

Filter Summary Report: TIA,simple,Z1,Z4,Z5

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Contents

1 Examined $H(z)$ for TIA simple Z1 Z4 Z5: $\frac{Z_1 Z_4 (Z_5 g_m - 1)}{2Z_1 Z_4 g_m + 2Z_1 Z_5 g_m + 2Z_1 + Z_4 + 2Z_5}$

$$H(z) = \frac{Z_1 Z_4 (Z_5 g_m - 1)}{2Z_1 Z_4 g_m + 2Z_1 Z_5 g_m + 2Z_1 + Z_4 + 2Z_5}$$

2 HP

3 BP

3.1 BP-1 $Z(s) = \left(R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, R_5, \infty \right)$

$$H(s) = \frac{L_4 R_1 s (R_5 g_m - 1)}{2C_4 L_4 R_1 R_5 g_m s^2 + 2C_4 L_4 R_1 s^2 + 2C_4 L_4 R_5 s^2 + 2L_4 R_1 g_m s + L_4 s + 2R_1 R_5 g_m + 2R_1 + 2R_5}$$

Parameters:

$$\text{Q: } \frac{2C_4 \sqrt{\frac{1}{C_4 L_4}} (R_1 R_5 g_m + R_1 + R_5)}{2R_1 g_m + 1}$$

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

$$\text{bandwidth: } \frac{2R_1 g_m + 1}{2C_4 (R_1 R_5 g_m + R_1 + R_5)}$$

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

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

$$\text{K-BP: } \frac{R_1 (R_5 g_m - 1)}{2R_1 g_m + 1}$$

$$\text{Qz: } 0$$

$$\text{Wz: None}$$

3.2 BP-2 $Z(s) = \left(R_1, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, R_5, \infty \right)$

$$H(s) = \frac{L_4 R_1 R_4 s (R_5 g_m - 1)}{2C_4 L_4 R_1 R_4 R_5 g_m s^2 + 2C_4 L_4 R_1 R_4 s^2 + 2C_4 L_4 R_4 R_5 s^2 + 2L_4 R_1 R_4 g_m s + 2L_4 R_1 R_5 g_m s + 2L_4 R_1 s + L_4 R_4 s + 2L_4 R_5 s + 2R_1 R_4 R_5 g_m + 2R_1 R_4 + 2R_4 R_5}$$

Parameters:

$$\text{Q: } \frac{2C_4 R_4 \sqrt{\frac{1}{C_4 L_4}} (R_1 R_5 g_m + R_1 + R_5)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$$

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

$$\text{bandwidth: } \frac{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}{2C_4 R_4 (R_1 R_5 g_m + R_1 + R_5)}$$

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

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

$$\text{K-BP: } \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$$

$$\text{Qz: } 0$$

$$\text{Wz: None}$$

3.3 BP-3 $Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, R_5, \infty \right)$

$$H(s) = \frac{L_1 s (R_5 g_m - 1)}{2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + 2C_4 R_5 s + 2L_1 g_m s + 1}$$

Parameters:

$$\text{Q: } \frac{\sqrt{2} C_4 L_1 \sqrt{\frac{1}{C_4 L_1 (R_5 g_m + 1)}} (R_5 g_m + 1)}{2(C_4 R_5 + L_1 g_m)}$$

$$\text{wo: } \frac{\sqrt{2} \sqrt{\frac{1}{C_4 L_1 (R_5 g_m + 1)}}}{2}$$

$$\text{bandwidth: } \frac{C_4 R_5 + L_1 g_m}{C_4 L_1 (R_5 g_m + 1)}$$

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

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

$$\text{K-BP: } \frac{L_1 (R_5 g_m - 1)}{2(C_4 R_5 + L_1 g_m)}$$

Qz: 0
Wz: None

3.4 BP-4 $Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_5, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (R_5 g_m - 1)}{2C_4 L_1 R_4 R_5 g_m s^2 + 2C_4 L_1 R_4 s^2 + 2C_4 R_4 R_5 s + 2L_1 R_4 g_m s + 2L_1 R_5 g_m s + 2L_1 s + R_4 + 2R_5}$$

Parameters:

Q: $\frac{\sqrt{2}C_4 L_1 R_4 \sqrt{\frac{R_4 + 2R_5}{C_4 L_1 R_4 (R_5 g_m + 1)}} (R_5 g_m + 1)}{2(C_4 R_4 R_5 + L_1 R_4 g_m + L_1 R_5 g_m + L_1)}$
 wo: $\sqrt{\frac{\frac{R_4}{2} + R_5}{C_4 L_1 R_4 (R_5 g_m + 1)}}$
 bandwidth: $\frac{\sqrt{2} \sqrt{\frac{\frac{R_4}{2} + R_5}{C_4 L_1 R_4 (R_5 g_m + 1)}} (C_4 R_4 R_5 + L_1 R_4 g_m + L_1 R_5 g_m + L_1)}{C_4 L_1 R_4 \sqrt{\frac{R_4 + 2R_5}{C_4 L_1 R_4 (R_5 g_m + 1)}} (R_5 g_m + 1)}$
 K-LP: 0
 K-HP: 0
 K-BP: $\frac{L_1 R_4 (R_5 g_m - 1)}{2(C_4 R_4 R_5 + L_1 R_4 g_m + L_1 R_5 g_m + L_1)}$
 Qz: 0
 Wz: None

3.5 BP-5 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4, R_5, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (R_5 g_m - 1)}{C_1 L_1 R_4 s^2 + 2C_1 L_1 R_5 s^2 + 2L_1 R_4 g_m s + 2L_1 R_5 g_m s + 2L_1 s + R_4 + 2R_5}$$

Parameters:

Q: $\frac{C_1 \sqrt{\frac{1}{C_1 L_1}} (R_4 + 2R_5)}{2(R_4 g_m + R_5 g_m + 1)}$
 wo: $\sqrt{\frac{1}{C_1 L_1}}$
 bandwidth: $\frac{2(R_4 g_m + R_5 g_m + 1)}{C_1 (R_4 + 2R_5)}$
 K-LP: 0
 K-HP: 0
 K-BP: $\frac{R_4 (R_5 g_m - 1)}{2(R_4 g_m + R_5 g_m + 1)}$
 Qz: 0
 Wz: None

3.6 BP-6 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, R_4, R_5, \infty \right)$

$$H(s) = \frac{L_1 R_1 R_4 s (R_5 g_m - 1)}{C_1 L_1 R_1 R_4 s^2 + 2C_1 L_1 R_1 R_5 s^2 + 2L_1 R_1 R_4 g_m s + 2L_1 R_1 R_5 g_m s + 2L_1 R_1 s + L_1 R_4 s + 2L_1 R_5 s + R_1 R_4 + 2R_1 R_5}$$

Parameters:

Q: $\frac{C_1 R_1 \sqrt{\frac{1}{C_1 L_1}} (R_4 + 2R_5)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$
 wo: $\sqrt{\frac{1}{C_1 L_1}}$
 bandwidth: $\frac{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}{C_1 R_1 (R_4 + 2R_5)}$
 K-LP: 0
 K-HP: 0
 K-BP: $\frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$
 Qz: 0
 Wz: None

4 LP

4.1 LP-1 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, R_5, \infty \right)$

$$H(s) = \frac{R_5 g_m - 1}{2C_1 C_4 R_5 s^2 + C_1 s + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

Parameters:

Q: $\frac{2C_1 C_4 R_5 \sqrt{\frac{g_m}{C_1 C_4 R_5}}}{C_1 + 2C_4 R_5 g_m + 2C_4}$
 wo: $\sqrt{\frac{g_m}{C_1 C_4 R_5}}$
 bandwidth: $\frac{C_1 + 2C_4 R_5 g_m + 2C_4}{2C_1 C_4 R_5}$
 K-LP: $\frac{R_5 g_m - 1}{2g_m}$
 K-HP: 0
 K-BP: 0
 Qz: None
 Wz: None

4.2 LP-2 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_5, \infty \right)$

$$H(s) = \frac{R_4 (R_5 g_m - 1)}{2C_1 C_4 R_4 R_5 s^2 + C_1 R_4 s + 2C_1 R_5 s + 2C_4 R_4 R_5 g_m s + 2C_4 R_4 s + 2R_4 g_m + 2R_5 g_m + 2}$$

Parameters:

Q: $\frac{2C_1 C_4 R_4 R_5 \sqrt{\frac{R_4 g_m + R_5 g_m + 1}{C_1 C_4 R_4 R_5}}}{C_1 R_4 + 2C_1 R_5 + 2C_4 R_4 R_5 g_m + 2C_4 R_4}$
 wo: $\sqrt{\frac{R_4 g_m + R_5 g_m + 1}{C_1 C_4 R_4 R_5}}$
 bandwidth: $\frac{C_1 R_4 + 2C_1 R_5 + 2C_4 R_4 R_5 g_m + 2C_4 R_4}{2C_1 C_4 R_4 R_5}$
 K-LP: $\frac{R_4 (R_5 g_m - 1)}{2(R_4 g_m + R_5 g_m + 1)}$
 K-HP: 0
 K-BP: 0
 Qz: None
 Wz: None

4.3 LP-3 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s}, R_5, \infty \right)$

$$H(s) = \frac{R_1 (R_5 g_m - 1)}{2C_1 C_4 R_1 R_5 s^2 + C_1 R_1 s + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + 2C_4 R_5 s + 2R_1 g_m + 1}$$

Parameters:

Q: $\frac{\sqrt{2} C_1 C_4 R_1 R_5 \sqrt{\frac{2R_1 g_m + 1}{C_1 C_4 R_1 R_5}}}{C_1 R_1 + 2C_4 R_1 R_5 g_m + 2C_4 R_1 + 2C_4 R_5}$
 wo: $\sqrt{\frac{R_1 g_m + \frac{1}{2}}{C_1 C_4 R_1 R_5}}$
 bandwidth: $\frac{\sqrt{2} \sqrt{\frac{R_1 g_m + \frac{1}{2}}{C_1 C_4 R_1 R_5}} (C_1 R_1 + 2C_4 R_1 R_5 g_m + 2C_4 R_1 + 2C_4 R_5)}{2C_1 C_4 R_1 R_5 \sqrt{\frac{2R_1 g_m + 1}{C_1 C_4 R_1 R_5}}}$
 K-LP: $\frac{R_1 (R_5 g_m - 1)}{2R_1 g_m + 1}$
 K-HP: 0
 K-BP: 0
 Qz: None
 Wz: None

4.4 LP-4 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_5, \infty \right)$

$$H(s) = \frac{R_1 R_4 (R_5 g_m - 1)}{2C_1 C_4 R_1 R_4 R_5 s^2 + C_1 R_1 R_4 s + 2C_1 R_1 R_5 s + 2C_4 R_1 R_4 R_5 g_m s + 2C_4 R_1 R_4 s + 2C_4 R_4 R_5 s + 2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{\sqrt{2}C_1C_4R_1R_4R_5\sqrt{\frac{2R_1R_4g_m+2R_1R_5g_m+2R_1+R_4+2R_5}{C_1C_4R_1R_4R_5}}}{C_1R_1R_4+2C_1R_1R_5+2C_4R_1R_4R_5g_m+2C_4R_1R_4+2C_4R_4R_5} \\
\text{wo: } & \sqrt{\frac{R_1R_4g_m+R_1R_5g_m+R_1+\frac{R_4}{2}+R_5}{C_1C_4R_1R_4R_5}} \\
\text{bandwidth: } & \frac{\sqrt{2}\sqrt{\frac{R_1R_4g_m+R_1R_5g_m+R_1+\frac{R_4}{2}+R_5}{C_1C_4R_1R_4R_5}}(C_1R_1R_4+2C_1R_1R_5+2C_4R_1R_4R_5g_m+2C_4R_1R_4+2C_4R_4R_5)}{2C_1C_4R_1R_4R_5\sqrt{\frac{2R_1R_4g_m+2R_1R_5g_m+2R_1+R_4+2R_5}{C_1C_4R_1R_4R_5}}} \\
\text{K-LP: } & \frac{R_1R_4(R_5g_m-1)}{2R_1R_4g_m+2R_1R_5g_m+2R_1+R_4+2R_5} \\
\text{K-HP: } & 0 \\
\text{K-BP: } & 0 \\
\text{Qz: } & \text{None} \\
\text{Wz: } & \text{None}
\end{aligned}$$

