g_m + C_1C_2C_LL_1 + C_1C_2C_LL_2\right) + s^3\left(C_1C_2C_LR_2 + C_1C_LL_1g_m + C_2C_LL_2g_m\right) + s^2\left(C_1C_2 + C_1C_L + C_2C_LR_2g_m + C_2C_L\right)}
10.408 INVALID-ORDER-408 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)
10.409 INVALID-ORDER-409 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_1C_2C_LL_1L_2R_Lg_ms^5 + g_m + s^4\left(C_1C_2C_LL_1R_2R_Lg_m + C_1C_2L_LL_1R_L + C_1C_2L_1L_2g_m\right) + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1R_Lg_m + C_2C_LL_2R_Lg_m\right) + s^2\left(C_1L_1g_m + C_2C_LR_2R_Lg_m + C_2C_LR_2R_Lg_m + C_2C_LR_L + C_2L_2g_m\right) + s\left(C_2R_2g_m + C_2C_LR_Lg_m\right) + s^2\left(C_1L_1g_m + C_2C_LR_2R_Lg_m + C_2C_LR_2R_Lg_m\right) + s^2\left(C_1L_1g_m + C_2C_LR_2R_Lg_m + C_2C_LR_2R_Lg_m\right) + s^2\left(C_1L_1g_m + C_2C_LR_2R_Lg_m + C_2C_LR_2R_Lg_m\right) + s^2\left(C_1R_2R_Lg_m + C_2C_LR_2R_Lg_m + C_2C_LR_Lg_m\right) + s^2\left(C_1R_2R_Lg_m + C_2C_LR_Lg_m + C_2C_LR_Lg_m\right) + s^2\left(C_1R_2R_Lg_m + C_2C_LR_Lg_m\right) + s^2\left(C_1R_2R_Lg_m + C_2C_LR_Lg_m\right) + s^2\left(C_1R_2R_Lg_m + C_2C_LR_Lg_m\right) + s^2\left(C_1R_2R_Lg_m + C_2C_LR_Lg_m\right) + s^2\left(C_1R_Lg_m + C_2C_LR_Lg_
10.410 INVALID-ORDER-410 Z(s) = \left(L_1 s + \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{C_1C_2C_LL_1L_2L_Lg_ms^6 + g_m + s^5\left(C_1C_2C_LL_1L_LR_2g_m + C_1C_2C_LL_1L_L\right) + s^4\left(C_1C_2L_1L_2g_m + C_1C_LL_1L_Lg_m + C_2C_LL_2L_g_m\right) + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_LR_2g_m + C_2C_LL_L\right) + s^2\left(C_1L_1g_m + C_2L_2g_m + C_LL_Lg_m\right) + s\left(C_2R_2g_m + C_2C_LL_1R_2g_m + C_2C_LL_1R_2g_m + C_2C_LL_1R_2g_m + C_2C_LL_1\right) + s^2\left(C_1L_1R_2g_m + C_2C_LL_1R_2g_m + C_2C_LL_1\right) + s^2\left(C_1C_2L_1R_2g_m + C_2C_LL_1R_2g_m +
10.411 INVALID-ORDER-411 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{L_L s}{C_L L_L s^2 + 1}\right)
H(s) = \frac{C_1C_2L_1L_2L_2g_ms^5 + L_Lg_ms + s^4\left(C_1C_2L_1L_LR_2g_m + C_1C_2L_1L_L\right) + s^3\left(C_1L_1L_Lg_m + C_2L_2L_Lg_m\right) + s^2\left(C_2L_LR_2g_m + C_2L_L\right)}{C_1C_2C_LL_1L_2L_2g_ms^6 + g_m + s^5\left(C_1C_2L_LL_LR_2g_m + C_1C_2L_LL_LR_2g_m + C_1C_LL_LL_Lg_m\right) + s^3\left(C_1C_2L_LR_2g_m + C_1C_2L_LR_2g_m + C_1C_LL_LR_2g_m + C_1C
10.412 INVALID-ORDER-412 Z(s) = \left(L_1 s + \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_T s}\right)
H(s) = \frac{C_1C_2C_LL_1L_2L_Lg_ms^6 + g_m + s^5\left(C_1C_2C_LL_1L_2R_Lg_m + C_1C_2C_LL_1L_LR_2g_m + C_1C_2C_LL_1L_L\right) + s^4\left(C_1C_2C_LL_1R_2R_Lg_m + C_1C_2L_1L_Lg_m + C_1C_LL_1L_Lg_m + C_2C_LL_2L_g_m\right) + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1 + C_1C_LL_1R_Lg_m + C_2C_LL_2R_Lg_m + C_1C_2L_1R_Lg_m + C_2C_LL_2R_Lg_m\right) + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1R_2g_m + C_1
10.413 INVALID-ORDER-413 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{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C_1C_2L_1L_2L_LR_Lg_ms^5 + L_LR_Lg_ms + s^4(C_1C_2L_1L_LR_2R_Lg_m)
H(s) = \frac{C_1C_2C_LL_1L_2L_1R_2g_m + S_1(C_1C_2L_1L_1R_2g_m + C_1C_2L_1L_1R_2g_m + C_1C_2L_1R_2g_m + C_1C_2L_1R_2g_m
10.414 INVALID-ORDER-414 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{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
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 $H(s) = \frac{C_1C_2C_LL_1L_2L_LR_Lg_ms^6 + R_Lg_m + s^5\left(C_1C_2C_LL_1L_LR_2g_m + C_1C_2L_1L_LR_Lg_m + C_1C_2L_1L_LR_2g_m + C_1C_2L_1L_1R_2g_m + C_1C_2L_1L_1R_2g_m + C_1C_2L_1L_1R_2g_m + C_1C_2L_1L_1R_2g_m + C_1C_2L_1L_1R_2g_m + C_1C_2L_1L_1R_2g_m + C_1C_2L_1L_1R_$

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10.415 INVALID-ORDER-415 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 \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C_{1}C_{2}C_{L}L_{1}L_{2}L_{L}R_{L}g_{m}s^{6} + R_{L}g_{m} + s^{5}\left(C_{1}C_{2}C_{L}L_{1}L_{L}R_{2}R_{L}g_{m} + C_{1}C_{2}C_{L}L_{1}L_{L}R_{L}\right) + s^{4}\left(C_{1}C_{2}L_{1}L_{2}R_{L}g_{m} + C_{1}C_{L}L_{1}L_{L}R_{L}g_{m} + C_{2}C_{L}L_{2}L_{L}R_{L}g_{m}\right) + s^{4}\left(C_{1}C_{2}L_{1}L_{2}R_{L}g_{m} + C_{1}C_{L}L_{1}L_{L}R_{L}g_{m}\right) + s^{4}\left(C_{1}C_{2}L_{1}L_{1}L_{1}R_{L}g_{m}\right) + s^{4}\left(C_{1}C_{2}L_{1}L_{1}L_{1}R_{L}g_{m}\right) + s^{4}\left(C_{1}C_{2}L_{1}L_{1}R_{L}g_{m}\right) + s^{4}\left(C_{1}C_{2}L_{1}L_{1}L_{1}R_{L}g_{m}\right) + s^{4}\left(C_{1}C_{2}L_{1}L_{1}L_{1}R_{L}g_{m}\right) + s^{4}\left(C_{1}C_{2}L_{1}L_{1}L_{1}R_{L}g_{m}\right) + s^{4}\left(C_{1}C_{2}L_{1}L_{1}R_{L}g_{m}\right) + s^{4}\left(C_{1}C_{2}L_{1}L_{1}R_{1}R_{1}g_{m}\right) + s^{4}\left(C_{1}C_{2}L_{1}L_{1}R_{1}R_{1}g_{m}\right) + s^{4}\left(C_{1}C_{2}L_{1}L_{1}R_{1}R_{1}g_{m}\right) + s^{4}\left(C_{1}C_{2}L_{1}R_{1}R_{1}g_{m}\right) + s^{4}\left(C_{1}C_{2}L_{1}R_{1}R_{1}g_{m}\right) + s^{4}\left(C_{1}C_{2}L_{1}R_{1}R_{1}g_{m}\right) + s^{4}\left(C_{1}C_{2}L_
 H(s) = \frac{C_1C_2C_LL_1L_2L_R_g_ms^6 + R_Lg_m + s^5\left(C_1C_2C_LL_1L_LR_2R_Lg_m + C_1C_2C_LL_1L_LR_L\right) + s^4\left(C_1C_2L_1L_2R_Lg_m + C_1C_LL_1L_R_Lg_m + C_2C_LL_2L_LR_L\right)}{C_1C_2C_LL_1L_2L_Lg_ms^6 + g_m + s^5\left(C_1C_2C_LL_1L_2R_Lg_m + C_1C_2C_LL_1L_LR_2g_m + C_1C_2C_LL_1R_L + C_1C_2C_LL
 10.416 INVALID-ORDER-416 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, R_L\right)
                                                                                                                                                                                                                                   H(s) = \frac{C_1L_1L_2R_Lg_ms^3 + L_2R_Lg_ms + R_2R_Lg_m + R_L + s^4\left(C_1C_2L_1L_2R_2R_Lg_m + C_1C_2L_1L_2R_L\right) + s^2\left(C_1L_1R_2R_Lg_m + C_1L_1R_L + C_2L_2R_2R_Lg_m + C_2L_2R_L\right)}{R_2g_m + s^4\left(C_1C_2L_1L_2R_2g_m + C_1C_2L_1L_2\right) + s^3\left(C_1C_2L_2R_2 + C_1C_2L_2R_L + C_1L_1L_2g_m\right) + s^2\left(C_1L_1R_2g_m + C_1L_1 + C_1L_2 + C_2L_2R_2g_m + C_2L_2\right) + s\left(C_1R_2 + C_1R_L + L_2g_m\right) + 1}
 10.417 INVALID-ORDER-417 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{1}{C_1 s}\right)
                                                                                                                    H(s) = \frac{C_1L_1L_2g_ms^3 + L_2g_ms + R_2g_m + s^4\left(C_1C_2L_1L_2R_2g_m + C_1C_2L_1L_2\right) + s^2\left(C_1L_1R_2g_m + C_1L_1 + C_2L_2R_2g_m + C_2L_2\right) + 1}{s^5\left(C_1C_2C_LL_1L_2R_2g_m + C_1C_2L_1L_2\right) + s^4\left(C_1C_2C_LL_1L_2g_m\right) + s^3\left(C_1C_2L_2 + C_1C_LL_1R_2g_m + C_1C_LL_1 + C_1C_LL_2 + C_2C_LL_2R_2g_m + C_2C_LL_2\right) + s^2\left(C_1C_LR_2 + C_LL_2g_m\right) + s\left(C_1C_LR_2 + C_LL_2g_m\right) + s\left(C_1C_LR_2 + C_LL_2R_2g_m + C_1C_LL_1 + C_2C_LL_2R_2g_m + C_2C_LL_2\right) + s^2\left(C_1C_LR_2 + C_LL_2R_2g_m + C_2C_LL_2\right) + s^2\left(C_1C_LR_2 + C_1C_LR_2 + C_1C_LR_2 + C_1C_LR_2\right) + s^2\left(C_1C_LR_2 + C_1C_LR_2 + C_1C_LR_2\right) + s^2\left(C_1C_LR_2 + C_1C_LR_2\right) + s^2\left(C_1C_LR_2\right) 
 10.418 INVALID-ORDER-418 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)
 H(s) = \frac{C_1L_1L_2R_Lg_ms^3 + L_2R_Lg_m + R_L + s^4\left(C_1C_2L_1L_2R_2R_Lg_m + C_1C_2L_1L_2R_L\right) + s^2\left(C_1L_1R_2R_Lg_m + C_1L_1R_L + C_2L_2R_2R_Lg_m + C_1C_2L_1L_2R_Lg_m\right) + s^3\left(C_1C_2L_2R_2R_Lg_m + C_1C_2L_1L_2R_Lg_m + C_1C_2L_1R_Lg_m + C_1C_2L_1R_Lg_m\right) + s^3\left(C_1C_2L_2R_2 + C_1C_2L_2R_L + C_1C_LL_1R_Lg_m + C_1C_LL_1R_L + C_1C_LL_1R_Lg_m + C_1C_LL_1R_Lg_m\right) + s^3\left(C_1C_2L_2R_2 + C_1C_2L_2R_L + C_1C_LL_1R_Lg_m + C_1C_LL_1R_L + C_1C_LL_1R_Lg_m + C_1C_LL_1R_Lg_m\right) + s^3\left(C_1C_2L_2R_2 + C_1C_2L_2R_L + C_1C_LL_1R_Lg_m + C_1C_LL_1R_Lg_m + C_1C_LL_1R_Lg_m\right) + s^3\left(C_1C_2L_2R_2 + C_1C_2L_1R_Lg_m + C_1C_LL_1R_Lg_m + C_1C_LL_1R_Lg_m\right) + s^3\left(C_1C_2L_1R_2R_Lg_m + C_1C_LL_1R_Lg_m\right) + s^3\left(C_1C_2L_1R_2R_
 10.419 INVALID-ORDER-419 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_3 s^2 + 1}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)
H(s) = \frac{R_2 g_m + s^5 \left(C_1 C_2 C_L L_1 L_2 R_2 R_L g_m + C_1 C_2 C_L L_1 L_2 R_L \right) + s^4 \left(C_1 C_2 L_1 L_2 R_2 g_m + C_1 C_2 L_1 L_2 R_L g_m \right) + s^3 \left(C_1 C_L L_1 R_2 R_L g_m + C_1 C_L L_1 R_L + C_1 L_1 L_2 g_m + C_2 C_L L_2 R_L g_m + C_2 C_L L_2 R_L \right) + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 + C_2 L_2 R_2 g_m + C_2 L_2 R_L g_m + C_2 L_2 R_L g_m + C_2 C_L L_2 R_L g_m \right) + s^3 \left(C_1 C_2 L_1 L_2 R_2 g_m + C_1 C_2 L_1 L_2 R_2 g_m + C_1 C_2 L_2 L_2 R_2 + C_1 C_2 L_2 R_2 R_L g_m + C_1 C_L L_1 R_2 R_L g_m + C_1 C_L L_1
 10.420 INVALID-ORDER-420 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)
 H(s) = \frac{C_1C_LL_1L_2L_Lg_ms^5 + L_2g_ms + R_2g_m + s^6\left(C_1C_2C_LL_1L_2L_Lg_m + C_1C_2L_LL_L\right) + s^4\left(C_1C_2L_1L_2R_2g_m + C_1C_2L_1L_2 + C_1C_LL_1L_LR_2g_m + C_1C_LL_1L_L + C_2C_LL_2L_L\right) + s^3\left(C_1L_1L_2g_m + C_LL_2L_Lg_m\right) + s^2\left(C_1L_1R_2g_m + C_1L_1L_2R_2g_m + C_1C_LL_1L_2R_2g_m + C_1C_LL_1R_2g_m + C_1C_LL_1R
 10.421 INVALID-ORDER-421 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)
 H(s) = \frac{C_1L_1L_2L_Lg_ms^4 + L_2L_Lg_ms^2 + s^5\left(C_1C_2L_1L_2L_Lg_m + C_1C_2L_1L_2L_L\right) + s^3\left(C_1L_1L_Lg_2g_m + C_1L_1L_L + C_2L_2L_Lg_2g_m + C_2L_2L_L\right) + s^3\left(C_1L_1L_Lg_2g_m + C_1L_1L_L + C_2L_2L_Lg_2g_m + C_2L_2L_L\right) + s^3\left(C_1C_2L_Lg_2g_m + C_1C_2L_Lg_2g_m + C_1C_2L_Lg_2g_
 10.422 INVALID-ORDER-422 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)
 H(s) = \frac{R_2 g_m + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_2 g_m + C_1 C_2 C_L L_1 L_2 L_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_L g_m + C_1 C_L L_1 L_2 R_L g_
 10.423 INVALID-ORDER-423 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
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 $H(s) = \frac{R_2 R_L g_m + R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_2 R_L g_m + C_1 C_2 C_L L_1 L_2 L_L R_2 g_m + C_1 C_2 L_1 L_2 L_2 L_2 R_2 g_m + C_1 C_2 L_1 L_2 L_2 L_2 R_2 R_2 g_m + C_1 C_2 L_2 L_2 L_2 R_2 R_2 R_2 R_2$

 $\frac{c_{1}L_{1}L_{2}L_{L}R_{2}m_{L}}{R_{2}R_{L}g_{m}+R_{L}+s^{6}\left(C_{1}C_{2}C_{L}L_{1}L_{2}L_{L}R_{2}R_{L}+C_{1}C_{2}L_{L}L_{L}R_{L}+C_{1}C_{2}L_{L}L_{L}R_{L}+C_{1}C_{2}L_{L}L_{L}R_{L}+C_{1}C_{L}L_{L}R_{L}+C_{1}C_{L}L_{L}L_{L}R_{L}+C_{1}C_{L}L_{L}L_{L}R_{L}+C_{1}C_{L}L_{L}L_{L}R_{L}+C_{1}C_{L}L_{L}L_{L}R_{L}+C_{1}C_{L}L_{L}R_{L}+C_{1}C_{L}L_{L}L_{L}R_{L}+C_{1}C_{L}L_{L}L_{L}R_{L}+C_{1}C_{L}L_{L}L_{L}R_{L}+C_{1}C_{L}L_{L}L_{L}R_{L}+C_{1}C_{L}L_{L}L_{L}R_{L}+C_{1}C_{L}L_{L}R_{$

10.424 INVALID-ORDER-424 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{C_L L_R L_s s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

 $\begin{aligned} \textbf{10.428} \quad \textbf{INVALID-ORDER-428} \ Z(s) &= \left(L_1 s + \frac{1}{C_1 s}, \ \frac{R_2 \left(C_2 L_2 s^2 + 1 \right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1} \right) \\ & H(s) &= \frac{C_1 C_2 L_1 R_2 R_L s^3 + C_2 R_2 R_L s + R_2 R_L g_m + R_L + s^4 \left(C_1 C_2 L_1 L_2 R_L g_m + C_1 C_2 L_1 L_2 R_L \right) + s^2 \left(C_1 L_1 R_2 R_L g_m + C_1 L_1 R_L + C_2 L_2 R_2 R_L g_m + C_1 C_2 L_1 R_2 R_L g_m + C_1 C_2 L_2 R_2 R_L g_m + C_1 C_2$

10.429 INVALID-ORDER-429
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

 $H(s) = \frac{R_2 g_m + s^5 \left(C_1 C_2 C_L L_1 L_2 R_2 R_L g_m + C_1 C_2 C_L L_1 L_2 R_L\right) + s^4 \left(C_1 C_2 C_L L_1 R_2 R_L + C_1 C_2 L_1 L_2 R_2 g_m + C_1 C_2 L_1 L_2 R_2 g_m + C_1 C_L L_1 R_2 R_L g_m + C_1 C_L R_1 R_2 R_L g_m + C$

10.430 INVALID-ORDER-430
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

 $H(s) = \frac{C_1C_2C_LL_1L_LR_2s^5 + C_2R_2s + R_2g_m + s^6\left(C_1C_2C_LL_1L_2L_Rg_m + C_1C_2L_LL_2L_L\right) + s^4\left(C_1C_2L_1L_2R_2g_m + C_1C_2L_1L_2 + C_1C_LL_1L_LR_2g_m + C_1C_LL_1L_L + C_2C_LL_2L_LR_2g_m + C_2C_LL_2L_L\right) + s^3\left(C_1C_2L_1R_2 + C_2C_LL_2R_2\right) + s^2\left(C_1L_1R_2g_m + C_1L_1L_2R_2g_m + C_1C_LL_1L_2R_2g_m + C_1C_LL_2R_2g_m + C_1C$

10.431 INVALID-ORDER-431
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

 $H(s) = \frac{C_1C_2L_1L_2R_2s^4 + C_2L_LR_2s^2 + s^5\left(C_1C_2L_1L_2L_LR_2g_m + C_1C_2L_1L_2L_L\right) + s^3\left(C_1L_1L_LR_2g_m + C_1L_1L_L + C_2L_2L_LR_2g_m + C_2L_2L_L\right) + s\left(L_1L_2R_2g_m + C_1C_2L_1L_2R_2g_m + C_1C_2L_2L_LR_2g_m + C_1C_2L_2L_2R_2g_m + C_1C_2L_2L_2R_2g_m + C_1C_2L_2L_2R_2g_m + C_1C_2L_2R_2g_m + C_1C_2L_$

10.432 INVALID-ORDER-432
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

 $H(s) = \frac{R_2 g_m + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_2 g_m + C_1 C_2 C_L L_1 L_2 L_L\right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_L g_m + C_1 C_2 C_L L_1 L_2 R_L + C_1 C_2 C_L L_1 L_2 R_L + C_1 C_2 C_L L_1 L_2 R_2 g_m + C_1 C_2 L_2 L_2 L_2 R_2 + C_1 C_2 C_L L_2 L_2 R_2 + C_1 C_2 C_L L_2 R_2 + C_1 C_2$

10.433 INVALID-ORDER-433
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

 $H(s) = \frac{C_1C_2L_1L_2R_2R_Ls^4 + C_2L_LR_2R_Ls^4 + C_2L_LR_2R_Ls$

10.434 INVALID-ORDER-434 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

 $H(s) = \frac{R_2 R_L g_m + R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_2 R_L g_m + C_1 C_2 L_L L_L L_L R_2 R_L + C_1 C_2 L_1 L_2 R_L R_2 R_L + C_1 C_2 L_1 L_2 R_L R_2 R_L R_2 R_L + C_1 C_2 L_1 L_2 R_2 R_L R_2 R_L + C_1 C_2 L_1 L_2 R_2 R_L R_2 R_L + C_1 C_2 L_1 L_2 R_2 R_L R_2 R_L + C_1 C_2 L_1 L_2 R_2 R_L R_2 R_L + C_1 C_2 L_1 L_2 R_2 R_L R_2 R_L + C_1 C_2 L_1 L_2 R_2 R_L R_2 R_L + C_1 C_2 L_1 L_2 R_2 R_L R_2 R_L + C_1 C_2 L_1 L_2 R_2 R_L R_2 R_L + C_1 C_2 L_1 L_2 R_2 R_L R_2 R_L + C_1 C_2 L_1 L_2 R_2 R_L R_2 R_L + C_1 C_2 L_1 L_2 R_2 R_L R_2 R_L + C_1 C_2 L_1 L_2 R_2 R_L R_2 R_L$

10.435 INVALID-ORDER-435 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

 $H(s) = \frac{C_1C_2C_LL_1L_LR_2R_Ls^5 + C_2R_2R_Ls + R_2R_Lg_m + R_L + s^6\left(C_1C_2C_LL_1L_2L_LR_2R_Lg_m + C_1C_2C_LL_1L_2L_LR_L\right) + s^6\left(C_1C_2C_LL_1L_2L_LR_2R_Lg_m + C_1C_2C_LL_1L_2R_L\right) + s^6\left(C_1C_2C_LL_1L_2L_LR_2R_L + C_1C_2C_LL_1L_2R_L\right) + s^6\left(C_1C_2C_LL_1L_2L_RR_2R_L + C_1C_2C_LL_1L_2R_L\right) + s^6\left(C_1C_2C_LL_1L_2L_RR_2R_L + C_1C_2C_LL_1L_2R_L\right) + s^6\left(C_1C_2C_LL_1L_2L_RR_2R_L + C_1C_2C_LL_1L_2R_L\right) + s^6\left(C_1C_2C_LL_1L_2L_RR_2R_L + C_1C_2C_LL_1L_2R_L\right) + s^6\left(C_1C_2C_LL_1L_2R_L + C_1C_2C_LL_1R_2R_L + C_1C_2C_LL_1R_2R_L\right) + s^6\left(C_1C_2C_LL_1R_2R_L + C_1C_2C_LL_1R_2R_L\right) + s^6\left(C_1C_2C_LL_1R_2R_L\right) + s^6\left(C$

10.436 INVALID-ORDER-436 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{s \left(L_1 R_2 g_m + L_1 \right)}{C_1 C_L L_1 R_2 s^3 + C_L R_2 s + s^2 \left(C_1 L_1 + C_L L_1 R_2 g_m + C_L L_1 \right) + 1}$$

10.437 INVALID-ORDER-437 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{s \left(L_1 R_2 R_L g_m + L_1 R_L \right)}{C_1 C_L L_1 R_2 R_L s^3 + R_2 + R_L + s^2 \left(C_1 L_1 R_2 + C_1 L_1 R_L + C_L L_1 R_2 R_L g_m + C_L L_1 R_L \right) + s \left(C_L R_2 R_L + L_1 R_2 g_m + L_1 \right)}$$

10.438 INVALID-ORDER-438 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ R_2, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{s^2 \left(C_L L_1 R_2 R_L g_m + C_L L_1 R_L \right) + s \left(L_1 R_2 g_m + L_1 \right)}{s^3 \left(C_1 C_L L_1 R_2 + C_1 C_L L_1 R_L \right) + s^2 \left(C_1 L_1 + C_L L_1 R_2 g_m + C_L L_1 \right) + s \left(C_L R_2 + C_L R_L \right) + 1}$$

10.439 INVALID-ORDER-439 $Z(s) = \left(\frac{L_{1s}}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{s^3 \left(C_L L_1 L_L R_2 g_m + C_L L_1 L_L \right) + s \left(L_1 R_2 g_m + L_1 \right)}{C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_2 s^3 + C_L R_2 s + s^2 \left(C_1 L_1 + C_L L_1 R_2 g_m + C_L L_1 + C_L L_1 \right) + 1}$$

10.440 INVALID-ORDER-440 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{s^2 \left(L_1 L_L R_2 g_m + L_1 L_L \right)}{C_1 C_L L_1 L_L R_2 s^4 + R_2 + s^3 \left(C_1 L_1 L_L + C_L L_1 L_L R_2 g_m + C_L L_1 L_L \right) + s^2 \left(C_1 L_1 R_2 + C_L L_L R_2 \right) + s \left(L_1 R_2 g_m + L_1 + L_L \right)}$$

10.441 INVALID-ORDER-441 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{s^{3} \left(C_{L} L_{1} L_{L} R_{2} g_{m} + C_{L} L_{1} L_{L}\right) + s^{2} \left(C_{L} L_{1} R_{2} R_{L} g_{m} + C_{L} L_{1} R_{L}\right) + s \left(L_{1} R_{2} g_{m} + L_{1}\right)}{C_{1} C_{L} L_{1} L_{L} s^{4} + s^{3} \left(C_{1} C_{L} L_{1} R_{2} + C_{1} C_{L} L_{1} R_{L}\right) + s^{2} \left(C_{1} L_{1} + C_{L} L_{1} R_{2} g_{m} + C_{L} L_{1} + C_{L} L_{L}\right) + s \left(C_{L} R_{2} + C_{L} R_{L}\right) + 1}$$

10.442 INVALID-ORDER-442 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{s^2 \left(L_1 L_L R_2 R_L g_m + L_1 L_L R_L \right)}{C_1 C_L L_1 L_L R_2 R_L s^4 + R_2 R_L + s^3 \left(C_1 L_1 L_L R_2 + C_1 L_1 L_L R_2 R_L g_m + C_L L_1 L_L R_L \right) + s^2 \left(C_1 L_1 R_2 R_L + C_L L_L R_2 R_L + L_1 L_L R_2 g_m + L_1 L_L \right) + s \left(L_1 R_2 R_L g_m + L_1 R_L + L_L R_2 + L_L R_L \right)}$$

10.443 INVALID-ORDER-443
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{s^3 \left(C_L L_1 L_L R_2 R_L g_m + C_L L_1 L_L R_L \right) + s^2 \left(L_1 L_L R_2 g_m + L_1 L_L \right) + s \left(L_1 R_2 R_L g_m + L_1 R_L \right)}{R_2 + R_L + s^4 \left(C_1 C_L L_1 L_L R_2 + C_1 C_L L_1 L_L R_L \right) + s^3 \left(C_1 L_1 L_L R_2 g_m + C_L L_1 L_L \right) + s^2 \left(C_1 L_1 R_2 + C_1 L_1 R_L + C_L L_L R_2 + C_L L_L R_L \right) + s \left(L_1 R_2 g_m + L_1 + L_L \right)}$$

10.444 INVALID-ORDER-444
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{s^3 \left(C_L L_1 L_L R_2 R_L g_m + C_L L_1 L_L R_L \right) + s \left(L_1 R_2 R_L g_m + L_1 R_L \right)}{R_2 + R_L + s^4 \left(C_1 C_L L_1 L_L R_2 + C_1 C_L L_1 L_L R_L \right) + s^3 \left(C_1 C_L L_1 R_2 R_L + C_L L_1 L_L R_2 g_m + C_L L_1 L_L \right) + s^2 \left(C_1 L_1 R_2 + C_1 L_1 R_2 R_L g_m + C_L R_2$$

10.445 INVALID-ORDER-445 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty\right)$

$$H(s) = \frac{C_2 L_1 R_L s^2 + L_1 R_L g_m s}{C_1 C_2 L_1 R_L s^3 + s^2 \left(C_1 L_1 + C_2 L_1 \right) + s \left(C_2 R_L + L_1 g_m \right) + 1}$$

10.446 INVALID-ORDER-446 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{C_2 L_1 R_L s^2 + L_1 R_L g_m s}{s^3 \left(C_1 C_2 L_1 R_L + C_1 C_L L_1 R_L + C_2 C_L L_1 R_L \right) + s^2 \left(C_1 L_1 + C_2 L_1 + C_L L_1 R_L g_m \right) + s \left(C_2 R_L + C_L R_L + L_1 g_m \right) + 1}$$

10.447 INVALID-ORDER-447 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2 C_L L_1 R_L s^2 + L_1 g_m + s \left(C_2 L_1 + C_L L_1 R_L g_m \right)}{C_1 C_2 C_L L_1 R_L s^3 + C_2 + C_L + s^2 \left(C_1 C_2 L_1 + C_1 C_L L_1 + C_2 C_L L_1 \right) + s \left(C_2 C_L R_L + C_L L_1 g_m \right)}$$

10.448 INVALID-ORDER-448 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2 C_L L_1 L_L s^3 + C_2 L_1 s + C_L L_1 L_L g_m s^2 + L_1 g_m}{C_1 C_2 C_L L_1 L_L s^4 + C_2 + C_L L_1 q_m s + C_L + s^2 (C_1 C_2 L_1 + C_1 C_L L_1 + C_2 C_L L_1 + C_2 C_L L_1)}$$

10.449 INVALID-ORDER-449 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{C_2L_1L_Ls^3 + L_1L_Lg_ms^2}{C_LL_1L_Lg_ms^3 + L_1g_ms + s^4\left(C_1C_2L_1L_L + C_1C_LL_1L_L + C_2C_LL_1L_L\right) + s^2\left(C_1L_1 + C_2L_1 + C_2L_L + C_LL_L\right) + 1}$$

10.450 INVALID-ORDER-450 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2C_LL_1L_Ls^3 + L_1g_m + s^2\left(C_2C_LL_1R_L + C_LL_1L_Lg_m\right) + s\left(C_2L_1 + C_LL_1R_Lg_m\right)}{C_1C_2C_LL_1L_Ls^4 + C_1C_2C_LL_1R_Ls^3 + C_2 + C_L + s^2\left(C_1C_2L_1 + C_1C_LL_1 + C_2C_LL_1 + C_2C_LL_1\right) + s\left(C_2C_LR_L + C_LL_1g_m\right)}$$

10.451 INVALID-ORDER-451 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{C_2 L_1 L_L R_L s^3 + L_1 L_L R_L g_m s^2}{R_L + s^4 \left(C_1 C_2 L_1 L_L R_L + C_1 C_L L_1 L_L R_L + C_2 C_L L_1 L_L R_L\right) + s^3 \left(C_1 L_1 L_L + C_2 L_1 L_L + C_L L_1 L_L R_L g_m\right) + s^2 \left(C_1 L_1 R_L + C_2 L_1 R_L + C_2 L_1 R_L + C_1 L_L R_L + L_1 L_L g_m\right) + s \left(L_1 R_L g_m + L_L\right)}$$

10.452 INVALID-ORDER-452
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{C_2C_LL_1L_LR_Ls^4 + L_1R_Lg_ms + s^3\left(C_2L_1L_L + C_LL_1L_LR_Lg_m\right) + s^2\left(C_2L_1R_L + L_1L_Lg_m\right)}{C_1C_2C_LL_1L_LR_Ls^5 + s^4\left(C_1C_2L_1L_L + C_1C_LL_1L_L + C_2C_LL_1L_L\right) + s^3\left(C_1C_2L_1R_L + C_2L_LL_LR_L + C_LL_1L_Lg_m\right) + s^2\left(C_1L_1 + C_2L_1 + C_2L_L + C_LL_L\right) + s\left(C_2R_L + L_1g_m\right) + 1}$$

10.453 INVALID-ORDER-453
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$$

$$H(s) = \frac{C_2C_LL_1L_LR_Ls^4 + C_2L_1R_Ls^2 + C_LL_1L_LR_Lg_ms^3 + L_1R_Lg_ms}{C_1C_2C_LL_1L_LR_Ls^5 + s^4\left(C_1C_LL_1L_L + C_2C_LL_1L_L\right) + s^3\left(C_1C_2L_1R_L + C_1C_LL_1R_L + C_2C_LL_1R_L + C_2C_LL_1R_L + C_LL_1L_Lg_m\right) + s^2\left(C_1L_1 + C_2L_1 + C_LL_1R_Lg_m + C_LL_L\right) + s\left(C_2R_L + C_LR_L + L_1g_m\right) + 1}$$