5 BS

$$5.1 \quad \text{BS-1} \quad Z(s) = \left(R_1, \infty, \infty, L_4s + \frac{1}{C_4s}, R_5, \infty \right)$$

$$H(s) = \frac{R_1(R_5g_m - 1)(C_4L_4s^2 + 1)}{2C_4L_4R_1g_ms^2 + C_4L_4s^2 + 2C_4R_1R_5g_ms + 2C_4R_1s + 2C_4R_5s + 2R_1g_m + 1}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{L_4\sqrt{\frac{1}{C_4L_4}}(2R_1g_m+1)}{2(R_1R_5g_m+R_1+R_5)} \\
\text{wo: } & \sqrt{\frac{1}{C_4L_4}} \\
\text{bandwidth: } & \frac{2(R_1R_5g_m+R_1+R_5)}{L_4(2R_1g_m+1)} \\
\text{K-LP: } & \frac{R_1(R_5g_m-1)}{2R_1g_m+1} \\
\text{K-HP: } & \frac{R_1(R_5g_m-1)}{2R_1g_m+1} \\
\text{K-BP: } & 0 \\
\text{Qz: } & \text{None} \\
\text{Wz: } & \sqrt{\frac{1}{C_4L_4}}
\end{aligned}$$

$$5.2 \quad \text{BS-2} \quad Z(s) = \left(R_1, \infty, \infty, \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, R_5, \infty \right)$$

$$H(s) = \frac{R_1R_4(R_5g_m - 1)(C_4L_4s^2 + 1)}{2C_4L_4R_1R_4g_ms^2 + 2C_4L_4R_1R_5g_ms^2 + 2C_4L_4R_1s^2 + C_4L_4R_4s^2 + 2C_4L_4R_5s^2 + 2C_4R_1R_4R_5g_ms + 2C_4R_1R_4s + 2C_4R_4R_5s + 2R_1R_4g_m + 2R_1R_5g_m + 2R_1 + R_4 + 2R_5}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{L_4\sqrt{\frac{1}{C_4L_4}}(2R_1R_4g_m+2R_1R_5g_m+2R_1+R_4+2R_5)}{2R_4(R_1R_5g_m+R_1+R_5)} \\
\text{wo: } & \sqrt{\frac{1}{C_4L_4}} \\
\text{bandwidth: } & \frac{2R_4(R_1R_5g_m+R_1+R_5)}{L_4(2R_1R_4g_m+2R_1R_5g_m+2R_1+R_4+2R_5)} \\
\text{K-LP: } & \frac{R_1R_4(R_5g_m-1)}{2R_1R_4g_m+2R_1R_5g_m+2R_1+R_4+2R_5} \\
\text{K-HP: } & \frac{R_1R_4(R_5g_m-1)}{2R_1R_4g_m+2R_1R_5g_m+2R_1+R_4+2R_5} \\
\text{K-BP: } & 0 \\
\text{Qz: } & \text{None} \\
\text{Wz: } & \sqrt{\frac{1}{C_4L_4}}
\end{aligned}$$

$$5.3 \quad \text{BS-3} \quad Z(s) = \left(L_1s + \frac{1}{C_1s}, \infty, \infty, R_4, R_5, \infty \right)$$

$$H(s) = \frac{R_4(R_5g_m - 1)(C_1L_1s^2 + 1)}{2C_1L_1R_4g_ms^2 + 2C_1L_1R_5g_ms^2 + 2C_1L_1s^2 + C_1R_4s + 2C_1R_5s + 2R_4g_m + 2R_5g_m + 2}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{2L_1\sqrt{\frac{1}{C_1L_1}}(R_4g_m+R_5g_m+1)}{R_4+2R_5} \\
\text{wo: } & \sqrt{\frac{1}{C_1L_1}} \\
\text{bandwidth: } & \frac{R_4+2R_5}{2L_1(R_4g_m+R_5g_m+1)} \\
\text{K-LP: } & \frac{R_4(R_5g_m-1)}{2(R_4g_m+R_5g_m+1)} \\
\text{K-HP: } & \frac{R_4(R_5g_m-1)}{2(R_4g_m+R_5g_m+1)} \\
\text{K-BP: } & 0 \\
\text{Qz: } & \text{None} \\
\text{Wz: } & \sqrt{\frac{1}{C_1L_1}}
\end{aligned}$$

$$\mathbf{5.4 \quad BS-4} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad R_4, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1R_4(R_5g_m-1)(C_1L_1s^2+1)}{2C_1L_1R_1R_4g_ms^2+2C_1L_1R_1R_5g_ms^2+2C_1L_1R_1s^2+C_1L_1R_4s^2+2C_1L_1R_5s^2+C_1R_1R_4s+2C_1R_1R_5s+2R_1R_4g_m+2R_1R_5g_m+2R_1+R_4+2R_5}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{L_1\sqrt{\frac{1}{C_1L_1}}(2R_1R_4g_m+2R_1R_5g_m+2R_1+R_4+2R_5)}{R_1(R_4+2R_5)} \\
\text{wo: } & \sqrt{\frac{1}{C_1L_1}} \\
\text{bandwidth: } & \frac{R_1(R_4+2R_5)}{L_1(2R_1R_4g_m+2R_1R_5g_m+2R_1+R_4+2R_5)} \\
\text{K-LP: } & \frac{R_1R_4(R_5g_m-1)}{2R_1R_4g_m+2R_1R_5g_m+2R_1+R_4+2R_5} \\
\text{K-HP: } & \frac{R_1R_4(R_5g_m-1)}{2R_1R_4g_m+2R_1R_5g_m+2R_1+R_4+2R_5} \\
\text{K-BP: } & 0 \\
\text{Qz: } & \text{None} \\
\text{Wz: } & \sqrt{\frac{1}{C_1L_1}}
\end{aligned}$$

6 GE

$$\mathbf{6.1 \quad GE-1} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad R_4, \quad L_5s + \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = \frac{R_1R_4(C_5L_5g_ms^2 - C_5s + g_m)}{2C_5L_5R_1R_4g_ms^2 + 2C_5L_5s^2 + 2C_5R_1R_4g_ms + 2C_5R_1s + C_5R_4s + 2R_1g_m + 2}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{2L_5\sqrt{\frac{1}{C_5L_5}}(R_1g_m+1)}{2R_1R_4g_m+2R_1+R_4} \\
\text{wo: } & \sqrt{\frac{1}{C_5L_5}} \\
\text{bandwidth: } & \frac{2R_1R_4g_m+2R_1+R_4}{2L_5(R_1g_m+1)} \\
\text{K-LP: } & \frac{R_1R_4g_m}{2(R_1g_m+1)} \\
\text{K-HP: } & \frac{R_1R_4g_m}{2(R_1g_m+1)} \\
\text{K-BP: } & -\frac{R_1R_4}{2R_1R_4g_m+2R_1+R_4} \\
\text{Qz: } & -L_5g_m\sqrt{\frac{1}{C_5L_5}} \\
\text{Wz: } & \sqrt{\frac{1}{C_5L_5}}
\end{aligned}$$

$$\mathbf{6.2 \quad GE-2} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5s}{C_5L_5s^2+1}, \quad \infty \right)$$

$$H(s) = \frac{R_1R_4(-C_5L_5s^2 + L_5g_ms - 1)}{2C_5L_5R_1R_4g_ms^2 + 2C_5L_5R_1s^2 + C_5L_5R_4s^2 + 2L_5R_1g_ms + 2L_5s + 2R_1R_4g_m + 2R_1 + R_4}$$

Parameters:

$$\text{Q: } \frac{C_5\sqrt{\frac{1}{C_5L_5}}(2R_1R_4g_m+2R_1+R_4)}{2(R_1g_m+1)}$$

$$\begin{aligned}
\text{wo: } & \sqrt{\frac{1}{C_5 L_5}} \\
\text{bandwidth: } & \frac{2(R_1 g_m + 1)}{C_5(2R_1 R_4 g_m + 2R_1 + R_4)} \\
\text{K-LP: } & -\frac{R_1 R_4}{2R_1 R_4 g_m + 2R_1 + R_4} \\
\text{K-HP: } & -\frac{R_1 R_4}{2R_1 R_4 g_m + 2R_1 + R_4} \\
\text{K-BP: } & \frac{R_1 R_4 g_m}{2(R_1 g_m + 1)} \\
\text{Qz: } & -\frac{C_5 \sqrt{\frac{1}{C_5 L_5}}}{g_m} \\
\text{Wz: } & \sqrt{\frac{1}{C_5 L_5}}
\end{aligned}$$

$$\mathbf{6.3 \quad GE-3} \quad Z(s) = \left(R_1, \infty, \infty, R_4, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$$

$$H(s) = \frac{R_1 R_4 (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_5 L_5 R_1 g_m s^2 + 2C_5 L_5 s^2 + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 R_5 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2C_5 R_5 s + 2R_1 g_m + 2}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{2L_5 \sqrt{\frac{1}{C_5 L_5}} (R_1 g_m + 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\
\text{wo: } & \sqrt{\frac{1}{C_5 L_5}} \\
\text{bandwidth: } & \frac{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}{2L_5 (R_1 g_m + 1)} \\
\text{K-LP: } & \frac{R_1 R_4 g_m}{2(R_1 g_m + 1)} \\
\text{K-HP: } & \frac{R_1 R_4 g_m}{2(R_1 g_m + 1)} \\
\text{K-BP: } & \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\
\text{Qz: } & \frac{L_5 g_m \sqrt{\frac{1}{C_5 L_5}}}{R_5 g_m - 1} \\
\text{Wz: } & \sqrt{\frac{1}{C_5 L_5}}
\end{aligned}$$

$$\mathbf{6.4 \quad GE-4} \quad Z(s) = \left(R_1, \infty, \infty, R_4, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$$

$$H(s) = \frac{R_1 R_4 (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_5 L_5 R_1 R_4 R_5 g_m s^2 + 2C_5 L_5 R_1 R_5 s^2 + C_5 L_5 R_4 R_5 s^2 + 2L_5 R_1 R_4 g_m s + 2L_5 R_1 R_5 g_m s + 2L_5 R_1 s + L_5 R_4 s + 2L_5 R_5 s + 2R_1 R_4 R_5 g_m + 2R_1 R_5 + R_4 R_5}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{C_5 R_5 \sqrt{\frac{1}{C_5 L_5}} (2R_1 R_4 g_m + 2R_1 + R_4)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\
\text{wo: } & \sqrt{\frac{1}{C_5 L_5}} \\
\text{bandwidth: } & \frac{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}{C_5 R_5 (2R_1 R_4 g_m + 2R_1 + R_4)} \\
\text{K-LP: } & -\frac{R_1 R_4}{2R_1 R_4 g_m + 2R_1 + R_4} \\
\text{K-HP: } & -\frac{R_1 R_4}{2R_1 R_4 g_m + 2R_1 + R_4} \\
\text{K-BP: } & \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\
\text{Qz: } & -\frac{C_5 R_5 \sqrt{\frac{1}{C_5 L_5}}}{R_5 g_m - 1} \\
\text{Wz: } & \sqrt{\frac{1}{C_5 L_5}}
\end{aligned}$$

$$\mathbf{6.5 \quad GE-5} \quad Z(s) = \left(R_1, \infty, \infty, R_4, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$$

$$H(s) = \frac{R_1 R_4 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_5 L_5 R_1 R_4 g_m s^2 + 2C_5 L_5 R_1 R_5 g_m s^2 + 2C_5 L_5 R_1 s^2 + C_5 L_5 R_4 s^2 + 2C_5 L_5 R_5 s^2 + 2L_5 R_1 g_m s + 2L_5 s + 2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{C_5 \sqrt{\frac{1}{C_5 L_5}} (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)}{2(R_1 g_m + 1)} \\
\text{wo: } & \sqrt{\frac{1}{C_5 L_5}} \\
\text{bandwidth: } & \frac{2(R_1 g_m + 1)}{C_5 (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)}
\end{aligned}$$

$$\begin{aligned}
\text{K-LP: } & \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\
\text{K-HP: } & \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\
\text{K-BP: } & \frac{R_1 R_4 g_m}{2(R_1 g_m + 1)} \\
\text{QZ: } & \frac{C_5 \sqrt{\frac{1}{C_5 L_5}} (R_5 g_m - 1)}{g_m} \\
\text{WZ: } & \sqrt{\frac{1}{C_5 L_5}}
\end{aligned}$$

$$\mathbf{6.6 \quad GE-6} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad R_4, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_5 L_5 R_1 R_4 g_m s^2 + 2C_5 L_5 R_1 R_5 g_m s^2 + 2C_5 L_5 R_1 s^2 + C_5 L_5 R_4 s^2 + 2C_5 L_5 R_5 s^2 + 2C_5 R_1 R_4 R_5 g_m s + 2C_5 R_1 R_5 s + C_5 R_4 R_5 s + 2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{L_5 \sqrt{\frac{1}{C_5 L_5}} (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)}{R_5 (2R_1 R_4 g_m + 2R_1 + R_4)} \\
\text{wo: } & \sqrt{\frac{1}{C_5 L_5}} \\
\text{bandwidth: } & \frac{R_5 (2R_1 R_4 g_m + 2R_1 + R_4)}{L_5 (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)} \\
\text{K-LP: } & \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\
\text{K-HP: } & \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\
\text{K-BP: } & -\frac{R_1 R_4}{2R_1 R_4 g_m + 2R_1 + R_4} \\
\text{QZ: } & \frac{L_5 \sqrt{\frac{1}{C_5 L_5}} (-R_5 g_m + 1)}{R_5} \\
\text{WZ: } & \sqrt{\frac{1}{C_5 L_5}}
\end{aligned}$$

$$\mathbf{6.7 \quad GE-7} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1 (R_5 g_m - 1) (C_4 L_4 s^2 + C_4 R_4 s + 1)}{2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + C_4 R_4 s + 2C_4 R_5 s + 2R_1 g_m + 1}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{L_4 \sqrt{\frac{1}{C_4 L_4}} (2R_1 g_m + 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\
\text{wo: } & \sqrt{\frac{1}{C_4 L_4}} \\
\text{bandwidth: } & \frac{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}{L_4 (2R_1 g_m + 1)} \\
\text{K-LP: } & \frac{R_1 (R_5 g_m - 1)}{2R_1 g_m + 1} \\
\text{K-HP: } & \frac{R_1 (R_5 g_m - 1)}{2R_1 g_m + 1} \\
\text{K-BP: } & \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\
\text{QZ: } & \frac{L_4 \sqrt{\frac{1}{C_4 L_4}}}{R_4} \\
\text{WZ: } & \sqrt{\frac{1}{C_4 L_4}}
\end{aligned}$$

$$\mathbf{6.8 \quad GE-8} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1 (R_5 g_m - 1) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{2C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_1 R_5 g_m s^2 + 2C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_5 s^2 + 2L_4 R_1 g_m s + L_4 s + 2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{C_4 \sqrt{\frac{1}{C_4 L_4}} (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)}{2R_1 g_m + 1} \\
\text{wo: } & \sqrt{\frac{1}{C_4 L_4}} \\
\text{bandwidth: } & \frac{2R_1 g_m + 1}{C_4 (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)} \\
\text{K-LP: } & \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}
\end{aligned}$$

$$\begin{aligned}\text{K-HP: } & \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\ \text{K-BP: } & \frac{R_1 (R_5 g_m - 1)}{2R_1 g_m + 1} \\ \text{QZ: } & C_4 R_4 \sqrt{\frac{1}{C_4 L_4}} \\ \text{WZ: } & \sqrt{\frac{1}{C_4 L_4}}\end{aligned}$$

6.9 GE-9 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, R_5, \infty \right)$

$$H(s) = \frac{R_4 (R_5 g_m - 1) (C_1 L_1 s^2 + C_1 R_1 s + 1)}{2C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_5 g_m s^2 + 2C_1 L_1 s^2 + 2C_1 R_1 R_4 g_m s + 2C_1 R_1 R_5 g_m s + 2C_1 R_1 s + C_1 R_4 s + 2C_1 R_5 s + 2R_4 g_m + 2R_5 g_m + 2}$$

Parameters:

$$\begin{aligned}\text{Q: } & \frac{2L_1 \sqrt{\frac{1}{C_1 L_1}} (R_4 g_m + R_5 g_m + 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\ \text{wo: } & \sqrt{\frac{1}{C_1 L_1}} \\ \text{bandwidth: } & \frac{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}{2L_1 (R_4 g_m + R_5 g_m + 1)} \\ \text{K-LP: } & \frac{R_4 (R_5 g_m - 1)}{2(R_4 g_m + R_5 g_m + 1)} \\ \text{K-HP: } & \frac{R_4 (R_5 g_m - 1)}{2(R_4 g_m + R_5 g_m + 1)} \\ \text{K-BP: } & \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\ \text{QZ: } & \frac{L_1 \sqrt{\frac{1}{C_1 L_1}}}{R_1} \\ \text{WZ: } & \sqrt{\frac{1}{C_1 L_1}}\end{aligned}$$

6.10 GE-10 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4, R_5, \infty \right)$

$$H(s) = \frac{R_4 (R_5 g_m - 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2C_1 L_1 R_1 R_4 g_m s^2 + 2C_1 L_1 R_1 R_5 g_m s^2 + 2C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + 2C_1 L_1 R_5 s^2 + 2L_1 R_4 g_m s + 2L_1 R_5 g_m s + 2L_1 s + 2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$$

Parameters:

$$\begin{aligned}\text{Q: } & \frac{C_1 \sqrt{\frac{1}{C_1 L_1}} (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)}{2(R_4 g_m + R_5 g_m + 1)} \\ \text{wo: } & \sqrt{\frac{1}{C_1 L_1}} \\ \text{bandwidth: } & \frac{2(R_4 g_m + R_5 g_m + 1)}{C_1 (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)} \\ \text{K-LP: } & \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\ \text{K-HP: } & \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\ \text{K-BP: } & \frac{R_4 (R_5 g_m - 1)}{2(R_4 g_m + R_5 g_m + 1)} \\ \text{QZ: } & C_1 R_1 \sqrt{\frac{1}{C_1 L_1}} \\ \text{WZ: } & \sqrt{\frac{1}{C_1 L_1}}\end{aligned}$$

7 AP

8 INVALID-NUMER

8.1 INVALID-NUMER-1 $Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{R_1 (-C_5 R_5 s + R_5 g_m - 1)}{2C_4 C_5 R_1 R_5 s^2 + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + 2C_4 R_5 s + 2C_5 R_1 R_5 g_m s + C_5 R_5 s + 2R_1 g_m + 1}$$

Parameters:

$$\text{Q: } \frac{\sqrt{2} C_4 C_5 R_1 R_5 \sqrt{\frac{2R_1 g_m + 1}{C_4 C_5 R_1 R_5}}}{2C_4 R_1 R_5 g_m + 2C_4 R_1 + 2C_4 R_5 + 2C_5 R_1 R_5 g_m + C_5 R_5}$$

wo: $\sqrt{\frac{R_1 g_m + \frac{1}{2}}{C_4 C_5 R_1 R_5}}$
bandwidth: $\frac{\sqrt{2} \sqrt{\frac{R_1 g_m + \frac{1}{2}}{C_4 C_5 R_1 R_5}} (2C_4 R_1 R_5 g_m + 2C_4 R_1 + 2C_4 R_5 + 2C_5 R_1 R_5 g_m + C_5 R_5)}{2C_4 C_5 R_1 R_5 \sqrt{\frac{2R_1 g_m + 1}{C_4 C_5 R_1 R_5}}}$
K-LP: $\frac{R_1(R_5 g_m - 1)}{2R_1 g_m + 1}$
K-HP: 0
K-BP: $-\frac{C_5 R_1 R_5}{2C_4 R_1 R_5 g_m + 2C_4 R_1 + 2C_4 R_5 + 2C_5 R_1 R_5 g_m + C_5 R_5}$
QZ: 0
Wz: None

8.2 INVALID-NUMER-2 $Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_1 R_4 (-C_5 s + g_m)}{2C_4 C_5 R_1 R_4 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_4 s + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2R_1 g_m + 2}$$

Parameters:

Q: $\frac{2C_4 C_5 R_1 R_4 \sqrt{\frac{R_1 g_m + 1}{C_4 C_5 R_1 R_4}}}{2C_4 R_1 R_4 g_m + 2C_4 R_4 + 2C_5 R_1 R_4 g_m + 2C_5 R_1 + C_5 R_4}$
wo: $\sqrt{\frac{R_1 g_m + 1}{C_4 C_5 R_1 R_4}}$
bandwidth: $\frac{2C_4 R_1 R_4 g_m + 2C_4 R_4 + 2C_5 R_1 R_4 g_m + 2C_5 R_1 + C_5 R_4}{2C_4 C_5 R_1 R_4}$
K-LP: $\frac{R_1 R_4 g_m}{2(R_1 g_m + 1)}$
K-HP: 0
K-BP: $-\frac{C_5 R_1 R_4}{2C_4 R_1 R_4 g_m + 2C_4 R_4 + 2C_5 R_1 R_4 g_m + 2C_5 R_1 + C_5 R_4}$
QZ: 0
Wz: None

8.3 INVALID-NUMER-3 $Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{R_1 R_4 (-C_5 R_5 s + R_5 g_m - 1)}{2C_4 C_5 R_1 R_4 R_5 s^2 + 2C_4 R_1 R_4 R_5 g_m s + 2C_4 R_1 R_4 s + 2C_4 R_4 R_5 s + 2C_5 R_1 R_4 R_5 g_m s + 2C_5 R_1 R_5 s + C_5 R_4 R_5 s + 2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$$

Parameters:

Q: $\frac{\sqrt{2} C_4 C_5 R_1 R_4 R_5 \sqrt{\frac{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}{C_4 C_5 R_1 R_4 R_5}}}{2C_4 R_1 R_4 R_5 g_m + 2C_4 R_1 R_4 + 2C_4 R_4 R_5 + 2C_5 R_1 R_4 R_5 g_m + 2C_5 R_1 R_5 + C_5 R_4 R_5}$
wo: $\sqrt{\frac{R_1 R_4 g_m + R_1 R_5 g_m + R_1 + \frac{R_4}{2} + R_5}{C_4 C_5 R_1 R_4 R_5}}$
bandwidth: $\frac{\sqrt{2} \sqrt{\frac{R_1 R_4 g_m + R_1 R_5 g_m + R_1 + \frac{R_4}{2} + R_5}{C_4 C_5 R_1 R_4 R_5}} (2C_4 R_1 R_4 R_5 g_m + 2C_4 R_1 R_4 + 2C_4 R_4 R_5 + 2C_5 R_1 R_4 R_5 g_m + 2C_5 R_1 R_5 + C_5 R_4 R_5)}{2C_4 C_5 R_1 R_4 R_5 \sqrt{\frac{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}{C_4 C_5 R_1 R_4 R_5}}}$
K-LP: $\frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$
K-HP: 0
K-BP: $-\frac{C_5 R_1 R_4 R_5}{2C_4 R_1 R_4 R_5 g_m + 2C_4 R_1 R_4 + 2C_4 R_4 R_5 + 2C_5 R_1 R_4 R_5 g_m + 2C_5 R_1 R_5 + C_5 R_4 R_5}$
QZ: 0
Wz: None

8.4 INVALID-NUMER-4 $Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_1 R_4 (C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 R_1 R_4 R_5 g_m s^2 + 2C_4 C_5 R_1 R_4 s^2 + 2C_4 C_5 R_4 R_5 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_4 s + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 R_5 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2C_5 R_5 s + 2R_1 g_m + 2}$$

Parameters:

Q: $\frac{2C_4 C_5 R_4 \sqrt{\frac{R_1 g_m + 1}{C_4 C_5 R_4 (R_1 R_5 g_m + R_1 + R_5)}} (R_1 R_5 g_m + R_1 + R_5)}{2C_4 R_1 R_4 g_m + 2C_4 R_4 + 2C_5 R_1 R_4 g_m + 2C_5 R_1 R_5 g_m + 2C_5 R_1 + C_5 R_4 + 2C_5 R_5}$
wo: $\sqrt{\frac{R_1 g_m + 1}{C_4 C_5 R_4 (R_1 R_5 g_m + R_1 + R_5)}}$
bandwidth: $\frac{2C_4 R_1 R_4 g_m + 2C_4 R_4 + 2C_5 R_1 R_4 g_m + 2C_5 R_1 R_5 g_m + 2C_5 R_1 + C_5 R_4 + 2C_5 R_5}{2C_4 C_5 R_4 (R_1 R_5 g_m + R_1 + R_5)}$
K-LP: $\frac{R_1 R_4 g_m}{2(R_1 g_m + 1)}$
K-HP: 0

K-BP: $\frac{C_5 R_1 R_4 (R_5 g_m - 1)}{2C_4 R_1 R_4 g_m + 2C_4 R_4 + 2C_5 R_1 R_4 g_m + 2C_5 R_1 R_5 g_m + 2C_5 R_1 + C_5 R_4 + 2C_5 R_5}$
QZ: 0
Wz: None

8.5 INVALID-NUMER-5 $Z(s) = \left(L_1 s, \infty, \infty, R_4, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (-C_5 s + g_m)}{2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 s^2 + C_5 R_4 s + 2L_1 g_m s + 2}$$

Parameters:

Q: $\frac{2C_5 L_1 \sqrt{\frac{1}{C_5 L_1 (R_4 g_m + 1)}} (R_4 g_m + 1)}{C_5 R_4 + 2L_1 g_m}$
wo: $\sqrt{\frac{1}{C_5 L_1 (R_4 g_m + 1)}}$
bandwidth: $\frac{C_5 R_4 + 2L_1 g_m}{2C_5 L_1 (R_4 g_m + 1)}$
K-LP: 0
K-HP: $-\frac{R_4}{2R_4 g_m + 2}$
K-BP: $\frac{L_1 R_4 g_m}{C_5 R_4 + 2L_1 g_m}$
QZ: $-\frac{C_5 \sqrt{\frac{1}{C_5 L_1 (R_4 g_m + 1)}}}{g_m}$
Wz: None

8.6 INVALID-NUMER-6 $Z(s) = \left(L_1 s, \infty, \infty, R_4, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (-C_5 R_5 s + R_5 g_m - 1)}{2C_5 L_1 R_4 R_5 g_m s^2 + 2C_5 L_1 R_5 s^2 + C_5 R_4 R_5 s + 2L_1 R_4 g_m s + 2L_1 R_5 g_m s + 2L_1 s + R_4 + 2R_5}$$

Parameters:

Q: $\frac{\sqrt{2} C_5 L_1 R_5 \sqrt{\frac{R_4 + 2R_5}{C_5 L_1 R_5 (R_4 g_m + 1)}} (R_4 g_m + 1)}{C_5 R_4 R_5 + 2L_1 R_4 g_m + 2L_1 R_5 g_m + 2L_1}$
wo: $\sqrt{\frac{\frac{R_4}{2} + R_5}{C_5 L_1 R_5 (R_4 g_m + 1)}}$
bandwidth: $\frac{\sqrt{2} \sqrt{\frac{\frac{R_4}{2} + R_5}{C_5 L_1 R_5 (R_4 g_m + 1)}} (C_5 R_4 R_5 + 2L_1 R_4 g_m + 2L_1 R_5 g_m + 2L_1)}{2C_5 L_1 R_5 \sqrt{\frac{R_4 + 2R_5}{C_5 L_1 R_5 (R_4 g_m + 1)}} (R_4 g_m + 1)}$
K-LP: 0
K-HP: $-\frac{R_4}{2R_4 g_m + 2}$
K-BP: $\frac{L_1 R_4 (R_5 g_m - 1)}{C_5 R_4 R_5 + 2L_1 R_4 g_m + 2L_1 R_5 g_m + 2L_1}$
QZ: $-\frac{\sqrt{2} C_5 R_5 \sqrt{\frac{R_4 + 2R_5}{C_5 L_1 R_5 (R_4 g_m + 1)}}}{2R_5 g_m - 2}$
Wz: None