10.454 INVALID-ORDER-454 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{C_2 L_1 R_2 R_L s^2 + s \left(L_1 R_2 R_L g_m + L_1 R_L \right)}{C_1 C_2 L_1 R_2 R_L s^3 + R_2 + R_L + s^2 \left(C_1 L_1 R_2 + C_1 L_1 R_L + C_2 L_1 R_2 \right) + s \left(C_2 R_2 R_L + L_1 R_2 g_m + L_1 \right)}$$

10.455 INVALID-ORDER-455 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2L_1R_2s^2 + s\left(L_1R_2g_m + L_1\right)}{s^3\left(C_1C_2L_1R_2 + C_1C_LL_1R_2 + C_2C_LL_1R_2\right) + s^2\left(C_1L_1 + C_LL_1R_2g_m + C_LL_1\right) + s\left(C_2R_2 + C_LR_2\right) + 1}$$

10.456 INVALID-ORDER-456 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{C_2 L_1 R_2 R_L s^2 + s \left(L_1 R_2 R_L g_m + L_1 R_L\right)}{R_2 + R_L + s^3 \left(C_1 C_2 L_1 R_2 R_L + C_1 C_L L_1 R_2 R_L + C_2 C_L L_1 R_2 R_L\right) + s^2 \left(C_1 L_1 R_2 + C_1 L_1 R_L + C_2 L_1 R_2 + C_L L_1 R_2 R_L g_m + C_L L_1 R_L\right) + s \left(C_2 R_2 R_L + C_L R_2 R_L + L_1 R_2 g_m + L_1\right)}$$

10.457 INVALID-ORDER-457 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2C_LL_1R_2R_Ls^3 + s^2\left(C_2L_1R_2 + C_LL_1R_2R_Lg_m + C_LL_1R_L\right) + s\left(L_1R_2g_m + L_1\right)}{C_1C_2C_LL_1R_2R_Ls^4 + s^3\left(C_1C_2L_1R_2 + C_1C_LL_1R_2 + C_1C_LL_1R_L\right) + s^2\left(C_1L_1 + C_2C_LR_2R_L + C_LL_1R_2g_m + C_LL_1\right) + s\left(C_2R_2 + C_LR_2 + C_LR_2\right) + 1}$$

10.458 INVALID-ORDER-458 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2C_LL_1L_LR_2s^4 + C_2L_1R_2s^2 + s^3\left(C_LL_1L_LR_2g_m + C_LL_1L_L\right) + s\left(L_1R_2g_m + L_1\right)}{C_1C_2C_LL_1L_LR_2s^5 + C_1C_LL_1L_Ls^4 + s^3\left(C_1C_2L_1R_2 + C_1C_LL_1R_2 + C_2C_LL_1R_2 + C_2C_LL_1R_2\right) + s^2\left(C_1L_1 + C_LL_1R_2g_m + C_LL_1 + C_LL_1\right) + s\left(C_2R_2 + C_LR_2\right) + 1}$$

10.459 INVALID-ORDER-459 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{C_2L_1L_LR_2s^3 + s^2\left(L_1L_LR_2g_m + L_1L_L\right)}{R_2 + s^4\left(C_1C_2L_1L_LR_2 + C_1C_LL_1L_LR_2 + s^3\left(C_1L_1L_L + C_LL_1L_LR_2g_m + C_LL_1L_L\right) + s^2\left(C_1L_1R_2 + C_2L_LR_2 + C_LL_LR_2\right) + s\left(L_1R_2g_m + L_1 + L_L\right)}$$

10.460 INVALID-ORDER-460 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_2C_LL_1L_LR_2s^4 + s^3\left(C_2C_LL_1R_2R_L + C_LL_1L_LR_2g_m + C_LL_1L_L\right) + s^2\left(C_2L_1R_2 + C_LL_1R_2R_Lg_m + C_LL_1R_L\right) + s\left(L_1R_2g_m + L_1\right)}{C_1C_2C_LL_1L_LR_2s^5 + s^4\left(C_1C_2C_LL_1R_2R_L + C_1C_LL_1L_L\right) + s^3\left(C_1C_2L_1R_2 + C_1C_LL_1R_2 + C_2C_LL_1R_2 + C_2C_LL_1R_2\right) + s^2\left(C_1L_1 + C_2C_LR_2R_L + C_LL_1R_2g_m + C_LL_1 + C_LL_1\right) + s\left(C_2R_2 + C_LR_2 + C_LR_2\right) + s^2\left(C_1L_1 + C_2C_LL_1R_2 + C_LL_1R_2\right) + s^2\left(C_1L_1 + C_2C_LL_1R_2 + C_LL_1R_2\right) + s^2\left(C_1L_1 + C_2C_LL_1R_2 + C_LL_1R_2\right) + s^2\left(C_1L_1 + C_2C_LL_1R_2\right) + s^2\left(C_1L_$$

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10.461 INVALID-ORDER-461 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 R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
H(s) = \frac{C_2L_1L_LR_2R_Ls^3 + s^2\left(L_1L_LR_2R_Lg_m + L_1L_LR_L\right)}{R_2R_L + s^4\left(C_1C_2L_1L_LR_2R_L + C_1C_LL_1L_LR_2R_L + C_2L_1L_LR_2 + C_1L_1L_LR_2 + C_1L_1L_1L_1 + C_1L_1L_1 + C_1L_1L_1L_1 + C_1L_1L_1L_1 + C_1L_1L_1L_1 + C_1L_1L_1L_1 + C_1L_
10.462 INVALID-ORDER-462 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{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
H(s) = \frac{C_2C_LL_1L_LR_2R_Ls^4 + s^3\left(C_2L_1L_LR_2 + C_LL_1L_LR_2R_Lg_m + C_LL_1L_LR_2\right) + s^2\left(C_2L_1R_2R_L + L_1L_LR_2g_m + L_1L_L\right) + s\left(L_1R_2R_Lg_m + L_1R_L\right) + s\left(L_1R_2R_Lg_m + L_1R
10.463 INVALID-ORDER-463 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(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_2C_LL_1L_LR_2R_Ls^4 + C_2L_1R_2R_Ls^2 + s^3\left(C_LL_1L_LR_2R_Lg_m + C_LL_1L_LR_L\right) + s\left(L_1R_2R_Lg_m + L_1R_L\right)}{C_1C_2C_LL_1L_LR_2R_Ls^5 + R_2 + R_L + s^4\left(C_1C_LL_1L_LR_2 + C_1C_LL_1L_R\right) + s^3\left(C_1C_2L_1R_2R_L + C_2C_LL_1R_2R_L + C_
10.464 INVALID-ORDER-464 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\right)
                                                                                                                                                                                                                                                                                                   H(s) = \frac{L_1 R_L g_m s + s^2 \left( C_2 L_1 R_2 R_L g_m + C_2 L_1 R_L \right)}{s^3 \left( C_1 C_2 L_1 R_2 + C_1 C_2 L_1 R_L \right) + s^2 \left( C_1 L_1 + C_2 L_1 R_2 g_m + C_2 L_1 \right) + s \left( C_2 R_2 + C_2 R_L + L_1 g_m \right) + 1}
10.465 INVALID-ORDER-465 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{L_1 g_m + s \left( C_2 L_1 R_2 g_m + C_2 L_1 \right)}{C_1 C_2 C_L L_1 R_2 s^3 + C_2 + C_L + s^2 \left( C_1 C_2 L_1 + C_1 C_L L_1 + C_2 C_L L_1 R_2 g_m + C_2 C_L L_1 \right) + s \left( C_2 C_L R_2 + C_L L_1 g_m \right)}
10.466 INVALID-ORDER-466 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)
                                                                                       10.467 INVALID-ORDER-467 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{L_{1}g_{m} + s^{2}\left(C_{2}C_{L}L_{1}R_{2}R_{L}g_{m} + C_{2}C_{L}L_{1}R_{L}\right) + s\left(C_{2}L_{1}R_{2}g_{m} + C_{2}L_{1} + C_{L}L_{1}R_{L}g_{m}\right)}{C_{2} + C_{L} + s^{3}\left(C_{1}C_{2}C_{L}L_{1}R_{2} + C_{1}C_{2}C_{L}L_{1}R_{L}\right) + s^{2}\left(C_{1}C_{2}L_{1} + C_{1}C_{L}L_{1} + C_{2}C_{L}L_{1}R_{2}g_{m} + C_{2}C_{L}L_{1}\right) + s\left(C_{2}C_{L}R_{2} + C_{2}C_{L}R_{L} + C_{L}L_{1}g_{m}\right)}
10.468 INVALID-ORDER-468 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{C_L L_1 L_L g_m s^2 + L_1 g_m + s^3 \left( C_2 C_L L_1 L_L R_2 g_m + C_2 C_L L_1 L_L \right) + s \left( C_2 L_1 R_2 g_m + C_2 L_1 \right)}{C_1 C_2 C_L L_1 L_L s^4 + C_1 C_2 C_L L_1 R_2 s^3 + C_2 + C_L + s^2 \left( C_1 C_2 L_1 + C_1 C_L L_1 + C_2 C_L L_1 R_2 g_m + C_2 C_L L_1 + C_2 C_L L_1 \right) + s \left( C_2 C_L R_2 + C_L L_1 g_m \right)}
10.469 INVALID-ORDER-469 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)
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$$H(s) = \frac{L_{1}L_{L}g_{m}s^{2} + s^{3}\left(C_{2}L_{1}L_{L}R_{2}g_{m} + C_{2}L_{1}L_{L}\right)}{C_{1}C_{2}C_{L}L_{1}L_{L}R_{2}s^{5} + s^{4}\left(C_{1}C_{2}L_{1}L_{L} + C_{1}C_{L}L_{1}L_{L} + C_{2}C_{L}L_{1}L_{L}\right) + s^{2}\left(C_{1}L_{1}L_{L}R_{2}g_{m} + C_{2}L_{1}L_{L}R_{2}g_{m} + C_{2}L_{1}R_{2}g_{m} + C_{2}L_{1}R_{2}g_{m$$

10.470 INVALID-ORDER-470 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$ $H(s) = \frac{L_{1}g_{m} + s^{3}\left(C_{2}C_{L}L_{1}L_{L}R_{2}g_{m} + C_{2}C_{L}L_{1}L_{L}\right) + s^{2}\left(C_{2}C_{L}L_{1}R_{2}R_{L}g_{m} + C_{2}C_{L}L_{1}R_{L} + C_{L}L_{1}L_{L}g_{m}\right) + s\left(C_{2}L_{1}R_{2}g_{m} + C_{2}L_{1} + C_{L}L_{1}R_{L}g_{m}\right)}{C_{1}C_{2}C_{L}L_{1}L_{L}s^{4} + C_{2} + C_{L} + s^{3}\left(C_{1}C_{2}L_{L}L_{1}R_{2} + C_{1}C_{2}L_{L}L_{1}\right) + s^{2}\left(C_{1}C_{2}L_{1} + C_{1}C_{L}L_{1} + C_{2}C_{L}L_{1}R_{2}g_{m} + C_{2}C_{L}L_{1} + C_{2}C_{L}L_{1}\right) + s\left(C_{2}C_{L}R_{2} + C_{2}C_{L}R_{L} + C_{L}L_{1}g_{m}\right)}$ 10.471 INVALID-ORDER-471 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$ $H(s) = \frac{L_{1}L_{L}R_{L}g_{m}s^{2} + s^{3}\left(C_{2}L_{1}L_{L}R_{2}R_{L}g_{m} + C_{2}L_{1}L_{L}R_{L}\right)}{C_{1}C_{2}C_{L}L_{1}L_{L}R_{2}s^{5} + R_{L} + s^{4}\left(C_{1}C_{2}L_{1}L_{L}R_{2} + C_{1}C_{L}L_{L}R_{L} + C_{2}C_{L}L_{L}L_{R}R_{L} + C_{2}C_{L}L_{L}L_{R}R_{L} + C_{2}C_{L}L_{L}L_{R}R_{L} + C_{2}L_{L}L_{R}R_{L} + C_{2}L_{L}L_{L}R_{2}g_{m} + C_{2}L_{L}R_{2}g_{m} + C_{2}L_{L}R_{2}$ 10.472 INVALID-ORDER-472 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$ $H(s) = \frac{L_1 R_L g_m s + s^4 \left(C_2 C_L L_1 L_L R_2 g_m + C_2 C_L L_1 L_L R_2 g_m + C_2 L_1 L_L + C_L L_1 L_L R_L g_m \right) + s^2 \left(C_2 L_1 R_2 R_L g_m + C_2 L_1 R_L + L_1 L_L g_m \right)}{s^5 \left(C_1 C_2 C_L L_1 L_L R_2 + C_1 C_2 L_1 L_L R_2 + C_1$ 10.473 INVALID-ORDER-473 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$ $H(s) = \frac{C_L L_1 L_L R_L g_m s^3 + L_1 R_L g_m s + s^4 \left(C_2 C_L L_1 L_L R_2 R_L g_m + C_2 C_L L_1 L_L R_L\right) + s^2 \left(C_2 L_1 R_2 R_L g_m + C_2 L_1 R_L\right)}{s^5 \left(C_1 C_2 C_L L_1 L_L R_2 + C_1 C_2 L_1 L_L R_2 + C_1 C_L L_1 L_L + C_2 C_L L_1 L_L R_2 + C_1 C_L L_1 L_L + C_2 C_L L_1 R_L + C_1 C_L L_1 R_L + C_2 C_L L_1 R_$ **10.474** INVALID-ORDER-474 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$ $H(s) = \frac{C_2 L_1 L_2 R_L g_m s^3 + C_2 L_1 R_L s^2 + L_1 R_L g_m s}{C_1 C_2 L_1 L_2 s^4 + s^3 \left(C_1 C_2 L_1 R_L + C_2 L_1 L_2 q_m \right) + s^2 \left(C_1 L_1 + C_2 L_1 + C_2 L_2 \right) + s \left(C_2 R_L + L_1 q_m \right) + 1}$ **10.475** INVALID-ORDER-475 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$ $H(s) = \frac{C_2L_1L_2g_ms^2 + C_2L_1s + L_1g_m}{C_1C_2C_LL_1L_2s^4 + C_2C_LL_1L_2g_ms^3 + C_2 + C_LL_1g_ms + C_L + s^2\left(C_1C_2L_1 + C_1C_LL_1 + C_2C_LL_1 + C_2C_LL_1\right)}$ **10.476** INVALID-ORDER-476 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$ $H(s) = \frac{C_2L_1L_2R_Lg_ms^3 + C_2L_1R_Ls^2 + L_1R_Lg_ms}{C_1C_2C_LL_1L_2R_Ls^5 + s^4\left(C_1C_2L_1L_2 + C_2C_LL_1L_2R_Lg_m\right) + s^3\left(C_1C_2L_1R_L + C_1C_LL_1R_L + C_2C_LL_1R_L + C_2C_LL_1R$ 10.477 INVALID-ORDER-477 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

10.477 INVALID-ORDER-477
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_2 C_L L_1 L_2 R_L g_m s^3 + L_1 g_m + s^2 \left(C_2 C_L L_1 R_L + C_2 L_1 L_2 g_m\right) + s \left(C_2 L_1 + C_L L_1 R_L g_m\right)}{C_1 C_2 C_L L_1 L_2 s^4 + C_2 + C_L + s^3 \left(C_1 C_2 L_L L_1 L_2 g_m\right) + s^2 \left(C_1 C_2 L_1 + C_1 C_L L_1 + C_2 C_L L_1\right) + s \left(C_2 C_L R_L + C_L L_1 g_m\right)}$$

$$\begin{aligned} \textbf{10.478} \quad \textbf{INVALID-ORDER-478} \ \ Z(s) &= \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right) \\ & H(s) &= \frac{C_2 C_L L_1 L_2 L_L g_m s^4 + C_2 C_L L_1 L_L s^3 + C_2 L_1 s + L_1 g_m + s^2 \left(C_2 L_1 L_2 g_m + C_L L_1 L_L g_m\right)}{C_2 C_L L_1 L_2 g_m s^3 + C_2 + C_L L_1 g_m s + C_L + s^4 \left(C_1 C_2 C_L L_1 L_2 + C_1 C_2 C_L L_1 L_L\right) + s^2 \left(C_1 C_2 L_1 + C_1 C_L L_1 + C_2 C_L L_1 + C_2 C_L L_1 + C_2 C_L L_1\right)} \end{aligned}$$

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10.479 INVALID-ORDER-479 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{C_2L_1L_2L_Lg_ms^4 + C_2L_1L_Ls^3 + L_1L_Lg_ms^2}{C_1C_2C_LL_1L_2L_Ls^6 + C_2C_LL_1L_2L_Lg_ms^5 + L_1g_ms + s^4\left(C_1C_2L_1L_2 + C_1C_2L_1L_L + C_1C_LL_1L_L + C_2C_LL_1L_L + C_2C_LL_2L_L\right) + s^3\left(C_2L_1L_2g_m + C_LL_1L_Lg_m\right) + s^2\left(C_1L_1 + C_2L_1 + C_2
10.480 INVALID-ORDER-480 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)
                                                                                                                                                                                                H(s) = \frac{C_2C_LL_1L_2L_Lg_ms^4 + L_1g_m + s^3\left(C_2C_LL_1L_2R_Lg_m + C_2C_LL_1L_L\right) + s^2\left(C_2C_LL_1R_L + C_2L_1L_2g_m + C_LL_1L_Lg_m\right) + s\left(C_2L_1 + C_LL_1R_Lg_m\right)}{C_2 + C_L + s^4\left(C_1C_2C_LL_1L_2 + C_1C_2C_LL_1L_L\right) + s^3\left(C_1C_2C_LL_1R_L + C_2C_LL_1L_2g_m\right) + s^2\left(C_1C_2L_1 + C_1C_LL_1 + C_2C_LL_1 + C_2C_LL_1 + C_2C_LL_1\right) + s\left(C_2C_LR_L + C_LL_1g_m\right)}
10.481 INVALID-ORDER-481 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 R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
H(s) = \frac{C_2L_1L_2L_LR_Lg_ms^4 + C_2L_1L_LR_Ls^3 + L_1L_LR_Lg_ms^2}{C_1C_2C_LL_1L_2L_LR_Ls^6 + R_L + s^5\left(C_1C_2L_1L_2L_LR_Lg_m\right) + s^4\left(C_1C_2L_1L_2R_L + C_1C_LL_1L_LR_L + C_2C_LL_1L_LR_L + C_2C_LL_1L_LR_L + C_2L_1L_2L_Lg_m\right) + s^3\left(C_1L_1L_L + C_2L_1L_2R_Lg_m + C_2L_1L_LR_L + C_2L_1L_LR_Lg_m\right) + s^2\left(C_1L_2L_2R_Lg_m + C_2L_1L_2R_Lg_m + C_2L_1L_2R_Lg_m\right) + s^2\left(C_1L_2R_Lg_m + C_2L_1L_2R_Lg_m + C_2L_1L_2R_Lg_m\right) + s^2\left(C_1L_2R_Lg_m + C_2L_1L_2R_Lg_m\right) + s^2\left(C_1L_2R_Lg_m + C_2L_1L_2R_Lg_m\right) + s^2\left(C_1R_Lg_m + C_2R_Lg_m + C_2R_Lg_m\right) + s^2\left(C_1R_Lg_m + C_2R_Lg_m + C_2R_Lg_m\right) + s^2\left(C_1R_Lg_m + C_2R_Lg_m\right) + s^2\left(C_1R_Lg_m + C_2R_Lg_m + C_2R_Lg_m\right) + s^2\left(C_1R_Lg_m + C_2R_Lg_m + C_2R_Lg_m\right) + s^2\left(C_1R_Lg_m + C_2R_Lg_m + C_2R_Lg_m\right) + s^2\left(C_1R_Lg_m + C_2R_Lg_m\right) + s^2\left(C_1R_Lg_m + C_2R_Lg_m + C_2R_Lg_m\right) + s^2\left(C_1R_Lg_m + C_2R_Lg_m + C_2R_Lg_m\right) + s^2\left(C_1R_Lg_m + C_2R_Lg_m + C_2R_Lg_m\right) + s^2\left(C_1R_Lg_m + C_2R_Lg_m\right) + s^2\left(C_1R_Lg_m + C_2R_Lg_m + C_2R_
10.482 INVALID-ORDER-482 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{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
H(s) = \frac{C_2C_LL_1L_2L_LR_Lg_ms^5 + L_1R_Lg_ms + s^4\left(C_2C_LL_1L_LR_L + C_2L_1L_2L_Lg_m\right) + s^3\left(C_2L_1L_2R_Lg_m + C_2L_1L_L + C_LL_1L_LR_Lg_m\right) + s^2\left(C_2L_1R_L + L_1L_Lg_m\right)}{C_1C_2C_LL_1L_2L_Ls^6 + s^5\left(C_1C_2L_LL_LR_L + C_2C_LL_1L_LR_L + C_2C_LL_LL_L + C_2C_LL_LL_L + C_2C_LL_LR_L + C_2C_LL_LR_L + C_2C_LL_LR_L + C_2L_LL_Lg_m\right) + s^2\left(C_1L_1L_LR_L + C_2L_1L_LR_L + C_2L_LL_LR_L + C_2L_LR_L + C
10.483 INVALID-ORDER-483 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(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_2C_LL_1L_2L_LR_Lg_ms^5 + C_2C_LL_1L_LR_Ls^4 + C_2L_1R_Ls^2 + L_1R_Lg_ms + s^3\left(C_2L_1L_2R_Lg_m + C_LL_1L_LR_Lg_m\right)}{C_1C_2C_LL_1L_2L_Ls^6 + s^5\left(C_1C_2C_LL_1L_2R_L + C_2C_LL_1L_LR_L + C_2C_LL_1R_L 
10.484 INVALID-ORDER-484 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{C_2L_1L_2R_Lg_ms^3 + L_1R_Lg_ms + s^2\left(C_2L_1R_2R_Lg_m + C_2L_1R_L\right)}{C_1C_2L_1L_2s^4 + s^3\left(C_1C_2L_1R_2 + C_1C_2L_1R_L + C_2L_1L_2g_m\right) + s^2\left(C_1L_1 + C_2L_1R_2g_m + C_2L_1 + C_2L_2\right) + s\left(C_2R_2 + C_2R_L + L_1g_m\right) + 1}
10.485 INVALID-ORDER-485 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{C_2L_1L_2g_ms^2 + L_1g_m + s\left(C_2L_1R_2g_m + C_2L_1\right)}{C_1C_2C_LL_1L_2s^4 + C_2 + C_L + s^3\left(C_1C_2C_LL_1R_2 + C_2C_LL_1L_2g_m\right) + s^2\left(C_1C_2L_1 + C_1C_LL_1 + C_2C_LL_1R_2g_m + C_2C_LL_1 + C_2C_LL_2\right) + s\left(C_2C_LR_2 + C_LL_1g_m\right)}
10.486 INVALID-ORDER-486 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_2L_1L_2R_Lg_ms^3 + L_1R_Lg_ms + s^2\left(C_2L_1R_2R_Lg_m + C_2L_1R_L\right)}{C_1C_2C_LL_1L_2R_Ls^5 + s^4\left(C_1C_2C_LL_1R_2R_L + C_1C_2L_1L_2 + C_2C_LL_1R_2 + C_1C_2L_1R_2 + C_1C_2L_1R_L + C_2C_LL_1R_L + C_2C_LL_1R
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 $\begin{aligned} \textbf{10.487} \quad \textbf{INVALID-ORDER-487} \ \ Z(s) &= \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right) \\ & H(s) &= \frac{C_2 C_L L_1 L_2 R_L g_m s^3 + L_1 g_m + s^2 \left(C_2 C_L L_1 R_2 R_L g_m + C_2 C_L L_1 R_L + C_2 L_1 L_2 g_m\right) + s \left(C_2 L_1 R_2 g_m + C_2 L_1 + C_L L_1 R_L g_m\right) }{C_1 C_2 C_L L_1 L_2 s^4 + C_2 + C_L + s^3 \left(C_1 C_2 C_L L_1 R_2 + C_1 C_2 C_L L_1 R_L + C_2 C_L L_1 L_2 g_m\right) + s^2 \left(C_1 C_2 L_1 + C_1 C_L L_1 + C_2 C_L L_1 + C_2 C_L L_1 + C_2 C_L L_1\right) + s \left(C_2 C_L R_2 + C_2 C_L R_L + C_L L_1 g_m\right) } \end{aligned}$

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10.488 INVALID-ORDER-488 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{C_2C_LL_1L_2L_Lg_ms^4 + L_1g_m + s^3\left(C_2C_LL_1L_LR_2g_m + C_2C_LL_1L_L\right) + s^2\left(C_2L_1L_2g_m + C_LL_1L_Lg_m\right) + s\left(C_2L_1R_2g_m + C_2L_1\right)}{C_2 + C_L + s^4\left(C_1C_2C_LL_1L_2 + C_1C_2C_LL_1L_L\right) + s^3\left(C_1C_2C_LL_1L_2g_m\right) + s^2\left(C_1C_2L_1 + C_1C_LL_1 + C_2C_LL_1R_2g_m + C_2C_LL_1\right) + s\left(C_2C_LR_2 + C_LL_1g_m\right)}
10.489 INVALID-ORDER-489 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_2L_1L_2L_Lg_ms^4 + L_1L_Lg_ms^2 + s^3\left(C_2L_1L_LR_2g_m + C_2L_1L_L\right)}{C_1C_2C_LL_1L_2L_Ls^6 + s^5\left(C_1C_2C_LL_1L_LR_2 + C_2C_LL_1L_LR_2 + C_2C_LL_1L_L + C_1C_LL_1L_L + C_2C_LL_1L_L + C_2C_LL_1L_1L_1 + C_2C_LL_1L_1 + C_2C_LL_1 + C_2C_LL_
10.490 INVALID-ORDER-490 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{C_2C_LL_1L_2L_Lg_ms^4 + L_1g_m + s^3\left(C_2C_LL_1L_2R_Lg_m + C_2C_LL_1L_LR_2g_m + C_2C_LL_1L_L\right) + s^2\left(C_2C_LL_1R_2R_Lg_m + C_2C_LL_1R_L + C_2L_1L_2g_m + C_LL_1L_Lg_m\right) + s\left(C_2L_1R_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m + C_2L_1L_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1L_2g_m + C_2L_1R_2g_m + C_2L_1L_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1L_2g_m + C_2L_1R_2g_m + C_2L_1L_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1R_2g_m + C_2L_1R_2g_m + C_2L_1R_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1R_2g_m + C_2L_1R_2g_m + C_2L_1R_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1R_2g_m + C_2L_1R_2g_m + C_2L_1R_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1R
10.491 INVALID-ORDER-491 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 R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
H(s) = \frac{C_2L_1L_2L_LR_Lg_ms^4 + L_1L_LR_Lg_ms^2 + s^3\left(C_2L_1L_2L_LR_Lg_ms^4 + L_1L_LR_Lg_ms^2 + s^3\left(C_2L_1L_2L_LR_Lg_ms^4 + L_1L_LR_Lg_ms^4 + L_1L_LR_Lg_ms^2 + s^3\left(C_2L_1L_2L_LR_Lg_ms^4 + L_1L_LR_Lg_ms^4 
10.492 INVALID-ORDER-492 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, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
H(s) = \frac{C_2C_LL_1L_2L_LR_2g_ms^5 + L_1R_Lg_ms + s^4\left(C_2C_LL_1L_LR_2R_Lg_m + C_2C_LL_1L_LR_2 + C_2L_1L_LR_2g_m + C_2L_1L_1R_2g_m + C_2L_1L_1R_2g_m + C_2L_1L_1R_2g_m + C_2L_1L_1R_2g_m + C_2L_1L_1R_2g_m + C_2L_1L_1R_2g_m + C_2L
10.493 INVALID-ORDER-493 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, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_2C_LL_1L_2L_LR_Lg_ms^5 + L_1R_Lg_ms + s^4\left(C_2C_LL_1L_LR_2R_Lg_m + C_2C_LL_1L_LR_L\right) + s^3\left(C_2C_LL_1L_2L_Lg_m\right) + s^4\left(C_1C_2C_LL_1L_2L_Lg_m\right) + s^4\left(C_1C_2C_LL_1L_2R_Lg_m + C_2C_LL_1L_LR_2g_m + C_2C_LL_1L_2R_2g_m + C_2C_LL_1R
10.494 INVALID-ORDER-494 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, R_L\right)
                                                                                                                                                                                    H(s) = \frac{L_1 L_2 R_L g_m s^2 + s^3 \left(C_2 L_1 L_2 R_2 R_L g_m + C_2 L_1 L_2 R_L\right) + s \left(L_1 R_2 R_L g_m + L_1 R_L\right)}{R_2 + R_L + s^4 \left(C_1 C_2 L_1 L_2 R_2 + C_1 C_2 L_1 L_2 R_L\right) + s^3 \left(C_1 L_1 L_2 + C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2\right) + s^2 \left(C_1 L_1 R_2 + C_1 L_1 R_L + C_2 L_2 R_2 + C_2 L_2 R_L + L_1 L_2 g_m\right) + s \left(L_1 R_2 g_m + L_1 + L_2\right)}
10.495 INVALID-ORDER-495 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{1}{C_1 s}\right)
                                                                                                                                  H(s) = \frac{L_1 L_2 g_m s^2 + s^3 \left(C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2\right) + s \left(L_1 R_2 g_m + L_1\right)}{C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_L R_2 s + s^4 \left(C_1 C_2 L_1 L_2 + C_1 C_L L_1 L_2 + C_2 C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 R_2 + C_2 C_L L_2 R_2 + C_L L_1 L_2 g_m\right) + s^2 \left(C_1 L_1 + C_2 L_2 + C_L L_1 R_2 g_m + C_L L_1 + C_L L_2\right) + 1}
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$$H(s) = \frac{L_1 L_2 R_L g_m s^2 + s^3 \left(C_2 L_1 L_2 R_L g_m + C_2 L_1 L_2 R_L\right) + s \left(L_1 R_2 R_L g_m + L_1 R_L\right)}{C_1 C_2 C_L L_1 L_2 R_2 R_L g_m + C_2 C_L L_1 L_2 R_L + C_1 C_L L_1 L_2 R_L + C_2 C_L L_1 L_2 R_L + C_1 C_$$

10.496 INVALID-ORDER-496 $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1}, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$