8.7 INVALID-NUMER-7 $Z(s) = \left(L_1 s, \infty, \infty, R_4, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (C_5 R_5 g_m s - C_5 s + g_m)}{2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 R_5 g_m s^2 + 2C_5 L_1 s^2 + C_5 R_4 s + 2C_5 R_5 s + 2L_1 g_m s + 2}$$

Parameters:

Q: $\frac{2C_5 L_1 \sqrt{\frac{1}{C_5 L_1 (R_4 g_m + R_5 g_m + 1)}} (R_4 g_m + R_5 g_m + 1)}{C_5 R_4 + 2C_5 R_5 + 2L_1 g_m}$
wo: $\sqrt{\frac{1}{C_5 L_1 (R_4 g_m + R_5 g_m + 1)}}$
bandwidth: $\frac{C_5 R_4 + 2C_5 R_5 + 2L_1 g_m}{2C_5 L_1 (R_4 g_m + R_5 g_m + 1)}$
K-LP: 0
K-HP: $\frac{R_4 (R_5 g_m - 1)}{2(R_4 g_m + R_5 g_m + 1)}$
K-BP: $\frac{L_1 R_4 g_m}{C_5 R_4 + 2C_5 R_5 + 2L_1 g_m}$
QZ: $\frac{C_5 \sqrt{\frac{1}{C_5 L_1 (R_4 g_m + R_5 g_m + 1)}} (R_5 g_m - 1)}{g_m}$
Wz: None

8.8 INVALID-NUMER-8 $Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 (-C_5 s + g_m)}{2C_4 C_5 L_1 s^2 + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{\sqrt{2} C_4 C_5 \sqrt{\frac{2C_4+C_5}{C_4 C_5 L_1}}}{2g_m (C_4+C_5)} \\ \text{wo: } & \sqrt{\frac{C_4+\frac{C_5}{2}}{C_4 C_5 L_1}} \\ \text{bandwidth: } & \frac{\sqrt{2} g_m \sqrt{\frac{C_4+\frac{C_5}{2}}{C_4 C_5 L_1}} (C_4+C_5)}{C_4 C_5 \sqrt{\frac{2C_4+C_5}{C_4 C_5 L_1}}} \\ \text{K-LP: } & \frac{L_1 g_m}{2C_4+C_5} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & -\frac{C_5}{2g_m (C_4+C_5)} \\ \text{Qz: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.9 INVALID-NUMER-9 $Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 (C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_1 R_5 g_m s^2 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 R_5 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{\sqrt{2} C_4 C_5 L_1 \sqrt{\frac{2C_4+C_5}{C_4 C_5 L_1 (R_5 g_m + 1)}} (R_5 g_m + 1)}{2(C_4 C_5 R_5 + C_4 L_1 g_m + C_5 L_1 g_m)} \\ \text{wo: } & \sqrt{\frac{C_4+\frac{C_5}{2}}{C_4 C_5 L_1 (R_5 g_m + 1)}} \\ \text{bandwidth: } & \frac{\sqrt{2} \sqrt{\frac{C_4+\frac{C_5}{2}}{C_4 C_5 L_1 (R_5 g_m + 1)}} (C_4 C_5 R_5 + C_4 L_1 g_m + C_5 L_1 g_m)}{C_4 C_5 L_1 \sqrt{\frac{2C_4+C_5}{C_4 C_5 L_1 (R_5 g_m + 1)}} (R_5 g_m + 1)} \\ \text{K-LP: } & \frac{L_1 g_m}{2C_4+C_5} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & \frac{C_5 L_1 (R_5 g_m - 1)}{2(C_4 C_5 R_5 + C_4 L_1 g_m + C_5 L_1 g_m)} \\ \text{Qz: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

8.10 INVALID-NUMER-10 $Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, R_5, \infty \right)$

$$H(s) = \frac{L_1 s (R_5 g_m - 1) (C_4 R_4 s + 1)}{2C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + C_4 R_4 s + 2C_4 R_5 s + 2L_1 g_m s + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{\sqrt{2} C_4 L_1 \sqrt{\frac{1}{C_4 L_1 (R_4 g_m + R_5 g_m + 1)}} (R_4 g_m + R_5 g_m + 1)}{C_4 R_4 + 2C_4 R_5 + 2L_1 g_m} \\ \text{wo: } & \frac{\sqrt{2} \sqrt{\frac{1}{C_4 L_1 (R_4 g_m + R_5 g_m + 1)}}}{2} \\ \text{bandwidth: } & \frac{C_4 R_4 + 2C_4 R_5 + 2L_1 g_m}{2C_4 L_1 (R_4 g_m + R_5 g_m + 1)} \\ \text{K-LP: } & 0 \\ \text{K-HP: } & \frac{R_4 (R_5 g_m - 1)}{2(R_4 g_m + R_5 g_m + 1)} \\ \text{K-BP: } & \frac{L_1 (R_5 g_m - 1)}{C_4 R_4 + 2C_4 R_5 + 2L_1 g_m} \\ \text{Qz: } & \frac{\sqrt{2} C_4 R_4 \sqrt{\frac{1}{C_4 L_1 (R_4 g_m + R_5 g_m + 1)}}}{2} \\ \text{Wz: } & \text{None} \end{aligned}$$

8.11 INVALID-NUMER-11 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4 (-C_5 s + g_m)}{C_1 C_5 R_4 s^2 + 2C_1 s + 2C_5 R_4 g_m s + 2C_5 s + 2g_m}$$

Parameters:

Q: $\frac{\sqrt{2}C_1 C_5 R_4 \sqrt{\frac{g_m}{C_1 C_5 R_4}}}{2(C_1 + C_5 R_4 g_m + C_5)}$
 wo: $\sqrt{2} \sqrt{\frac{g_m}{C_1 C_5 R_4}}$
 bandwidth: $\frac{2(C_1 + C_5 R_4 g_m + C_5)}{C_1 C_5 R_4}$
 K-LP: $\frac{R_4}{2}$
 K-HP: 0
 K-BP: $-\frac{C_5 R_4}{2C_1 + 2C_5 R_4 g_m + 2C_5}$
 QZ: 0
 WZ: None

8.12 INVALID-NUMER-12 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{R_4 (-C_5 R_5 s + R_5 g_m - 1)}{C_1 C_5 R_4 R_5 s^2 + C_1 R_4 s + 2C_1 R_5 s + 2C_5 R_4 R_5 g_m s + 2C_5 R_5 s + 2R_4 g_m + 2R_5 g_m + 2}$$

Parameters:

Q: $\frac{\sqrt{2}C_1 C_5 R_4 R_5 \sqrt{\frac{R_4 g_m + R_5 g_m + 1}{C_1 C_5 R_4 R_5}}}{C_1 R_4 + 2C_1 R_5 + 2C_5 R_4 R_5 g_m + 2C_5 R_5}$
 wo: $\sqrt{2} \sqrt{\frac{R_4 g_m + R_5 g_m + 1}{C_1 C_5 R_4 R_5}}$
 bandwidth: $\frac{C_1 R_4 + 2C_1 R_5 + 2C_5 R_4 R_5 g_m + 2C_5 R_5}{C_1 C_5 R_4 R_5}$
 K-LP: $\frac{R_4 (R_5 g_m - 1)}{2(R_4 g_m + R_5 g_m + 1)}$
 K-HP: 0
 K-BP: $-\frac{C_5 R_4 R_5}{C_1 R_4 + 2C_1 R_5 + 2C_5 R_4 R_5 g_m + 2C_5 R_5}$
 QZ: 0
 WZ: None

8.13 INVALID-NUMER-13 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4 (C_5 R_5 g_m s - C_5 s + g_m)}{C_1 C_5 R_4 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 s + 2C_5 R_4 g_m s + 2C_5 R_5 g_m s + 2C_5 s + 2g_m}$$

Parameters:

Q: $\frac{\sqrt{2}C_1 C_5 \sqrt{\frac{g_m}{C_1 C_5 (R_4 + 2R_5)}} (R_4 + 2R_5)}{2(C_1 + C_5 R_4 g_m + C_5 R_5 g_m + C_5)}$
 wo: $\sqrt{2} \sqrt{\frac{g_m}{C_1 C_5 (R_4 + 2R_5)}}$
 bandwidth: $\frac{2(C_1 + C_5 R_4 g_m + C_5 R_5 g_m + C_5)}{C_1 C_5 (R_4 + 2R_5)}$
 K-LP: $\frac{R_4}{2}$
 K-HP: 0
 K-BP: $\frac{C_5 R_4 (R_5 g_m - 1)}{2(C_1 + C_5 R_4 g_m + C_5 R_5 g_m + C_5)}$
 QZ: 0
 WZ: None

8.14 INVALID-NUMER-14 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{-C_5 R_5 s + R_5 g_m - 1}{2C_1 C_4 R_5 s^2 + C_1 C_5 R_5 s^2 + C_1 s + 2C_4 C_5 R_5 s^2 + 2C_4 R_5 g_m s + 2C_4 s + 2C_5 R_5 g_m s + 2g_m}$$

Parameters:

Q: $\frac{\sqrt{2}R_5 \sqrt{\frac{g_m}{R_5 (2C_1 C_4 + C_1 C_5 + 2C_4 C_5)}} (2C_1 C_4 + C_1 C_5 + 2C_4 C_5)}{C_1 + 2C_4 R_5 g_m + 2C_4 + 2C_5 R_5 g_m}$

wo: $\sqrt{2}\sqrt{\frac{g_m}{R_5(2C_1C_4+C_1C_5+2C_4C_5)}}$
 bandwidth: $\frac{C_1+2C_4R_5g_m+2C_4+2C_5R_5g_m}{R_5(2C_1C_4+C_1C_5+2C_4C_5)}$
 K-LP: $\frac{R_5g_m-1}{2g_m}$
 K-HP: 0
 K-BP: $-\frac{C_5R_5}{C_1+2C_4R_5g_m+2C_4+2C_5R_5g_m}$
 Qz: 0
 Wz: None

8.15 INVALID-NUMER-15 $Z(s) = \left(\frac{1}{C_1s}, \infty, \infty, \frac{R_4}{C_4R_4s+1}, \frac{1}{C_5s}, \infty \right)$

$$H(s) = \frac{R_4(-C_5s + g_m)}{2C_1C_4R_4s^2 + C_1C_5R_4s^2 + 2C_1s + 2C_4C_5R_4s^2 + 2C_4R_4g_ms + 2C_5R_4g_ms + 2C_5s + 2g_m}$$

Parameters:

Q: $\frac{\sqrt{2}R_4\sqrt{\frac{g_m}{R_4(2C_1C_4+C_1C_5+2C_4C_5)}}(2C_1C_4+C_1C_5+2C_4C_5)}{2(C_1+C_4R_4g_m+C_5R_4g_m+C_5)}$
 wo: $\sqrt{2}\sqrt{\frac{g_m}{R_4(2C_1C_4+C_1C_5+2C_4C_5)}}$
 bandwidth: $\frac{2(C_1+C_4R_4g_m+C_5R_4g_m+C_5)}{R_4(2C_1C_4+C_1C_5+2C_4C_5)}$
 K-LP: $\frac{R_4}{2}$
 K-HP: 0
 K-BP: $-\frac{C_5R_4}{2C_1+2C_4R_4g_m+2C_5R_4g_m+2C_5}$
 Qz: 0
 Wz: None

8.16 INVALID-NUMER-16 $Z(s) = \left(\frac{1}{C_1s}, \infty, \infty, \frac{R_4}{C_4R_4s+1}, \frac{R_5}{C_5R_5s+1}, \infty \right)$

$$H(s) = \frac{R_4(-C_5R_5s + R_5g_m - 1)}{2C_1C_4R_4R_5s^2 + C_1C_5R_4R_5s^2 + C_1R_4s + 2C_1R_5s + 2C_4C_5R_4R_5s^2 + 2C_4R_4R_5g_ms + 2C_4R_4s + 2C_5R_4R_5g_ms + 2C_5R_5s + 2R_4g_m + 2R_5g_m + 2}$$

Parameters:

Q: $\frac{\sqrt{2}R_4R_5\sqrt{\frac{R_4g_m+R_5g_m+1}{R_4R_5(2C_1C_4+C_1C_5+2C_4C_5)}}(2C_1C_4+C_1C_5+2C_4C_5)}{C_1R_4+2C_1R_5+2C_4R_4R_5g_m+2C_4R_4+2C_5R_4R_5g_m+2C_5R_5}$
 wo: $\sqrt{2}\sqrt{\frac{R_4g_m+R_5g_m+1}{R_4R_5(2C_1C_4+C_1C_5+2C_4C_5)}}$
 bandwidth: $\frac{C_1R_4+2C_1R_5+2C_4R_4R_5g_m+2C_4R_4+2C_5R_4R_5g_m+2C_5R_5}{R_4R_5(2C_1C_4+C_1C_5+2C_4C_5)}$
 K-LP: $\frac{R_4(R_5g_m-1)}{2(R_4g_m+R_5g_m+1)}$
 K-HP: 0
 K-BP: $-\frac{C_5R_4R_5}{C_1R_4+2C_1R_5+2C_4R_4R_5g_m+2C_4R_4+2C_5R_4R_5g_m+2C_5R_5}$
 Qz: 0
 Wz: None

8.17 INVALID-NUMER-17 $Z(s) = \left(\frac{1}{C_1s}, \infty, \infty, R_4 + \frac{1}{C_4s}, R_5, \infty \right)$

$$H(s) = \frac{(R_5g_m - 1)(C_4R_4s + 1)}{C_1C_4R_4s^2 + 2C_1C_4R_5s^2 + C_1s + 2C_4R_4g_ms + 2C_4R_5g_ms + 2C_4s + 2g_m}$$

Parameters:

Q: $\frac{\sqrt{2}C_1C_4\sqrt{\frac{g_m}{C_1C_4(R_4+2R_5)}}(R_4+2R_5)}{C_1+2C_4R_4g_m+2C_4R_5g_m+2C_4}$
 wo: $\sqrt{2}\sqrt{\frac{g_m}{C_1C_4(R_4+2R_5)}}$
 bandwidth: $\frac{C_1+2C_4R_4g_m+2C_4R_5g_m+2C_4}{C_1C_4(R_4+2R_5)}$
 K-LP: $\frac{R_5g_m-1}{2g_m}$
 K-HP: 0
 K-BP: $\frac{C_4R_4(R_5g_m-1)}{C_1+2C_4R_4g_m+2C_4R_5g_m+2C_4}$
 Qz: 0
 Wz: None

8.18 INVALID-NUMER-18 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_1 R_4 (-C_5 s + g_m)}{C_1 C_5 R_1 R_4 s^2 + 2C_1 R_1 s + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2R_1 g_m + 2}$$

Parameters:

Q: $\frac{\sqrt{2} C_1 C_5 R_1 R_4 \sqrt{\frac{R_1 g_m + 1}{C_1 C_5 R_1 R_4}}}{2C_1 R_1 + 2C_5 R_1 R_4 g_m + 2C_5 R_1 + C_5 R_4}$
 wo: $\sqrt{2} \sqrt{\frac{R_1 g_m + 1}{C_1 C_5 R_1 R_4}}$
 bandwidth: $\frac{2C_1 R_1 + 2C_5 R_1 R_4 g_m + 2C_5 R_1 + C_5 R_4}{C_1 C_5 R_1 R_4}$
 K-LP: $\frac{R_1 R_4 g_m}{2(R_1 g_m + 1)}$
 K-HP: 0
 K-BP: $-\frac{C_5 R_1 R_4}{2C_1 R_1 + 2C_5 R_1 R_4 g_m + 2C_5 R_1 + C_5 R_4}$
 QZ: 0
 Wz: None

8.19 INVALID-NUMER-19 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{R_1 R_4 (-C_5 R_5 s + R_5 g_m - 1)}{C_1 C_5 R_1 R_4 R_5 s^2 + C_1 R_1 R_4 s + 2C_1 R_1 R_5 s + 2C_5 R_1 R_4 R_5 g_m s + 2C_5 R_1 R_5 s + C_5 R_4 R_5 s + 2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$$

Parameters:

Q: $\frac{C_1 C_5 R_1 R_4 R_5 \sqrt{\frac{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}{C_1 C_5 R_1 R_4 R_5}}}{C_1 R_1 R_4 + 2C_1 R_1 R_5 + 2C_5 R_1 R_4 R_5 g_m + 2C_5 R_1 R_5 + C_5 R_4 R_5}$
 wo: $\sqrt{\frac{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}{C_1 C_5 R_1 R_4 R_5}}$
 bandwidth: $\frac{C_1 R_1 R_4 + 2C_1 R_1 R_5 + 2C_5 R_1 R_4 R_5 g_m + 2C_5 R_1 R_5 + C_5 R_4 R_5}{C_1 C_5 R_1 R_4 R_5}$
 K-LP: $\frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$
 K-HP: 0
 K-BP: $-\frac{C_5 R_1 R_4 R_5}{C_1 R_1 R_4 + 2C_1 R_1 R_5 + 2C_5 R_1 R_4 R_5 g_m + 2C_5 R_1 R_5 + C_5 R_4 R_5}$
 QZ: 0
 Wz: None

8.20 INVALID-NUMER-20 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_1 R_4 (C_5 R_5 g_m s - C_5 s + g_m)}{C_1 C_5 R_1 R_4 s^2 + 2C_1 C_5 R_1 R_5 s^2 + 2C_1 R_1 s + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 R_5 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2C_5 R_5 s + 2R_1 g_m + 2}$$

Parameters:

Q: $\frac{\sqrt{2} C_1 C_5 R_1 \sqrt{\frac{R_1 g_m + 1}{C_1 C_5 R_1 (R_4 + 2R_5)}} (R_4 + 2R_5)}{2C_1 R_1 + 2C_5 R_1 R_4 g_m + 2C_5 R_1 R_5 g_m + 2C_5 R_1 + C_5 R_4 + 2C_5 R_5}$
 wo: $\sqrt{2} \sqrt{\frac{R_1 g_m + 1}{C_1 C_5 R_1 (R_4 + 2R_5)}}$
 bandwidth: $\frac{2C_1 R_1 + 2C_5 R_1 R_4 g_m + 2C_5 R_1 R_5 g_m + 2C_5 R_1 + C_5 R_4 + 2C_5 R_5}{C_1 C_5 R_1 (R_4 + 2R_5)}$
 K-LP: $\frac{R_1 R_4 g_m}{2(R_1 g_m + 1)}$
 K-HP: 0
 K-BP: $\frac{C_5 R_1 R_4 (R_5 g_m - 1)}{2C_1 R_1 + 2C_5 R_1 R_4 g_m + 2C_5 R_1 R_5 g_m + 2C_5 R_1 + C_5 R_4 + 2C_5 R_5}$
 QZ: 0
 Wz: None

8.21 INVALID-NUMER-21 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{R_1 (-C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 R_1 R_5 s^2 + C_1 C_5 R_1 R_5 s^2 + C_1 R_1 s + 2C_4 C_5 R_1 R_5 s^2 + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + 2C_4 R_5 s + 2C_5 R_1 R_5 g_m s + C_5 R_5 s + 2R_1 g_m + 1}$$

Parameters:

Q: $\frac{R_1 R_5 \sqrt{\frac{2R_1 g_m + 1}{R_1 R_5 (2C_1 C_4 + C_1 C_5 + 2C_4 C_5)}} (2C_1 C_4 + C_1 C_5 + 2C_4 C_5)}{C_1 R_1 + 2C_4 R_1 R_5 g_m + 2C_4 R_1 + 2C_4 R_5 + 2C_5 R_1 R_5 g_m + C_5 R_5}$

wo: $\sqrt{\frac{2R_1g_m+1}{R_1R_5(2C_1C_4+C_1C_5+2C_4C_5)}}$
bandwidth: $\frac{C_1R_1+2C_4R_1R_5g_m+2C_4R_1+2C_4R_5+2C_5R_1R_5g_m+C_5R_5}{R_1R_5(2C_1C_4+C_1C_5+2C_4C_5)}$
K-LP: $\frac{R_1(R_5g_m-1)}{2R_1g_m+1}$
K-HP: 0
K-BP: $-\frac{C_5R_1R_5}{C_1R_1+2C_4R_1R_5g_m+2C_4R_1+2C_4R_5+2C_5R_1R_5g_m+C_5R_5}$
Qz: 0
Wz: None

8.22 INVALID-NUMER-22 $Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \frac{R_4}{C_4R_4s+1}, \frac{1}{C_5s}, \infty \right)$

$$H(s) = \frac{R_1R_4(-C_5s + g_m)}{2C_1C_4R_1R_4s^2 + C_1C_5R_1R_4s^2 + 2C_1R_1s + 2C_4C_5R_1R_4s^2 + 2C_4R_1R_4g_ms + 2C_4R_4s + 2C_5R_1R_4g_ms + 2C_5R_1s + C_5R_4s + 2R_1g_m + 2}$$

Parameters:

Q: $\frac{\sqrt{2}R_1R_4\sqrt{\frac{R_1g_m+1}{R_1R_4(2C_1C_4+C_1C_5+2C_4C_5)}}(2C_1C_4+C_1C_5+2C_4C_5)}{2C_1R_1+2C_4R_1R_4g_m+2C_4R_4+2C_5R_1R_4g_m+2C_5R_1+C_5R_4}$
wo: $\sqrt{2}\sqrt{\frac{R_1g_m+1}{R_1R_4(2C_1C_4+C_1C_5+2C_4C_5)}}$
bandwidth: $\frac{2C_1R_1+2C_4R_1R_4g_m+2C_4R_4+2C_5R_1R_4g_m+2C_5R_1+C_5R_4}{R_1R_4(2C_1C_4+C_1C_5+2C_4C_5)}$
K-LP: $\frac{R_1R_4g_m}{2(R_1g_m+1)}$
K-HP: 0
K-BP: $-\frac{C_5R_1R_4}{2C_1R_1+2C_4R_1R_4g_m+2C_4R_4+2C_5R_1R_4g_m+2C_5R_1+C_5R_4}$
Qz: 0
Wz: None

8.23 INVALID-NUMER-23 $Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \frac{R_4}{C_4R_4s+1}, \frac{R_5}{C_5R_5s+1}, \infty \right)$

$$H(s) = \frac{R_1R_4(-C_5R_5s + R_5g_m - 1)}{2C_1C_4R_1R_4R_5s^2 + C_1C_5R_1R_4R_5s^2 + C_1R_1R_4s + 2C_1R_1R_5s + 2C_4C_5R_1R_4R_5s^2 + 2C_4R_1R_4R_5g_ms + 2C_4R_1R_4s + 2C_4R_4R_5s + 2C_5R_1R_4R_5g_ms + 2C_5R_1R_5s + C_5R_4R_5s + 2R_1R_4g_m + 2R_1R_5g_m + 2R_1 + R_4 + 2R_5}$$

Parameters:

Q: $\frac{R_1R_4R_5\sqrt{\frac{2R_1R_4g_m+2R_1R_5g_m+2R_1+R_4+2R_5}{R_1R_4R_5(2C_1C_4+C_1C_5+2C_4C_5)}}(2C_1C_4+C_1C_5+2C_4C_5)}{C_1R_1R_4+2C_1R_1R_5+2C_4R_1R_4R_5g_m+2C_4R_1R_4+2C_4R_4R_5+2C_5R_1R_4R_5g_m+2C_5R_1R_5+C_5R_4R_5}$
wo: $\sqrt{\frac{2R_1R_4g_m+2R_1R_5g_m+2R_1+R_4+2R_5}{R_1R_4R_5(2C_1C_4+C_1C_5+2C_4C_5)}}$
bandwidth: $\frac{C_1R_1R_4+2C_1R_1R_5+2C_4R_1R_4R_5g_m+2C_4R_1R_4+2C_4R_4R_5+2C_5R_1R_4R_5g_m+2C_5R_1R_5+C_5R_4R_5}{R_1R_4R_5(2C_1C_4+C_1C_5+2C_4C_5)}$
K-LP: $\frac{R_1R_4(R_5g_m-1)}{2R_1R_4g_m+2R_1R_5g_m+2R_1+R_4+2R_5}$
K-HP: 0
K-BP: $-\frac{C_5R_1R_4R_5}{C_1R_1R_4+2C_1R_1R_5+2C_4R_1R_4R_5g_m+2C_4R_1R_4+2C_4R_4R_5+2C_5R_1R_4R_5g_m+2C_5R_1R_5+C_5R_4R_5}$
Qz: 0
Wz: None

8.24 INVALID-NUMER-24 $Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, R_4 + \frac{1}{C_4s}, R_5, \infty \right)$

$$H(s) = \frac{R_1(R_5g_m - 1)(C_4R_4s + 1)}{C_1C_4R_1R_4s^2 + 2C_1C_4R_1R_5s^2 + C_1R_1s + 2C_4R_1R_4g_ms + 2C_4R_1R_5g_ms + 2C_4R_1s + C_4R_4s + 2C_4R_5s + 2R_1g_m + 1}$$

Parameters:

Q: $\frac{C_1C_4R_1\sqrt{\frac{2R_1g_m+1}{C_1C_4R_1(R_4+2R_5)}}(R_4+2R_5)}{C_1R_1+2C_4R_1R_4g_m+2C_4R_1R_5g_m+2C_4R_1+C_4R_4+2C_4R_5}$
wo: $\sqrt{\frac{2R_1g_m+1}{C_1C_4R_1(R_4+2R_5)}}$
bandwidth: $\frac{C_1R_1+2C_4R_1R_4g_m+2C_4R_1R_5g_m+2C_4R_1+C_4R_4+2C_4R_5}{C_1C_4R_1(R_4+2R_5)}$
K-LP: $\frac{R_1(R_5g_m-1)}{2R_1g_m+1}$
K-HP: 0
K-BP: $\frac{C_4R_1R_4(R_5g_m-1)}{C_1R_1+2C_4R_1R_4g_m+2C_4R_1R_5g_m+2C_4R_1+C_4R_4+2C_4R_5}$
Qz: 0
Wz: None

8.25 INVALID-NUMER-25 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, R_5, \infty \right)$

$$H(s) = \frac{(R_5 g_m - 1)(C_1 R_1 s + 1)}{2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

Parameters:

Q: $\frac{2C_1 C_4 \sqrt{\frac{g_m}{C_1 C_4 (R_1 R_5 g_m + R_1 + R_5)}} (R_1 R_5 g_m + R_1 + R_5)}{2C_1 R_1 g_m + C_1 + 2C_4 R_5 g_m + 2C_4}$
wo: $\sqrt{\frac{g_m}{C_1 C_4 (R_1 R_5 g_m + R_1 + R_5)}}$
bandwidth: $\frac{2C_1 R_1 g_m + C_1 + 2C_4 R_5 g_m + 2C_4}{2C_1 C_4 (R_1 R_5 g_m + R_1 + R_5)}$
K-LP: $\frac{R_5 g_m - 1}{2g_m}$
K-HP: 0
K-BP: $\frac{C_1 R_1 (R_5 g_m - 1)}{2C_1 R_1 g_m + C_1 + 2C_4 R_5 g_m + 2C_4}$
Qz: 0
Wz: None

8.26 INVALID-NUMER-26 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_5, \infty \right)$

$$H(s) = \frac{R_4 (R_5 g_m - 1)(C_1 R_1 s + 1)}{2C_1 C_4 R_1 R_4 R_5 g_m s^2 + 2C_1 C_4 R_1 R_4 s^2 + 2C_1 C_4 R_4 R_5 s^2 + 2C_1 R_1 R_4 g_m s + 2C_1 R_1 R_5 g_m s + 2C_1 R_1 s + C_1 R_4 s + 2C_1 R_5 s + 2C_4 R_4 R_5 g_m s + 2C_4 R_4 s + 2R_4 g_m + 2R_5 g_m + 2}$$

Parameters:

Q: $\frac{2C_1 C_4 R_4 \sqrt{\frac{R_4 g_m + R_5 g_m + 1}{C_1 C_4 R_4 (R_1 R_5 g_m + R_1 + R_5)}} (R_1 R_5 g_m + R_1 + R_5)}{2C_1 R_1 R_4 g_m + 2C_1 R_1 R_5 g_m + 2C_1 R_1 + C_1 R_4 + 2C_1 R_5 + 2C_4 R_4 R_5 g_m + 2C_4 R_4}$
wo: $\sqrt{\frac{R_4 g_m + R_5 g_m + 1}{C_1 C_4 R_4 (R_1 R_5 g_m + R_1 + R_5)}}$
bandwidth: $\frac{2C_1 R_1 R_4 g_m + 2C_1 R_1 R_5 g_m + 2C_1 R_1 + C_1 R_4 + 2C_1 R_5 + 2C_4 R_4 R_5 g_m + 2C_4 R_4}{2C_1 C_4 R_4 (R_1 R_5 g_m + R_1 + R_5)}$
K-LP: $\frac{R_4 (R_5 g_m - 1)}{2(R_4 g_m + R_5 g_m + 1)}$
K-HP: 0
K-BP: $\frac{C_1 R_1 R_4 (R_5 g_m - 1)}{2C_1 R_1 R_4 g_m + 2C_1 R_1 R_5 g_m + 2C_1 R_1 + C_1 R_4 + 2C_1 R_5 + 2C_4 R_4 R_5 g_m + 2C_4 R_4}$
Qz: 0
Wz: None

8.27 INVALID-NUMER-27 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 (-C_5 s + g_m)}{2C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 s^2 + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

Parameters:

Q: $\frac{\sqrt{\frac{2C_4 + C_5}{L_1 (2C_1 C_4 + C_1 C_5 + 2C_4 C_5)}} (C_1 C_4 + \frac{C_1 C_5}{2} + C_4 C_5)}{g_m (C_4 + C_5)}$
wo: $\sqrt{\frac{2C_4 + C_5}{L_1 (2C_1 C_4 + C_1 C_5 + 2C_4 C_5)}}$
bandwidth: $\frac{g_m (C_4 + C_5)}{C_1 C_4 + \frac{C_1 C_5}{2} + C_4 C_5}$
K-LP: $\frac{L_1 g_m}{2C_4 + C_5}$
K-HP: 0
K-BP: $-\frac{C_5}{2g_m (C_4 + C_5)}$
Qz: 0
Wz: None

8.28 INVALID-NUMER-28 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, \frac{1}{C_4 s}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_1 (-C_5 s + g_m)}{2C_1 C_4 L_1 R_1 s^2 + C_1 C_5 L_1 R_1 s^2 + 2C_4 C_5 L_1 R_1 s^2 + 2C_4 L_1 R_1 g_m s + 2C_4 L_1 s + 2C_4 R_1 + 2C_5 L_1 R_1 g_m s + C_5 L_1 s + C_5 R_1}$$

Parameters:

Q: $\frac{R_1 \sqrt{\frac{2C_4 + C_5}{L_1 (2C_1 C_4 + C_1 C_5 + 2C_4 C_5)}} (2C_1 C_4 + C_1 C_5 + 2C_4 C_5)}{2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5}$

wo: $\sqrt{\frac{2C_4+C_5}{L_1(2C_1C_4+C_1C_5+2C_4C_5)}}$
 bandwidth: $\frac{2C_4R_1g_m+2C_4+2C_5R_1g_m+C_5}{R_1(2C_1C_4+C_1C_5+2C_4C_5)}$
 K-LP: $\frac{L_1g_m}{2C_4+C_5}$
 K-HP: 0
 K-BP: $-\frac{C_5R_1}{2C_4R_1g_m+2C_4+2C_5R_1g_m+C_5}$
 QZ: 0
 Wz: None

9 INVALID-WZ

9.1 INVALID-WZ-1 $Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4s}, \frac{R_5}{C_5R_5s+1}, \infty \right)$

$$H(s) = -\frac{R_1(C_4R_4s+1)(C_5R_5s-R_5g_m+1)}{2C_4C_5R_1R_4R_5g_ms^2+2C_4C_5R_1R_5s^2+C_4C_5R_4R_5s^2+2C_4R_1R_4g_ms+2C_4R_1R_5g_ms+2C_4R_1s+C_4R_4s+2C_4R_5s+2C_5R_1R_5g_ms+C_5R_5s+2R_1g_m+1}$$

Parameters:

Q: $\frac{C_4C_5R_5\sqrt{\frac{2R_1g_m+1}{C_4C_5R_5(2R_1R_4g_m+2R_1+R_4)}}(2R_1R_4g_m+2R_1+R_4)}{2C_4R_1R_4g_m+2C_4R_1R_5g_m+2C_4R_1+C_4R_4+2C_4R_5+2C_5R_1R_5g_m+C_5R_5}$
 wo: $\sqrt{\frac{2R_1g_m+1}{C_4C_5R_5(2R_1R_4g_m+2R_1+R_4)}}$
 bandwidth: $\frac{2C_4R_1R_4g_m+2C_4R_1R_5g_m+2C_4R_1+C_4R_4+2C_4R_5+2C_5R_1R_5g_m+C_5R_5}{C_4C_5R_5(2R_1R_4g_m+2R_1+R_4)}$
 K-LP: $\frac{R_1(R_5g_m-1)}{2R_1g_m+1}$
 K-HP: $-\frac{R_1R_4}{2R_1R_4g_m+2R_1+R_4}$
 K-BP: $\frac{R_1(C_4R_4R_5g_m-C_4R_4-C_5R_5)}{2C_4R_1R_4g_m+2C_4R_1R_5g_m+2C_4R_1+C_4R_4+2C_4R_5+2C_5R_1R_5g_m+C_5R_5}$
 QZ: $\frac{C_4C_5R_4R_5\sqrt{\frac{2R_1g_m+1}{C_4C_5R_5(2R_1R_4g_m+2R_1+R_4)}}}{-C_4R_4R_5g_m+C_4R_4+C_5R_5}$
 Wz: $\sqrt{\frac{-R_5g_m+1}{C_4C_5R_4R_5}}$

9.2 INVALID-WZ-2 $Z(s) = \left(L_1s, \infty, \infty, R_4 + \frac{1}{C_4s}, \frac{1}{C_5s}, \infty \right)$

$$H(s) = -\frac{L_1(C_5s-g_m)(C_4R_4s+1)}{2C_4C_5L_1R_4g_ms^2+2C_4C_5L_1s^2+C_4C_5R_4s+2C_4L_1g_ms+2C_4+2C_5L_1g_ms+C_5}$$

Parameters:

Q: $\frac{\sqrt{2}C_4C_5L_1\sqrt{\frac{2C_4+C_5}{C_4C_5L_1(R_4g_m+1)}}(R_4g_m+1)}{C_4C_5R_4+2C_4L_1g_m+2C_5L_1g_m}$
 wo: $\sqrt{\frac{C_4+\frac{C_5}{2}}{C_4C_5L_1(R_4g_m+1)}}$
 bandwidth: $\frac{\sqrt{2}\sqrt{\frac{C_4+\frac{C_5}{2}}{C_4C_5L_1(R_4g_m+1)}}(C_4C_5R_4+2C_4L_1g_m+2C_5L_1g_m)}{2C_4C_5L_1\sqrt{\frac{2C_4+C_5}{C_4C_5L_1(R_4g_m+1)}}(R_4g_m+1)}$
 K-LP: $\frac{L_1g_m}{2C_4+C_5}$
 K-HP: $-\frac{R_4}{2R_4g_m+2}$
 K-BP: $\frac{L_1(C_4R_4g_m-C_5)}{C_4C_5R_4+2C_4L_1g_m+2C_5L_1g_m}$
 QZ: $-\frac{\sqrt{2}C_4C_5R_4\sqrt{\frac{2C_4+C_5}{C_4C_5L_1(R_4g_m+1)}}}{2C_4R_4g_m-2C_5}$
 Wz: $\sqrt{-\frac{g_m}{C_4C_5R_4}}$

9.3 INVALID-WZ-3 $Z(s) = \left(L_1s, \infty, \infty, R_4 + \frac{1}{C_4s}, R_5 + \frac{1}{C_5s}, \infty \right)$

$$H(s) = \frac{L_1(C_4R_4s+1)(C_5R_5g_ms-C_5s+g_m)}{2C_4C_5L_1R_4g_ms^2+2C_4C_5L_1R_5g_ms^2+2C_4C_5L_1s^2+C_4C_5R_4s+2C_4C_5R_5s+2C_4L_1g_ms+2C_4+2C_5L_1g_ms+C_5}$$

Parameters:

Q: $\frac{\sqrt{2}C_4C_5L_1\sqrt{\frac{2C_4+C_5}{C_4C_5L_1(R_4g_m+R_5g_m+1)}}(R_4g_m+R_5g_m+1)}{C_4C_5R_4+2C_4C_5R_5+2C_4L_1g_m+2C_5L_1g_m}$

$$\begin{aligned}
\text{wo: } & \sqrt{\frac{C_4 + \frac{C_5}{2}}{C_4 C_5 L_1 (R_4 g_m + R_5 g_m + 1)}} \\
\text{bandwidth: } & \frac{\sqrt{2} \sqrt{\frac{C_4 + \frac{C_5}{2}}{C_4 C_5 L_1 (R_4 g_m + R_5 g_m + 1)}} (C_4 C_5 R_4 + 2C_4 C_5 R_5 + 2C_4 L_1 g_m + 2C_5 L_1 g_m)}{2C_4 C_5 L_1 \sqrt{\frac{2C_4 + C_5}{C_4 C_5 L_1 (R_4 g_m + R_5 g_m + 1)}} (R_4 g_m + R_5 g_m + 1)} \\
\text{K-LP: } & \frac{L_1 g_m}{2C_4 + C_5} \\
\text{K-HP: } & \frac{R_4 (R_5 g_m - 1)}{2(R_4 g_m + R_5 g_m + 1)} \\
\text{K-BP: } & \frac{L_1 (C_4 R_4 g_m + C_5 R_5 g_m - C_5)}{C_4 C_5 R_4 + 2C_4 C_5 R_5 + 2C_4 L_1 g_m + 2C_5 L_1 g_m} \\
\text{QZ: } & \frac{\sqrt{2} C_4 C_5 R_4 \sqrt{\frac{2C_4 + C_5}{C_4 C_5 L_1 (R_4 g_m + R_5 g_m + 1)}} (R_5 g_m - 1)}{2(C_4 R_4 g_m + C_5 R_5 g_m - C_5)} \\
\text{WZ: } & \sqrt{\frac{g_m}{C_4 C_5 R_4 (R_5 g_m - 1)}}
\end{aligned}$$