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10.497 INVALID-ORDER-497 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)
H(s) = \frac{s^4 \left(C_2 C_L L_1 L_2 R_2 R_L g_m + C_2 C_L L_1 L_2 R_L g_m + C_2 L_1 L_2 R_L g_m + C_2 L_1 L_2 R_L g_m + C_2 L_1 L_2 R_L g_m + C_L L_1 L_2 R_L g_m + C_L L_1 R_L + L_1 L_2 g_m \right) \\ + s^2 \left(C_1 L_2 R_2 R_L g_m + C_L L_1 L_2 R_L g_m + C_L L_1 L_2 R_L g_m + C_L L_1 R_L + L_1 L_2 g_m + C_L L_1 R_L + L_1 L_2 g_m \right) \\ + s^2 \left(C_1 L_2 R_2 R_L g_m + C_2 L_1 L_2 R_L g_m + C_2 L_1 L_2 R_L g_m + C_2 L_1 L_2 R_L g_m + C_2 L_1 R_L g_m + C_2 L
10.498 INVALID-ORDER-498 Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1}, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, \infty, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)
H(s) = \frac{C_L L_1 L_2 L_L g_m s^4 + L_1 L_2 g_m s^2 + s^5 \left(C_2 C_L L_1 L_2 L_L R_2 g_m + C_2 C_L L_1 L_2 L_L\right) + s^3 \left(C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2 + C_L L_1 L_L\right) + s \left(L_1 R_2 g_m + C_L L_1 L_L\right) + s \left(L_1 R_2 g_m + L_1\right)}{C_1 C_2 C_L L_1 L_2 L_2 s^5 + C_L R_2 s^5 + C_L R_2 s + s^4 \left(C_1 C_2 L_1 L_2 + C_1 C_L L_1 L_2 + C_2 C_L L_1 L_2 + C_2 C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 + C_2 C_L L_2 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 + C_2 C_L L_2 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 g_m + C_L L_1 L_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 R_2 R_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 R_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 R_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2 R_2 R_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2\right) + s^3 \left(C_1 C_L L_1 L_2 R_2\right) 
10.499 INVALID-ORDER-499 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{L_L s}{C_1 L_1 s^2 + 1}\right)
H(s) = \frac{L_1 L_2 L_L g_m s^3 + s^4 \left(C_2 L_1 L_2 L_L R_2 g_m + C_2 L_1 L_2 L_L\right) + s^2 \left(L_1 L_L R_2 g_m + L_1 L_L\right)}{C_1 C_2 C_L L_1 L_2 L_L R_2 s^6 + R_2 + s^5 \left(C_1 C_2 L_1 L_2 L_L + C_1 C_L L_1 L_2 L_L R_2 g_m + C_2 C_L L_1 L_2 L_L\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_L L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^3 \left(C_1 L_1 L_2 L_L + C_1 L_1 L_2 L_L R_2 g_m + C_2 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 C_2 L_1 L_2 L_L R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 L_1 L_2 L_L R_2 R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 L_1 L_2 L_L R_2 R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 L_1 L_2 L_L R_2 R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 L_1 L_2 L_L R_2 R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 L_1 L_2 L_L R_2 R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 L_1 L_2 L_L R_2 R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 L_1 L_2 L_L R_2 R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 L_1 L_2 L_L R_2 R_2 + C_1 L_1 L_2 L_L R_2\right) + s^4 \left(C_1 L_1 L_2 L_L R_2 R_2 R_2 + C_1 L_1 L_2 R_2\right) + s^4 \left(C_1 L_1 L_2 R_2 R_2 R_2 R_2\right) + s^4 \left(C_1 L_1 L_2 R_2 R_2 R_2 R_2\right) + s^4 
10.500 INVALID-ORDER-500 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)
H(s) = \frac{s^5 \left(C_2 C_L L_1 L_2 L_L R_2 g_m + C_2 C_L L_1 L_2 L_L\right) + s^4 \left(C_2 C_L L_1 L_2 R_L g_m + C_2 C_L L_1 L_2 R_L g_m + C_2 L_1 L_2 R_L g_m + C_L L_1 L_L R_2 g_m + C_L L_1 R_2 g_m
10.501 INVALID-ORDER-501 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{L_L R_L s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}\right)
10.502 INVALID-ORDER-502 Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1}, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, \infty, \infty, \infty, \infty, \frac{C_LL_LR_Ls^2+L_Ls+R_L}{C_LL_Ls^2+1}\right)
H(s) = \frac{s^5 \left(C_2 C_L L_1 L_2 L_L R_2 R_L g_m + C_2 C_L L_1 L_2 L_L R_2 g_m + C_2 L_1 L_2 L_L + C_L L_1 L_2 L_L R_2 g_m + C_2 L_1 L_2 L_L R_2 g_m
10.503 INVALID-ORDER-503 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C_L L_1 L_2 L_L R_L g_m s^4 + L_1 L_2 R_L g_m s^2 + s^5 (C_2 + C_3)
H(s) = \frac{C_L L_1 L_2 L_L R_L g_m s}{R_2 + R_L + s^6 \left( C_1 C_2 C_L L_1 L_2 L_L R_2 + C_1 C_2 L_L L_2 L_L R_2 + C_1 C_L L_1 L_2 L_L R_2 + C_1 C_L L
10.504 INVALID-ORDER-504 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)
                                                                                                                                                                      H(s) = \frac{C_2L_1R_2R_Ls^2 + s^3\left(C_2L_1L_2R_2R_Lg_m + C_2L_1L_2R_L\right) + s\left(L_1R_2R_Lg_m + L_1R_L\right)}{R_2 + R_L + s^4\left(C_1C_2L_1L_2R_2 + C_1C_2L_1L_2R_L\right) + s^3\left(C_1C_2L_1R_2R_L + C_2L_1L_2R_2g_m + C_2L_1L_2\right) + s^2\left(C_1L_1R_2 + C_1L_1R_L + C_2L_1R_2 + C_2L_2R_2 + C_2L_2R_L\right) + s\left(C_2R_2R_L + L_1R_2g_m + L_1\right)}
10.505 INVALID-ORDER-505 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)
                                                                                                                                         H(s) = \frac{C_2L_1R_2s^2 + s^3\left(C_2L_1L_2R_2g_m + C_2L_1L_2\right) + s\left(L_1R_2g_m + L_1\right)}{C_1C_2C_LL_1L_2R_2s^5 + s^4\left(C_1C_2L_1L_2 + C_2C_LL_1L_2R_2g_m + C_2C_LL_1L_2\right) + s^3\left(C_1C_2L_1R_2 + C_1C_LL_1R_2 + C_2C_LL_1R_2 +
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10.506 INVALID-ORDER-506 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)
H(s) = \frac{C_2L_1R_2R_Ls^2 + s^3\left(C_2L_1L_2R_2R_Lg_m + C_2L_1L_2R_L\right) + s\left(L_1R_2R_Lg_m + L_1R_L\right)}{C_1C_2C_LL_1L_2R_2R_Ls^5 + R_2 + R_L + s^4\left(C_1C_2L_1L_2R_2 + C_1C_2L_1L_2R_L + C_2C_LL_1L_2R_L\right) + s^3\left(C_1C_2L_1R_2R_L + C_2C_LL_1R_2R_L + C_2C_
10.507 INVALID-ORDER-507 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)
H(s) = \frac{s^4 \left( C_2 C_L L_1 L_2 R_2 R_L g_m + C_2 C_L L_1 L_2 R_L \right) + s^3 \left( C_2 C_L L_1 R_2 R_L + C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2 \right) + s^2 \left( C_2 L_1 R_2 + C_L L_1 R_2 R_L g_m + C_L L_1 R_L \right) + s \left( L_1 R_2 g_m + L_1 \right)}{s^5 \left( C_1 C_2 C_L L_1 L_2 R_2 + C_1 C_L L_1 L_2 R_2 + C_1 C_L L_1 R_2 + C_1 C_L L_1 R_2 + C_1 C_L L_1 R_2 + C_2 C_L L_2 R_2 + C_2 C_L L_2 R_2 \right) + s^2 \left( C_1 L_1 R_2 R_L + C_1 C_L L_1 R_2 + C_1 C_L L_1 R_2 + C_1 C_L L_1 R_2 + C_2 C_L L_2 R_2 + C_2 C_L L_2 R_2 \right) + s^2 \left( C_1 L_1 R_2 R_L + C_1 C_L L_1 R_2 R_L + C_1 C_L L_1 R_2 R_L + C_1 C_L L_1 R_2 + C_1 C_L L_1 R_2 + C_1 C_L L_1 R_2 R_L + C_2 C_L L_1 R_2 R
10.508 INVALID-ORDER-508 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)
H(s) = \frac{C_2C_LL_1L_2R_2s^4 + C_2L_1R_2s^2 + s^5\left(C_2C_LL_1L_2L_LR_2g_m + C_2C_LL_1L_2\right) + s^3\left(C_2L_1L_2R_2g_m + C_2L_1L_2 + C_LL_1L_LR_2g_m + C_LL_1L_L\right) + s\left(L_1R_2g_m + L_1\right)}{C_1C_2C_LL_1L_2L_2s^6 + s^5\left(C_1C_2L_1L_2R_2 + C_1C_LL_1L_2\right) + s^4\left(C_1C_2L_1L_2 + C_1C_LL_1L_2 + C_2C_LL_1L_2 + C_2C_LL_1L_2 + C_2C_LL_1R_2 + C_2C_LL_1R
10.509 INVALID-ORDER-509 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                                     \frac{C_2L_1L_LR_2s^3 + s^4\left(C_2L_1L_2L_LR_2g_m + C_2L_1L_2L_L\right) + s^2\left(L_1L_LR_2g_m + L_1L_L\right)}{C_1C_2C_LL_1L_2L_LR_2s^6 + R_2 + s^5\left(C_1C_2L_1L_2L_L + C_2C_LL_1L_2L_L\right) + s^4\left(C_1C_2L_1L_2R_2 + C_1C_2L_1L_LR_2 + C_1C_LL_1L_LR_2 + C_2C_LL_1L_LR_2\right) + s^3\left(C_1L_1L_L + C_2L_1L_2R_2g_m + C_2L_1L_2R_2 + C_2L_1L_2R_2\right) + s^3\left(C_1L_1L_L + C_2L_1L_2R_2g_m + C_2L_1L_2R_2\right) + s^3\left(C_1L_1L_2R_2g_m + C_2L_1L_2R_2\right)
10.510 INVALID-ORDER-510 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)
10.511 INVALID-ORDER-511 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
10.512 INVALID-ORDER-512 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
H(s) = \frac{s^5 \left( C_2 C_L L_1 L_2 L_L R_2 R_L g_m + C_2 C_L L_1 L_2 L_L R_2 \right) + s^4 \left( C_2 C_L L_1 L_L R_2 R_L + C_2 L_1 L_2 L_L R_2 g_m + C_2 L_1 L_2 L_L \right) + s^3 \left( C_2 L_1 L_2 R_2 R_L R_2 R_L + C_2 L_1 L_2 L_L R_2 R_L + C_2 L_1 L_2 L_L R_2 R_L \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 R_L + C_1 C_2 L_1 L_2 L_L R_2 R_L + C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 R_L \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 + C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2 L_L R_2 \right) + s^4 \left( C_1 C_2 L_1 L_2
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 $\begin{aligned} \textbf{10.513} \quad \textbf{INVALID-ORDER-513} \ \ Z(s) &= \left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}, \ \frac{R_{2}\left(C_{2}L_{2}s^{2}+1\right)}{C_{2}L_{2}s^{2}+C_{2}R_{2}s+1}, \ \infty, \ \infty, \ \infty, \ \frac{R_{L}\left(C_{L}L_{L}s^{2}+1\right)}{C_{L}L_{L}s^{2}+C_{L}R_{L}s+1} \right) \\ & H(s) &= \frac{C_{2}C_{L}L_{1}L_{L}R_{2}R_{L}s^{4} + C_{2}L_{1}R_{2}R_{L}s^{2} + s^{5}\left(C_{2}C_{L}L_{1}L_{L}R_{2}R_{L}s^{2} + s^{5}\left(C_{2}C_{L}L_{1}L_{L}R_{L}R_{L}s^{2} + s^{5}\left(C_{2}C_{L}L_{1}L_{L}R_{L}R_{L}s^{2} + s^{5}\left(C_{2}C_{L}L_{1}L_{L}R_{L}s^{2} + s^{5}\left(C_{L}L_{L}L_{L}R_{L}s^{2} + s^{5$

10.514 INVALID-ORDER-514 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ R_2, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_2 g_m + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 \right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 \right) + 1}{s^3 \left(C_1 C_L L_1 R_2 g_m + C_1 C_L L_1 \right) + s^2 \left(C_1 C_L R_1 R_2 g_m + C_1 C_L R_1 + C_1 C_L R_2 \right) + s \left(C_1 + C_L R_2 g_m + C_L \right)}$$

10.815 INVALID-ORDER-518
$$Z(s) = (L_1s + R_1 + \frac{1}{G_{12}}, R_2 + \infty, \infty, \infty, \infty, \frac{R_{12}}{G_{12}})$$

$$R(s) = \frac{R_{12}R_{12} + R_{12}}{R_{23}R_{12}} + R_{12}R$$

10.523 INVALID-ORDER-523
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{C_1 C_2 L_1 R_L s^3 + R_L g_m + s^2 \left(C_1 C_2 R_1 R_L + C_1 L_1 R_L g_m\right) + s \left(C_1 R_1 R_L g_m + C_2 R_L\right)}{C_1 C_2 L_1 s^3 + g_m + s^2 \left(C_1 C_2 R_1 + C_1 L_1 g_m\right) + s \left(C_1 R_1 g_m + C_1 + C_2\right)}$$

 $H(s) = \frac{R_2 R_L g_m + R_L + s^4 \left(C_1 C_L L_1 L_L R_2 R_L g_m + C_1 C_L L_L R_1 R_2 R_L g_m + C_1 C_L L_L R_1 R_L \right) + s^3 \left(C_1 C_L L_L R_1 R_2 R_L g_m + C_1 L_L R_1 R_L \right) + s^2 \left(C_1 L_1 R_2 R_L g_m + C_1 L_L R_2 R_L g_m + C_1 L_L R_L \right) + s \left(C_1 R_1 R_2 R_L g_m + C_1 R_1 R_L \right) + s^2 \left(C_1 R_1 R_2 R_L g_m + C_1 L_L R_2 R_L g_m + C_1 L_L R_2 R_L g_m + C_1 R_$

10.524 INVALID-ORDER-524 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1C_2L_1s^3 + g_m + s^2\left(C_1C_2R_1 + C_1L_1g_m\right) + s\left(C_1R_1g_m + C_2\right)}{C_1C_2C_LL_1s^4 + C_Lg_ms + s^3\left(C_1C_2C_LR_1 + C_1C_LL_1g_m\right) + s^2\left(C_1C_2 + C_1C_LR_1g_m + C_1C_L + C_2C_L\right)}$$

10.525 INVALID-ORDER-525 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{C_{1}C_{2}L_{1}R_{L}s^{3} + R_{L}g_{m} + s^{2}\left(C_{1}C_{2}R_{1}R_{L} + C_{1}L_{1}R_{L}g_{m}\right) + s\left(C_{1}R_{1}R_{L}g_{m} + C_{2}R_{L}\right)}{C_{1}C_{2}C_{L}L_{1}R_{L}s^{4} + g_{m} + s^{3}\left(C_{1}C_{2}L_{1}R_{L} + C_{1}C_{L}L_{1}R_{L}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}C_{L}R_{1}R_{L}g_{m} + C_{1}C_{L}R_{L} + C_{1}L_{1}g_{m} + C_{2}C_{L}R_{L}\right) + s\left(C_{1}R_{1}g_{m} + C_{1} + C_{1}C_{L}R_{L}g_{m}\right)}$$

10.526 INVALID-ORDER-526 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_{1}C_{2}C_{L}L_{1}R_{L}s^{4} + g_{m} + s^{3}\left(C_{1}C_{2}C_{L}R_{1}R_{L} + C_{1}C_{2}L_{1} + C_{1}C_{L}L_{1}R_{L}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}C_{L}R_{1}R_{L}g_{m} + C_{1}L_{1}g_{m} + C_{2}C_{L}R_{L}\right) + s\left(C_{1}R_{1}g_{m} + C_{2} + C_{L}R_{L}g_{m}\right)}{C_{1}C_{2}C_{L}L_{1}s^{4} + C_{L}g_{m}s + s^{3}\left(C_{1}C_{2}C_{L}R_{1} + C_{1}C_{L}L_{1}g_{m}\right) + s^{2}\left(C_{1}C_{2} + C_{1}C_{L}R_{1}g_{m} + C_{1}C_{L}R_{1}g_{m} + C_{1}C_{L}R_{1}g_{m}\right) + s^{2}\left(C_{1}C_{2}C_{L}R_{1} + C_{1}C_{L}R_{1$$

10.527 INVALID-ORDER-527 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1C_2C_LL_1L_Ls^5 + g_m + s^4\left(C_1C_2C_LL_LR_1 + C_1C_LL_1L_g_m\right) + s^3\left(C_1C_2L_1 + C_1C_LL_LR_1g_m + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_1L_1g_m + C_LL_g_m\right) + s\left(C_1R_1g_m + C_2L_Lg_m\right) + s\left(C_1R_1g_m + C_2L$$

10.528 INVALID-ORDER-528 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{C_1C_2L_1L_Ls^4 + L_Lg_ms + s^3\left(C_1C_2L_LR_1 + C_1L_LLg_m\right) + s^2\left(C_1L_LR_1g_m + C_2L_L\right)}{C_1C_2C_LL_1L_Ls^5 + g_m + s^4\left(C_1C_2C_LL_LR_1 + C_1C_LL_LLg_m\right) + s^3\left(C_1C_2L_1 + C_1C_LL_LR_1g_m + C_1C_LL_L + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_1L_1g_m + C_LL_Lg_m\right) + s\left(C_1R_1g_m + C_1 + C_2C_LL_L\right)}$$

10.529 INVALID-ORDER-529 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_1C_2C_LL_1L_Ls^5 + g_m + s^4\left(C_1C_2C_LL_1R_L + C_1C_2C_LL_LR_1 + C_1C_LL_1L_2g_m\right) + s^3\left(C_1C_2C_LR_1R_L + C_1C_LL_1R_Lg_m + C_1C_LL_1R_Lg_m + C_1C_LL_LR_1g_m + C_1C_LL_1R_Lg_m + C_1C_LR_1R_Lg_m + C_1C_LR_1R_1R_Lg_m + C_1C_LR_1R_1R$$

10.530 INVALID-ORDER-530 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{C_1C_2L_1L_LR_Ls^4 + L_LR_Lg_ms + s^3\left(C_1C_2L_LR_1R_L + C_1L_1L_LR_Lg_m\right) + s^2\left(C_1L_LR_1R_Lg_m + C_2L_LR_L\right)}{C_1C_2C_LL_1L_LR_Ls^5 + R_Lg_m + s^4\left(C_1C_2C_LL_LR_1R_L + C_1C_LL_LR_Lg_m\right) + s^3\left(C_1C_2L_LR_1 + C_1C_LL_LR_1R_Lg_m + C_1C_LL_Rg_m + C_1C_LL_Rg_$$

10.531 INVALID-ORDER-531 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{C_1C_2C_LL_1L_LR_1s^5 + R_Lg_m + s^4\left(C_1C_2C_LL_LR_1R_L + C_1C_2L_1L_L + C_1C_LL_1L_LR_1g_m\right) + s^3\left(C_1C_2L_1R_1 + C_1C_LL_LR_1R_Lg_m + C_1L_LL_Rg_m + C_1L_LL_Rg_m + C_1L_LR_1g_m + C_1L_LR$$

10.532 INVALID-ORDER-532 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

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H(s) = \frac{C_1C_2L_1R_2R_Ls^3 + R_2R_Lg_m + R_L + s^2\left(C_1C_2R_1R_2R_L + C_1L_1R_2R_Lg_m + C_1L_1R_L\right) + s\left(C_1R_1R_2R_Lg_m + C_1R_1R_L + C_2R_2R_L\right)}{C_1C_2L_1R_2s^3 + R_2g_m + s^2\left(C_1C_2R_1R_2 + C_1C_2R_2R_L + C_1L_1R_2g_m + C_1L_1\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_1R_2 + C_1R_L + C_2R_2\right) + 1}
10.534 INVALID-ORDER-534 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_1 s}\right)
                                                                                                                                                                                                                            10.535 INVALID-ORDER-535 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_1C_2L_1R_2R_Ls^3 + R_2R_Lg_m + R_L + s^2\left(C_1C_2R_1R_2R_L + C_1L_1R_2R_Lg_m + C_1L_1R_L\right) + s\left(C_1R_1R_2R_Lg_m + C_1R_1R_L + C_2R_2R_L\right)}{C_1C_2C_LL_1R_2R_Ls^4 + R_2g_m + s^3\left(C_1C_2L_1R_2R_L + C_1C_LL_1R_2R_Lg_m + C_1C_LL_1R_2\right) + s^2\left(C_1C_2R_1R_2 + C_1C_LR_1R_2R_Lg_m + C_1C_LR_1R_2 + C_1C_LR_1R_1 + C_1C_
10.536 INVALID-ORDER-536 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{C_1C_2C_LL_1R_2R_Ls^4 + R_2g_m + s^3\left(C_1C_2C_LR_1R_2R_L + C_1C_LL_1R_2R_Lg_m + C_1C_LL_1R_2\right) + s^2\left(C_1C_2R_1R_2 + C_1C_LR_1R_2R_Lg_m + C_1L_1 + C_2C_LR_2R_L\right) + s\left(C_1R_1R_2g_m + C_1L_1 + C_2C_LR_2R_L\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2 + C_1R_2R_Lg_m + C_1R_L\right) + s^2\left(C_1C_2R_1R_2 + C_1C_LR_1R_2g_m +
10.537 INVALID-ORDER-537 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{C_1C_2C_LL_1L_LR_2s^5 + R_2g_m + s^4\left(C_1C_2C_LL_LR_1R_2 + C_1C_LL_1L_LR_2g_m + C_1C_LL_LR_1R_2g_m + C_1C_LL_LR_1 + C_2C_LL_LR_2\right) + s^2\left(C_1C_2R_1R_2 + C_1L_1R_2g_m + C_1L_1 + C_LL_LR_2g_m + C_1L_L\right) + s\left(C_1R_1R_2g_m + C_1L_L\right) + s\left(C_1R_1R_2g_m + C_1L_LR_1 + C_2C_LL_RR_2\right) + s^2\left(C_1C_2R_1R_2 + C_1L_1R_2g_m + C_1L_1 + C_LL_RR_2g_m + C_1L_L\right) + s\left(C_1R_1R_2g_m + C_1L_1R_2g_m + C_1L_L\right) + s\left(C_1R_1R_2g_m + C_1L_LR_1 + C_2C_LL_RR_2\right) + s\left(C_1C_2R_1R_2 + C_1L_1R_2g_m + C_1L_LR_2\right) + s\left(C_1R_1R_2g_m + C_1L_LR_2\right) +
10.538 INVALID-ORDER-538 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)
                                       \frac{C_{1}C_{2}L_{1}L_{L}R_{2}s^{4}+s^{3}\left(C_{1}C_{2}L_{L}R_{1}R_{2}+C_{1}L_{1}L_{L}R_{2}g_{m}+C_{1}L_{L}L_{L}\right)+s^{2}\left(C_{1}L_{L}R_{1}R_{2}g_{m}+C_{1}L_{L}R_{1}+C_{2}L_{L}R_{2}\right)+s\left(L_{L}R_{2}g_{m}+L_{L}\right)}{C_{1}C_{2}C_{L}L_{L}L_{L}R_{2}s^{5}+R_{2}g_{m}+s^{4}\left(C_{1}C_{2}C_{L}L_{L}R_{1}R_{2}+C_{1}C_{L}L_{L}L_{L}\right)+s^{3}\left(C_{1}C_{2}L_{L}R_{2}+C_{1}C_{L}L_{L}R_{1}+C_{1}C_{L}L_{L}R_{1}+C_{1}C_{L}L_{L}R_{2}\right)+s^{2}\left(C_{1}C_{2}R_{1}R_{2}+C_{1}L_{L}R_{2}g_{m}+C_{1}L_{L}+C_{L}L_{L}R_{2}g_{m}+C_{L}L_{L}\right)+s^{2}\left(C_{1}C_{2}R_{1}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}\right)+s^{2}\left(C_{1}C_{2}R_{1}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}\right)+s^{2}\left(C_{1}C_{2}R_{1}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+C_{1}L_{L}R_{2}+
10.539 INVALID-ORDER-539 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{C_1C_2C_LL_1L_LR_2s^5 + R_2g_m + s^4\left(C_1C_2C_LL_1R_2R_L + C_1C_2L_LR_1R_2 + C_1C_LL_1L_LR_2g_m + C_1C_LL_1R_2 + C_
10.540 INVALID-ORDER-540 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 R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C_{1}C_{2}L_{1}L_{L}R_{2}R_{L}s^{4} + s^{3}\left(C_{1}C_{2}L_{L}R_{1}R_{2}R_{L} + C_{1}L_{1}L_{L}R_{2}R_{L}g_{m} + C_{1}L_{1}L_{L}R_{L}\right) + s^{2}\left(C_{1}L_{L}R_{1}R_{2}R_{L}g_{m} + C_{1}L_{1}L_{L}R_{L}\right) + s^{2}\left(C_{1}L_{L}R_{1}R_{1}R_{L}g_{m} + C_{1}L_{1}L_{L}R_{L}g_{m}\right) + s^{2}\left(C_{1}L_{L}R_{1}R_{1}R_{L}g_{m} + C_{1}L_{1}L_{L}R_{L}g_{m}\right) + s^{2}\left(C_{1}L_{L}R_{1}R_{1}g_{m} + C_{1}L_{1}L_{L}R_{L}g_{m}\right) + s^{2}\left(C_{1}L_{L}R_{1}R_{L}g_{m} + C_{1}L_{1}L_{L}R_{L}g_{m}\right) + s^{2}\left(C_{1}L_{L}R_{1}R_{L}g_{m} + C_{1}L_{1}L_{L}R_{L}g_{m}\right) + s^{2}\left(C_{1}L_{L}R_{1}R_{1}g_{m} + C_{1}L_{1}L_{L}R_{L}g_{m}\right) + s^{2}\left(C_{1}L_{L}R_{1}R_{1}g_{m} + C_{1}L_{1}L_{L}R_{L}g_{m}\right) + s^{2}\left(C_{1}L_{L}R_{1}g_{m} + C_{1}L_{1}R_{L}g_{m}\right) + s^{2}\left(C_{1}R_{1}g_{m} + C_{1}L_{1}R_{1}g_{m}\right) + s^{2}\left(C_{1}R_{1}g_{m} + C_{1}R_{1}g_{m}\right) + s^{
H(s) = \frac{C_1C_2D_1D_Liv_2Iv_Ls - + s_-(C_1C_2D_Liv_1v_2Iv_Ls - + s_-(C_1C_2D_Liv_1v_2Iv_Ls - + s_-(C_1C_2D_Liv_1v_2Iv_Ls - + s_-(C_1D_Liv_2Iv_Ls - +
10.541 INVALID-ORDER-541 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{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
10.542 INVALID-ORDER-542 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(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
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10.533 INVALID-ORDER-533 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$

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10.545 INVALID-ORDER-545 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{R_L g_m + s^3 \left( C_1 C_2 L_1 R_2 R_L g_m + C_1 C_2 L_1 R_L \right) + s^2 \left( C_1 C_2 R_1 R_2 R_L g_m + C_1 C_2 R_1 R_L + C_1 L_1 R_L g_m \right) + s \left( C_1 R_1 R_L g_m + C_2 R_2 R_L g_m + C_2 R_L R_L \right)}{g_m + s^4 \left( C_1 C_2 C_L L_1 R_2 R_L g_m + C_1 C_2 L_1 R_2 R_L g_m + C_1 C_2 L_1 R_2 R_L g_m + C_1 C_2 L_1 R_2 g_m + C_1 C_2 R_1 R_2 R_L g_m +
10.546 INVALID-ORDER-546 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)
H(s) = \frac{g_m + s^4 \left( C_1 C_2 C_L L_1 R_2 R_L g_m + C_1 C_2 C_L L_1 R_L \right) + s^3 \left( C_1 C_2 C_L R_1 R_2 R_L g_m + C_1 C_2 L_1 R_2 g_m + C_1 C_2 R_1 R_2 
10.547 INVALID-ORDER-547 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{g_m + s^5 \left(C_1 C_2 C_L L_1 L_L R_2 g_m + C_1 C_2 C_L L_1 L_L\right) + s^4 \left(C_1 C_2 C_L L_L R_1 R_2 g_m + C_1 C_2 C_L L_L R_1 + C_1 C_L L_L R_2 g_m + C_1 C_2 L_L R_1 g_m + C_1 C_2 L_L R_2 g_m + C_1 C_2 L_L R_2 g_m + C_1 C_2 R_1 R_2 g_m
10.548 INVALID-ORDER-548 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{L_L g_m s + s^4 \left( C_1 C_2 L_1 L_L R_2 g_m + C_1 C_2 L_L R_1 R_2 g_m + C_1 C_2 L_L R_1 + C_1 L_L L_g m \right) + s^2 \left( C_1 L_L R_1 g_m + C_2 L_L R_2 
10.549 INVALID-ORDER-549 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)
H(s) = \frac{g_m + s^5 \left(C_1 C_2 C_L L_1 L_L R_2 g_m + C_1 C_2 C_L L_1 L_L\right) + s^4 \left(C_1 C_2 C_L L_1 R_2 R_L g_m + C_1 C_2 C_L L_1 R_1 R_2 g_m + C_1 C_2 C_L L_1 R_1 R_2 g_m + C_1 C_2 C_L L_1 R_2 R_L g_m + C_1 C_2 C_L R_1 R_2 R_L g_m + C_1 C_2 C_L R
10.550 INVALID-ORDER-550 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \frac{D_L L_{L} g_{m} + s^{5} \left(C_{1} C_{2} C_{L} L_{1} L_{L} R_{2} R_{L} g_{m} + C_{1} C_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{1} C_{2} L_{L} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{1} C_{2} L_{L} R_{1} R_{L} g_{m} + C_{1} C_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{1} C_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{1} C_{2} L_{L} R_{1} R_{2} 
10.551 INVALID-ORDER-551 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
H(s) = \frac{R_L g_m + s^5 \left(C_1 C_2 C_L L_1 L_L R_2 R_L g_m + C_1 C_2 C_L L_L R_1 R_2 R_L g_m + C_1 C_2 L_L L_R R_1 R_2 R_L g_m + C_1 C_2 L_L L_R R_1 R_2 R_L g_m + C_1 C_2 L_L L_R R_1 R_2 G_m + C_1 C_2 L_L L_R R_1 R_2 G_m + C_1 C_2 L_L R_1 R_2 G_m + C_1
10.552 INVALID-ORDER-552 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(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \overline{g_m + s^5 \left( C_1 C_2 C_L L_1 L_L R_2 g_m + C_1 C_2 C_L L_1 L_L \right) + s^4 \left( C_1 C_2 C_L L_1 R_2 R_L g_m + C_1 C_2 C_L L_1 R_1 + C_1 C_2 C_L L_L R_1 + C_1 C_2 C_L L_L R_1 + C_1 C_2 C_L L_L R_2 + C_1 C_2 C_L R_2
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 $H(s) = \frac{R_L g_m + s^3 \left(C_1 C_2 L_1 R_2 R_L g_m + C_1 C_2 L_1 R_L\right) + s^2 \left(C_1 C_2 R_1 R_2 R_L g_m + C_1 C_2 R_1 R_L + C_1 L_1 R_L g_m\right) + s \left(C_1 R_1 R_L g_m + C_2 R_2 R_L g_m + C_2 R_L\right)}{g_m + s^3 \left(C_1 C_2 L_1 R_2 g_m + C_1 C_2 L_1\right) + s^2 \left(C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 + C_1 C_2 R_2 + C_1 C_2 R_L + C_1 L_1 g_m\right) + s \left(C_1 R_1 g_m + C_1 + C_2 R_2 g_m + C_2 R_L\right)}$

 $H(s) = \frac{g_m + s^3 \left(C_1 C_2 L_1 R_2 g_m + C_1 C_2 L_1 \right) + s^2 \left(C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 + C_1 L_1 g_m \right) + s \left(C_1 R_1 g_m + C_2 R_2 g_m + C_2 \right)}{C_L g_m s + s^4 \left(C_1 C_2 C_L L_1 R_2 g_m + C_1 C_2 C_L L_1 \right) + s^3 \left(C_1 C_2 C_L R_1 R_2 g_m + C_1 C_2 C_L R_1 + C_1 C_2 C_L R_2 + C_1 C_L L_1 g_m \right) + s^2 \left(C_1 C_2 + C_1 C_L R_1 g_m + C_1 C_L + C_2 C_L R_2 g_m + C_2 C_L \right)}$

10.543 INVALID-ORDER-543 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$

10.544 INVALID-ORDER-544 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

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10.554 INVALID-ORDER-554 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_1C_2L_1L_2g_ms^4 + g_m + s^3\left(C_1C_2L_1 + C_1C_2L_2R_1g_m\right) + s^2\left(C_1C_2R_1 + C_1L_1g_m + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_2\right)}{C_1C_2C_LL_1L_2g_ms^5 + C_Lg_ms + s^4\left(C_1C_2C_LL_1 + C_1C_2C_LL_2R_1g_m + C_1C_2C_LL_2\right) + s^3\left(C_1C_2C_LR_1 + C_1C_LL_2g_m\right) + s^2\left(C_1C_2R_1 + C_1C_LL_2g_m\right) + s^2\left(C_1C
10.555 INVALID-ORDER-555 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{R_L}{C_L R_L s + 1}\right)
H(s) = \frac{C_1C_2L_1L_2R_Lg_ms^4 + R_Lg_m + s^3\left(C_1C_2L_1R_L + C_1C_2L_2R_1R_Lg_m\right) + s^2\left(C_1C_2R_1R_L + C_1L_1R_Lg_m + C_2L_2R_Lg_m\right) + s\left(C_1R_1R_Lg_m + C_2R_L\right)}{C_1C_2C_LL_1L_2R_Lg_ms^5 + g_m + s^4\left(C_1C_2C_LL_1R_L + C_1C_2L_1R_Lg_m + C_1C_2L_1R_Lg_m\right) + s^3\left(C_1C_2C_LR_1R_L + C_1C_2L_1R_Lg_m + C_2C_LL_2R_Lg_m\right) + s^2\left(C_1C_2R_1R_L + C_1C_2R_Lg_m\right) + s^2\left(C_1C_2R_1R_Lg_m\right) + s^2\left(C_1C_2R_1R_Lg_m\right) + s^2\left(C_1C_2R_1R_Lg_m\right) + s^2\left(C_1C_2R_1R_Lg_m\right) + s^2\left(C_1C_2R_1R_Lg_m\right) + s^2\left(C_1C_
10.556 INVALID-ORDER-556 Z(s) = \left(L_1 s + 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{C_1C_2C_LL_1L_2R_Lg_ms^5 + g_m + s^4\left(C_1C_2C_LL_1R_L + C_1C_2L_LR_1R_Lg_m + C_1C_LL_2R_1R_Lg_m + C_1C_LL_1R_Lg_m + C_1C_LL_1R_Lg_m + C_1C_LL_1R_Lg_m + C_1C_LL_1R_Lg_m + C_1C_LL_1R_Lg_m + C_1C_LR_1R_Lg_m + C_1L_1g_m + C_2C_LR_L + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_1C_LL_1R_Lg_m + C_1C_LL_1R_Lg_m + C_1C_LR_1R_Lg_m + C_1C_LR_1R_L
10.557 INVALID-ORDER-557 Z(s) = \left(L_1 s + 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{C_1C_2C_LL_1L_2L_Lg_ms^6 + g_m + s^5\left(C_1C_2C_LL_1L_L + C_1C_2C_LL_2L_Rg_m\right) + s^4\left(C_1C_2C_LL_LR_1 + C_1C_2L_LLg_m + C_1C_LL_Lg_m + C_2C_LL_LLg_m\right) + s^3\left(C_1C_2L_1 + C_1C_2L_2R_1g_m + C_1C_LL_Rg_m + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_1L_1g_m + C_2L_Lg_m\right) + s^2\left(C_1C_2R_1 + C_1L_1g_m + C_2C_LL_L\right) + s^2\left(C_1C_2R_1 + C_1C_2R_1g_m + C_1C_LL_Rg_m\right) + s^2\left(C_1C_2R_1 + C_1C_2R_1g_m + C_1C_LR_Rg_m\right) + s^2\left(C_1C_2R_1 + C_1C_2R_1g_m\right) + s^2\left(C_1C_
10.558 INVALID-ORDER-558 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}\right)
                                              \frac{C_{1}C_{2}L_{1}L_{2}L_{1}g_{m}s^{5}+L_{L}g_{m}s+s^{4}\left(C_{1}C_{2}L_{L}L_{L}+C_{1}C_{2}L_{L}L_{R}_{1}g_{m}\right)+s^{3}\left(C_{1}C_{2}L_{L}R_{1}+C_{1}L_{L}L_{g}_{m}+C_{2}L_{L}L_{g}_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{g}_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{g}_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{g}_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{g}_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}\right)+s^{2}\left(C_{1}L_{L}R_{1}g_{m}+C_{1}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R_{1}g_{m}+C_{2}L_{L}L_{L}R
10.559 INVALID-ORDER-559 Z(s) = \left(L_1 s + 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_1C_2C_LL_1L_2L_Lg_ms^6 + g_m + s^5\left(C_1C_2C_LL_1L_2R_Lg_m + C_1C_2C_LL_1L_L + C_1C_2C_LL_1R_1g_m\right) + s^4\left(C_1C_2C_LL_1R_L + C_1C_2C_LL_1R_1 + C_1C_2C_LL_1R_1 + C_1C_2C_LL_1R_1 + C_1C_2L_1L_2g_m + C_1C_LL_1L_2g_m + C_1C_LL_1L_2g_m\right) + s^3\left(C_1C_2C_LR_1R_L + C_1C_2L_1R_1g_m + C_1C_2C_LL_1R_1 + C_1C_2C_LR_1 + C_1C_2C_LL_1R_1 + C_1C_2C_LL_1R_1 + C_1C_2C_LL_1R_1 + C_1C_2C_LL_1R_1 + C_1C_2C_LL_1R_1 + C_1C_2C_LL_1R_1 + C_1C_2C_LL_1R_1
10.560 INVALID-ORDER-560 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C_1C_2L_1L_2L_LR_Lg_ms^5 + L_LR_Lg_ms + s^4(C_1C_2L_1L_LR_L + C_1C_2L_2L_LR_L)
H(s) = \frac{C_1C_2C_LL_1L_2L_LR_1g_m s^6 + R_Lg_m + s^5\left(C_1C_2C_LL_1L_LR_L + C_1C_2L_LL_1R_1g_m + C_1C_2L_1L_2L_1R_1g_m + s^4\left(C_1C_2C_LL_1L_2R_1g_m + C_1C_2L_1L_2R_1g_m + C_1C_2L_1L_2R_1g_m + s^4\left(C_1C_2C_LL_1R_1R_L + C_1C_2L_1L_2R_1g_m + C_1C_2L_1L_2R_1g_m + C_1C_2L_1L_2R_1g_m + s^4\left(C_1C_2C_LL_1R_1R_L + C_1C_2L_1L_2R_1g_m + C_1C_2L_1L_2R_1g_m + C_1C_2L_1L_2R_1g_m + s^4\left(C_1C_2C_LL_1R_1R_L + C_1C_2L_1L_2R_1g_m + C_1C_2L_1L_2R_1g_m + C_1C_2L_1L_2R_1g_m + C_1C_2L_1L_2R_1g_m + c_1C_2L_1L_2R_1g_m + c_1C_2L_1R_1g_m + c_1C_2R_1R_1g_m + c_1C_2R_1R_1g_
10.561 INVALID-ORDER-561 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
H(s) = \frac{C_1C_2C_LL_1L_2L_LR_2g_ms^6 + R_Lg_m + s^5\left(C_1C_2C_LL_1L_LR_L + C_1C_2C_LL_2L_LR_1g_m + C_1C_2L_1L_LR_1g_m + C_1C_2L_1L_RR_1g_m + C_1C_2L_1L_RR_
10.562 INVALID-ORDER-562 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{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
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 $H(s) = \frac{C_1C_2L_1L_2R_Lg_ms^4 + R_Lg_m + s^3\left(C_1C_2L_1R_L + C_1C_2L_2R_1R_Lg_m\right) + s^2\left(C_1C_2R_1R_L + C_1L_1R_Lg_m + C_2L_2R_Lg_m\right) + s\left(C_1R_1R_Lg_m + C_2R_L\right)}{C_1C_2L_1L_2g_ms^4 + g_m + s^3\left(C_1C_2L_1 + C_1C_2L_2R_1g_m + C_1C_2L_2\right) + s^2\left(C_1C_2R_1 + C_1C_2R_L + C_1L_1g_m + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_1 + C_2\right)}$

10.553 INVALID-ORDER-553 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$

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10.564 INVALID-ORDER-564 Z(s) = \left(L_1 s + 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}\right)
                                    H(s) = \frac{C_1C_2L_1L_2g_ms^4 + g_m + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1 + C_1C_2L_2R_1g_m\right) + s^2\left(C_1C_2R_1R_2g_m + C_1C_2R_1 + C_1L_1g_m + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_2R_2g_m + C_2C_2R_1g_m\right) + s\left(C_1R_1g_m + C_2R_2g_m + C_2R_2g_m\right) + s\left(C_1R_1g_m + C_1R_2g_m\right) + s\left(C_1R_1g_m
10.565 INVALID-ORDER-565 Z(s) = \left(L_1 s + R_1 + \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)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C_{1}C_{2}L_{1}L_{2}R_{L}g_{m}s^{4} + R_{L}g_{m} + s^{3}\left(C_{1}C_{2}L_{1}R_{2}R_{L}g_{m} + C_{1}C_{2}L_{1}R_{L} + C_{1}C_{2}L_{2}R_{1}R_{L}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{2}R_{L}g_{m} + C_{1}C_{2}R_{1}R_{L} + C_{1}C_{2}L_{1}R_{L}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{2}R_{L}g_{m} + C_{1}C_{2}R_{1}R_{L} + C_{1}C_{2}L_{1}R_{L}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{2}R_{L}g_{m} + C_{1}C_{2}R_{1}R_{L}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{L}g_{m} + C_{1}C_{2}R_{L}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{L}g_{m} + C_{1}C_{2}R_{1}R_{L}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{L}g_{m} + C_{1}C_{2}R_{1}R_{L}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{L}g_{m} + C_{1}C_{2}R_{1}R_{L}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{L}g_{m} + C_{1}C_{2}R_{1}R_{L}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1}R_{L}g_{m} + C_{1}C_{2}R_{L}g_{m}\right) + s^{2}\left(C_
H(s) = \frac{C_1C_2L_1L_2R_Lg_ms^{\frac{2}{3}} + R_Lg_m + s^{\frac{2}{3}}\left(C_1C_2L_1R_2R_Lg_m + C_1C_2L_1R_L + C_1C_2L_2R_1R_Lg_m\right) + s^{\frac{2}{3}}\left(C_1C_2L_1R_2R_Lg_m + C_1C_2L_1R_L + C_1C_2L_1R_Lg_m\right) + s^{\frac{2}{3}}\left(C_1C_2L_1R_2R_Lg_m + C_1C_2L_1R_Lg_m + C_1C_2L_1R_Lg_m + C_1C_2L_1R_Lg_m\right) + s^{\frac{2}{3}}\left(C_1C_2C_LR_1R_Lg_m + C_1C_2C_LR_1R_Lg_m\right) + s^{\frac{2}{3}}\left(C_1C_2C_LR_1R_Lg_m\right) + s^{\frac{2}{3}}\left(C_1C_2C_LR_1R_Lg_m + C_1C_2C_LR_1R_Lg_m\right) + s^{\frac{2}{3}}\left(C_1C_2C_LR_1R_Lg_m\right) + s^{\frac{2}{
10.566 INVALID-ORDER-566 Z(s) = \left(L_1 s + 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{C_1C_2C_LL_1L_2R_Lg_ms^5 + g_m + s^4\left(C_1C_2C_LL_1R_2R_Lg_m + C_1C_2L_LR_1R_Lg_m + C_1C_2L_1R_2g_m + C_1C_2L_
10.567 INVALID-ORDER-567 Z(s) = \left(L_1 s + 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{C_1C_2C_LL_1L_2L_Lg_ms^6 + g_m + s^5\left(C_1C_2C_LL_1L_LR_2g_m + C_1C_2C_LL_1L_L + C_1C_2C_LL_LR_1g_m\right) + s^4\left(C_1C_2C_LL_LR_1g_m + C_1C_2L_LR_1 + C_1C_2L_LL_R + C
10.568 INVALID-ORDER-568 Z(s) = \left(L_1 s + 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)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C_{1}C_{2}L_{1}L_{2}L_{L}g_{m}s^{5} + L_{L}g_{m}s + s^{4}\left(C_{1}C_{2}L_{1}L_{L}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{L} + C_{1}C_{2}L_{2}L_{L}R_{1}g_{m}\right) + s^{3}\left(C_{1}C_{2}L_{L}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{L}R_{1} + C_{1}C_{2}L_{L}R_{1}g_{m}\right) + s^{3}\left(C_{1}C_{2}L_{L}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{L}R_{1}g_{m}\right) + s^{3}\left(C_{1}C_{2}L_{L}R_{1}g_{m}\right) + s^{3}\left(C_{1}C_{2}L_{L}R_
                                            10.569 INVALID-ORDER-569 Z(s) = \left(L_1 s + 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_1C_2C_LL_1L_2L_Lg_ms^6 + g_m + s^5\left(C_1C_2C_LL_1L_2R_Lg_m + C_1C_2C_LL_1L_LR_2g_m + C_1C_2C_LL_1L_LR_2g_m + C_1C_2C_LL_1R_L + C_1C_2C_LL_1R_2R_Lg_m + C_1C_2C_LL_1R_LR_2g_m + C_1C_2C_LL_1R_LR_2g_m + C_1C_2C_LL_1R_2R_Lg_m + C_1C_2C_LL_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C_1C_2C_LL_1L_2g_ms^5 + C_Lg_ms + s^4\left(C_1C_2C_LL_1R_2g_m + C_1C_2C_LL_1 + C_1C_2C_LL_2R_1g_m + C_1C_2C_LL_1\right)
10.570 INVALID-ORDER-570 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
H(s) = \frac{1}{C_{1}C_{2}C_{L}L_{1}L_{2}L_{L}R_{L}g_{m}s^{6} + R_{L}g_{m} + s^{5}\left(C_{1}C_{2}C_{L}L_{1}L_{L}R_{2}R_{L}g_{m} + C_{1}C_{2}C_{L}L_{2}L_{L}R_{1}R_{L}g_{m} + C_{1}C_{2}C_{L}L_{L}R_{1}R_{L}g_{m} + C_{1}C_{2}C_{L}L
10.571 INVALID-ORDER-571 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
H(s) = \frac{C_1C_2C_LL_1L_2L_LR_2g_ms^6 + R_Lg_m + s^5\left(C_1C_2C_LL_1L_LR_2R_Lg_m + C_1C_2L_LL_RR_1R_Lg_m + C_1C_2L_LL_RR_1R_Lg_m + C_1C_2L_LL_RR_1R_Lg_m + C_1C_2L_LL_RR_1R_Lg_m + C_1C_2L_LL_RR_1R_L + C_1C_2L_LL_RR_1R_L + C_1C_2L_LL_RR_1R_L + C_1C_2L_LL_RR_1g_m + C_1C_2L_LR_1g_m + C_1C_2LL_1g_m + C_1C_2L_LR_1g_m + C_1C_2L_1R_1g_m + C_1C_2L_1R_1g
10.572 INVALID-ORDER-572 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
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 $H(s) = \frac{C_1C_2L_1L_2R_Lg_ms^4 + R_Lg_m + s^3\left(C_1C_2L_1R_2R_Lg_m + C_1C_2L_1R_L + C_1C_2L_2R_1R_Lg_m\right) + s^2\left(C_1C_2R_1R_2R_Lg_m + C_1C_2R_1R_L + C_1L_1R_Lg_m + C_2L_2R_Lg_m\right) + s\left(C_1R_1R_Lg_m + C_2R_2R_Lg_m + C_2R_Lg_m\right) + s\left(C_1R_1R_Lg_m + C_1R_Lg_m\right) + s\left(C_1R_1R_Lg$

10.563 INVALID-ORDER-563 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$

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\frac{R_{2}g_{m}+s^{4}\left(C_{1}C_{2}L_{1}L_{2}R_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}\right)+s^{3}\left(C_{1}C_{2}L_{2}R_{1}R_{2}g_{m}+C_{1}C_{2}L_{2}R_{1}+C_{1}L_{1}L_{2}g_{m}\right)+s^{2}\left(C_{1}L_{1}R_{2}g_{m}+C_{1}L_{1}+C_{1}L_{2}R_{1}g_{m}+C_{2}L_{2}\right)+s\left(C_{1}R_{1}R_{2}g_{m}+C_{1}R_{1}+L_{2}g_{m}\right)+1}{s^{5}\left(C_{1}C_{2}C_{L}L_{1}L_{2}R_{2}g_{m}+C_{1}C_{2}L_{L}R_{1}R_{2}g_{m}+C_{1}C_{2}L_{L}R_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g_{m}+C_{1}C_{L}L_{1}R_{2}g
10.575 INVALID-ORDER-575 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \frac{R_{2}R_{L}g_{m}+R_{L}+s^{4}\left(C_{1}C_{2}L_{1}L_{2}R_{2}R_{L}g_{m}+C_{1}C_{2}L_{1}L_{2}R_{L}\right)+s^{3}\left(C_{1}C_{2}L_{2}R_{1}R_{2}R_{L}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+C_{1}C_{2}L_{2}R_{L}+
10.576 INVALID-ORDER-576 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)
H(s) = \frac{R_2 g_m + s^5 \left(C_1 C_2 C_L L_1 L_2 R_2 g_m + C_1 C_2 L_L L_1 L_2 R_L g_m + C_1 C_2 L_L L_2 R_L g_m + C_1 C_2 L_L R_1 R_L + C_1 C_L L_2 R_1 R_L + C_1 C_L L_1 L_2 R_L g_m + C_1 C_2 L_1 L_2 R_L g_m + C_1 C_2 L_2 R_1 R_2 g_m + C_1 C_2 L_2 R_1 R
10.577 INVALID-ORDER-577 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)
H(s) = \frac{R_2 g_m + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_2 g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 g_m + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 L_L L_L R_1 R_2 g_m + C_1 C_2 L_L L_L R_2 g_m + C_1 C_2 L_L R
10.578 INVALID-ORDER-578 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10.579 INVALID-ORDER-579 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)
H(s) = \frac{R_2 g_m + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_2 g_m + C_1 C_2 C_L L_1 L_2 L_L\right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_L g_m + C_1 C_2 C_L L_1 L_2 R_L + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1 + C_1 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_1 R_2 R_2 g_m + C_1 C_2 C_L L_2 R_2 R_2 g_m + C_1 C_2 C_L L_2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 s^{5}\left(C_{1}C_{2}C_{L}L_{1}L_{2}R_{2}g_{m}+C_{1}C_{2}C_{L}L_{1}L_{2}+C_{1}C_{2}C_{L}L_{2}L_{L}\right)+s^{4}\left(C_{1}C_{2}C_{L}L_{2}L_{L}\right)
10.580 INVALID-ORDER-580 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
                                        \overline{R_{2}R_{L}g_{m}+R_{L}+s^{6}\left(C_{1}C_{2}C_{L}L_{1}L_{2}L_{L}R_{2}R_{L}g_{m}+C_{1}C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}R_{2}R_{L}g_{m}+C_{1}C_{2}C_{L}L_{2}L_{L}R_{1}R_{L}+C_{1}C_{2}L_{L}L_{L}R_{2}R_{L}+C_{1}C_{2}L_{L}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{L}R_{2}g_{m}+C_{1}C_{2}
10.581 INVALID-ORDER-581 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
H(s) = \frac{R_2 R_L g_m + R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_2 R_L g_m + C_1 C_2 L_L L_L R_1 R_2 R_L g_m + C_1 C_2 L_L L_L R_1 R_2 R_L g_m + C_1 C_2 L_L L_L R_1 R_2 R_L g_m + C_1 C_2 L_L L_L R_1 R_2 g_m + C_1 C_2 L_L R_1 R_2 g_m + C_1 C_2
10.582 INVALID-ORDER-582 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R_2R_Lg_m + R_L + s^6\left(C_1C_2C_LL_1L_2L_LR_2R_Lg_m + C_1C_2C_LL_1L_2L_LR_L\right) + s^5\left(C_1C_2C_LL_1L_2L_LR_L\right)
                                         \frac{2}{R_2 g_m + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_2 g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1 + C_1 C_2 C_L L_2 L_L R_1 + C_1 C_2 C_L L_2 L_L R_1 + C_1 C_2 C_L L_2 L_L R_2 + C_1 C_2 C_L L_2 L_L R_1 + C_1 C_2 C_L L_2 L_1 + C_1 C_2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      81
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 $\frac{R_2R_Lg_m + R_L + s^4\left(C_1C_2L_1L_2R_2R_Lg_m + C_1C_2L_1L_2R_L\right) + s^3\left(C_1C_2L_2R_1R_2R_Lg_m + C_1C_2L_2R_1R_L + C_1L_1R_Lg_m\right) + s^2\left(C_1L_1R_2R_Lg_m + C_1L_1R_L + C_1L_2R_1R_Lg_m + C_2L_2R_Lg_m + C_2L_2R_L\right) + s\left(C_1R_1R_2R_Lg_m + C_1R_1R_L + L_2R_Lg_m\right)}{R_2g_m + s^4\left(C_1C_2L_1L_2R_2g_m + C_1C_2L_1R_2g_m + C_1C_2L_2R_1 + C_1C_2L_2R_1 + C_1C_2L_2R_L + C_1L_1R_2g_m\right) + s^2\left(C_1L_1R_2g_m + C_1L_1R_2g_m + C_1L_1 + C_1L_2R_2g_m + C$

10.573 INVALID-ORDER-573 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, R_L\right)$

10.574 INVALID-ORDER-574 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{1}{C_1 s}\right)$

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 \begin{aligned} \mathbf{10.583} \quad \mathbf{INVALID\text{-}ORDER\text{-}583} \ Z(s) &= \left( L_{1}s + R_{1} + \frac{1}{C_{1}s}, \ \frac{R_{2}\left( C_{2}L_{2}s^{2} + 1 \right)}{C_{2}L_{2}s^{2} + C_{2}R_{2}s + 1}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_{L} \right) \\ H(s) &= \frac{R_{2}R_{L}g_{m} + R_{L} + s^{4} \left( C_{1}C_{2}L_{1}L_{2}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}R_{1} + S^{2}\left( C_{1}C_{2}L_{1}R_{2}R_{L}g_{m} + C_{1}C_{2}L_{2}R_{1}R_{2}R_{L}g_{m} + C_{1}C_{2}L_{2}R_{1}R_{2}R_{L}g_{m} + C_{1}L_{1}R_{2}R_{L}g_{m} + C_{1}L_{1}R_{L} + C_{2}L_{2}R_{L}g_{m} + C_{1}L_{1}R_{L}g_{m} + C_{1}L_{1}R_{L} + C_{2}L_{L}g_{L}g_{m} + C_{1}L_{1}R_{L}g_{m} + C_{1}L_{1}R_{L}g_{m
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10.585 INVALID-ORDER-585
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

 $H(s) = \frac{R_2 R_L g_m + R_L + s^4 \left(C_1 C_2 L_1 L_2 R_2 R_L g_m + C_1 C_2 L_1 L_2 R_L\right) + s^3 \left(C_1 C_2 L_1 R_2 R_L + C_1 C_2 L_2 R_1 R_2 R_L g_m + C_1 C_2$

10.586 INVALID-ORDER-586
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

 $H(s) = \frac{R_2 g_m + s^5 \left(C_1 C_2 C_L L_1 L_2 R_2 R_L g_m + C_1 C_2 C_L L_1 L_2 R_L\right) + s^4 \left(C_1 C_2 C_L L_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L g_m + C_1 C_2 L_1 L_2 R_2 g_m + C_1 C_2 L_1 L_2 R_2 g_m + C_1 C_2 L_1 R_2 R_L + C_1 C_2 L_1 R$

10.587 INVALID-ORDER-587
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

10.588 INVALID-ORDER-588
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

10.589 INVALID-ORDER-589
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

 $H(s) = \frac{R_2 g_m + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_2 g_m + C_1 C_2 C_L L_1 L_2 L_L\right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_L g_m + C_1 C_2 C_L L_1 L_2 R_L + C_1 C_2 C_L L_1 L_2 R_L + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_2 L_L R_1\right) + s^4 \left(C_1 C_2 C_L L_1 L_2 R_L + C_1 C_2 C_L L_2 L_L R_1 R_2 + C_1 C_2 C_L L_2 L_L R_1\right) + s^4 \left(C_1 C_2 C_L L_1 L_2 R_L + C_1 C_2 C_L L_2 L_L R_1 R_2 + C_1 C_2 C_L L_2 L_L R_1\right) + s^4 \left(C_1 C_2 C_L L_1 L_2 R_L + C_1 C_2 C_L L_2 L_L R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L + C$

10.590 INVALID-ORDER-590
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

 $H(s) = \frac{1}{R_2 R_L g_m + R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_2 R_L g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 C_L L_2 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_2 L_2 R_2 R_L + C_1 C_2 C_L L_2 R_2$

10.591 INVALID-ORDER-591
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

 $H(s) = \frac{R_2 R_L g_m + R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_2 R_L g_m + C_1 C_2 C_L L_1 L_2 L_L R_2 R_L g_m + C_1 C_2 L_L L_L R_1 R_2 R_L g_m + C_1 C_2 L_L L_L R_1 R_2 R_L g_m + C_1 C_2 L_L L_L R_1 R_2 R_L + C_1 C_2 L_L L_L R_1 R_2 R_L + C_1 C_2 L_L L_L R_1 R_2 R_L g_m + C_1 C_2 L_L L_L R_1 R_2 R_L + C_1 C_2 L_L R_1 R_2 R_L +$

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10.592 INVALID-ORDER-592 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L(C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_L s + 1}\right)
10.593 INVALID-ORDER-593 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)
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10.594 INVALID-ORDER-594
$$Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{s\left(L_{1}R_{1}R_{2}R_{L}g_{m} + L_{1}R_{1}R_{L}\right)}{C_{1}C_{L}L_{1}R_{1}R_{2} + R_{1}R_{L} + s^{2}\left(C_{1}L_{1}R_{1}R_{2} + C_{1}L_{1}R_{1}R_{L} + C_{L}L_{1}R_{1}R_{2}R_{L}g_{m} + C_{L}L_{1}R_{1}R_{L} + C_{L}L_{1}R_{2}R_{L}\right) + s\left(C_{L}R_{1}R_{2}R_{L} + L_{1}R_{1}R_{2}g_{m} + L_{1}R_{1} + L_{1}R_{2} + L_{1}R_{L}\right)}$$

 $H(s) = \frac{s \left(L_1 R_1 R_2 g_m + L_1 R_1 \right)}{C_1 C_L L_1 R_1 R_2 s^3 + R_1 + s^2 \left(C_1 L_1 R_1 + C_L L_1 R_1 R_2 g_m + C_L L_1 R_1 + C_L L_1 R_2 \right) + s \left(C_L R_1 R_2 + L_1 \right)}$

10.595 INVALID-ORDER-595
$$Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{s^2 \left(C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1 R_L \right) + s \left(L_1 R_1 R_2 g_m + L_1 R_1 \right)}{R_1 + s^3 \left(C_1 C_L L_1 R_1 R_2 + C_1 C_L L_1 R_1 R_L \right) + s^2 \left(C_1 L_1 R_1 + C_L L_1 R_1 R_2 g_m + C_L L_1 R_1 + C_L L_1 R_2 + C_L L_1 R_L \right) + s \left(C_L R_1 R_2 + C_L R_1 R_L + L_1 \right)}$$

10.596 INVALID-ORDER-596
$$Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{s^3 \left(C_L L_1 L_L R_1 R_2 g_m + C_L L_1 L_L R_1 \right) + s \left(L_1 R_1 R_2 g_m + L_1 R_1 \right)}{C_1 C_L L_1 L_L R_1 s^4 + R_1 + s^3 \left(C_1 C_L L_1 R_1 R_2 + C_L L_1 L_L \right) + s^2 \left(C_1 L_1 R_1 + C_L L_1 R_1 R_2 g_m + C_L L_1 R_1 + C_L L_1 R_2 + C_L L_L R_1 \right) + s \left(C_L R_1 R_2 + L_1 \right)}$$

10.597 INVALID-ORDER-597
$$Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{s^2 \left(L_1 L_L R_1 R_2 g_m + L_1 L_L R_1 \right)}{C_1 C_L L_1 L_L R_1 R_2 s^4 + R_1 R_2 + s^3 \left(C_1 L_1 L_L R_1 + C_L L_1 L_L R_1 R_2 g_m + C_L L_1 L_L R_1 + C_L L_1 L_L R_2 \right) + s^2 \left(C_1 L_1 R_1 R_2 + C_L L_L R_1 R_2 + L_1 L_L \right) + s \left(L_1 R_1 R_2 g_m + L_1 R_1 + L_1 R_2 + L_L R_1 \right)}$$

10.598 INVALID-ORDER-598
$$Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{s^3 \left(C_L L_1 L_L R_1 R_2 g_m + C_L L_1 L_L R_1 \right) + s^2 \left(C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1 R_L \right) + s \left(L_1 R_1 R_2 g_m + L_1 R_1 \right)}{C_1 C_L L_1 L_L R_1 s^4 + R_1 + s^3 \left(C_1 C_L L_1 R_1 R_2 + C_1 C_L L_1 R_1 R_L + C_L L_1 L_L \right) + s^2 \left(C_1 L_1 R_1 + C_L L_1 R_1 R_2 g_m + C_L L_1 R_1 + C_L L_1 R_2 + C_L L_1 R_1 + C_L L_1 R_1 \right) + s \left(C_L R_1 R_2 + C_L R_1 R_L + L_1 \right)}$$

10.599 INVALID-ORDER-599
$$Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$$

$$s^{2}\left(L_{1}L_{L}R_{1}R_{2}R_{L}q_{m}+L_{1}L_{L}R_{1}R_{L}\right)$$

10.600 INVALID-ORDER-600
$$Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{s^3 \left(C_L L_1 L_L R_1 R_2 R_L g_m + C_L L_1 L_L R_1 R_2 g_m + L_1 L_L R_1 \right) + s^2 \left(L_1 L_L R_1 R_2 g_m + L_1 L_L R_1 \right) + s \left(L_1 R_1 R_2 R_L g_m + L_1 R_1 R_L \right)}{R_1 R_2 + R_1 R_L + s^4 \left(C_1 C_L L_1 L_L R_1 R_2 + C_1 C_L L_L L_R R_1 R_2 + C_L L_L L_R R_1 + C_L L_L L_R R_2 + C_L L_L L_R R_2 + C_L L_L R_1 R_2 + C_L L$$

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10.601 INVALID-ORDER-601 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{s^3 \left( C_L L_1 L_L R_1 R_2 R_L g_m + C_L L_1 L_L R_1 R_L \right) + s \left( L_1 R_1 R_2 R_L g_m + L_1 R_1 R_L \right)}{R_1 R_2 + R_1 R_L + s^4 \left( C_1 C_L L_1 L_L R_1 R_2 + C_1 L_L L_L R_1 R_2 R_L + C_L L_1 L_L R_1 R_2 R_L + C_L L_1 L_L R_1 R_2 + C_L L_1 R_1 R_2 + C_L L
10.602 INVALID-ORDER-602 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)
                                                                                                                                                                                                                                                                                                                                                                                              H(s) = \frac{C_2 L_1 R_1 R_L s^2 + L_1 R_1 R_L g_m s}{C_1 C_2 L_1 R_1 R_L s^3 + R_1 + s^2 \left( C_1 L_1 R_1 + C_2 L_1 R_1 + C_2 L_1 R_L \right) + s \left( C_2 R_1 R_L + L_1 R_1 g_m + L_1 \right)}
10.603 INVALID-ORDER-603 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)
                                                                                                                                                                                                      H(s) = \frac{C_2L_1R_1R_Ls^2 + L_1R_1R_Lg_ms}{R_1 + s^3\left(C_1C_2L_1R_1R_L + C_1C_LL_1R_1R_L + C_2C_LL_1R_1R_L\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1 + C_2L_1R_1 + C_LL_1R_1R_Lg_m + C_LL_1R_L\right) + s\left(C_2R_1R_L + C_LR_1R_L + L_1R_1g_m + L_1\right)}
10.604 INVALID-ORDER-604 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                           H(s) = \frac{C_2C_LL_1R_1R_Ls^2 + L_1R_1g_m + s\left(C_2L_1R_1 + C_LL_1R_1R_Lg_m\right)}{C_1C_2C_LL_1R_1R_Ls^3 + C_2R_1 + C_LR_1 + s^2\left(C_1C_2L_1R_1 + C_1C_LL_1R_1 + C_2C_LL_1R_1 + C_2C_LL_1R_L\right) + s\left(C_2C_LR_1R_L + C_2L_1 + C_LL_1R_1g_m + C_LL_1\right)}
10.605 INVALID-ORDER-605 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                       H(s) = \frac{C_2C_LL_1L_LR_1s^3 + C_2L_1R_1s + C_LL_1L_LR_1g_ms^2 + L_1R_1g_m}{C_1C_2C_LL_1L_LR_1s^4 + C_2C_LL_1L_Ls^3 + C_2R_1 + C_LR_1 + s^2\left(C_1C_2L_1R_1 + C_1C_LL_1R_1 + C_2C_LL_1R_1 + C_2C_LL_LR_1\right) + s\left(C_2L_1 + C_LL_1R_1g_m + C_LL_1\right)}
10.606 INVALID-ORDER-606 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + 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{C_2L_1L_LR_1s^3 + L_1L_LR_1g_ms^2}{R_1 + s^4\left(C_1C_2L_1L_LR_1 + C_1C_LL_1L_LR_1 + c_2C_LL_1L_LR_1\right) + s^3\left(C_2L_1L_LR_1g_m + C_LL_1L_LR_1g_m + C_LL_1L_L\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1 + C_2L_LR_1 + C_LL_RR_1\right) + s\left(L_1R_1g_m + L_1\right)}{R_1 + s^4\left(C_1C_2L_1L_LR_1 + C_2L_1L_LR_1 + C_2L_1L_LR_1\right) + s^3\left(C_2L_1L_LR_1 + C_2L_1R_1\right) + s^3\left(C_2L_1L_1R_1 + C_2L_1R_1\right) + s^3\left(C_2L_1R_1 + C_2L_1R_1\right) + s^3\left(C_2L_1
10.607 INVALID-ORDER-607 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)
                                                                                                                               H(s) = \frac{C_2C_LL_1L_LR_1s^3 + L_1R_1g_m + s^2\left(C_2C_LL_1R_1R_L + C_LL_1L_LR_1g_m\right) + s\left(C_2L_1R_1 + C_LL_1R_1R_Lg_m\right)}{C_1C_2C_LL_1L_LR_1s^4 + C_2R_1 + C_LR_1 + s^3\left(C_1C_2C_LL_1R_1R_L + C_2C_LL_1R_1 + C_1C_LL_1R_1 + C_2C_LL_1R_1 + C_2C_LL_1R_1 + C_2C_LL_1R_1\right) + s\left(C_2C_LR_1R_L + C_2L_1R_1 + C_2C_LL_1R_1 + C_2C_LL_1R_1 + C_2C_LL_1R_1\right) + s\left(C_2C_LR_1R_L + C_2L_1R_1 + C_2C_LL_1R_1 + C_2C_LL_1R_1\right) + s\left(C_2C_LR_1R_L + C_2C_LL_1R_1 + C_2C_LL_1R_1\right) + s\left(C_2C_LR_1R_L + C_2C_LL_1R_1 + C_2C_LL_1R_1\right) + s\left(C_2C_LR_1R_L + C_2C_LL_1R_1\right) + s\left(C_2C_LR_1R_L + C_2C_LL_1R_1\right) + s\left(C_2C_LR_1R_L + C_2C_LL_1R_1\right) + s\left(C_2C_LR_1R_1 + C_2C_LR_1R_1\right) + s
10.608 INVALID-ORDER-608 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
H(s) = \frac{C_2L_1L_LR_1R_Ls^3 + L_1L_LR_1R_Lg_ms^2}{R_1R_L + s^4\left(C_1C_2L_1L_LR_1R_L + C_2C_LL_1L_LR_1R_L + C_2L_1L_LR_1 + C_2L_1L_1R_1 + C_2
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 $H(s) = \frac{C_2C_LL_1L_LR_1R_Ls^4 + L_1R_1R_Lg_ms + s^3\left(C_2L_1L_LR_1 + C_LL_1L_LR_1R_Lg_m\right) + s^2\left(C_2L_1R_1R_L + L_1L_LR_1g_m\right)}{C_1C_2C_LL_1L_LR_1R_Ls^5 + R_1 + s^4\left(C_1C_2L_1L_LR_1 + C_2C_LL_1L_LR_1 + C_2C_LL_1L_LR_1\right) + s^3\left(C_1C_2L_1R_1R_L + C_2L_1L_LR_1R_L + C_2L_1L_LR_1R_L + C_2L_1L_LR_1R_L + C_2L_1L_LR_1R_L + C_2L_1L_LR_1 + C_2L_1R_1 + C_2L_1R_$