9.4 INVALID-WZ-4 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{R_4 (C_5 s - g_m) (C_1 R_1 s + 1)}{2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 s^2 + C_1 C_5 R_4 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_5 R_4 g_m s + 2C_5 s + 2g_m}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{\sqrt{2} C_1 C_5 \sqrt{\frac{g_m}{C_1 C_5 (2R_1 R_4 g_m + 2R_1 + R_4)}} (2R_1 R_4 g_m + 2R_1 + R_4)}{2(C_1 R_1 g_m + C_1 + C_5 R_4 g_m + C_5)} \\
\text{wo: } & \sqrt{2} \sqrt{\frac{g_m}{C_1 C_5 (2R_1 R_4 g_m + 2R_1 + R_4)}} \\
\text{bandwidth: } & \frac{2(C_1 R_1 g_m + C_1 + C_5 R_4 g_m + C_5)}{C_1 C_5 (2R_1 R_4 g_m + 2R_1 + R_4)} \\
\text{K-LP: } & \frac{R_4}{2} \\
\text{K-HP: } & -\frac{R_1 R_4}{2R_1 R_4 g_m + 2R_1 + R_4} \\
\text{K-BP: } & \frac{R_4 (C_1 R_1 g_m - C_5)}{2(C_1 R_1 g_m + C_1 + C_5 R_4 g_m + C_5)} \\
\text{QZ: } & -\frac{\sqrt{2} C_1 C_5 R_1 \sqrt{\frac{g_m}{C_1 C_5 (2R_1 R_4 g_m + 2R_1 + R_4)}}}{C_1 R_1 g_m - C_5} \\
\text{WZ: } & \sqrt{-\frac{g_m}{C_1 C_5 R_1}}
\end{aligned}$$

9.5 INVALID-WZ-5 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{R_4 (C_1 R_1 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_5 R_1 R_4 R_5 g_m s^2 + 2C_1 C_5 R_1 R_5 s^2 + C_1 C_5 R_4 R_5 s^2 + 2C_1 R_1 R_4 g_m s + 2C_1 R_1 R_5 g_m s + 2C_1 R_1 s + C_1 R_4 s + 2C_1 R_5 s + 2C_5 R_4 R_5 g_m s + 2C_5 R_5 s + 2R_4 g_m + 2R_5 g_m + 2}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{\sqrt{2} C_1 C_5 R_5 \sqrt{\frac{R_4 g_m + R_5 g_m + 1}{C_1 C_5 R_5 (2R_1 R_4 g_m + 2R_1 + R_4)}} (2R_1 R_4 g_m + 2R_1 + R_4)}{2C_1 R_1 R_4 g_m + 2C_1 R_1 R_5 g_m + 2C_1 R_1 + C_1 R_4 + 2C_1 R_5 + 2C_5 R_4 R_5 g_m + 2C_5 R_5} \\
\text{wo: } & \sqrt{2} \sqrt{\frac{R_4 g_m + R_5 g_m + 1}{C_1 C_5 R_5 (2R_1 R_4 g_m + 2R_1 + R_4)}} \\
\text{bandwidth: } & \frac{2C_1 R_1 R_4 g_m + 2C_1 R_1 R_5 g_m + 2C_1 R_1 + C_1 R_4 + 2C_1 R_5 + 2C_5 R_4 R_5 g_m + 2C_5 R_5}{C_1 C_5 R_5 (2R_1 R_4 g_m + 2R_1 + R_4)} \\
\text{K-LP: } & \frac{R_4 (R_5 g_m - 1)}{2(R_4 g_m + R_5 g_m + 1)} \\
\text{K-HP: } & -\frac{R_1 R_4}{2R_1 R_4 g_m + 2R_1 + R_4} \\
\text{K-BP: } & \frac{R_4 (C_1 R_1 R_5 g_m - C_1 R_1 - C_5 R_5)}{2C_1 R_1 R_4 g_m + 2C_1 R_1 R_5 g_m + 2C_1 R_1 + C_1 R_4 + 2C_1 R_5 + 2C_5 R_4 R_5 g_m + 2C_5 R_5} \\
\text{QZ: } & \frac{\sqrt{2} C_1 C_5 R_1 R_5 \sqrt{\frac{R_4 g_m + R_5 g_m + 1}{C_1 C_5 R_5 (2R_1 R_4 g_m + 2R_1 + R_4)}}}{-C_1 R_1 R_5 g_m + C_1 R_1 + C_5 R_5} \\
\text{WZ: } & \sqrt{\frac{-R_5 g_m + 1}{C_1 C_5 R_1 R_5}}
\end{aligned}$$

9.6 INVALID-WZ-6 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4 (C_1 R_1 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 R_5 g_m s^2 + 2C_1 C_5 R_1 s^2 + C_1 C_5 R_4 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_5 R_4 g_m s + 2C_5 R_5 g_m s + 2C_5 s + 2g_m}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{\sqrt{2} C_1 C_5 \sqrt{\frac{g_m}{C_1 C_5 (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)}} (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)}{2(C_1 R_1 g_m + C_1 + C_5 R_4 g_m + C_5 R_5 g_m + C_5)} \\
\text{wo: } & \sqrt{2} \sqrt{\frac{g_m}{C_1 C_5 (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)}}
\end{aligned}$$

$$\begin{aligned}
&\text{bandwidth: } \frac{2(C_1 R_1 g_m + C_1 + C_5 R_4 g_m + C_5 R_5 g_m + C_5)}{C_1 C_5 (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)} \\
&\text{K-LP: } \frac{R_4}{2} \\
&\text{K-HP: } \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\
&\text{K-BP: } \frac{R_4 (C_1 R_1 g_m + C_5 R_5 g_m - C_5)}{2(C_1 R_1 g_m + C_1 + C_5 R_4 g_m + C_5 R_5 g_m + C_5)} \\
&\text{QZ: } \frac{\sqrt{2} C_1 C_5 R_1 \sqrt{\frac{g_m}{C_1 C_5 (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)}} (R_5 g_m - 1)}{C_1 R_1 g_m + C_5 R_5 g_m - C_5} \\
&\text{WZ: } \sqrt{\frac{g_m}{C_1 C_5 R_1 (R_5 g_m - 1)}}
\end{aligned}$$

9.7 INVALID-WZ-7 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, R_5, \infty \right)$

$$H(s) = \frac{(R_5 g_m - 1) (C_1 R_1 s + 1) (C_4 R_4 s + 1)}{2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_4 R_4 g_m s + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

Parameters:

$$\begin{aligned}
&\text{Q: } \frac{\sqrt{2} C_1 C_4 \sqrt{\frac{g_m}{C_1 C_4 (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)}} (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)}{2C_1 R_1 g_m + C_1 + 2C_4 R_4 g_m + 2C_4 R_5 g_m + 2C_4} \\
&\text{wo: } \sqrt{2} \sqrt{\frac{g_m}{C_1 C_4 (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)}} \\
&\text{bandwidth: } \frac{2C_1 R_1 g_m + C_1 + 2C_4 R_4 g_m + 2C_4 R_5 g_m + 2C_4}{C_1 C_4 (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)} \\
&\text{K-LP: } \frac{R_5 g_m - 1}{2g_m} \\
&\text{K-HP: } \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5} \\
&\text{K-BP: } \frac{C_1 R_1 R_5 g_m - C_1 R_1 + C_4 R_4 R_5 g_m - C_4 R_4}{2C_1 R_1 g_m + C_1 + 2C_4 R_4 g_m + 2C_4 R_5 g_m + 2C_4} \\
&\text{QZ: } \frac{\sqrt{2} C_1 C_4 R_1 R_4 \sqrt{\frac{g_m}{C_1 C_4 (2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5)}}}{C_1 R_1 + C_4 R_4} \\
&\text{WZ: } \sqrt{\frac{1}{C_1 C_4 R_1 R_4}}
\end{aligned}$$

10 INVALID-ORDER

10.1 INVALID-ORDER-1 $Z(s) = (R_1, \infty, \infty, R_4, R_5, \infty)$

$$H(s) = \frac{R_1 R_4 (R_5 g_m - 1)}{2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$$

10.2 INVALID-ORDER-2 $Z(s) = \left(R_1, \infty, \infty, R_4, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_1 R_4 (-C_5 s + g_m)}{2C_5 R_1 R_4 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2R_1 g_m + 2}$$

10.3 INVALID-ORDER-3 $Z(s) = \left(R_1, \infty, \infty, R_4, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{R_1 R_4 (-C_5 R_5 s + R_5 g_m - 1)}{2C_5 R_1 R_4 R_5 g_m s + 2C_5 R_1 R_5 s + C_5 R_4 R_5 s + 2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$$

10.4 INVALID-ORDER-4 $Z(s) = \left(R_1, \infty, \infty, R_4, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_1 R_4 (C_5 R_5 g_m s - C_5 s + g_m)}{2C_5 R_1 R_4 g_m s + 2C_5 R_1 R_5 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2C_5 R_5 s + 2R_1 g_m + 2}$$

10.5 INVALID-ORDER-5 $Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, R_5, \infty \right)$

$$H(s) = \frac{R_1 (R_5 g_m - 1)}{2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + 2C_4 R_5 s + 2R_1 g_m + 1}$$

10.6 INVALID-ORDER-6 $Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_1 (-C_5 s + g_m)}{s (2C_4 C_5 R_1 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

10.7 INVALID-ORDER-7 $Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_1 (C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + 2C_4 C_5 R_5 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

10.8 INVALID-ORDER-8 $Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_1 (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_4 C_5 L_5 R_1 g_m s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 C_5 R_1 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

10.9 INVALID-ORDER-9 $Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = \frac{R_1 (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_4 C_5 L_5 R_1 s^3 + 2C_4 L_5 R_1 g_m s^2 + 2C_4 L_5 s^2 + 2C_4 R_1 s + 2C_5 L_5 R_1 g_m s^2 + C_5 L_5 s^2 + 2R_1 g_m + 1}$$

10.10 INVALID-ORDER-10 $Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_1 (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_4 C_5 L_5 R_1 g_m s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + 2C_4 C_5 R_5 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

10.11 INVALID-ORDER-11 $Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = \frac{R_1 (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_4 C_5 L_5 R_1 R_5 s^3 + 2C_4 L_5 R_1 R_5 g_m s^2 + 2C_4 L_5 R_1 s^2 + 2C_4 L_5 R_5 s^2 + 2C_4 R_1 R_5 s + 2C_5 L_5 R_1 R_5 g_m s^2 + C_5 L_5 R_5 s^2 + 2L_5 R_1 g_m s + L_5 s + 2R_1 R_5 g_m + R_5}$$

10.12 INVALID-ORDER-12 $Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{R_1 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_4 C_5 L_5 R_1 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_5 R_1 g_m s^2 + 2C_4 L_5 s^2 + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + 2C_4 R_5 s + 2C_5 L_5 R_1 g_m s^2 + C_5 L_5 s^2 + 2R_1 g_m + 1}$$

10.13 INVALID-ORDER-13 $Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{R_1 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_4 C_5 L_5 R_1 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 C_5 R_1 R_5 s^2 + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + 2C_4 R_5 s + 2C_5 L_5 R_1 g_m s^2 + C_5 L_5 s^2 + 2C_5 R_1 R_5 g_m s + C_5 R_5 s + 2R_1 g_m + 1}$$

10.14 INVALID-ORDER-14 $Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_5, \infty \right)$

$$H(s) = \frac{R_1 R_4 (R_5 g_m - 1)}{2C_4 R_1 R_4 R_5 g_m s + 2C_4 R_1 R_4 s + 2C_4 R_4 R_5 s + 2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$$

10.15 INVALID-ORDER-15 $Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_1 R_4 (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_4 C_5 L_5 R_1 R_4 g_m s^3 + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 R_1 R_4 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_4 s + 2C_5 L_5 R_1 g_m s^2 + 2C_5 L_5 s^2 + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2R_1 g_m + 2}$$

10.16 INVALID-ORDER-16 $Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = \frac{R_1 R_4 (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_4 C_5 L_5 R_1 R_4 s^3 + 2C_4 L_5 R_1 R_4 g_m s^2 + 2C_4 L_5 R_4 s^2 + 2C_4 R_1 R_4 s + 2C_5 L_5 R_1 R_4 g_m s^2 + 2C_5 L_5 R_1 s^2 + C_5 L_5 R_4 s^2 + 2L_5 R_1 g_m s + 2L_5 s + 2R_1 R_4 g_m + 2R_1 + R_4}$$

10.17 INVALID-ORDER-17 $Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_1 R_4 (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_5 R_1 R_4 g_m s^3 + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 R_1 R_4 R_5 g_m s^2 + 2C_4 C_5 R_1 R_4 s^2 + 2C_4 C_5 R_4 R_5 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_4 s + 2C_5 L_5 R_1 g_m s^2 + 2C_5 L_5 s^2 + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 R_5 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2C_5 R_5 s + 2R_1 g_m + 2}$$

10.18 INVALID-ORDER-18 $Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = \frac{R_1 R_4 (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_4 C_5 L_5 R_1 R_4 R_5 s^3 + 2C_4 L_5 R_1 R_4 R_5 g_m s^2 + 2C_4 L_5 R_1 R_4 s^2 + 2C_4 L_5 R_4 R_5 s^2 + 2C_4 R_1 R_4 R_5 s + 2C_5 L_5 R_1 R_4 R_5 g_m s^2 + 2C_5 L_5 R_1 R_5 s^2 + C_5 L_5 R_4 R_5 s^2 + 2L_5 R_1 R_4 g_m s + 2L_5 R_1 R_5 g_m s + 2L_5 R_1 s + L_5 R_4 s + 2L_5 R_5 s + 2R_1 R_4 R_5 g_m + 2R_1 R_5 + R_4 R_5}$$