10.609 INVALID-ORDER-609 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

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10.610 INVALID-ORDER-610 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_2C_LL_1L_LR_1R_Ls^4 + C_2L_1R_1R_Ls^2 + C_LL_1L_LR_1R_Lg_ms^3 + L_1R_1R_Lg_ms}{C_1C_2C_LL_1L_LR_1R_Ls^5 + R_1 + s^4\left(C_1C_LL_1L_LR_1 + C_2C_LL_1L_LR_1 + C_2C_LL_1R_1R_L + C_2C_LL_
10.611 INVALID-ORDER-611 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)
                                                                                                                                                                                                                                                                                                                 H(s) = \frac{C_2L_1R_1R_2R_Ls^2 + s\left(L_1R_1R_2R_Lg_m + L_1R_1R_L\right)}{C_1C_2L_1R_1R_2R_Ls^3 + R_1R_2 + R_1R_L + s^2\left(C_1L_1R_1R_2 + C_1L_1R_1R_L + C_2L_1R_1R_2 + C_2L_1R_2R_L\right) + s\left(C_2R_1R_2R_L + L_1R_1R_2q_m + L_1R_1 + L_1R_2 + L_1R_L\right)}
10.612 INVALID-ORDER-612 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                                                                             H(s) = \frac{C_2L_1R_1R_2s^2 + s\left(L_1R_1R_2g_m + L_1R_1\right)}{R_1 + s^3\left(C_1C_2L_1R_1R_2 + C_1C_LL_1R_1R_2 + C_2C_LL_1R_1R_2\right) + s^2\left(C_1L_1R_1 + C_2L_1R_2 + C_LL_1R_1R_2g_m + C_LL_1R_1 + C_LL_1R_2\right) + s\left(C_2R_1R_2 + C_LR_1R_2 + L_1R_1R_2\right) + s\left(C_2R_1R_2 + C_LR_1R_2 + C_LR_1R_2\right) + s\left(C_2R_1R_2 + C_LR_1R_2 + C_LR_1R_2\right) + s\left(C_2R_1R_2 + C_LR_1R_2 + C_LR_1R_2\right) + s\left(C_2R_1R_2 + C_LR_1R_2\right) + s\left(
10.613 INVALID-ORDER-613 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + 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{C_2L_1R_1R_2R_Ls^2 + s\left(L_1R_1R_2R_Lg_m + L_1R_1R_L\right)}{R_1R_2 + R_1R_L + s^3\left(C_1C_2L_1R_1R_2R_L + C_1C_LL_1R_1R_2R_L + C_2C_LL_1R_1R_2R_L\right) + s^2\left(C_1L_1R_1R_2 + C_2L_1R_1R_2 + C_2L_1R_1R_2
10.614 INVALID-ORDER-614 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + 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_2C_LL_1R_1R_2R_Ls^3 + s^2\left(C_2L_1R_1R_2 + C_LL_1R_1R_2R_Lg_m + C_LL_1R_1R_2\right) + s\left(L_1R_1R_2g_m + L_1R_1\right)}{C_1C_2C_LL_1R_1R_2R_Ls^4 + R_1 + s^3\left(C_1C_2L_1R_1R_2 + C_1C_LL_1R_1R_2 + C_1C_LL_1R_1R_2 + C_2C_LL_1R_1R_2 + C_2C_LL_1R_1R_1 + C_2C_LL_1R_1R_2 + C_2C_LL_1R_1R_2 + C_2C_LL_1R_1R_2 + C_2C_LL_1R_1R_2 + C_2C_LL_1R_1R_2
10.615 INVALID-ORDER-615 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + 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_2C_LL_1L_LR_1R_2s^4 + C_2L_1R_1R_2s^2 + s^3\left(C_LL_1L_LR_1R_2g_m + C_LL_1L_LR_1\right) + s\left(L_1R_1R_2g_m + L_1R_1\right)}{C_1C_2C_LL_1L_LR_1R_2s^5 + R_1 + s^4\left(C_1C_LL_1L_LR_1 + C_2C_LL_1L_LR_2\right) + s^3\left(C_1C_2L_1R_1R_2 + C_2C_LL_1R_1R_2 + C_2C_
10.616 INVALID-ORDER-616 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + 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{C_2L_1L_LR_1R_2s^3 + s^2\left(L_1L_LR_1R_2g_m + L_1L_LR_1\right)}{R_1R_2 + s^4\left(C_1C_2L_1L_LR_1R_2 + C_1C_LL_1L_LR_1R_2 + C_2L_LL_LR_1R_2\right) + s^3\left(C_1L_1L_LR_1 + C_2L_1L_LR_1 + C_2L_1L_LR_1 + C_2L_1L_LR_1\right) + s^2\left(C_1L_1R_1R_2 + C_2L_1R_1R_2 + 
10.617 INVALID-ORDER-617 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)
                                                \frac{C_2C_LL_1L_LR_1R_2s^4 + s^3\left(C_2C_LL_1R_1R_2R_L + C_LL_1L_LR_1\right) + s^2\left(C_2L_1R_1R_2 + C_LL_1R_1R_2R_Lg_m + C_LL_1R_1R_2\right) + s\left(L_1R_1R_2g_m + L_1R_1\right)}{C_1C_2C_LL_1L_LR_1R_2s^5 + R_1 + s^4\left(C_1C_2C_LL_1R_1R_2R_L + C_1C_LL_1L_R\right) + s^3\left(C_1C_2L_1R_1R_2 + C_1C_LL_1R_1R_2 + C_1C_LL_1R_1R_2 + C_2C_LL_1R_1R_2 + C_2C_
10.618 INVALID-ORDER-618 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C_2L_1L_LR_1R_2R_Ls^3 + s^2(L_1L_LR_1R_2R_Lg_m + L_1L_LR_1R_L)
H(s) = \frac{C_2L_1L_LR_1R_2R_Ls^3 + s^2\left(L_1L_LR_1R_2R_Lg_m + L_1L_LR_1R_L\right)}{R_1R_2R_L + s^4\left(C_1C_2L_1L_LR_1R_2R_L + C_2L_LL_LR_1R_2R_L + C_2L_LL_LR_1R_2 +
10.619 INVALID-ORDER-619 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C_{2}C_{L}L_{1}L_{L}R_{1}R_{2}R_{L}s^{4} + s^{3}\left(C_{2}L_{1}L_{L}R_{1}R_{2} + C_{L}L_{1}L_{L}R_{1}R_{2}R_{L}g_{m} + C_{L}L_{1}L_{L}R_{1}R_{L}\right) + s^{2}\left(C_{2}L_{1}R_{1}R_{2}R_{L} + L_{1}L_{L}R_{1}R_{2}R_{L}\right) + s^{2}\left(C_{2}L
                                                   \frac{C_2C_LL_1L_LR_1R_2R_Ls^5 + R_1R_2 + C_1L_1L_LR_1R_2 + C_2L_1L_LR_1R_2 + C_2L_1L_1R_1R_2 + C_2L_1L_
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10.620 INVALID-ORDER-620 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{C_2C_LL_1L_LR_1R_2R_Ls^4 + C_2L_1R_1R_2R_Ls^2 + s^3\left(C_LL_1L_LR_1R_2R_Lg_m + C_LL_1L_Rg_m + C_LL_1L_
10.621 INVALID-ORDER-621 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)
                                                                                                                                                                                                                     H(s) = \frac{L_1 R_1 R_L g_m s + s^2 \left( C_2 L_1 R_1 R_2 R_L g_m + C_2 L_1 R_1 R_L \right)}{R_1 + s^3 \left( C_1 C_2 L_1 R_1 R_2 + C_1 C_2 L_1 R_1 R_L \right) + s^2 \left( C_1 L_1 R_1 + C_2 L_1 R_1 R_2 q_m + C_2 L_1 R_1 + C_2 L_1 R_2 + C_2 L_1 R_L \right) + s \left( C_2 R_1 R_2 + C_2 R_1 R_L + L_1 R_1 q_m + L_1 \right)}
10.622 INVALID-ORDER-622 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)
                                                                                                                                                                                    H(s) = \frac{L_1 R_1 g_m + s \left( C_2 L_1 R_1 R_2 g_m + C_2 L_1 R_1 \right)}{C_1 C_2 C_L L_1 R_1 R_2 s^3 + C_2 R_1 + C_L R_1 + s^2 \left( C_1 C_2 L_1 R_1 + C_2 C_L L_1 R_2 \right) + s \left( C_2 C_L R_1 R_2 + C_2 L_1 + C_L L_1 R_1 g_m + C_L L_1 \right) + s \left( C_2 C_L R_1 R_2 + C_2 L_1 R_1 + C_2 C_L L_1 R_1 + C_2 C_L L_1 R_1 + C_2 C_L L_1 R_1 \right) + s \left( C_2 C_L R_1 R_2 + C_2 L_1 + C_L L_1 R_1 g_m + C_L L_1 \right)
10.623 INVALID-ORDER-623 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + 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{L_1 R_1 R_2 g_m s + s^2 \left( C_2 L_1 R_1 R_2 R_L g_m + C_2 L_1 R_1 R_L \right)}{C_1 C_2 C_L L_1 R_1 R_2 R_L s^4 + R_1 + s^3 \left( C_1 C_2 L_1 R_1 R_2 + C_1 C_2 L_1 R_1 R_L + C_2 C_L L_1 R_1 R_L + C_2 C_L L_1 R_1 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + R_1 + s^3 \left( C_1 C_2 L_1 R_1 R_2 + C_1 C_2 L_1 R_1 R_L + C_2 C_L L_1 R_1 R_L \right) + s \left( C_2 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + R_1 + s^3 \left( C_1 C_2 L_1 R_1 R_2 + C_1 C_2 L_1 R_1 R_L + C_2 C_L L_1 R_1 R_L \right) + s \left( C_2 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + R_1 + s^3 \left( C_1 C_2 L_1 R_1 R_2 + C_1 C_2 L_1 R_1 R_L + C_2 C_L L_1 R_1 R_L \right) + s \left( C_2 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_1 L_1 R_1 R_2 R_L s^4 + C_2 L_1 R_1 R_2 R_L \right) + s^2 \left( C_
10.624 INVALID-ORDER-624 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)
                                                                            H(s) = \frac{L_1R_1g_m + s^2\left(C_2C_LL_1R_1R_2R_Lg_m + C_2C_LL_1R_1R_L\right) + s\left(C_2L_1R_1R_2g_m + C_2L_1R_1 + C_LL_1R_1R_Lg_m\right)}{C_2R_1 + C_LR_1 + s^3\left(C_1C_2C_LL_1R_1R_2 + C_1C_2C_LL_1R_1R_L\right) + s^2\left(C_1C_2L_1R_1 + C_2C_LL_1R_1 + C_2C_
10.625 INVALID-ORDER-625 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)
                                                                        10.626 INVALID-ORDER-626 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + 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_1 L_L R_1 g_m s^2 + s^3 \left(C_2 L_1 L_L R_1 R_2 g_m + C_2 L_1 L_L R_1\right)}{C_1 C_2 C_L L_1 L_L R_1 R_2 s^5 + R_1 + s^4 \left(C_1 C_2 L_1 L_L R_1 + C_2 C_L L_1 L_L R_1 R_2 + C_2 C_L L_L R_1 R_2 + C_2 C_L L_1 R_1 R_
10.627 INVALID-ORDER-627 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)
10.628 INVALID-ORDER-628 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
H(s) = \frac{L_1L_LR_1R_Lg_ms^2 + s^3\left(C_2L_1L_LR_1R_2R_Lg_m + C_2L_1L_LR_1R_2R_Lg_m + C_2L_LL_LR_1R_2R_Lg_m + C_2L_LR_1R_2R_Lg_m + C_2L_LR_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_
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 $s) = \frac{L_1 R_1 R_L g_m s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_L g_m + C_2 C_L L_1 L_L R_1 R_2 g_m + C_2 L_1 L_L R_1 + C_L L_1 L_L R_1 R_L g_m \right) + s^2 \left(C_2 L_1 R_1 R_2 R_L g_m + C_2 C_L L_1 L_L R_1 R_2 R_L g_m + C_2 C_L L_1 L_L R_1 R_2 R_L g_m + C_2 C_L L_1 L_L R_1 R_2 R_L g_m + C_2 C_L L_1 L_L R_1 R_2 R_L g_m + C_2 C_L L_1 L_L R_1 R_2 + C_2 C_L L_1 L_$

10.629 INVALID-ORDER-629 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$

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H(s) = \frac{C_L L_1 L_L R_1 R_L g_m s^3 + L_1 R_1 R_L g_m s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 \left(C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 C_2 C_L L_1 L_L R_1 R_2 R_B s + s^4 C_2 C_L L_1 R_1 R_2 R_B s + s^4 C_2 C_L L_1 R_1 R_2
10.631 INVALID-ORDER-631 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)
                                                                                                                                                                                                                                                                                               H(s) = \frac{C_2L_1L_2R_1R_Lg_ms^3 + C_2L_1R_1R_Ls^2 + L_1R_1R_Lg_ms}{C_1C_2L_1L_2R_1s^4 + R_1 + s^3\left(C_1C_2L_1R_1R_L + C_2L_1L_2R_1q_m + C_2L_1L_2\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1 + C_2L_1R_L + C_2L_2R_1\right) + s\left(C_2R_1R_L + L_1R_1q_m + L_1\right)}{c_1C_2L_1L_2R_1s^4 + R_1 + s^3\left(C_1C_2L_1R_1R_L + C_2L_1L_2R_1q_m + C_2L_1L_2\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1 + C_2L_1R_1 + C_2L_2R_1\right) + s\left(C_2R_1R_L + L_1R_1q_m + L_1\right)}
10.632 INVALID-ORDER-632 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                           H(s) = \frac{C_2L_1L_2R_1g_ms^2 + C_2L_1R_1s + L_1R_1g_m}{C_1C_2C_LL_1L_2R_1s^4 + C_2R_1 + C_LR_1 + s^3\left(C_2C_LL_1L_2R_1g_m + C_2C_LL_1L_2\right) + s^2\left(C_1C_2L_1R_1 + C_1C_LL_1R_1 + C_2C_LL_1R_1 + C_2C_LL_2R_1\right) + s\left(C_2L_1 + C_LL_1R_1g_m + C_LL_1\right)}
10.633 INVALID-ORDER-633 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + 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{C_2L_1L_2R_1R_Lg_ms^3 + C_2L_1R_1R_Ls^2 + L_1R_1R_Lg_ms}{C_1C_2C_LL_1L_2R_1R_Ls^5 + R_1 + s^4\left(C_1C_2L_1L_2R_1 + C_2C_LL_1L_2R_1R_Lg_m + C_2C_LL_1L_2R_1\right) + s^3\left(C_1C_2L_1R_1R_L + C_1C_LL_1R_1R_L + C_2C_LL_1R_1R_L + C
10.634 INVALID-ORDER-634 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + 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_2C_LL_1L_2R_1R_Lg_ms^3 + L_1R_1g_m + s^2\left(C_2C_LL_1R_1R_L + C_2L_1L_2R_1g_m\right) + s\left(C_2L_1R_1 + C_LL_1R_1R_Lg_m\right)}{C_1C_2C_LL_1L_2R_1s^4 + C_2R_1 + C_LR_1 + s^3\left(C_1C_2C_LL_1R_1R_L + C_2C_LL_1L_2\right) + s^2\left(C_1C_2L_1R_1 + C_1C_LL_1R_1 + C_2C_LL_1R_1 +
10.635 INVALID-ORDER-635 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)
                                                                                               H(s) = \frac{C_2C_LL_1L_2L_LR_1g_ms^4 + C_2C_LL_1L_LR_1s^3 + C_2L_1R_1s + L_1R_1g_m + s^2\left(C_2L_1L_2R_1g_m + C_LL_1L_LR_1g_m\right)}{C_2R_1 + C_LR_1 + s^4\left(C_1C_2C_LL_1L_2R_1 + C_1C_2C_LL_1L_2R_1\right) + s^3\left(C_2C_LL_1L_2R_1g_m + C_2C_LL_1L_L\right) + s^2\left(C_1C_2L_1R_1 + C_1C_LL_1R_1 + C_2C_LL_1R_1 + C_2C_LL_1R_1\right) + s^2\left(C_2L_1L_2R_1g_m + C_2L_1R_1\right) + s^2\left(C_2L_1L_2R_1g_m + C_2L_1R_1\right) + s^2\left(C_2L_1R_1 + C_2C_LL_1R_1 + C_2C_LL_1R_1\right) + s^2\left(C_2L_1R_1 + C_2C_
10.636 INVALID-ORDER-636 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_1 L_L s^2 + 1}\right)
H(s) = \frac{C_2L_1L_2L_LR_1g_ms^4 + C_2L_1L_LR_1s^3 + L_1L_LR_1g_ms^2}{C_1C_2C_LL_1L_2L_LR_1s^6 + R_1 + s^5\left(C_2C_LL_1L_2L_LR_1g_m + C_2C_LL_1L_2L_L\right) + s^4\left(C_1C_2L_1L_2R_1 + C_1C_LL_1L_LR_1 + C_2C_LL_1L_LR_1 + C_2C_LL_1L_LR_1\right) + s^3\left(C_2L_1L_2R_1g_m + C_2L_1L_L + C_LL_1L_LR_1g_m + C_LL_1L_L\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1 + C_2L_1R_1 + C_2L_1R_1\right) + s^3\left(C_2L_1L_2R_1g_m + C_2L_1L_2R_1g_m + C_2L_2R_1g_m + C_2L_2R_1g_m + C_2L_2R_1g_m + C_2L_
10.637 INVALID-ORDER-637 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + 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_2C_LL_1L_2L_LR_1g_ms^4 + L_1R_1g_m + s^3\left(C_2C_LL_1L_2R_1R_Lg_m + C_2C_LL_1L_LR_1\right) + s^2\left(C_2C_LL_1R_1R_L + C_2L_1L_2R_1g_m + C_LL_1L_LR_1g_m\right) + s\left(C_2L_1R_1 + C_LL_1R_1R_Lg_m\right) + s\left(C_2L_1R_1 + C_LL_1R_1R_Lg_m\right)}{C_2R_1 + C_LR_1 + s^4\left(C_1C_2C_LL_1L_2R_1 + C_2C_LL_1L_2R_1\right) + s^3\left(C_1C_2L_1L_2R_1g_m + C_2C_LL_1L_2\right) + s^2\left(C_1C_2L_1R_1 + C_2C_LL_1R_1 + C_2C_LL_1R
10.638 INVALID-ORDER-638 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
H(s) = \frac{C_2 L_1 L_2 L_1 L_1 L_2 L_2 R_1 R_L + s^5 \left(C_1 C_2 L_1 L_2 L_1 R_1 R_L + C_2 C_L L_1 L_2 L_1 R_1 R_L + C_1 C_2 L_1 L_2 L_1 R_1 R_L + C_2 C_L L_1
10.639 INVALID-ORDER-639 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
                                            \frac{C_2C_LL_1L_2L_LR_1R_Lg_ms^5 + L_1R_1R_Lg_ms + s^4\left(C_2C_LL_1L_LR_1R_L + C_2L_1L_2L_Rg_m\right) + s^3\left(C_2L_1L_2R_1R_Lg_m + C_2L_1L_LR_1 + C_LL_1L_Rg_m\right) + s^4\left(C_2C_LL_1L_LR_1R_L + C_2C_LL_1L_LR_1R_L + C_2C_LL_1L_LR_1R_L + C_2C_LL_1L_LR_1 + C_2C_LL_1L_1R_1 + C_2C_LL_1R_1 + C_2C_LL_1L_1R_1 + C_2C_LL_1R_1 + 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     87
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10.630 INVALID-ORDER-630 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

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H(s) = \frac{C_2 C_L L_1 L_2 L_L L_1 L_1 L_2 L_L R_1 s_0 + C_2 C_L L_1 L_2 R_1 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_L + C_2 C_L L_2 R_1 R_L + C_2 C_L L_2 R_1 R_L + C_2 C_L L_2 R_1 R
10.641 INVALID-ORDER-641 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)
                                                                                                                                      H(s) = \frac{C_2L_1L_2R_1R_Lg_ms^3 + L_1R_1R_Lg_ms + s^2\left(C_2L_1R_1R_2R_Lg_m + C_2L_1R_1R_L\right)}{C_1C_2L_1L_2R_1s^4 + R_1 + s^3\left(C_1C_2L_1R_1R_2 + C_1C_2L_1R_1R_L + C_2L_1L_2R_1g_m + C_2L_1L_2\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1R_2g_m + C_2L_1R_1 + C_2L_1R_2 + C_2L_1R_1 + C_2L_1
10.642 INVALID-ORDER-642 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + 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_2L_1L_2R_1g_ms^2 + L_1R_1g_m + s\left(C_2L_1R_1R_2g_m + C_2L_1R_1\right)}{C_1C_2C_LL_1L_2R_1s^4 + C_2R_1 + C_LR_1 + s^3\left(C_1C_2C_LL_1R_1R_2 + C_2C_LL_1L_2R_1g_m + C_2C_LL_1R_1 + C_1C_LL_1R_1 + C_2C_LL_1R_1 + C_2C
10.643 INVALID-ORDER-643 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C_2L_1L_2R_1R_Lg_ms^3 + L_1R_1R_Lg_ms + s^2(C_2L_1R_1R_2R_Lg_m + C_2L_1R_1R_L)
H(s) = \frac{C_2L_1L_2R_1R_Lg_ms^{-} + L_1R_1R_Lg_ms + s^{-}(C_2L_1R_1R_2g_m + C_2L_1R_1R_Lg_m + C_2L_1R_1R_Lg_m + C_2L_1R_1R_Lg_m + C_2L_1R_1R_Lg_m + C_2L_1R_1R_Lg_m + C_2L_1R_1R_Lg_m + C_2L_1R_1R_L + C_2L_1R_1R_Lg_m + C_2L_1R_1R
10.644 INVALID-ORDER-644 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_T s}\right)
H(s) = \frac{C_2C_LL_1L_2R_1R_Lg_ms^3 + L_1R_1g_m + s^2\left(C_2C_LL_1R_1R_2R_Lg_m + C_2C_LL_1R_1R_L + C_2L_1L_2R_1g_m\right) + s\left(C_2L_1R_1R_2g_m + C_2L_1R_1 + C_LL_1R_1R_Lg_m\right)}{C_1C_2C_LL_1L_2R_1s^4 + C_2R_1 + C_LR_1s^4 + C_2R_1 + C_LR_1s^4 + C_2R_1 + C_LR_1s^4 + C_2R_1s^4 + C_
10.645 INVALID-ORDER-645 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_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{C_2C_LL_1L_2L_LR_1g_ms^4 + L_1R_1g_m + s^3\left(C_2C_LL_1L_LR_1R_2g_m + C_2C_LL_1L_LR_1\right) + s^2\left(C_2L_1L_2R_1g_m + C_LL_1L_LR_1g_m\right) + s\left(C_2L_1R_1R_2g_m + C_2L_1R_1\right)}{C_2R_1 + C_LR_1 + s^4\left(C_1C_2C_LL_1L_2R_1 + C_1C_2L_1L_1R_1\right) + s^3\left(C_1C_2L_1L_1R_1R_2 + C_2C_LL_1L_1\right) + s^2\left(C_1C_2L_1R_1 + C_2C_LL_1R_1 + C_2
10.646 INVALID-ORDER-646 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_1 L_1 s^2 + 1}\right)
H(s) = \frac{C_2L_1L_2L_LR_1g_ms^4 + L_1L_LR_1g_ms^2 + s^3\left(C_2L_1L_LR_1R_2g_m + C_2L_1L_LR_1\right)}{C_1C_2C_LL_1L_2L_LR_1s^6 + R_1 + s^5\left(C_1C_2L_LL_LR_1g_m + C_2C_LL_1L_LR_1 + C_1C_LL_LL_R\right) + s^4\left(C_1C_2L_1L_LR_1 + C_1C_LL_LL_R\right) + s^4\left(C_1C_2L_1L_LR_1 + C_2C_LL_1L_LR_1 + C_2C_LL_1L_1L_1 + C_2C_LL_1L_1 + C_2C_LL_1L_1 + C_2C_LL_1L_1 + C_2C_LL_1L_1 + C_2C_LL_1L_1 + C_2C_LL_1
10.647 INVALID-ORDER-647 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_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{C_2C_LL_1L_2L_Rg_ms^4 + L_1R_1g_m + s^3\left(C_2C_LL_1L_2R_1R_Lg_m + C_2C_LL_1L_LR_1\right) + s^2\left(C_2C_LL_1R_1R_2R_Lg_m + C_2C_LL_1R_1R_L + C_2L_1L_2R_1g_m + C_LL_1L_Rg_m\right) + s\left(C_2L_1R_1R_2g_m + C_2L_1R_1R_2g_m + C_2L_1R_1R_2R_2g_m + C_2L_1R_1R_2g_m + C_2L_
10.648 INVALID-ORDER-648 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + s^5 \left( C_1 C_2 C_L L_1 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 + C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_L + C_1 C_2 L_1 L_L R_1 R_L + C_1 C_2 L_1 L_L R_1 R_L + C_1 C_2 L_1 L_L R_1 R_2 R_L + C_1 C_2 L_1 R_1 R_2 R_L + C_1 C
10.649 INVALID-ORDER-649 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}R_{L}g_{m}s^{5} + L_{1}R_{1}R_{L}g_{m}s + s^{4}\left(C_{2}C_{L}L_{1}L_{L}R_{1}R_{2}R_{L}g_{m} + C_{2}C_{L}L_{1}L_{L}R_{1}R_{L} + C_{2}L_{1}L_{2}L_{L}R_{1}g_{m}\right)
                                               \frac{c_2c_Lc_1c_2c_Lc_1c_Lc_2m_c + c_1c_2c_Lc_1c_Lc_2m_c + c_2c_Lc_1c_2m_c + c_2c_Lc_1c_2m_c + c_2c_Lc_1c_Lc_2m_c + c_2c_Lc_2m_c + c_2c_Lc_2m_
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10.640 INVALID-ORDER-640 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

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H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + R_1 + s^5 \left( C_1 C_2 C_L L_1 L_2 R_1 R_L + C_1 C_2 C_L L_1 L_L R_1 R_2 + C_1 C_2 C_L L_1 L_L R_1 R_L + C_2 C_L L_1 L_2 L_L R_1 g_m + C_2 C_L L_1 L_2 L_L R_1 g_m + C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 L_2 R_1 R_2 R_1 R_2 R_1 R_2 R_2 R_2 R_2 R_2 R_2 R_2 R_2 R
10.651 INVALID-ORDER-651 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, R_L\right)
H(s) = \frac{L_1L_2R_1R_Lg_ms^2 + s^3\left(C_2L_1L_2R_1R_2g_m + C_2L_1L_2R_1R_L\right) + s\left(L_1R_1R_2R_Lg_m + L_1R_1R_L\right)}{R_1R_2 + R_1R_L + s^4\left(C_1C_2L_1L_2R_1R_2 + C_1C_2L_1L_2R_1R_L\right) + s^3\left(C_1L_1L_2R_1 + C_2L_1L_2R_1 + C_2L_1L_2R_L\right) + s^2\left(C_1L_1R_1R_2 + C_1L_1R_1R_L + C_2L_2R_1R_L + L_1L_2R_1g_m + L_1L_2\right) + s\left(L_1R_1R_2g_m + L_1R_1 + L_1R_2 + L_1R_1R_L\right)}
10.652 INVALID-ORDER-652 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)
10.653 INVALID-ORDER-653 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     L_1L_2R_1R_Lg_ms^2 + s^3(C_2L_1L_2R_1R_2R_Lg_m)
H(s) = \frac{L_1 L_2 R_1 R_L g_m s^- + s^- (\cup_2 L_1 L_2 R_1 R_2 R_L s^+ + C_1 C_2 L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_L L_1 L_2 R_1 R_2 R_L s^- + C_2 C_
10.654 INVALID-ORDER-654 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)
H(s) = \frac{s^4 \left( C_2 C_L L_1 L_2 R_1 R_2 g_m + C_2 C_L L_1 L_2 R_1 R_2 g_m + C_2 L_1 L_2 R_1 R_2 g_m + C_2 L_1 L_2 R_1 R_L g_m + s^2 \left( C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1 R_L + L_1 L_2 R_1 g_m + C_L L_1 R_1 R_2 R_L g_m + C
10.655 INVALID-ORDER-655 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)
                                 \frac{C_{L}L_{1}L_{2}L_{L}R_{1}g_{m}s^{4}+L_{1}L_{2}R_{1}g_{m}s^{2}+s^{5}\left(C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}R_{2}g_{m}+C_{2}L_{1}L_{2}R_{1}+S^{4}\left(C_{1}L_{2}L_{L}R_{1}R_{2}g_{m}+C_{2}L_{L}L_{L}R_{1}\right)+s^{3}\left(C_{2}L_{1}L_{2}R_{1}+C_{L}L_{1}L_{L}R_{1}R_{2}g_{m}+C_{L}L_{1}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L_{L}L_{L}R_{1}+C_{L}L
10.656 INVALID-ORDER-656 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \frac{L_L s}{C_1 L_1 s^2 + 1}\right)
H(s) = \frac{L_1 L_2 L_L R_1 g_m s^3 + s^4 \left(C_2 L_1 L_2 L_L R_1 R_2 g_m + C_2 C_L L_1 L_2 L_L R_1 + C_2 C_L L_1 L_2 L_L R_1
10.657 INVALID-ORDER-657 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_{L_S}}\right)
                                   10.658 INVALID-ORDER-658 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
10.659 INVALID-ORDER-659 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              s^{5} \left(C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{L} g_{m} + C_{2} C_{L} L_{1} L_{2} L_{L} R_{1} R_{2} R_{2
                                   \frac{c_{1}c_{2}c_{1}L_{1}L_{2}L_{1}R_{1}}{R_{1}R_{2}+R_{1}R_{L}+s^{6}\left(C_{1}C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}R_{2}+C_{1}C_{2}L_{1}L_{2}L_{L}R_{1}+C_{1}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}+C_{2}C_{L}L_{
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10.650 INVALID-ORDER-650 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$

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10.660 INVALID-ORDER-660 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)
H(s) = \frac{1}{R_1 R_2 + R_1 R_L + s^6 \left( C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 + C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 + C_1 C_2 L_L L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_L L_1 L_2 L_L R_1 R
10.661 INVALID-ORDER-661 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 (C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)
H(s) = \frac{C_2L_1R_1R_2R_Ls^2 + s^3\left(C_2L_1L_2R_1R_2R_Lg_m + C_2L_1L_2R_1R_L\right) + s\left(L_1R_1R_2R_Lg_m + L_1R_1R_L\right)}{R_1R_2 + R_1R_L + s^4\left(C_1C_2L_1L_2R_1R_2 + C_1C_2L_1L_2R_1R_L\right) + s^3\left(C_1C_2L_1R_1R_2R_L + C_2L_1L_2R_1R_2 + C_2L_1L_2R_1\right) + s^2\left(C_1L_1R_1R_2 + C_2L_1R_1R_2 
10.662 INVALID-ORDER-662 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)
H(s) = \frac{C_2L_1R_1R_2s^2 + s^3\left(C_2L_1L_2R_1R_2g_m + C_2L_1L_2R_1\right) + s\left(L_1R_1R_2g_m + L_1R_1\right)}{C_1C_2C_LL_1L_2R_1R_2s^5 + R_1 + s^4\left(C_1C_2L_1L_2R_1 + C_2C_LL_1L_2R_1 + C_2C_LL_1L_2R_1 + C_2C_LL_1R_1R_2 + C_2C_LL_1R_1R_1R_2 + C_2C_LL_1R_1R_2 + C_2C_LL_1R_1R_2 + C_2C_LL_1R_1R_2 + C_2C_LL_1R_1R_2 + C_2C_LL_1R_1R_2
10.663 INVALID-ORDER-663 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C_2L_1R_1R_2R_Ls^2 + s^3(C_2L_1L_2R_1R_2R_Lg_m + C_2L_1L_2R_1g_m)
                                               \frac{C_{2}L_{1}K_{1}K_{2}K_{L}s^{2}+s^{\circ}\left(C_{2}L_{1}L_{2}K_{1}K_{2}K_{L}g_{m}+C_{2}L_{1}L_{2}K_{1}K_{2}K_{L}g_{m}+C_{2}L_{1}L_{2}K_{1}K_{2}K_{L}g_{m}+C_{2}L_{1}L_{2}K_{1}K_{2}K_{L}g_{m}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{1}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}+
10.664 INVALID-ORDER-664 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)
H(s) = \frac{s^4 \left( C_2 C_L L_1 L_2 R_1 R_2 R_L g_m + C_2 C_L L_1 L_2 R_1 R_L \right) + s^3 \left( C_2 C_L L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 g_m + C_2 L_1 L_2 R_1 \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_1 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 R_1 R_2 R_L + C_2 L_2 R_1 R_2 R_L \right) + s^2 \left( C_2 L_1 
10.665 INVALID-ORDER-665 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)
H(s) = \frac{C_2C_LL_1L_2R_1R_2s^4 + C_2L_1R_1R_2s^2 + s^5\left(C_2C_LL_1L_2L_LR_1R_2g_m + C_2C_LL_1L_2L_LR_1\right) + s^3\left(C_2L_1L_2R_1R_2g_m + C_2L_1L_2R_1 + C_2L_2R_1\right)}{C_1C_2C_LL_1L_2L_LR_1s^6 + R_1 + s^5\left(C_1C_2L_LL_2R_1R_2 + C_1C_2L_LL_2R_1\right) + s^4\left(C_1C_2L_1L_2R_1 + C_1C_LL_1L_2R_1 + C_2C_LL_1L_2R_1 + 
10.666 INVALID-ORDER-666 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^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_2L_1L_LR_1R_2s^3 + s^4\left(C_2L_1L_2L_LR_1R_2g_m + C_2L_1L_2L_R\right)}{C_1C_2C_LL_1L_2L_LR_1R_2s^6 + R_1R_2 + s^5\left(C_1C_2L_1L_2L_LR_1 + C_2C_LL_1L_2L_R\right) + s^4\left(C_1C_2L_1L_2R_1R_2 + C_1C_LL_1L_RR_1R_2 + C_1C_LL_1L_RR_1R_2 + C_2C_LL_1L_2R_1R_2 + C_2C_LL_1R
10.667 INVALID-ORDER-667 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        H(s) = \frac{s^{\circ} \left(C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}R_{2}g_{m} + C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}\right) + s^{\star} \left(C_{2}C_{L}L_{1}L_{2}R_{1}R_{2}R_{L} + C_{2}C_{L}L_{1}L_{2}R_{1}R_{L} + C_{2}C_{L}L_{1}L_{2}R_{1}R_{2}R_{L} + C_{2}C_{L}L_{1}L_{2}R_{1}R_{L} + C_{2
10.668 INVALID-ORDER-668 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)
  H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L s^6 + R_1 R_2 R_L + s^5 \left( C_1 C_2 L_1 L_2 L_L R_1 R_2 + C_1 C_2 L_1 L_2 L_L R_1 R_2 + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L
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10.669 INVALID-ORDER-669 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{C_L L_L R_L s^2 + L_L s + R_L}{C_L L_L s^2 + 1}\right)$ $H(s) = \frac{1}{R_1R_2 + R_1R_L + s^6 \left(C_1C_2C_LL_1L_2L_LR_1R_2 + C_1C_2C_LL_1L_2L_LR_1R_2 + C_1C_2L_1L_2L_LR_1 + C_2C_LL_1L_2L_LR_1 + C_2C_LL_1L_2L_RR_1 + C_2C_LL_1L_2L_1R_1 +$ 10.670 INVALID-ORDER-670 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{R_L \left(C_L L_L s^2 + 1\right)}{C_L L_L s^2 + C_L R_L s + 1}\right)$ $H(s) = \frac{1}{R_1 R_2 + R_1 R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 + C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_2 C_L L_1 L_2 R_1 R_2 R_L + C_2 C_L$ **10.671** INVALID-ORDER-671 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, R_2, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$ $H(s) = \frac{R_1 R_2 g_m + R_1 + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 \right) + s \left(L_1 R_2 g_m + L_1 \right)}{s^3 \left(C_1 C_L L_1 R_1 R_2 g_m + C_1 C_L L_1 R_1 + C_1 C_L L_1 R_2 \right) + s^2 \left(C_1 L_1 + C_L L_1 R_2 g_m + C_L L_1 \right) + s \left(C_L R_1 R_2 g_m + C_L R_1 + C_L R_2 \right) + 1}$ **10.672** INVALID-ORDER-672 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$ $H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L + s^2 \left(C_1 L_1 R_1 R_2 R_L g_m + C_1 L_1 R_1 R_L \right) + s \left(L_1 R_2 R_L g_m + L_1 R_L \right)}{R_1 R_2 g_m + R_1 + R_2 + R_L + s^3 \left(C_1 C_L L_1 R_1 R_2 R_L g_m + C_1 C_L L_1 R_1 R_2 R_L \right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 + C_1 L_1 R_2 + C_1 L_1 R_2 + C_1 L_1 R_2 R_L g_m + C_L L_1 R_2 \right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1 R_L + C_L R_2 R_L g_m + C_L R_1 R_L + C_L R_2 R_L g_m + C_L R_1 R_L + C_L R_2 R_L g_m + C_L R_1 R_L \right)}$ **10.673** INVALID-ORDER-673 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$ $H(s) = \frac{R_1 R_2 g_m + R_1 + s^3 \left(C_1 C_L L_1 R_1 R_2 R_L g_m + C_1 C_L L_1 R_1 R_L\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 + C_L L_1 R_2 R_L g_m + C_L L_1 R_L\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1 R_L + L_1 R_2 g_m + L_1\right)}{s^3 \left(C_1 C_L L_1 R_1 R_2 g_m + C_1 C_L L_1 R_1 + C_1 C_L L_1 R_2 + C_1 C_L L_1 R_L\right) + s^2 \left(C_1 L_1 + C_L L_1 R_2 g_m + C_L L_1\right) + s \left(C_L R_1 R_2 g_m + C_L R_1 + C_L R_2 + C_L R_L\right) + 1}$ **10.674** INVALID-ORDER-674 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, R_2, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$ $H(s) = \frac{R_1 R_2 g_m + R_1 + s^4 \left(C_1 C_L L_1 L_L R_1 R_2 g_m + C_1 C_L L_1 L_L R_1\right) + s^3 \left(C_L L_1 L_L R_2 g_m + C_L L_1 L_L\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 + C_L L_L R_1 R_2 g_m + C_L L_L R_1\right) + s \left(L_1 R_2 g_m + L_1\right)}{C_1 C_L L_1 L_L s^4 + s^3 \left(C_1 C_L L_1 R_1 R_2 g_m + C_1 C_L L_1 R_1 + C_1 C_L L_1 R_2\right) + s^2 \left(C_1 L_1 + C_L L_1 R_2 g_m + C_L L_1 + C_L L_1\right) + s \left(C_L R_1 R_2 g_m + C_L R_1 + C_L R_2\right) + 1}$

10.675 INVALID-ORDER-675 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, R_2, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$

$$H(s) = \frac{s^3 \left(C_1 L_1 L_L R_1 R_2 g_m + C_1 L_1 L_L R_1 \right) + s^2 \left(L_1 L_L R_2 g_m + L_1 L_L \right) + s \left(L_L R_1 R_2 g_m + L_L R_1 \right)}{R_1 R_2 g_m + R_1 + R_2 + s^4 \left(C_1 C_L L_1 L_L R_1 R_2 g_m + C_1 L_L L_L R_2 \right) + s^3 \left(C_1 L_1 L_L R_2 g_m + C_L L_1 L_L \right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 + C_1 L_1 R_2 g_m + C_1 L_1 R_1 R_2 g_m + C$$

10.676 INVALID-ORDER-676 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, R_2, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s^4 \left(C_1 C_L L_1 L_L R_1 R_2 g_m + C_1 C_L L_1 L_L R_1\right) + s^3 \left(C_1 C_L L_1 R_1 R_2 R_L g_m + C_1 L_L L_L R_2 g_m + C_L L_1 L_L\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 + C_L L_1 R_2 R_L g_m + C_L L_1 R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_1 R_1 + C_L L_1 R_2 R_L g_m + C_L L_1 R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L L_1 R_1 R_2 R_L g_m + C_L L_1 R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1 R_2\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1 R_2\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1 R_2\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m + C_L R_1\right) + s \left(C_L R_1 R_2 R_L g_m$$

10.677 INVALID-ORDER-677 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{L_L R_L s}{C_L L_L R_L s^2 + L_L s + R_L}\right)$

$$H(s) = \frac{s^3 \left(C_1 L_1 L_L R_1 R_2 R_L g_m + C_1 L_1 L_L R_1 R_L \right) + s^2 \left(L_1 L_L R_2 R_L g_m + L_1 L_L R_L \right) + s \left(L_L R_1 R_2 R_L g_m + L_L R_1 R_L \right)}{R_1 R_2 R_L g_m + R_1 R_L + R_2 R_L + s^4 \left(C_1 C_L L_1 L_L R_1 R_2 R_L g_m + C_1 C_L L_1 L_L R_1 R_2 R_L \right) + s^3 \left(C_1 L_1 L_L R_1 R_2 g_m + C_1 L_1 L_L R_1 + C_1 L_1 L_L R_1 R_2 R_L g_m + C_1 L_1 R_1 R_2 R_L g_m + C_1 R_1 R_2 R_L g_m + C_1 R_1 R_2$$

10.679 INVALID-ORDER-679
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, R_2, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2 + 1)}{C_LL_Ls^2 + C_LR_Ls + 1}\right)$$

 $H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L + s^4 \left(C_1 C_L L_1 L_L R_1 R_2 R_L g_m + C_1 C_L L_1 L_L R_1 R_L\right) + s^3 \left(C_L L_1 L_L R_2 R_L g_m + C_L L_1 L_L R_L\right) + s^2 \left(C_1 L_1 R_1 R_2 R_L g_m + C_1 L_1 R_1 R_L + C_L L_L R_1 R_2 R_L g_m + C_1 L_1 R_1 R_2 R_L g_m + C_1 L_1 L_L R_1 R_2 R_L g_m + C_1 L_1 R_1$

10.680 INVALID-ORDER-680
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{1}{C_2s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{C_1C_2L_1R_1R_Ls^3 + R_1R_Lg_m + s^2\left(C_1L_1R_1R_Lg_m + C_2L_1R_L\right) + s\left(C_2R_1R_L + L_1R_Lg_m\right)}{R_1g_m + s^3\left(C_1C_2L_1R_1 + C_1C_2L_1R_L\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_1\right) + s\left(C_2R_1 + C_2R_L + L_1g_m\right) + 1}$$

10.681 INVALID-ORDER-681
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_1C_2L_1R_1s^3 + R_1g_m + s^2\left(C_1L_1R_1g_m + C_2L_1\right) + s\left(C_2R_1 + L_1g_m\right)}{C_1C_2C_LL_1R_1s^4 + s^3\left(C_1C_2L_1 + C_1C_LL_1R_1g_m + C_1C_LL_1 + C_2C_LL_1\right) + s^2\left(C_2C_LR_1 + C_LL_1g_m\right) + s\left(C_2 + C_LR_1g_m + C_L\right)}$$

10.682 INVALID-ORDER-682
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{C_1C_2L_1R_1R_Ls^3 + R_1R_Lg_m + s^2\left(C_1L_1R_1R_Lg_m + C_2L_1R_L\right) + s\left(C_2R_1R_L + L_1R_Lg_m\right)}{C_1C_2C_LL_1R_1R_Ls^4 + R_1g_m + s^3\left(C_1C_2L_1R_1 + C_1C_LL_1R_L + C_1C_LL_1R_L + C_2C_LL_1R_L\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_1R_L + C_2L_1R_L + C_2L_1R_L + C_2L_1R_L + C_2L_1R_L\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_1R_L + C_2L_1R_L + C_2L_1R_L\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_1R_L + C_2L_1R_L\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_1R_L\right) + s^2\left(C_1L_1R_1g_m + C_1L_1R_1g_m + C_1L_1R_1g_m\right) + s^$$

10.683 INVALID-ORDER-683
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{1}{C_2s}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_1C_2C_LL_1R_1R_Ls^4 + R_1g_m + s^3\left(C_1C_2L_1R_1 + C_1C_LL_1R_1R_Lg_m + C_2C_LL_1R_L\right) + s^2\left(C_1L_1R_1g_m + C_2C_LR_1R_L + C_2L_1 + C_LL_1R_Lg_m\right) + s\left(C_2R_1 + C_LR_1R_Lg_m + L_1g_m\right)}{s^4\left(C_1C_2C_LL_1R_1 + C_1C_2C_LL_1R_L\right) + s^3\left(C_1C_2L_1 + C_1C_LL_1R_1g_m + C_1C_LL_1 + C_2C_LL_1\right) + s^2\left(C_2C_LR_1 + C_2C_LR_1 + C_LL_1g_m\right) + s\left(C_2+C_LR_1g_m + C_LR_1g_m + C_LR_1g_m\right)}$$

10.684 INVALID-ORDER-684
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_1C_2C_LL_1L_LR_1s^5 + R_1g_m + s^4\left(C_1C_LL_1L_LR_1g_m + C_2C_LL_1L_L\right) + s^3\left(C_1C_2L_1R_1 + C_2C_LL_LR_1 + C_LL_1L_g_m\right) + s^2\left(C_1L_1R_1g_m + C_2L_1 + C_LL_LR_1g_m\right) + s\left(C_2R_1 + L_1g_m\right)}{C_1C_2C_LL_1L_Ls^5 + C_1C_2C_LL_1R_1s^4 + s^3\left(C_1C_2L_1 + C_1C_LL_1R_1g_m + C_1C_LL_1 + C_2C_LL_1\right) + s^2\left(C_2C_LR_1 + C_LL_1g_m\right) + s\left(C_2 + C_LR_1g_m + C_LL_1R_1g_m\right)}$$

10.685 INVALID-ORDER-685
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{C_1C_2L_1L_LR_1s^4 + L_LR_1g_ms + s^3\left(C_1L_1L_LR_1g_m + C_2L_1L_L\right) + s^2\left(C_2L_LR_1 + L_1L_Lg_m\right)}{C_1C_2C_LL_1L_LR_1s^5 + R_1g_m + s^4\left(C_1C_2L_1L_L + C_1C_LL_1L_LR_1g_m + C_1C_LL_1L_L\right) + s^3\left(C_1C_2L_1R_1 + C_2C_LL_1R_1 + C_LL_1L_Lg_m\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_1 + C_2L_1$$

10.686 INVALID-ORDER-686
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{1}{C_2s}, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_1C_2C_LL_1L_LR_1s^5 + R_1g_m + s^4\left(C_1C_2C_LL_1R_1R_L + C_1C_LL_1L_Rg_m + C_2C_LL_1R_1 + C_1C_LL_1R_1g_m + C_2C_LL_1R_1 + C_1C_LL_1R_1g_m + C_2C_LL_1R_1 + C_1C_LL_1R_1g_m + C_2C_LL_1R_1 + C_2C_LL_1 +$$

10.691 INVALID-ORDER-691 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2}{C_2R_2s + 1}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$

$$H(s) = \frac{C_1C_2L_1R_1R_2s^3 + R_1R_2g_m + R_1 + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_2L_1R_2\right) + s\left(C_2R_1R_2 + L_1R_2g_m + L_1\right)}{C_1C_2C_LL_1R_1R_2s^4 + s^3\left(C_1C_2L_1R_2 + C_1C_LL_1R_1R_2g_m + C_1C_LL_1R_2 + C_2C_LL_1R_2\right) + s^2\left(C_1L_1 + C_2C_LR_1R_2 + C_LL_1R_2g_m + C_LL_1\right) + s\left(C_2R_2 + C_LR_1R_2g_m + C_LR_1 + C_LR_2\right) + 1}$$

10.692 INVALID-ORDER-692 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2}{C_2R_2s + 1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$

10.693 INVALID-ORDER-693 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2}{C_2R_2s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$

$$H(s) = \frac{C_1C_2C_LL_1R_1R_2R_Ls^4 + R_1R_2g_m + R_1 + s^3\left(C_1C_2L_1R_1R_2 + C_1C_LL_1R_1R_2R_Lg_m + C_1L_1R_1R_2R_Lg_m + C_1L_1R_1R_2R_Lg_m + C_1L_1R_1R_2R_Lg_m + C_1L_1R_1R_2R_L + C_2L_1R_2R_L + C_2L_1R_2R_L + C_2L_1R_2R_Lg_m + C_LL_1R_1R_2 + C_LR_1R_2R_Lg_m +$$

10.694 INVALID-ORDER-694 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2}{C_2R_2s + 1}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$

$$H(s) = \frac{C_1C_2C_LL_1L_LR_1R_2s^5 + R_1R_2g_m + R_1 + s^4\left(C_1C_LL_1L_LR_1R_2g_m + C_1C_LL_1L_LR_1 + C_2C_LL_1L_LR_2\right) + s^3\left(C_1C_2L_1R_1R_2 + C_2C_LL_LR_1R_2 + C_LL_1L_LR_2g_m + C_LL_1L_L\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_2L_1R_2 + C_LL_1R_1R_2g_m + C_LL_1R_1\right) + s\left(C_2R_1R_2 + L_1R_2g_m + C_LL_1R_1R_2g_m + C_LL_1R_1\right) + s\left(C_2R_1R_2 + L_1R_2g_m + C_LL_1R_1R_2g_m + C_LL_1R_1R_$$

10.695 INVALID-ORDER-695 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2}{C_2R_2s + 1}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$

$$H(s) = \frac{C_1C_2L_1L_LR_1R_2s^4 + s^3\left(C_1L_1L_LR_1R_2g_m + C_1L_1L_LR_1 + C_2L_1L_LR_2\right) + s^2\left(C_2L_LR_1R_2 + L_1L_LR_2g_m + L_1L_L\right) + s\left(L_LR_1R_2g_m + L_LR_1\right)}{C_1C_2C_LL_1L_LR_1R_2s^5 + R_1R_2g_m + R_1 + R_2 + s^4\left(C_1C_2L_1L_LR_1R_2g_m + C_1C_LL_1L_LR_1 + C_2C_LL_1L_LR_2\right) + s^3\left(C_1C_2L_1R_1R_2 + C_1L_1L_LR_2 + C_2C_LL_1L_RR_2 + C_1L_1L_LR_2\right) + s^2\left(C_1L_1R_1R_2 + C_1L_1L_RR_2 + C_1L_1L_RR_2 + C_1L_1L_RR_2\right) + s^2\left(C_1L_1R_1R_2 + C_1L_1L_RR_2 + C_1L_1L_RR_2\right) + s^2\left(C_1L_1R_1R_2 + C_1L_1L_RR_2\right) + s^2\left(C_1L_1R_1R_2\right) + s^2\left(C_1L_1R_$$

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 \begin{aligned} \textbf{10.696} \quad & \textbf{INVALID-ORDER-696} \ \ Z(s) = \left( \frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \ \ \infty, \ \infty, \ \infty, \ \ \ \infty, \ \ \infty, \ \ \infty, \ \ \infty, \ \ \frac{L_L R_L s}{C_L L_L R_L R_L R_2 s^2 + L_L s + R_L} \right) \end{aligned}
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10.698 INVALID-ORDER-698 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2}{C_2R_2s + 1}, \infty, \infty, \infty, \frac{C_LL_LR_Ls^2 + L_Ls + R_L}{C_LL_Ls^2 + 1}\right)$

10.699 INVALID-ORDER-699 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2}{C_2R_2s + 1}, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2 + 1)}{C_LL_Ls^2 + C_LR_Ls + 1}\right)$

 $H(s) = \frac{C_1C_2C_LL_1L_LR_1R_2R_Ls^5 + R_1R_2R_Lg_m + R_1R_L + s^4\left(C_1C_LL_1L_LR_1R_2R_Lg_m + C_1C_LL_1L_LR_1R_2 + C_2C_LL_1L_LR_2R_L\right)}{R_1R_2g_m + R_1 + R_2 + R_L + s^5\left(C_1C_2C_LL_1L_LR_1 + C_1C_LL_1L_LR_1R_2 + C_1C_LL_1L_LR_1 + C_2C_LL_1L_LR_2 + C_1C_LL_1L_LR_1 + C_1C_LL_1L_1R_1 + C_1C_LL_1L_$

 $\begin{aligned} \textbf{10.700} \quad \textbf{INVALID-ORDER-700} \ \ Z(s) &= \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \ \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L \right) \\ & H(s) &= \frac{R_1 R_L g_m + s^3 \left(C_1 C_2 L_1 R_1 R_2 R_L g_m + C_1 C_2 L_1 R_1 R_L \right) + s^2 \left(C_1 L_1 R_1 R_L g_m + C_2 L_1 R_2 R_L g_m + C_2 L_1 R_L \right) + s \left(C_2 R_1 R_2 R_L g_m + C_2 R_1 R_L + L_1 R_L g_m \right) }{R_1 g_m + s^3 \left(C_1 C_2 L_1 R_1 R_2 g_m + C_1 C_2 L_1 R_1 + C_1 C_2 L_1 R_L \right) + s^2 \left(C_1 L_1 R_1 g_m + C_1 L_1 + C_2 L_1 R_2 g_m + C_2 L_1 \right) + s \left(C_2 R_1 R_2 g_m + C_2 R_1 R_L + L_1 R_L g_m \right) } \end{aligned}$

10.701 INVALID-ORDER-701 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$

 $H(s) = \frac{R_{1}g_{m} + s^{3}\left(C_{1}C_{2}L_{1}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}R_{1}\right) + s^{2}\left(C_{1}L_{1}R_{1}g_{m} + C_{2}L_{1}R_{2}g_{m} + C_{2}L_{1}\right) + s\left(C_{2}R_{1}R_{2}g_{m} + C_{2}R_{1} + L_{1}g_{m}\right)}{s^{4}\left(C_{1}C_{2}C_{L}L_{1}R_{1} + C_{1}C_{2}C_{L}L_{1}R_{2}\right) + s^{3}\left(C_{1}C_{2}L_{1} + C_{1}C_{L}L_{1}R_{1}g_{m} + C_{1}C_{L}L_{1} + C_{2}C_{L}L_{1}\right) + s^{2}\left(C_{2}C_{L}R_{1}R_{2}g_{m} + C_{2}C_{L}R_{1} + C_{2}C_{L}R_{2} + C_{L}L_{1}g_{m}\right) + s\left(C_{2}C_{L}R_{1}R_{2}g_{m} + C_{2}C_{L}R_{1} + C_{2}C_{L}$

10.702 INVALID-ORDER-702 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$

 $H(s) = \frac{R_1 R_L g_m + s^3 \left(C_1 C_2 L_1 R_1 R_2 R_L g_m + C_1 C_2 L_1 R_1 R_L \right) + s^2 \left(C_1 L_1 R_1 R_L g_m + C_2 L_1 R_2 R_L g_m + C_2 L_1 R_2 R_L g_m + C_2 R_1 R_2 R_L$

10.703 INVALID-ORDER-703 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$

 $H(s) = \frac{R_1 g_m + s^4 \left(C_1 C_2 C_L L_1 R_1 R_2 R_L g_m + C_1 C_2 C_L L_1 R_1 R_L \right) + s^3 \left(C_1 C_2 L_1 R_1 R_2 g_m + C_1 C_2 L_1 R_1 R_2 g_m + C_1 C_2 L_1 R_1 R_2 g_m + C_2 C_L L_1 R_2 R_L g_m + C_2 C_L R_1 R_2 R_L g_m +$

10.704 INVALID-ORDER-704 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \ R_2 + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ L_Ls + \frac{1}{C_Ls}\right)$

$$H(s) = \frac{R_1 g_m + s^5 \left(C_1 C_2 C_L L_1 L_L R_1 R_2 g_m + C_1 C_2 C_L L_1 L_L R_1\right) + s^4 \left(C_1 C_2 C_L L_1 R_1 R_2 R_L g_m + C_1 C_2 C_L L_1 R_1 R_2 + C_1 C_L L_1 L_L R_1 g_m + C_2 C_L L_1 L_L R_2 g_m + C_1 C_2 L_1 R_1 R_2 g_m + C_2 C_L L_1 R_2 R_2$$

10.707 INVALID-ORDER-707
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_LR_Ls}{C_LL_LR_Ls^2 + L_Ls + R_L}\right)$$

$$H(s) = \frac{L_L R_1 R_L g_m s}{R_1 R_L g_m + R_L + s^5 \left(C_1 C_2 C_L L_1 L_L R_1 R_2 R_L g_m + C_1 C_2 C_L L_1 L_L R_1 R_L + C_1 C_2 L_1 L_L R_1 R_2 g_m + C_1 C_2 L_1 L_L R_1 + C_1 C_2 L_1 L_L R_1 + C_1 C_2 L_1 L_L R_1 R_2 g_m + C_1 C_2 L_1 L_L R$$

10.708 INVALID-ORDER-708
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{C_LL_LR_Ls^2 + L_Ls + R_L}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{R_1 R_L g_m + s^5 \left(C_1 C_2 C_L L_1 L_L R_1 R_2 R_L g_m + C_1 C_2 L_L L_L R_1 R_2 \right) + s^4 \left(C_1 C_2 L_1 L_L R_1 R_2 g_m + C_1 C_2 L_1 L_L R_1 R_2 g_m + C_1 C_2 L_1 L_L R_1 R_2 g_m + C_2 C_L L_1 L_L R_2 g_m + C_2 C_L L_1$$

10.709 INVALID-ORDER-709
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2 + 1)}{C_LL_Ls^2 + C_LR_Ls + 1}\right)$$

$$H(s) = \frac{R_{1}R_{L}g_{m} + s^{5}\left(C_{1}C_{2}C_{L}L_{1}L_{L}R_{1}R_{2}R_{L}g_{m} + C_{1}C_{2}C_{L}L_{1}L_{L}R_{1}R_{L}\right) + s^{4}\left(C_{1}C_{L}L_{1}L_{L}R_{1}R_{L}g_{m} + C_{2}C_{L}L_{1}L_{L}R_{1}R_{L}g_{m} + C_{2}C_{L}L_{1}$$

10.710 INVALID-ORDER-710
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{C_1C_2L_1L_2R_1R_Lg_ms^4 + R_1R_Lg_m + s^3\left(C_1C_2L_1R_1R_L + C_2L_1L_2R_Lg_m\right) + s^2\left(C_1L_1R_1R_Lg_m + C_2L_1R_L + C_2L_2R_1R_Lg_m\right) + s\left(C_2R_1R_L + L_1R_Lg_m\right)}{R_1g_m + s^4\left(C_1C_2L_1L_2R_1g_m + C_1C_2L_1L_2\right) + s^3\left(C_1C_2L_1R_1 + C_1C_2L_1R_L + C_2L_1L_2g_m\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_1 + C_2L_2R_1g_m + C_2L_2\right) + s\left(C_2R_1R_L + L_1R_Lg_m\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_1R_1g_m + C_2L_2\right) + s\left(C_2R_1R_L + L_1R_Lg_m\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_1R_1g_m + C_2L_2\right) + s\left(C_2R_1R_L + L_1R_Lg_m\right) + s^2\left(C_1L_1R_1g_m + C_2L_1R_1 + C_2L_1R_1g_m + C_2L_1R_1g_m\right) + s^2\left(C_1L_1R_1g_m + C_2L_1R_1 + C_2L_1R_1g_m\right) + s^2\left(C_1L_1R_1g_m + C_2L_1R_1 + C_2L_1R_1g_m\right) + s^2\left(C_1R_1R_1R_1g_m + C_2R_1R_1R_1g_m\right) + s^2\left(C_1R_1R_1g_m + C_1R_1R_1g_m\right) + s^2\left(C_1R_1R_1R_1g_m + C_1R_1R_1g_m\right) + s^2\left(C_1R_1R_1g_m + C_1R_1g_m\right) + s^2\left(C_1R_1g_m\right) + s^2\left(C_1R_1$$

10.711 INVALID-ORDER-711
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_1C_2L_1L_2R_1g_ms^4 + R_1g_m + s^3\left(C_1C_2L_1R_1 + C_2L_1L_2g_m\right) + s^2\left(C_1L_1R_1g_m + C_2L_1 + C_2L_2R_1g_m\right) + s\left(C_2R_1 + L_1g_m\right)}{s^5\left(C_1C_2C_LL_1L_2R_1g_m + C_1C_2C_LL_1L_2\right) + s^4\left(C_1C_2C_LL_1R_1 + C_2C_LL_1L_2g_m\right) + s^3\left(C_1C_2L_1 + C_1C_LL_1R_1g_m + C_1C_LL_1 + C_2C_LL_1 + C_2C_LL_1 + C_2C_LL_1\right) + s^2\left(C_2C_LR_1 + C_LL_1g_m\right) + s\left(C_2C_LR_1 + C_2C_LR_1g_m + C_2C_LR_1g_m\right) + s\left(C_2C_LR_1 + C_2C_LR_1g_m\right) + s\left(C_2C_LR$$

10.712 INVALID-ORDER-712
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{C_1C_2L_1L_2R_1R_Lg_m + s^3\left(C_1C_2L_1R_1R_L + C_2L_1L_2R_Lg_m\right) + s^2\left(C_1L_1R_1R_Lg_m + C_2L_1R_L + C_2L_2R_1R_Lg_m\right) + s\left(C_2R_1R_Lg_m\right) + s\left(C_2R_1R_Lg$$

10.713 INVALID-ORDER-713
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{C_1C_2C_LL_1L_2R_1R_Lg_ms^5 + R_1g_m + s^4\left(C_1C_2C_LL_1R_1R_L + C_1C_2L_1L_2R_1g_m + C_2C_LL_1R_1R_Lg_m + C_2C_LL_1R_1R_Lg_m + C_2C_LL_1R_1R_Lg_m + C_2C_LL_1R_1R_Lg_m + C_2C_LL_1R_1R_Lg_m + C_2C_LL_1R_1g_m + C_2C_LR_1R_L + C_2C_LR_1R_1R_L + C_2C_LR_1R_1R_L + C_2C_LR_1R_1R_L + C_2C_LR_1R_1R_L + C_2C_LR_1R_1R_$$

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10.714 INVALID-ORDER-714 Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{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{C_1C_2C_LL_1L_2L_LR_1g_ms^6 + R_1g_m + s^5\left(C_1C_2C_LL_1L_LR_1 + C_2C_LL_1L_2R_1g_m + s^4\left(C_1C_2L_1L_2R_1g_m + C_1C_LL_1L_RR_1g_m + C_2C_LL_1L_L + C_2C_LL_1L_RR_1g_m + s^3\left(C_1C_2L_1R_1 + C_2C_LL_1R_1 + C_2L_1L_2g_m + C_LL_1L_2g_m + s^2\left(C_1L_1R_1g_m + C_2L_1L_2R_1g_m +
10.715 INVALID-ORDER-715 Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C_{1}C_{2}L_{1}L_{2}L_{L}R_{1}g_{m}s^{5} + L_{L}R_{1}g_{m}s + s^{4}\left(C_{1}C_{2}L_{1}L_{L}R_{1} + C_{2}L_{1}L_{2}L_{L}g_{m}\right) + s^{3}\left(C_{1}L_{1}L_{L}R_{1}g_{m} + C_{2}L_{1}L_{L} + C_{2}L_{2}L_{L}R_{1}g_{m}\right) + s^{2}\left(C_{2}L_{1}L_{L}R_{1}g_{m} + C_{2}L_{1}L_{L}R_{1}g_{m}\right) + s^{2}\left(C_{2}L_{1}L_{1}R_{1}g_{m} + C_{2}L_{1}L_{1}R_{1}g_{m}\right) + s^{2}\left(C_{2}L_{1}L_{1}R_{1}g_{m} + C_{2}L_{1}R_{1}g_{m}\right) + s^{2}\left(C_{2}L_{1}L_{1}R_{1}g_{m} + C_{2}L_{1}R_{1}g_{m}\right) + s^{2}\left(C_{2}L_{1}R_{1}g_{m} + C_{2}L_{1}R_{1}g_{m}\right) + s^{2}\left(C_{2}L_{1}R_{1}g_{m} + C_{2}L_{1}R_{1}g_{m}\right) + s^{2}\left(C_{2}L_{1}R_{1}g_{m} + C_{2}L_{1}R_{1}g_{
H(s) = \frac{C_1C_2L_1L_2L_LR_1g_ms + s^*(C_1C_2L_1L_LR_1 + C_2L_1L_2L_Lg_m) + s^*(C_1L_1L_LR_1g_m + C_2L_1L_L + C_2L_2L_LR_1g_m) + s^*(C_1L_1L_LR_1g_m + C_2L_1L_L + C_2L_2L_LR_1g_m) + s^*(C_1L_2L_LR_1g_m + C_2L_1L_L + C_2L_2L_LR_1g_m) + s^*(C_1L_2L_1L_1R_1g_m + C_2L_1L_1L_1R_1g_m + C_2L_1L_1L_1R_1g_m + C_2L_1L_1L_1R_1g_m + C_2L_1L_1R_1g_m + C_2L_1R_1g_m + C_2L_1
10.716 INVALID-ORDER-716 Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)
H(s) = \frac{C_1C_2C_LL_1L_2L_LR_1g_ms^6 + R_1g_m + s^5\left(C_1C_2C_LL_1L_2R_1g_m + C_1C_2L_LL_LR_1g_m + C_1C_LL_1L_LR_1g_m + C_2C_LL_1L_LR_1g_m + C_2C_LL_1L_1R_1g_m + C_2C_LL_1R_1R_1g_m + C_2C_LL_1R_1g_m + C_2C_
10.717 INVALID-ORDER-717 Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{L_LR_Ls}{C_LL_LR_Ls^2 + L_Ls + R_L}\right)
H(s) = \frac{C_1C_2L_1L_2L_1}{R_1R_Lg_m + R_L + s^6\left(C_1C_2C_LL_1L_2L_LR_1R_Lg_m + C_1C_2L_1L_2L_LR_1g_m + C_1C_2L_1L_2L_RR_1g_m + C_1C_2L_1L_2R_1R_1g_m + C_1C_2L_1L_2R_1g_m + C_1C_2L_2R_1g_m + C_1C_2L_2R_1g_m + C_1C_2
10.718 INVALID-ORDER-718 Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{C_LL_LR_Ls^2 + L_Ls + R_L}{C_LL_Ls^2 + 1}\right)
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$$H(s) = \frac{1}{R_1 R_L g_m + R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_L g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 L_1 L_2 L_L R_1 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 L$$

$$H(s) = \frac{C_1C_2C_LL_1L_2L_LR_1R_Lg_ms^6 + R_1R_Lg_m + s^5\left(C_1C_2C_LL_1L_LR_1g_m + C_2C_LL_1L_2L_Rg_m\right) + s^4\left(C_1C_2L_1L_2R_1R_Lg_m + C_1C_2L_1L_LR_1g_m + C_2C_LL_1L_LR_1g_m + C_2C_LL_1L_LR_1g_m + C_2C_LL_1L_LR_1g_m + C_2C_LL_1L_LR_1g_m + C_2C_LL_1L_LR_1g_m + C_2C_LL_1L_2L_Rg_m\right) + s^4\left(C_1C_2L_1L_2R_1R_Lg_m + C_1C_2L_1L_LR_1g_m + C_2C_LL_1L_LR_1g_m + C_2C_LL_1L_LR_1g_m + C_2C_LL_1L_LR_1g_m + C_2C_LL_1L_2L_1g_m\right) + s^4\left(C_1C_2L_1L_2L_1R_1g_m + C_1C_2L_1L_2L_1R_1g_m + C_1C_2L_1L_2L_1R_1g_m + C_2C_LL_1L_2L_1R_1g_m + C_2C_LL_1L_2L_1R_1g_m + C_2C_LL_1L_2R_1g_m + C_2C_LL_1L_2R_1g_m + C_2C_LL_1L_2R_1g_m + C_2C_LL_1L_2R_1g_m\right) + s^4\left(C_1C_2L_1L_2R_1g_m + C_2C_LL_1L_2R_1g_m + C_2C_LL_1R_1g_m + C_2C_LL_1R_1g_m + C_2C_LL_1R_1g_m + C_2C_LL_1R_1g_m + C_2C_LL_1R_1g_m + C_2C_LL_1R_1g_m$$

10.719 INVALID-ORDER-719
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2 + 1)}{C_LL_Ls^2 + C_LR_Ls + 1}\right)$$

$$H(s) = \frac{C_1C_2C_LL_1L_2L_LR_1R_Lg_ms^6 + R_1R_Lg_m + s^5\left(C_1C_2C_LL_1L_LR_1R_L + C_2C_LL_1L_2L_Rg_m\right) + s^4\left(C_1C_2L_1L_2L_Rg_m\right) + s^4\left(C_1C_2L_1L_2L_Rg_m + s^6\left(C_1C_2C_LL_1L_2L_Rg_m + C_1C_2L_1L_2L_Rg_m + C_1C_2L_1L_2R_1g_m + C_1C_2L$$

10.720 INVALID-ORDER-720
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{C_1C_2L_1L_2R_1R_Lg_ms^4 + R_1R_Lg_m + s^3\left(C_1C_2L_1R_1R_2R_Lg_m + C_1C_2L_1R_1R_Lg_m + c_2L_1R_Lg_m\right) + s^2\left(C_1L_1R_1R_Lg_m + C_2L_1R_Lg_m + C_2L_1R_Lg_m\right) + s\left(C_2R_1R_2R_Lg_m + C_2R_1R_Lg_m\right) + s\left(C_2R_1R_2g_m + C_2R_1R_Lg_m\right) + s\left(C_2R_1R_$$

10.721 INVALID-ORDER-721
$$Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{C_1C_2L_1L_2R_1g_ms^4 + R_1g_m + s^3\left(C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1 + C_2L_1L_2g_m\right) + s^2\left(C_1L_1R_1g_m + C_2L_1R_2g_m + C_2L_1 + C_2L_2R_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1 + L_1g_m\right)}{s^5\left(C_1C_2C_LL_1L_2R_1g_m + C_1C_2C_LL_1R_1 + C_1C_2C_LL_1R_1 + C_1C_2C_LL_1R_1 + C_1C_LL_1R_1g_m + C_1C_LL_1 + C_2C_LL_1R_2g_m + C_2C_LL_1 + C_2C_LL_1R_2g_m + C_2C_$$

10.722 INVALID-ORDER-722
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{C_1C_2L_1L_2R_1R_Lg_m + s^3\left(C_1C_2L_1R_1R_2g_m + s^3\left(C_1C_2L_1R_1R_2R_Lg_m + C_1C_2L_1R_1R_2R_Lg_m + C_1C_2L_1R_1R_Lg_m + C_1C_2L_1R_1R_Lg_m + C_1C_2L_1R_1R_Lg_m + C_1C_2L_1R_1R_Lg_m + C_1C_2L_1R_1R_2R_Lg_m +$$

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10.723 INVALID-ORDER-723 Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{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)
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 $H(s) = \frac{C_1C_2C_LL_1L_2R_1R_Lg_ms^5 + R_1g_m + s^4\left(C_1C_2C_LL_1R_1R_2R_Lg_m + C_1C_2L_LL_2R_1g_m + C_2C_LL_1R_1R_Lg_m + C_2C_LL_1R_$

10.724 INVALID-ORDER-724
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{C_1C_2C_LL_1L_2L_LR_1g_ms^6 + R_1g_m + s^5\left(C_1C_2C_LL_1L_LR_1R_2g_m + C_1C_2L_LL_LR_1g_m\right) + s^4\left(C_1C_2L_1L_2R_1g_m + C_1C_LL_1L_LR_1g_m + C_2C_LL_1L_LR_1g_m + C_2C_LL_1L_LR_1g_m + C_2C_LL_1L_LR_1g_m\right) + s^3\left(C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1R_2g_m$

10.725 INVALID-ORDER-725
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

 $H(s) = \frac{C_1C_2L_1L_2L_LR_1g_ms^5 + L_LR_1g_ms + s^4\left(C_1C_2L_1L_LR_1R_2g_m + C_1C_2L_1L_LR_1R_2g_m + C_1C_2L_1L_1R_1R_2g_m + C_1C_2L_1L_1R_1R_2g_m + C_1C_2L_1L_1R_1R_2g_m + C_1C_2L_1L_1R_1R_2g_m + C_1C_2L_1L_1R_1R_2g_m + C_1C_2L_1L_1R_1R_2g_m + C_1C_2L_1R_1R_2g_m + C_1C_2R_1R_2g_m + C_1C_2R_1R$

10.726 INVALID-ORDER-726
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{C_1C_2C_LL_1L_2L_LR_1g_ms^6 + R_1g_m + s^5\left(C_1C_2C_LL_1L_2R_1R_Lg_m + C_1C_2C_LL_1L_LR_1R_2g_m + C_1C_2C_LL_1L_LR_1 + C_2C_LL_1L_LR_1 + C_2C_LL_1L_LR_1 + C_2C_LL_1L_LR_1 + C_1C_2C_LL_1R_1R_2 + C_1C_2C_LL_1R_1R_L + C_1C_2C_LL_1L_2R_1g_m + C_1C_2C_LL_1L_2R_1g_m + C_2C_LL_1L_2R_1g_m + C_2C_LL_1R_1R_2g_m + C_2C_LL_$

10.727 INVALID-ORDER-727
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_LR_Ls}{C_LL_LR_Ls^2 + L_Ls + R_L}\right)$$

 $H(s) = \frac{1}{R_1 R_L g_m + R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_L g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L g_m + C_1 C_2 C_L L_1 L_L R_1 R_L + C_1 C_2 C_L L_1 R_1 R_L + C_1 C_2 C_L L_1 R_1 R_L + C_1 C_2 C_L L_1 R_L + C_1 C_2 C_L R_1 R_L + C_1 C_2 C_L R_1 R_L + C_1 C_2 C_L$

10.728 INVALID-ORDER-728
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{C_LL_LR_Ls^2 + L_Ls + R_L}{C_LL_Ls^2 + 1}\right)$$

 $H(s) = \frac{C_1C_2C_LL_1L_2L_LR_1R_Lg_ms^6 + R_1R_Lg_m + s^5\left(C_1C_2C_LL_1L_LR_1R_2R_Lg_m + C_1C_2L_1L_LR_1g_m + C_2C_LL_1L_LR_1g_m + C_1C_2L_1L_LR_1g_m + C_1C_2L_1L_1R_1g_m + C_$

10.729 INVALID-ORDER-729
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2 + 1)}{C_LL_Ls^2 + C_LR_Ls + 1}\right)$$

 $C_1C_2C_LL_1L_2L_LR_1R_Lg_ms^6 + R_1R_1$

 $H(s) = \frac{C_1 C_2 C_L L_1 L_2 L_L R_1 g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 g_m + C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m + C_1 C_2 C_L L_1 R_2$

10.730 INVALID-ORDER-730
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, R_L\right)$$

10.731 INVALID-ORDER-731
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^4 \left(C_1 C_2 L_1 L_2 R_1 g_m + C_1 C_2 L_1 L_2 R_1 g_m + C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2 \right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1 + L_1 L_2 g_m \right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 R_2 R_2 R_1 R_2$

10.732 INVALID-ORDER-732 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$

 $R_1R_2R_Lq_m + R_1R_L + s^4(C_1C_2L_1L_2)$

 $\frac{n_1n_2n_Ly_m + n_1n_L + s \cdot (c_1c_2L_1L_2}{R_1R_2g_m + R_1 + R_2 + R_L + s^5\left(C_1C_2C_LL_1L_2R_1R_2g_m + C_1C_2L_LL_2R_1R_2g_m + C_1C_2L_1L_2R_1 + C_1C_$

10.733 INVALID-ORDER-733 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L g_m + C_1 C_2 L_L L_2 R_1 R_2 g_m + C_1 C_2 L_L L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_L L_1 L_2 R_1 R_2 g_m + C_2 C_L L_1 L_2 R_1 R_2 g_m + C_1 C_L L_1 R_1 R_2 R_L g_m + C_2 C_L L_1 L_2 R_1 R_2 g_m + C_1 C_L L_1 R_1 R_2 R_L g_m + C_1 C_L L_1 R_1 R_2 R_L g_m + C_2 C_L L_1 L_2 R_1 R_2 g_m + C_1 C_L L_1 R_1 R_2 R_L g_m + C_1 C_L L_1 R_1 R_2 R$

10.734 INVALID-ORDER-734 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, 1, L_1s + \frac{1}{C_{Ls}}\right)$

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 g_m + C_2 C_L L_1 L_2 R_1 R_2 g_m + C_1 C_L L_1 L_2 R$

10.735 INVALID-ORDER-735 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$

 $s^5 \left(C_1 C_2 L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 L_1 L_2 \right)$

 $H(s) = \frac{s^{\circ} \left(C_{1}C_{2}L_{1}L_{2}L_{L}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{L}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{1}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{1}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{1}R_{2}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{1}R_{2}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{1}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{1}R_{2}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{1}R_{2}R_{2$

10.736 INVALID-ORDER-736 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$

 $\overline{R_{1}R_{2}g_{m}+R_{1}+s^{6}\left(C_{1}C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}R_{2}g_{m}+C_{1}C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}\right)+s^{5}\left(C_{1}C_{2}C_{L}L_{1}L_{2}R_{1}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{2}L_{L}R_{1}g_{m}+C_{1}C_{L}L_{1}L_{2}L_{L}R_{1}g_{m}+C_{1}C_{L$ $C_{1}C_{2}C_{L}L_{1}L_{2}L_{L}s^{6} + s^{5}\left(C_{1}C_{2}C_{L}L_{1}L_{2}R_{1}R_{2}g_{m} + C_{1}C_{2}C_{L}L_{1}L_{2}R_{1} + C_{1}C_{2}C_{L}L_{1}L_{2}R_{2} + C_{1}C_{2}C_{L}L_{1}L_{2}R_{L}\right) + s^{6}C_{1}C_{2}C_{L}L_{1}L_{2}R_{1} + C_{1}C_{2}C_{L}L_{1}L_{2}R_{2} + C_{1}C_{2}C_{L}L_{1}L_{2}R_{L} + C_$

10.737 INVALID-ORDER-737 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, \infty, \frac{L_LR_Ls}{C_LL_LR_Ls^2 + L_Ls + R_L}\right)$

 $H(s) = \frac{1}{R_1 R_2 R_L g_m + R_1 R_L + R_2 R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_1 R_2 g_m + C_1 C_2 L$

 $\textbf{10.738} \quad \textbf{INVALID-ORDER-738} \ \ Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ \infty, \ \infty, \ \infty, \ \frac{C_LL_LR_Ls^2 + L_Ls + R_L}{C_LL_Ls^2 + 1} \right)$

10.739 INVALID-ORDER-739 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \infty, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2 + 1)}{C_LL_Ls^2 + C_LR_Ls + 1}\right)$

 $H(s) = \frac{1}{R_1 R_2 g_m + R_1 + R_2 + R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 + C_1 C_2 C_L L_1 L_2 L_L R_2 + C_1 C$

10.740 INVALID-ORDER-740 $Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2(C_2L_2s^2 + 1)}{C_2L_2s^2 + C_2R_2s + 1}, \infty, \infty, \infty, \infty\right)$

 $\frac{R_{1}R_{2}R_{L}g_{m}+R_{1}R_{L}+s^{4}\left(C_{1}C_{2}L_{1}L_{2}R_{1}R_{2}R_{L}g_{m}+C_{1}C_{2}L_{1}L_{2}R_{1}R_{L}\right)+s^{3}\left(C_{1}C_{2}L_{1}R_{1}R_{2}R_{L}+C_{2}L_{1}L_{2}R_{L}g_{m}+C_{1}L_{1}R_{1}R_{L}+C_{2}L_{1}R_{2}R_$

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10.741 INVALID-ORDER-741 Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2\left(C_2L_2s^2 + 1\right)}{C_2L_2s^2 + C_2R_2s + 1}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)
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 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^4 \left(C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_2 L_1 L_2\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 + C_2 L_1 R_2 + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_1 L_2 R_1 R_2 g_m + C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_1 L_2 R_1 R_2 g_m + C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_2 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_2 L_2 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_2 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_2 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_2 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_2 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_2 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_2 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_2 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_2 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_2 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_2 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_2 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_2$

10.742 INVALID-ORDER-742
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2\left(C_2L_2s^2 + 1\right)}{C_2L_2s^2 + C_2R_2s + 1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

 $H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L + s^4 \left(C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m + C_1 C_2 L_1 R_1 R_2 R_L g_m + C_1 C_2 L_1$

10.743 INVALID-ORDER-743
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2(C_2L_2s^2 + 1)}{C_2L_2s^2 + C_2R_2s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L g_m + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_2 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 R_1 R_2 g_m + C_1 C_2 L_1 R_1 R_2 g_m + C_1 C_2 L_1 R_2 R_2 g_m + C_1 C_2 L_1 R_1 R_2 g_m + C_1 C_2 L_1 R_2 g_m + C_1 C_2 L_1 R_2 g_m + C_1 C_2 L_1 R_2 g_m + C_1 C_2 L$

10.744 INVALID-ORDER-744
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2\left(C_2L_2s^2 + 1\right)}{C_2L_2s^2 + C_2R_2s + 1}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 L_L L_L L_R L_1 R_2 + C_2 C_L L_1 L_L L_R R_1 R_2 + C_2 C_L L_1 L_L L_R L_1 R_2 + C_2 C_L L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m$

10.745 INVALID-ORDER-745
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2(C_2L_2s^2 + 1)}{C_2L_2s^2 + C_2R_2s + 1}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

10.746 INVALID-ORDER-746
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2(C_2L_2s^2 + 1)}{C_2L_2s^2 + C_2R_2s + 1}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m + C_1 C_2 C_L L_1 L_2 R_1 R_2 + C_2 C_L L_1 L_2 L_L R_1 R_2 + C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_L L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 C_L L_1 R_2 g_m + C_1 C_2 C_L L_1 R_2 g_m + C$

10.747 INVALID-ORDER-747
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2(C_2L_2s^2 + 1)}{C_2L_2s^2 + C_2R_2s + 1}, \infty, \infty, \infty, \frac{L_LR_Ls}{C_LL_LR_Ls^2 + L_Ls + R_L}\right)$$

10.748 INVALID-ORDER-748
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2(C_2L_2s^2 + 1)}{C_2L_2s^2 + C_2R_2s + 1}, \infty, \infty, \infty, \infty, \frac{C_LL_LR_Ls^2 + L_Ls + R_L}{C_LL_Ls^2 + 1}\right)$$

 $H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L g_m + C_1 C_2 L_L L_L L_R R_1 R_2 R_L + C_1 C_2 L_L L_L L_R R_1 R_2 R_L + C_1 C_2 L_L L_L L_R R_1 R_2 g_m + C_1 C_2 L_L L_L L_R R_2 R_L g_m + C_2 C_L L_L L_L L_R R_2 R_L g_m + C_1 C_2 L_L L_L L_R R_1 R_2 R_L + C_1 C_2 L_L L_L L_R R_1 R_2 R_L + C_1 C_2 L_L L_L L_R R_2 R_L + C_1 C_2 L_L$

10.749 INVALID-ORDER-749
$$Z(s) = \left(\frac{C_1L_1R_1s^2 + L_1s + R_1}{C_1L_1s^2 + 1}, \frac{R_2(C_2L_2s^2 + 1)}{C_2L_2s^2 + C_2R_2s + 1}, \infty, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2 + 1)}{C_LL_Ls^2 + C_LR_Ls + 1}\right)$$

 $H(s) = \frac{1}{R_1 R_2 g_m + R_1 + R_2 + R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 + C_1 C_2 C_L L_1 L_2 R_1 R_2 + C_1 C_2 C_L L_1 L_2 R_1 R_2 + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_1 R_2$

10.750 INVALID-ORDER-750
$$Z(s) = \left(\frac{R_1(C_1C_2C_2C_1)}{C_1C_1C_2C_2C_1C_1C_1C_1}, R_2, \infty, \infty, \infty, \frac{1}{C_1C_2}\right)$$

$$H(s) = \frac{R_1R_2R_3}{s^2(C_1C_2C_1R_1R_2R_3C_1 + C_1C_2C_1R_1R_2C_2C_1R_1R_2C_2C_1R_1R_2C_2C_1R_1R_2C_2C_1R_1R_2C_2C_1R_1R_2C_2C_1R_1R_2C_2C_1R_1R_2C_2C_1R_1R_2C_2C_1R_1R_2C_2C_1R_1R_2C_2C_1R_1R_2C_2C_1R_1R_2C_2C_1R_1R_2C_2C_1R_1R_2C_2C_2R_2C_2R_$$

 $H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L + s^4 \left(C_1 C_L L_1 L_L R_1 R_2 R_L g_m + C_1 C_L L_1 L_L R_1 R_2 R_L g_m + C_1 L_1 R$

 $H(s) = \frac{s^3 \left(C_1 L_1 L_2 R_1 R_2 R_L g_m + C_1 L_1 L_L R_1 R_L \right) + s \left(L_L R_1 R_2 R_L g_m + L_L R_1 R_L \right)}{R_1 R_2 R_L g_m + R_1 R_L + R_2 R_L + s^4 \left(C_1 C_L L_1 L_L R_1 R_2 R_L g_m + C_1 L_L L_L R_1 R_2 R_L \right) + s^3 \left(C_1 C_L L_L R_1 R_2 R_L + C_1 L_L L_L R_1 R_2 R_L + C_1 L_L L_L R_1 R_2 R_L \right) + s^2 \left(C_1 L_1 R_1 R_2 R_L g_m + C_1 L_1 L_L R_1 R_2 R_L \right) + s^2 \left(C_1 L_1 R_1 R_2 R_L g_m + C_1 L_1 L_L R_1 R_2 R_L \right) + s^2 \left(C_1 L_1 R_1 R_2 R_L g_m + C_1 L_1 L_L R_1 R_2 R_L \right) + s^2 \left(C_1 L_1 R_1 R_2 R_L g_m + C_1 L_1 L_L R_1 R_2 R_L \right) + s^2 \left(C_1 L_1 R_1 R_2 R_L g_m + C_1 L_1 L_L R_1 R_2 R_L \right) + s^2 \left(C_1 R_1 R_2 R_L g_m + C_1 L_1 R_1 R_2 R_L \right) + s^2 \left(C_1 R_1 R_2 R_L g_m + C_1 L_1 R_1 R_2 R_L \right) + s^2 \left(C_1 R_1 R_2 R_L g_m + C_1 L_1 R_1 R_2 R_L \right) + s^2 \left(C_1 R_1 R_2 R_L g_m + C_1 L_1 R_1 R_2 R_L \right) + s^2 \left(C_1 R_1 R_2 R_L g_m + C_1 L_1 R_1 R_2 R_L \right) + s^2 \left(C_1 R_1 R_2 R_L g_m + C_1 L_1 R_1 R_2 R_L \right) + s^2 \left(C_1 R_1 R_2 R_L g_m + C_1 L_1 R_1 R_2 R_L \right) + s^2 \left(C_1 R_1 R_2 R_L g_m + C_1 R_2 R_L \right) + s^2 \left(C_1 R_1 R_2 R_L g_m + C_1 R_2 R_L \right) + s^2$

 $H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L + s^4 \left(C_1 C_L L_1 L_L R_1 R_2 R_L g_m + C_1 L_L L_L R_1 R_2 g_m + C_1 L_L L_R R_1 R_2 R_L g_m + C_1 L_L L_R R_1 R_2 R_L g_m + C_1 L_L L_R R_1 R_2 R_L g_m + C_1 L_L R_1 R_2 R_L g_m + C_1 L$

10.757 INVALID-ORDER-757 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2, \infty, \infty, \infty, \frac{C_LL_LR_Ls^2+L_Ls+R_L}{C_LL_Ls^2+1}\right)$

10.758 INVALID-ORDER-758 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$

$$\begin{aligned} \textbf{10.764} \quad & \textbf{INVALID-ORDER-764} \ \ Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \ \ \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1}\right) \\ & \qquad \\ H(s) = \frac{C_1C_2L_1L_LR_1s^4 + C_1L_1L_LR_1g_ms^3 + C_2L_LR_1s^2 + L_LR_1g_ms}{C_1C_2L_1L_LR_1s^5 + R_1g_m + s^4\left(C_1C_2L_1L_L + C_1C_LL_1L_LR_1g_m + C_1C_LL_1L_L\right) + s^3\left(C_1C_2L_1R_1 + C_1C_LL_LR_1 + C_2C_LL_LR_1\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_L + C_LL_LR_1g_m + C_LL_L\right) + s\left(C_1R_1 + C_2R_1\right) + 1 \end{aligned}$$

 $H(s) = \frac{C_1C_2C_LL_1L_LR_1s^5 + C_1C_LL_1L_LR_1g_ms^4 + C_2R_1s + R_1g_m + s^3\left(C_1C_2L_1R_1 + C_2C_LL_LR_1\right) + s^2\left(C_1L_1R_1g_m + C_LL_LR_1g_m\right)}{C_1C_2C_LL_1L_Ls^5 + s^4\left(C_1C_2C_LL_1R_1 + C_1C_2C_LL_LR_1\right) + s^3\left(C_1C_2L_1 + C_1C_LL_1R_1g_m + C_1C_LL_1\right) + s^2\left(C_1C_2R_1 + C_1C_LR_1\right) + s\left(C_2C_LR_1\right) +$

10.766 INVALID-ORDER-766
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$$

$$H(s) = \frac{C_{1}C_{2}L_{1}L_{L}R_{1}R_{L}s^{4} + C_{1}L_{1}L_{L}R_{1}R_{L}g_{m}s^{3} + C_{2}L_{L}R_{1}R_{L}s^{2} + L_{L}R_{1}R_{L}g_{m}s}{C_{1}C_{2}L_{L}L_{L}R_{1}R_{L}s^{5} + R_{1}R_{L}g_{m} + R_{L} + s^{4}\left(C_{1}C_{2}L_{1}L_{L}R_{1} + C_{1}C_{L}L_{L}R_{1}R_{L} + C_{1}C_{L}L_{L}R_$$

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H(s) = \frac{C_1C_2C_LL_1L_LR_1R_Lg_ms^4 + C_2R_1R_Ls + R_1R_Lg_m + s^3\left(C_1C_2L_1R_1R_L + C_2C_LL_LR_1R_L\right) + s^2\left(C_1L_1R_1R_Lg_m + C_LL_LR_1R_L\right) + s^2\left(C_1L_1R_1R_L + C_1C_LL_LR_1R_L\right) + s^2\left(C_1L_1R_1R_L + C_1C_LL_1R_1R_L\right) + s^2\left(C_1L_1R_1R_L\right) + s
10.769 INVALID-ORDER-769 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, R_L\right)
                                                                                                                                                                                                            H(s) = \frac{C_1C_2L_1R_1R_2R_Ls^3 + C_2R_1R_2R_Ls + R_1R_2R_Lg_m + R_1R_L + s^2\left(C_1L_1R_1R_2R_Lg_m + C_1L_1R_1R_L\right)}{R_1R_2g_m + R_1 + R_2 + R_L + s^3\left(C_1C_2L_1R_1R_2 + C_1C_2L_1R_2R_L\right) + s^2\left(C_1C_2R_1R_2R_L + C_1L_1R_1R_2g_m + C_1L_1R_1 + C_1L_1R_2 + C_1L_1R_L\right) + s\left(C_1R_1R_2 + C_1R_1R_2 + C_2R_1R_2 + C_2R_2R_L\right)}
10.770 INVALID-ORDER-770 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)
                                                                                                                                                                         H(s) = \frac{C_1C_2L_1R_1R_2s^3 + C_2R_1R_2s + R_1R_2g_m + R_1 + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1\right)}{C_1C_2C_LL_1R_1R_2s^4 + s^3\left(C_1C_2L_1R_2 + C_1C_LL_1R_1R_2g_m + C_1C_LL_1R_1 + C_1C_LL_1R_1\right) + s^2\left(C_1C_2R_1R_2 + C_1C_LR_1R_2 + C_1L_1 + C_2C_LR_1R_2\right) + s\left(C_1R_1 + C_2R_2 + C_LR_1R_2g_m + C_LR_1 + C_LR_1\right) + s\left(C_1R_1 + C_2R_2 + C_LR_1R_2g_m + C_LR_1 + C_LR_1\right) + s\left(C_1R_1 + C_2R_2 + C_LR_1R_2g_m + C_LR_1 + C_LR_1\right) + s\left(C_1R_1 + C_2R_2 + C_LR_1R_2g_m + C_LR_1 + C_LR_1\right) + s\left(C_1R_1 + C_2R_2 + C_LR_1R_2g_m + C_LR_1 + C_LR_1\right) + s\left(C_1R_1 + C_2R_2 + C_LR_1R_2g_m + C_LR_1\right) + s\left(C_1R_1 + C_2R_2 + C_LR_1R_2\right) + s\left(C_1R_1 + C_2R_2\right) + s\left(C_1R
10.771 INVALID-ORDER-771 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)
                                                  \frac{C_{1}C_{2}L_{1}R_{1}R_{2}R_{L}s^{3}+C_{2}R_{1}R_{2}R_{L}s+R_{1}R_{2}R_{L}g_{m}+R_{1}R_{L}+s^{2}\left(C_{1}L_{1}R_{1}R_{2}R_{L}g_{m}+C_{1}L_{1}R_{1}R_{L}\right)}{C_{1}C_{2}C_{L}L_{1}R_{1}R_{2}g_{L}s^{4}+R_{1}R_{2}g_{m}+R_{1}+R_{2}+R_{L}+s^{3}\left(C_{1}C_{2}L_{1}R_{1}R_{2}+C_{1}C_{L}L_{1}R_{1}R_{2}R_{L}+C_{1}C_{L}L_{1}R_{1}R_{2}R_{L}+C_{1}C_{L}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}+C_{1}L_{1}R_{1}R_{2}R_{L}
10.772 INVALID-ORDER-772 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)
H(s) = \frac{C_1C_2C_LL_1R_1R_2R_Ls^4 + R_1R_2g_m + R_1 + s^3\left(C_1C_2L_1R_1R_2 + C_1C_LL_1R_1R_2\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_2C_LR_1R_2R_L\right) + s\left(C_2R_1R_2 + C_LR_1R_2R_Lg_m + C_LR_1R_2\right)}{s^4\left(C_1C_2C_LL_1R_1R_2 + C_1C_LL_1R_1R_2 + C_1C_LL_1R_1 + C_1C_LL_1R_1 + C_1C_LL_1R_1\right) + s^2\left(C_1C_2R_1R_2 + C_1C_LR_1R_2 + C_1C_LR_1R_1 + C_1C_LR_1R
10.773 INVALID-ORDER-773 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, 1 L_s + \frac{1}{C_Ls}\right)
H(s) = \frac{C_1C_2C_LL_1L_LR_1R_2s^5 + C_2R_1R_2s + R_1R_2g_m + R_1 + s^4\left(C_1C_LL_1L_LR_1R_2g_m + C_1C_LL_1L_LR_1\right) + s^3\left(C_1C_2L_1R_1R_2 + C_2C_LL_LR_1R_2\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_LL_LR_1R_2g_m + C_LL_LR_1\right)}{C_1C_2C_LL_1L_LR_2s^5 + s^4\left(C_1C_2C_LL_1R_1R_2 + C_1C_LL_1R_1R_2 + C_1C_LL_1R_1 + C_1C_LL_1R_
10.774 INVALID-ORDER-774 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)
H(s) = \frac{C_1C_2L_1L_LR_1R_2s^4 + C_2L_LR_1R_2s^2 + s^3\left(C_1L_1L_LR_1R_2g_m + C_1L_1L_LR_1\right) + s\left(L_LR_1R_2g_m + L_LR_1\right)}{C_1C_2C_LL_1L_LR_1R_2s^5 + R_1R_2g_m + R_1 + R_2 + s^4\left(C_1C_2L_1L_LR_1R_2g_m + C_1C_LL_1L_LR_1 + C_1C_LL_1L_LR_2\right) + s^3\left(C_1C_2L_1R_1R_2 + C_1C_LL_1R_1R_2 + C_1C_LL_1R_1R_1 + C_1C_LL_1R_1R_2 + C_1C_LL_1R_1R_2 + C_1C_LL_1R_1R_2 + C_1C_LL_1R_1R_2 + C_1C_LL_1R_1R_2 +
10.775 INVALID-ORDER-775 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)
H(s) = \frac{C_1C_2C_LL_1L_LR_1R_2s^5 + R_1R_2g_m + R_1 + s^4\left(C_1C_2C_LL_1R_1R_2R_L + C_1C_LL_1L_LR_1R_2g_m + C_1C_LL_1R_1R_2 + C_1C_LL_1R_1 +
10.776 INVALID-ORDER-776 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C_1C_2L_1L_LR_1R_2R_Ls^4 + C_2L_LR_1R_2R_Ls^2 + s^3
H(s) = \frac{C_1 C_2 C_L L_1 L_L R_1 R_2 R_L s^5 + R_1 R_2 R_L g_m + R_1 R_L + R_2 R_L + s^4 \left(C_1 C_2 L_1 L_L R_1 R_2 + C_1 C_L L_L L_R R_2 R_L + C_1 C_L L_L R_1 R_2 R_L + C_1 C_L R_1 R_2 R_L + C_1
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10.768 INVALID-ORDER-768 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$

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10.777 INVALID-ORDER-777 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{C_LL_LR_Ls^2+L_Ls+R_L}{C_LL_Ls^2+1}\right)
H(s) = \frac{C_1C_2C_LL_1L_LR_1R_2R_Ls^5 + R_1R_2R_Lg_m + R_1R_L + s^4\left(C_1C_2L_1L_LR_1R_2 + C_1C_LL_1L_LR_1R_2R_Lg_m + C_1C_LL_1L_LR_1R_L\right) + s^3\left(C_1C_2L_1R_1R_2R_L + C_1L_1L_LR_1R_2R_L + C_1L_1L_LR_1R_2R_L + C_1L_1L_LR_1R_2R_L + C_1L_1L_LR_1R_2R_L + C_1C_LL_1L_LR_1R_2R_L + C_1C_LL_1L_LR_1R_2R_L + C_1C_LL_1L_LR_1R_2 + C_1C_LL_1L_LR_1R_2 + C_1C_LL_1L_LR_1R_2 + C_1C_LL_1L_LR_1R_2 + C_1C_LL_1L_LR_1 + C_1C_LL_1L_1L_1 + C_1C_LL_1L_1L_1 + C_1C_LL_1L_1L_1 + C_1C_LL_1L_1L_1 + C_1C_LL_1L_1 + C_1C_LL_1L
10.778 INVALID-ORDER-778 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C_1C_2C_LL_1L_LR_1R_2R_Ls^5 + C_2R_1R_2R_Ls + R_1R_2R_Lg_m + R_1R_L + s^4 (6)
H(s) = \frac{C_1C_2C_LL_1L_LR_1R_2R_Ls^{-} + C_2R_1R_2R_Ls + R_1R_2R_Lg_m + R_1R_L + s^{-}}{R_1R_2g_m + R_1 + R_2 + R_L + s^{-}\left(C_1C_2C_LL_1L_LR_1R_2 + C_1C_2L_LL_RR_2R_L + C_1C_LL_LL_RR_2R_L + C_1C_LL_LR_1R_2R_L + C_1C_
10.779 INVALID-ORDER-779 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, R_L\right)
                                                                                                                                                                                      H(s) = \frac{C_1L_1R_1R_Lg_ms^2 + R_1R_Lg_m + s^3\left(C_1C_2L_1R_1R_2R_Lg_m + C_1C_2L_1R_1R_L\right) + s\left(C_2R_1R_2R_Lg_m + C_2R_1R_L\right)}{R_1g_m + s^3\left(C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1 + C_1C_2L_1R_2 + C_1C_2L_1R_L\right) + s^2\left(C_1C_2R_1R_2 + C_1C_2R_1R_L + C_1L_1R_1g_m + C_1L_1\right) + s\left(C_1R_1 + C_2R_1R_2g_m + C_2R_1 + C_2R_2 + C_2R_L\right) + 1}
10.780 INVALID-ORDER-780 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)
                                                                                                          H(s) = \frac{C_1L_1R_1g_ms^2 + R_1g_m + s^3\left(C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1\right) + s\left(C_2R_1R_2g_m + C_2R_1\right)}{s^4\left(C_1C_2C_LL_1R_1R_2g_m + C_1C_2C_LL_1R_1 + C_1C_2C_LL_1R_2\right) + s^3\left(C_1C_2C_LR_1R_2 + C_1C_LL_1R_1g_m + C_1C_LL_1\right) + s^2\left(C_1C_2R_1 + C_1C_LR_1R_2g_m + C_2C_LR_1R_2g_m + C_2C_LR_1 + C_2C_LR_1R_2g_m + C_2C
10.781 INVALID-ORDER-781 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C_{1}L_{1}R_{1}R_{L}g_{m}s^{2} + R_{1}R_{L}g_{m} + s^{3}\left(C_{1}C_{2}L_{1}R_{1}R_{2}R_{L}g_{m} + C_{1}C_{2}L_{1}R_{1}R_{L}\right) + s\left(C_{2}R_{1}R_{2}R_{L}g_{m} + C_{2}R_{1}R_{L}\right)
H(s) = \frac{C_1L_1R_1R_Lg_ms^2 + R_1R_Lg_m + s^3\left(C_1C_2L_1R_1R_2R_Lg_m + C_1C_2L_1R_1R_L\right) + s\left(C_2R_1R_2R_Lg_m + C_2R_1R_L\right)}{R_1g_m + s^4\left(C_1C_2L_LR_1R_2R_Lg_m + C_1C_2L_1R_1R_L\right) + s^3\left(C_1C_2L_LR_1R_2R_L + C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1R_L\right) + s^2\left(C_1C_2R_1R_2R_L + C_1C_2L_1R_1R_2g_m + C_1C_2L
10.782 INVALID-ORDER-782 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)
H(s) = \frac{R_1 g_m + s^4 \left(C_1 C_2 C_L L_1 R_1 R_2 R_L g_m + C_1 C_2 C_L L_1 R_1 R_L g_m + C_1 C_2 L_1 R_1 R_2 g_m + C_2 C_L R_1 R_2 R_2 g_m + C_2 C_L R_1 R_2 R_2 g_m + C_2 C_L R_1 R_2 g_m + C_2 C_L R_2 g_m + C_2 C_L R_2 g_m + C_2 C_L R_2 g_m + C_2 C_L
10.783 INVALID-ORDER-783 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)
H(s) = \frac{C_1C_LL_1L_LR_1g_ms^4 + R_1g_m + s^5\left(C_1C_2C_LL_1L_LR_1g_m + C_1C_2L_LL_LR_1\right) + s^3\left(C_1C_2L_1R_1R_2g_m + C_1C_2L_LR_1\right) + s^2\left(C_1L_1R_1g_m + C_LL_LR_1g_m + C_LL_LR_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1\right)}{C_1C_2C_LL_1L_1s^5 + s^4\left(C_1C_2C_LL_1R_1R_2g_m + C_1C_2C_LL_1R_1 + C_1C_LL_1R_1g_m + C_1C_LL_1\right) + s^2\left(C_1C_2R_1 + C_1C_LL_1R_1g_m + C_LL_1R_1g_m + C_2C_LR_1\right) + s^2\left(C_1C_2R_1 + C_1C_LL_1R_1g_m + C_2C_LR_1R_2g_m + C_2C_LR_1\right) + s^2\left(C_1C_2R_1 + C_2C_LR_1R_2g_m + C_2C_LR_1\right) + s^2\left(C_1C_2R_1R_2g_m + C_2C_LR_1R_2g_m + C_2C_LR_1\right) + s^2\left(C_1C_2R_1 + C_2C_LR_1\right) + s^2\left(C_1C_2R_
10.784 INVALID-ORDER-784 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C_{1}L_{1}L_{L}R_{1}g_{m}s^{3} + L_{L}R_{1}g_{m}s + s^{4}\left(C_{1}C_{2}L_{1}L_{L}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{L}R_{1}\right) + s^{2}\left(C_{2}L_{L}R_{1}R_{2}g_{m} + C_{2}L_{L}R_{1}\right)
                                        \frac{C_1L_1L_LR_1g_ms^* + L_LR_1g_ms + s^*(C_1C_2L_1L_LR_1R_2g_m + C_1C_2L_1L_LR_1) + s^*(C_2L_LR_1R_2g_m + C_2L_LR_1)}{R_1g_m + s^5(C_1C_2L_LL_1L_1R_2g_m + C_1C_2L_LL_1L_1R_1 + C_1C_2L_LL_1R_1 + C_1C_2L_LL_1R_1) + s^4(C_1C_2L_LL_1R_1 + C_1C_2L_1L_1R_1 + C_1C_2L_1L_1R_1 + C_1C_2L_1L_1R_1 + C_1C_2L_1R_1 + C
10.785 INVALID-ORDER-785 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)
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 $H(s) = \frac{R_1 g_m + s^5 \left(C_1 C_2 C_L L_1 L_L R_1 R_2 g_m + C_1 C_2 C_L L_1 L_L R_1\right) + s^4 \left(C_1 C_2 C_L L_1 R_1 R_2 R_L g_m + C_1 C_2 C_L L_1 R_1 R_2 R_L g_m + C_1 C_2 L_L R_1 R_2 g_m + C_1 C_2 L_L R_1 R_2 g_m + C_2 C_L L_L R_1 R_2 g_m + C_2 C_L L_L R_1\right) + s^2 \left(C_1 L_1 R_1 g_m + C_2 C_L L_1 R_1 R_2 R_L g_m + C_2 C_L L_1 R_1 R_2 R_L g_m + C_2 C_L L_1 R_1 R_2 g_m + C_2 C_L L_1$

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H(s) = \frac{1}{R_1 R_L g_m + R_L + s^5 \left( C_1 C_2 C_L L_1 L_L R_1 R_2 R_L g_m + C_1 C_2 C_L L_1 L_L R_1 R_2 R_L + C_1 C_2 L_1 L
10.787 INVALID-ORDER-787 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{C_LL_LR_Ls^2+L_Ls+R_L}{C_LL_Ls^2+1}\right)
H(s) = \frac{R_1 R_L g_m + s^5 \left(C_1 C_2 C_L L_1 L_L R_1 R_2 g_m + C_1 C_2 L_L L_L R_1 R_2 g_m + C_1 C_2 L_1 R_1 R_2 R_L g_m + C_1 C_2 L_1 L_L R_1 R_2 g_m + C_1 C_2 L_1 R_1 R
10.788 INVALID-ORDER-788 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C_1C_LL_1L_LR_1R_Lg_ms^4 + R_1R_Lg_m + s^5(C_1C_2C_LL_1L_Lg_m)
H(s) = \frac{C_1C_LL_1L_LR_1R_2g_m + C_1C_2C_LL_1L_LR_1R_2g_m + C_1C_2C_LL_1L_LR_1 + C_1C_2C_LL_1L_LR_1 + C_1C_2C_LL_1L_LR_1 + C_1C_2C_LL_1R_1R_2 + C_1C_2C_LR_1R_1R_2 + C_1C_2C_LR
10.789 INVALID-ORDER-789 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, R_L\right)
                                                                                                                                                                                                      H(s) = \frac{C_1C_2L_1L_2R_1R_Lg_ms^4 + C_1C_2L_1R_1R_Ls^3 + C_2R_1R_Ls + R_1R_Lg_m + s^2\left(C_1L_1R_1R_Lg_m + C_2L_2R_1R_Lg_m\right)}{R_1g_m + s^4\left(C_1C_2L_1L_2R_1g_m + C_1C_2L_1L_2\right) + s^3\left(C_1C_2L_1R_1 + C_1C_2L_1R_L + C_1C_2L_2R_1\right) + s^2\left(C_1C_2R_1R_L + C_1L_1R_1g_m + C_1L_1 + C_2L_2R_1g_m + C_2L_2\right) + s\left(C_1R_1 + C_2R_1 + C_2R_1\right) + 1}
10.790 INVALID-ORDER-790 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)
                                                                                                              H(s) = \frac{C_1C_2L_1L_2R_1g_ms^4 + C_1C_2L_1R_1s^3 + C_2R_1s + R_1g_m + s^2\left(C_1L_1R_1g_m + C_2L_2R_1g_m\right)}{s^5\left(C_1C_2C_LL_1L_2R_1g_m + C_1C_2C_LL_1L_2\right) + s^4\left(C_1C_2C_LL_1R_1 + C_1C_2C_LL_2R_1\right) + s^3\left(C_1C_2L_1 + C_1C_LL_1R_1g_m + C_1C_LL_1 + C_2C_LL_2R_1g_m + C_2C_LL_2\right) + s^2\left(C_1C_2R_1 + C_1C_LR_1 + C_2C_LR_1\right) + s\left(C_2 + C_LR_1g_m + C_2C_LR_1g_m + C_2C_LR_1\right) + s\left(C_2 + C_LR_1g_m + C_2C_LR_1g_m 
10.791 INVALID-ORDER-791 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)
H(s) = \frac{C_1C_2L_1L_2R_1R_Lg_ms^4 + C_1C_2L_1R_1R_Ls^3 + C_2R_1R_Ls + R_1R_Lg_m + s^2\left(C_1L_1R_1R_Lg_m + C_2L_2R_1R_Lg_m\right)}{R_1g_m + s^5\left(C_1C_2C_LL_1L_2R_1R_Lg_m + C_1C_2L_1L_2R_1R_L + C_1C_2L_1R_1R_L + C_1C_2L_1R_1R_Lg_m + C_1C_2L_1R_1R
10.792 INVALID-ORDER-792 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)
H(s) = \frac{C_1C_2C_LL_1L_2R_1R_Lg_ms^5 + R_1g_m + s^4\left(C_1C_2C_LL_1R_1R_L + C_1C_2L_1L_2R_1g_m\right) + s^3\left(C_1C_2L_1R_1 + C_1C_LL_1R_1R_Lg_m + C_2C_LL_2R_1R_Lg_m\right) + s^2\left(C_1L_1R_1g_m + C_2C_LR_1R_L + C_2L_2R_1g_m\right) + s\left(C_2R_1 + C_LR_1R_Lg_m\right)}{s^5\left(C_1C_2C_LL_1L_2R_1g_m + C_1C_2C_LL_1R_1 + C_1C_2C_LL_2R_1\right) + s^4\left(C_1C_2C_LL_1R_1 + C_1C_2C_LL_2R_1\right) + s^3\left(C_1C_2C_LR_1R_L + C_1C_LL_1R_1g_m + C_1C_LL_1R_1g_m + C_2C_LL_2\right) + s^2\left(C_1C_2R_1 + C_1C_LR_1 + C_2C_LR_1\right) + s^2\left(C_1C_2R_1R_L + C_2C_LR_1R_L + C_2C_LR_1\right) + s^2\left(C_1C_2R_1R_L + C_2C_LR_1R_L + C_2C_LR_1R_L + C_2C_LR_1R_L\right) + s^2\left(C_1C_2R_1R_L + C_2C_LR_1R_L + C_2C_LR_1R_L\right) + s^2\left(C_1C_2R_1R_L + C_2C_LR_1R_L + C_2C_LR_1R_L\right) + s^2\left(C_1C_2R_1R_L + C_2C_LR_1R_L\right) + s^2\left(C_1C_2R_1R_L + C_2C_LR_1R_L\right) + s^2\left(C_1C_2R_1R_L + C_1C_2C_LR_1R_L\right) + s^2\left(C_1C_2R_1R_L\right) + s^2\left(C_1C_2
10.793 INVALID-ORDER-793 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)
H(s) = \frac{C_1C_2C_LL_1L_2L_Rq_ms^6 + C_1C_2C_LL_1L_LR_1s^5 + C_2R_1s + R_1g_m + s^4\left(C_1C_2L_1L_2R_1g_m + C_1C_LL_1L_Rq_m + C_2C_LL_2L_Rq_m\right) + s^3\left(C_1C_2L_1R_1 + C_2C_LL_2R_1\right) + s^2\left(C_1L_1R_1g_m + C_2L_2R_1g_m + C_LL_2R_1g_m + C_LL_Rq_m\right)}{s^5\left(C_1C_2C_LL_1L_2R_1g_m + C_1C_2C_LL_1L_1\right) + s^4\left(C_1C_2C_LL_1R_1 + C_1C_2C_LL_2R_1\right) + s^3\left(C_1C_2L_1R_1 + C_2C_LL_2R_1g_m + C_2C_LL_2\right) + s^2\left(C_1C_2R_1 + C_1C_2C_LL_1R_1\right) + s^4\left(C_1C_2C_LL_1R_1 + C_1C_2C_LL_1R_1\right) + s^3\left(C_1C_2L_1R_1 + C_2C_LL_2R_1g_m + C_2C_LL_1\right) + s^2\left(C_1L_1R_1g_m + C_2C_LL_1R_1\right) + s^2\left(C_1L_1R_1g_m + C_2C_LR_1g_m + C_2C_LR_1g_m\right) + s^2\left(C_1L_1R_1g_m + C_2C_LR_1g
10.794 INVALID-ORDER-794 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C_{1}C_{2}L_{1}L_{2}L_{L}R_{1}g_{m}s^{5} + C_{1}C_{2}L_{1}L_{L}R_{1}s^{4} + C_{2}L_{L}R_{1}s^{2} + L_{L}R_{1}g_{m}s + s^{3}\left(C_{1}L_{1}L_{L}R_{1}g_{m} + C_{2}L_{2}L_{L}R_{1}g_{m}\right)
H(s) = \frac{C_1C_2L_1L_2L_1R_1g_ms + C_1C_2L_1L_1R_1s + C_2L_2L_1R_1s + C_2L_2L_1R_1s + C_2L_2L_1R_1s + C_2L_2L_2R_1s + C_2L_2R_1s +
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10.786 INVALID-ORDER-786 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$

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10.795 INVALID-ORDER-795 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)
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 $H(s) = \frac{C_1C_2C_LL_1L_2L_LR_1g_ms^6 + R_1g_m + s^5\left(C_1C_2C_LL_1L_2R_1R_Lg_m + C_1C_2C_LL_1L_R\right) + s^4\left(C_1C_2C_LL_1R_1R_L + C_1C_2L_1L_2R_1g_m + C_1C_LL_1L_R\right) + s^4\left(C_1C_2C_LL_1R_1R_L + C_1C_2L_1L_2R_1g_m + C_2C_LL_2R_1g_m + C_2C_LL_2R_1R_Lg_m + C_2C_LL_2$

10.796 INVALID-ORDER-796
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$$

 $H(s) = \frac{1}{R_1 R_L g_m + R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_L g_m + C_1 C_2 L_L L_L R_1 R_L + C_1 C_2 L_L R_1 R_L + C$

10.797 INVALID-ORDER-797
$$Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \ L_2s + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ \frac{C_LL_LR_Ls^2+L_Ls+R_L}{C_LL_Ls^2+1}\right)$$

 $H(s) = \frac{C_1C_2C_LL_1L_2L_LR_1R_Lg_ms^6 + R_1R_Lg_m + s^5\left(C_1C_2C_LL_1L_LR_1R_L + C_1C_2L_1L_2R_1R_Lg_m + C_1C_2L_1L_LR_1 + C_1C_LL_1L_LR_1R_Lg_m + C_2C_LL_2L_LR_1R_Lg_m + S^4\left(C_1C_2L_1L_2R_1R_Lg_m + C_1C_2L_1L_LR_1 + C_1C_LL_1L_RR_1R_Lg_m + C_2C_LL_2L_RR_1R_Lg_m + C_2C_LL_2R_1R_Lg_m + C_2C_LL_2R_1R_Lg_m + C_2C_LL_2R_1R_Lg_m + C_2C_LL_2R_1R_Lg_m + C_2C_LL_2R_1R_Lg_m + C_2C_LL_2R_1R_Lg_m + C_2C_LL_2R_1R_Lg_m$

10.798 INVALID-ORDER-798
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$$

 $C_1C_2C_LL_1L_2L_LR_1R_Lg_ms^6 + C_1C_2C_LL_1L_LR_1R_Ls^5$ $\frac{C_1C_2C_LL_1L_2L_LR_1g_ms + C_1C_2C_LL_1L_2L_LR_1g_ms + C_1C_2C_LL_1L_2R_1R_Lg_m + C_1C_2C_LL_1L_2R_1R_Lg_m + C_1C_2C_LL_1L_2R_1R_Lg_m + C_1C_2C_LL_1L_2R_1R_Lg_m + C_1C_2C_LL_1L_2R_1R_L + C_1C_2C_LL_1L_2R_1R_L + C_1C_2C_LL_1R_1R_L + C_1C_2C_LL_1R_1R_1R_1 + C_1C_2C_LL_1R_1R_1R_1 + C_1C_2C_LL_1R_1R_1R_1 + C_1C_2C_LL_1R_1R_1R_1 + C_1C_2C_LL_1$

10.799 INVALID-ORDER-799
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, R_L\right)$$

 $H(s) = \frac{C_1C_2L_1L_2R_1R_Lg_ms^4 + R_1R_Lg_m + s^3\left(C_1C_2L_1R_1R_2R_Lg_m + C_1C_2L_1R_1R_Lg_m + C_2L_2R_1R_Lg_m\right) + s\left(C_2R_1R_2R_Lg_m + C_2R_1R_Lg_m + C_2R_1R_Lg_m\right) + s\left(C_2R_1R_2R_Lg_m + C_2R_1R_Lg_m\right) + s\left(C_2R_1R_Lg_m + C_2R_1R_Lg_m\right) + s\left(C_2R_1R_Lg_m + C_2R_1R_Lg_m\right) + s\left(C_2R_1R$

10.800 INVALID-ORDER-800
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{C_1C_2L_1L_2R_1g_ms^4 + R_1g_m + s^3\left(C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1\right) + s^2\left(C_1L_1R_1g_m + C_2L_2R_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1\right)}{s^5\left(C_1C_2C_LL_1L_2R_1g_m + C_1C_2C_LL_1R_1 + C_1C_2C_LR_1R_1 + C_1C_2C_LR_$

10.801 INVALID-ORDER-801
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$$

 $H(s) = \frac{C_1C_2L_1L_2R_1R_Lg_m + S_1(C_1C_2L_1L_2R_1R_Lg_m + S_1(C_1C_2L_1R_1R_Lg_m + S_1C_1C_2L_1R_1R_Lg_m + S_1(C_1C_2L_1R_1R_2R_Lg_m + S_1(C_1C_2L_1R_1R_Lg_m + S_1(C_1C_2L_1R_1R_1g_m + S_1(C_1C_2L_1R_1g_m + S_1(C_1C_2L_1R_1$

10.802 INVALID-ORDER-802
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$$

 $\frac{C_{1}C_{2}C_{L}L_{1}L_{2}R_{1}R_{L}g_{m}s^{5}+R_{1}g_{m}+s^{4}\left(C_{1}C_{2}C_{L}L_{1}R_{1}R_{2}R_{L}g_{m}+C_{1}C_{2}L_{L}L_{1}R_{1}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{1}R_{1}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{1}R_{1}R_{2}g_{m}+C_{1}C_{2}L_{L}R_{1}R_{L}g_{m}+s^{4}\left(C_{1}C_{2}C_{L}L_{1}R_{1}R_{2}R_{L}g_{m}+C_{1}C_{2}C_{L}L_{1}R_{1}R_{2}g_{m}+C_{1}C_{2}C_{L}L_{1}R_$

10.803 INVALID-ORDER-803
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{C_1C_2C_LL_1L_2L_Rq_ms^6 + R_1g_m + s^5\left(C_1C_2C_LL_1L_Rq_2g_m + C_1C_2C_LL_1L_Rq_2g_m + C_1C_2L_LL_Rq_2g_m + C_1C_2L_LL_Rq_2g_m + C_1C_2L_LL_Rq_2g_m + C_1C_2L_LL_Rq_2g_m + C_1C_2L_LRq_1g_m + C_1C_LL_Rq_2g_m + C_1C_2L_LRq_1g_m + C$

10.804 INVALID-ORDER-804 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$

 $H(s) = \frac{C_1C_2L_1L_2L_LR_1g_ms^5 + L_LR_1g_ms + s^4\left(C_1C_2L_1L_LR_1g_ms^5 + L_LR_1g_ms^5 + L$

10.805 INVALID-ORDER-805 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$

 $H(s) = \frac{C_1C_2C_LL_1L_2L_LR_1g_ms^6 + R_1g_m + s^5\left(C_1C_2C_LL_1L_2R_1R_Lg_m + C_1C_2C_LL_1L_LR_1g_m + C_1C_2C_LL_1L_LR_1g_m + C_1C_2C_LL_1L_LR_1g_m + C_1C_2C_LL_1R_1R_2g_m + C_1C_2C_LL_1R_1R_2R_Lg_m + C_1C_$

10.806 INVALID-ORDER-806 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$

 $H(s) = \frac{1}{R_1 R_L g_m + R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_L g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_L + C_1 C_2 C_L L_1 R_1 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_L + C_1 C_2 C_L L_1 R_1 R_L + C_1 C_2 C_L R_1 R_L + C_1$

10.807 INVALID-ORDER-807 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{C_LL_LR_Ls^2+L_Ls+R_L}{C_LL_Ls^2+1}\right)$

 $\frac{C_{1}C_{2}C_{L}L_{1}L_{2}L_{R}R_{1}g_{m}s^{6}+R_{1}R_{L}g_{m}+s^{5}\left(C_{1}C_{2}C_{L}L_{1}L_{L}R_{1}R_{L}+C_{1}C_{2}L_{L}L_{R}R_{1}g_{m}\right)+s^{4}\left(C_{1}C_{2}L_{1}L_{2}R_{1}R_{L}g_{m}+C_{1}C_{2}L_{L}L_{R}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{R}R_{2}g_{m}+C_{1}C_{2}L_{L}L_{R}R_{2}g_{m}+C_{1}C_{2}C_{L}L_{L}L_{R}R_{2}g_{m}+C_{1$

10.808 INVALID-ORDER-808 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$

 $H(s) = \frac{1}{R_1 g_m + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 g_m + C_1 C_2 C_L L_1 L_2 L_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_L g_m + C_1 C_2 C_L L_1 L_L R_1 R_2 g_m + C_1 C_2 C_L L_1 L_L R_1 + C_1 C$

10.809 INVALID-ORDER-809 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, \infty, \infty, \infty, \infty, R_L\right)$

10.810 INVALID-ORDER-810 $Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$

 $H(s) = \frac{C_1L_1L_2R_1g_ms^3 + L_2R_1g_ms + R_1R_2g_m + R_1 + s^4\left(C_1C_2L_1L_2R_1R_2g_m + C_1C_2L_1L_2R_1\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_2L_2R_1R_2g_m + C_2L_2R_1\right)}{s^5\left(C_1C_2C_LL_1L_2R_1R_2g_m + C_1C_2L_1L_2R_1 + C_1C_LL_1R_1R_2g_m + C_1C_LL_1R_1 + C_2C_LL_1R_1 + C_2C_LL_2R_1 + C_2C_LL_2R_1$

10.811 INVALID-ORDER-811 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$

10.812 INVALID-ORDER-812 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_L L_2 R_1 R_2 g_m + C_1 C_L L_1 L_2 R_1 R_L g_m + s^4 \left(C_1 C_2 L_L L_2 R_1 R_2 g_m + C_1 C_L L_1 L_2 R_1 R_L g_m + s^4 \left(C_1 C_L L_1 L_2 R_1 R_L g_m + C_1 C_L L_1 R_1 R_L g_m + C_1 C_L L_1 R_1 R_L + C_1 L_1 L_2 R_1 g_m + C_1 C_L L_1 R_1 R_2 g_m + C$

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10.813 INVALID-ORDER-813 Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)
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 $H(s) = \frac{C_1C_LL_1L_2L_LR_1g_ms^5 + L_2R_1g_ms + R_1R_2g_m + R_1+s^6\left(C_1C_2C_LL_1L_2L_LR_1g_m + C_1C_2L_LL_2L_R\right) + s^4\left(C_1C_2L_1L_2R_1R_2g_m + C_1C_2L_1L_2R_1 + C_1C_LL_1L_RR_1g_m + C_1C_LL_1L_RR_1g_m + C_1C_LL_1L_RR_1g_m + C_1C_LL_1L_RR_1g_m + C_1C_LL_1L_2R_1g_m + C_1C_LL_1L_1R_1g_m + C_1C_LL_1L_1R_1g_m + C_1C_LL_1L_1R_1g_m + C_1C_LL_1R_1g_m + C_$

10.814 INVALID-ORDER-814
$$Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

 $H(s) = \frac{C_1L_1L_2L}{R_1R_2g_m + R_1 + R_2 + s^6\left(C_1C_2C_LL_1L_2L_LR_1R_2g_m + C_1C_2L_LL_2L_LR_1 + C_1C_2L_LL_2L_LR_1R_2 + C_1C_2L_1L_2L_LR_1R_2 + C_1C_2L_1L_2L_RR_1R_2 + C_1C_2L_1L_2R_1R_2 + C_1C_2L_1L_2R_1 + C_1C_2L_1R_1 + C_1C_2L_1L_2R_1 + C_1C_2L_1L_2R_1 + C_1C_2L_1L_2R_1 + C_1C_$

10.815 INVALID-ORDER-815
$$Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L g_m + C_1 C_2 L_L L_2 L_R R_1 g_m \right) + s^4 \left(C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_L L_1 L_2 R_1 R_2 g_m + C_1 C_L L_1 L_2 R_1 R_2 g_m \right) + s^4 \left(C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_L L_1 L_2 R_1 R_2 g_m \right) \\ + s^4 \left(C_1 C_2 C_L L_1 L_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_L L_1 L_2 R_1 R_2 g_m + C_1 C_L L_1 L_2 R_1 R_2 g_m + C_1 C_L L_1 L_2 R_1 R_2 g_m \right) \\ + s^4 \left(C_1 C_2 C_L L_1 L_2 L_1 R_1 R_2 g_m + C_1 C_L L_1 L_2 R_1 R_2 g_m + C_1$

10.816 INVALID-ORDER-816
$$Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, \infty, \infty, \infty, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$$

 $H(s) = \frac{1}{R_1 R_2 R_L g_m + R_1 R_L + R_2 R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L \right) + s^5$

10.817 INVALID-ORDER-817
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, \infty, \infty, \infty, \frac{C_LL_LR_Ls^2+L_Ls+R_L}{C_LL_Ls^2+1}\right)$$

 $H(s) = \frac{R_1 R_2 R_L g_m + R_1 R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 L_L L_2 L_R R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 + C_1 C_2 C_L L_1 L_2 L_1 R_1 R_2 + C_1 C_2 C_L L_1 L_2 L_1 R_1 R_2 + C_1 C_2 C_L L_1 L_2 L_1 R_1 R_2 + C_1 C_2 C_L L_1 L$

10.818 INVALID-ORDER-818
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, \infty, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$$

 $H(s) = \frac{1}{R_1 R_2 g_m + R_1 + R_2 + R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 + C_1 C_2 C_L L_1 L_2 L_L R_2 + C_1 C_2 C_L L_1 L_2 L_L R_1 + C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 + C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 + C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 + C_1 C_2 C_L L_1 L_2 R_1 R_2 + C_1 C_2 C_L L_1 R_2 R_1 R_2 + C_1 C_2 C_L L_1 R_2 R_1 R_2 + C_1 C_2 C_L L_1 R_2 R_1 R_2 + C_1 C_2 C_L L_1 R_1 R_2 + C_1 C_2 C_L L_1 R_1 R_2 + C_1 C_2 C_L L_1 R_2 R_2 + C_1 C_2 C_L L_1 R_2 R_2 R_2 + C_1 C$

10.819 INVALID-ORDER-819
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, R_L\right)$$

 $H(s) = \frac{C_1C_2L_1R_1R_2R_Ls^3 + C_2R_1R_2R_Ls + R_1R_2R_Lg_m + R_1R_L + s^4\left(C_1C_2L_1L_2R_1R_2R_Lg_m + C_1C_2L_1L_2R_1R_2\right) + s^2\left(C_1L_1R_1R_2R_Lg_m + C_1L_1R_1R_L + C_2L_2R_1R_2R_Lg_m + C_2L_2R_1R_L\right)}{R_1R_2g_m + R_1 + R_2 + R_L + s^4\left(C_1C_2L_1L_2R_1R_2g_m + C_1C_2L_1L_2R_1 + C_1C_2L_1R_2R_L + C_1C_2L_1R_2R_L$

10.820 INVALID-ORDER-820
$$Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{C_1C_2L_1R_1R_2s^3 + C_2R_1R_2s + R_1R_2g_m + R_1 + s^4\left(C_1C_2L_1L_2R_1R_2g_m + C_1C_2L_1L_2R_1\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_2L_2R_1R_2g_m + C_2L_2R_1\right)}{s^5\left(C_1C_2C_LL_1L_2R_1R_2g_m + C_1C_LL_1R_1R_2g_m + C_1C_LL_1R_1 + C_2C_LL_2R_1 + C_1C_LL_2R_1 + C_1C_LL_1R_1 +$

10.821 INVALID-ORDER-821
$$Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$$

10.822 INVALID-ORDER-822 $Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$ $H(s) = \frac{R_1 R_2 g_m + R_1 + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L g_m + C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 R_1 R_2 g_m + C_1$

10.823 INVALID-ORDER-823
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

 $H(s) = \frac{C_1C_2C_LL_1L_2R_1R_2s^5 + C_2R_1R_2s + R_1R_2g_m + R_1 + s^6\left(C_1C_2C_LL_1L_2L_LR_1\right) + s^4\left(C_1C_2L_1L_2R_1R_2g_m + C_1C_2L_1L_2R_1 + C_1C_LL_1L_RR_1R_2g_m + C_1C_LL_1L_RR_1R_2g_m + C_1C_2L_1L_2R_1 + C_1C_LL_1L_2R_1 + C_1C_LL_1L_1R_1 + C_1C_LL_1R_1 + C_1$

10.824 INVALID-ORDER-824
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

 $H(s) = \frac{C_1 C_2 L_1 L_2 L_1 R_1 R_2 s + C_1 C_2 L_1 L_2 L_1 R_1 R_2 s + C_2 C_2 L_1 L_2 L_1 R_1 R_2 s + C_1 C_2 L_1 L_2 L_1 R_1 R_2 s + C_1 C_2 L_1 L_2 L_1 R_1 R_2 s + C_1 C_2 L_1 L_2 L_1 R_1 R_2 s + C_1 C_2 L_1 L_2 L_1 R_1 R_2 s + C_1 C_2 L_1 L_2 L_1 R_1 R_2 s + C_1 C_2 L_1 L_2 L_1 R_1 R_2 s + C_1 C_2 L_1 L_2 R_1 R_2 s + C_1 C_2 L_1$

10.825 INVALID-ORDER-825
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

 $\frac{R_{1}R_{2}g_{m}+R_{1}+s^{6}\left(C_{1}C_{2}C_{L}L_{1}L_{2}L_{L}R_{1}R_{2}g_{m}+C_{1}C_{2}C_{L}L_{1}L_{2}R_{1}R_{2}g_{m}+C_{1}C_{2}C_{L}L_{1}L_{2}R_{1}R_{2}g_{m}+C_{1}C_{2}C_{L}L_{1}L_{2}R_{1}R_{2}R_{2}g_{m}+C_{1}C_{2}C_{L}L_{1}L_{2}R_{1}R_{2}R_{2}+C_{1}C_{2}C_{L}L_{1}L_{2}R_{1}R_{2}R_{2}+C_{1}C_{2}C_{L}L_{1}L_{2}R_{1}R_{2}+C_{1}C_{2}C_{L}L_{1}L_{2}R_{1}R_{2}+C_{1}C_{2}C_{L}L_{1}L_{2}R_{1}+C_{1}C_{2}C_{L}L_{1}L_{2}R_{1}+C_{1}C_{2}C_{L}L_{1}L_{2}R_{2}+C_{1}C_{2}C$

10.826 INVALID-ORDER-826
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, \frac{L_LR_Ls}{C_LL_LR_Ls^2+L_Ls+R_L}\right)$$

 $H(s) = \frac{1}{R_1 R_2 R_L g_m + R_1 R_L + R_2 R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_1 R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_1 R_1 R_2 R_L + C_1 C_2 L_1 L_2 L_1 R_1 R_2 R_L +$

10.827 INVALID-ORDER-827
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, \frac{C_LL_LR_Ls^2+L_Ls+R_L}{C_LL_Ls^2+1}\right)$$

10.828 INVALID-ORDER-828
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \infty, \infty, \infty, \frac{R_L(C_LL_Ls^2+1)}{C_LL_Ls^2+C_LR_Ls+1}\right)$$

 $H(s) = \frac{1}{R_1 R_2 g_m + R_1 + R_2 + R_L + s^6 \left(C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m + C_1 C_2 C_L L_1 L_2 L_L R_1 + C_1 C_2 C_L L_1 L_2 L_L R_2 + C_1 C_2 C_L L_1 L_2 L_L R_1 \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L \right) + s^5 \left($

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