10.19 INVALID-ORDER-19 $Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{R_1 R_4 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_4 C_5 L_5 R_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 R_4 s^3 + 2C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 L_5 R_1 R_4 g_m s^2 + 2C_4 L_5 R_4 s^2 + 2C_4 R_1 R_4 R_5 g_m s + 2C_4 R_1 R_4 s + 2C_4 R_4 R_5 s + 2C_5 L_5 R_1 R_4 g_m s^2 + 2C_5 L_5 R_1 R_5 g_m s^2 + 2C_5 L_5 R_1 s^2 + C_5 L_5 R_4 s^2 + 2C_5 L_5 R_5 s^2 + 2L_5 R_1 g_m s + 2L_5 s + 2R_1 R_4 g_m + 2R_1 R_5 + R_4 R_5}$$

10.20 INVALID-ORDER-20 $Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{R_1 R_4 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_4 C_5 L_5 R_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 R_4 s^3 + 2C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 C_5 R_1 R_4 R_5 s^2 + 2C_4 R_1 R_4 R_5 g_m s + 2C_4 R_1 R_4 s + 2C_4 R_4 R_5 s + 2C_5 L_5 R_1 R_4 g_m s^2 + 2C_5 L_5 R_1 R_5 g_m s^2 + 2C_5 L_5 R_1 s^2 + C_5 L_5 R_4 s^2 + 2C_5 L_5 R_5 s^2 + 2C_5 R_1 R_4 R_5 g_m s + 2C_5 R_1 R_5 s + C_5 R_4 R_5 s + 2R_1 R_4 R_5 g_m + 2R_1 R_5 + R_4 R_5}$$

10.21 INVALID-ORDER-21 $Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, R_5, \infty \right)$

$$H(s) = \frac{R_1 (R_5 g_m - 1) (C_4 R_4 s + 1)}{2C_4 R_1 R_4 g_m s + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + C_4 R_4 s + 2C_4 R_5 s + 2R_1 g_m + 1}$$

10.22 INVALID-ORDER-22 $Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{R_1 (C_5 s - g_m) (C_4 R_4 s + 1)}{s (2C_4 C_5 R_1 R_4 g_m s + 2C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

10.23 INVALID-ORDER-23 $Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_1 (C_4 R_4 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_4 C_5 R_1 R_4 g_m s + 2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2C_4 C_5 R_5 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

10.24 INVALID-ORDER-24 $Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_1 (C_4 R_4 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_4 C_5 L_5 R_1 g_m s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 C_5 R_1 R_4 g_m s + 2C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

10.25 INVALID-ORDER-25 $Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = -\frac{R_1 (C_4 R_4 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_4 C_5 L_5 R_1 R_4 g_m s^3 + 2C_4 C_5 L_5 R_1 s^3 + C_4 C_5 L_5 R_4 s^3 + 2C_4 L_5 R_1 g_m s^2 + 2C_4 L_5 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_1 s + C_4 R_4 s + 2C_5 L_5 R_1 g_m s^2 + C_5 L_5 s^2 + 2R_1 g_m + 1}$$

10.26 INVALID-ORDER-26 $Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_1 (C_4 R_4 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_4 C_5 L_5 R_1 g_m s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 C_5 R_1 R_4 g_m s + 2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2C_4 C_5 R_5 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

10.27 INVALID-ORDER-27 $Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = -\frac{R_1 (C_4 R_4 s + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_4 C_5 L_5 R_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 R_5 s^3 + C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 L_5 R_1 R_4 g_m s^2 + 2C_4 L_5 R_1 R_5 g_m s^2 + 2C_4 L_5 R_1 s^2 + C_4 L_5 R_4 s^2 + 2C_4 L_5 R_5 s^2 + 2C_4 R_1 R_4 R_5 g_m s + 2C_4 R_1 R_5 s + C_4 R_4 R_5 s + 2C_5 L_5 R_1 R_5 g_m s^2 + C_5 L_5 R_5 s^2 + 2L_5 R_1 g_m s + L_5 s + 2R_1 R_5 g_m + R_5}$$

10.28 INVALID-ORDER-28 $Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{R_1 (C_4 R_4 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_4 C_5 L_5 R_1 R_4 g_m s^3 + 2C_4 C_5 L_5 R_1 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 s^3 + C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_5 R_1 g_m s^2 + 2C_4 L_5 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + C_4 R_4 s + 2C_4 R_5 s + 2C_5 L_5 R_1 g_m s^2 + C_5 L_5 s^2 + 2R_1 g_m + 1}$$

10.29 INVALID-ORDER-29 $Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{R_1 (C_4 R_4 s + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m + 1)}{2C_4 C_5 L_5 R_1 R_4 g_m s^3 + 2C_4 C_5 L_5 R_1 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 s^3 + C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 C_5 R_1 R_4 R_5 g_m s^2 + 2C_4 C_5 R_1 R_5 s^2 + C_4 C_5 R_4 R_5 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + C_4 R_4 s + 2C_4 R_5 s + 2C_5 L_5 R_1 g_m s^2 + C_5 L_5 s^2 + 2C_5 R_1 R_5 g_m s + C_5}$$

10.30 INVALID-ORDER-30 $Z(s) = \left(R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{R_1 (C_5 s - g_m) (C_4 L_4 s^2 + 1)}{s (2C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2 + 2C_4 C_5 R_1 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

10.31 INVALID-ORDER-31 $Z(s) = \left(R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{R_1 (C_4 L_4 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_4 C_5 L_4 R_1 R_5 g_m s^3 + C_4 C_5 L_4 R_5 s^3 + 2C_4 C_5 R_1 R_5 s^2 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + 2C_4 R_5 s + 2C_5 R_1 R_5 g_m s + C_5 R_5 s + 2R_1 g_m + 1}$$

10.32 INVALID-ORDER-32 $Z(s) = \left(R_1, \infty, \infty, L_4s + \frac{1}{C_4s}, R_5 + \frac{1}{C_5s}, \infty \right)$

$$H(s) = \frac{R_1 (C_4L_4s^2 + 1) (C_5R_5g_ms - C_5s + g_m)}{s (2C_4C_5L_4R_1g_ms^2 + C_4C_5L_4s^2 + 2C_4C_5R_1R_5g_ms + 2C_4C_5R_1s + 2C_4C_5R_5s + 2C_4R_1g_m + 2C_4 + 2C_5R_1g_m + C_5)}$$

10.33 INVALID-ORDER-33 $Z(s) = \left(R_1, \infty, \infty, L_4s + \frac{1}{C_4s}, L_5s + \frac{1}{C_5s}, \infty \right)$

$$H(s) = \frac{R_1 (C_4L_4s^2 + 1) (C_5L_5g_ms^2 - C_5s + g_m)}{s (2C_4C_5L_4R_1g_ms^2 + C_4C_5L_4s^2 + 2C_4C_5L_5R_1g_ms^2 + 2C_4C_5L_5s^2 + 2C_4C_5R_1s + 2C_4R_1g_m + 2C_4 + 2C_5R_1g_m + C_5)}$$

10.34 INVALID-ORDER-34 $Z(s) = \left(R_1, \infty, \infty, L_4s + \frac{1}{C_4s}, \frac{L_5s}{C_5L_5s^2+1}, \infty \right)$

$$H(s) = -\frac{R_1 (C_4L_4s^2 + 1) (C_5L_5s^2 - L_5g_ms + 1)}{2C_4C_5L_4L_5R_1g_ms^4 + C_4C_5L_4L_5s^4 + 2C_4C_5L_5R_1s^3 + 2C_4L_4R_1g_ms^2 + C_4L_4s^2 + 2C_4L_5R_1g_ms^2 + 2C_4L_5s^2 + 2C_4R_1s + 2C_5L_5R_1g_ms^2 + C_5L_5s^2 + 2R_1g_m + 1}$$

10.35 INVALID-ORDER-35 $Z(s) = \left(R_1, \infty, \infty, L_4s + \frac{1}{C_4s}, L_5s + R_5 + \frac{1}{C_5s}, \infty \right)$

$$H(s) = \frac{R_1 (C_4L_4s^2 + 1) (C_5L_5g_ms^2 + C_5R_5g_ms - C_5s + g_m)}{s (2C_4C_5L_4R_1g_ms^2 + C_4C_5L_4s^2 + 2C_4C_5L_5R_1g_ms^2 + 2C_4C_5L_5s^2 + 2C_4C_5R_1R_5g_ms + 2C_4C_5R_1s + 2C_4C_5R_5s + 2C_4R_1g_m + 2C_4 + 2C_5R_1g_m + C_5)}$$

10.36 INVALID-ORDER-36 $Z(s) = \left(R_1, \infty, \infty, L_4s + \frac{1}{C_4s}, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \infty \right)$

$$H(s) = -\frac{R_1 (C_4L_4s^2 + 1) (C_5L_5R_5s^2 - L_5R_5g_ms + L_5s + R_5)}{2C_4C_5L_4L_5R_1R_5g_ms^4 + C_4C_5L_4L_5R_5s^4 + 2C_4C_5L_5R_1R_5s^3 + 2C_4L_4L_5R_1g_ms^3 + C_4L_4L_5s^3 + 2C_4L_4R_1R_5g_ms^2 + C_4L_4R_5s^2 + 2C_4L_5R_1R_5g_ms^2 + 2C_4L_5R_1s^2 + 2C_4L_5R_5s^2 + 2C_4R_1R_5s + 2C_5L_5R_1R_5g_ms^2 + C_5L_5R_5s^2 + 2L_5R_1g_ms + L_5s + 2R_1R_5g_m + R_5}$$

10.37 INVALID-ORDER-37 $Z(s) = \left(R_1, \infty, \infty, L_4s + \frac{1}{C_4s}, \frac{L_5s}{C_5L_5s^2+1} + R_5, \infty \right)$

$$H(s) = \frac{R_1 (C_4L_4s^2 + 1) (C_5L_5R_5g_ms^2 - C_5L_5s^2 + L_5g_ms + R_5g_m - 1)}{2C_4C_5L_4L_5R_1g_ms^4 + C_4C_5L_4L_5s^4 + 2C_4C_5L_5R_1R_5g_ms^3 + 2C_4C_5L_5R_1s^3 + 2C_4C_5L_5R_5s^3 + 2C_4L_4R_1g_ms^2 + C_4L_4s^2 + 2C_4L_5R_1g_ms^2 + 2C_4L_5s^2 + 2C_4R_1R_5g_ms + 2C_4R_1s + 2C_4R_5s + 2C_5L_5R_1g_ms^2 + C_5L_5s^2 + 2R_1g_m + 1}$$

10.38 INVALID-ORDER-38 $Z(s) = \left(R_1, \infty, \infty, L_4s + \frac{1}{C_4s}, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \infty \right)$

$$H(s) = -\frac{R_1 (C_4L_4s^2 + 1) (-C_5L_5R_5g_ms^2 + C_5L_5s^2 + C_5R_5s - R_5g_m + 1)}{2C_4C_5L_4L_5R_1g_ms^4 + C_4C_5L_4L_5s^4 + 2C_4C_5L_4R_1R_5g_ms^3 + C_4C_5L_4R_5s^3 + 2C_4C_5L_5R_1R_5g_ms^3 + 2C_4C_5L_5R_1s^3 + 2C_4C_5L_5R_5s^3 + 2C_4C_5R_1R_5s^2 + 2C_4L_4R_1g_ms^2 + C_4L_4s^2 + 2C_4R_1R_5g_ms + 2C_4R_1s + 2C_4R_5s + 2C_5L_5R_1g_ms^2 + C_5L_5s^2 + 2C_5R_1R_5g_ms + 1}$$

10.39 INVALID-ORDER-39 $Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \frac{1}{C_5s}, \infty \right)$

$$H(s) = \frac{L_4R_1s (-C_5s + g_m)}{2C_4C_5L_4R_1s^3 + 2C_4L_4R_1g_ms^2 + 2C_4L_4s^2 + 2C_5L_4R_1g_ms^2 + C_5L_4s^2 + 2C_5R_1s + 2R_1g_m + 2}$$

10.40 INVALID-ORDER-40 $Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \frac{R_5}{C_5R_5s+1}, \infty \right)$

$$H(s) = \frac{L_4R_1s (-C_5R_5s + R_5g_m - 1)}{2C_4C_5L_4R_1R_5s^3 + 2C_4L_4R_1R_5g_ms^2 + 2C_4L_4R_1s^2 + 2C_4L_4R_5s^2 + 2C_5L_4R_1R_5g_ms^2 + C_5L_4R_5s^2 + 2C_5R_1R_5s + 2L_4R_1g_ms + L_4s + 2R_1R_5g_m + 2R_1 + 2R_5}$$

10.41 INVALID-ORDER-41 $Z(s) = \left(R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_4 R_1 s (C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_4 R_1 R_5 g_m s^3 + 2C_4 C_5 L_4 R_1 s^3 + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 L_4 R_1 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2 + 2C_5 R_1 R_5 g_m s + 2C_5 R_1 s + 2C_5 R_5 s + 2R_1 g_m + 2}$$

10.42 INVALID-ORDER-42 $Z(s) = \left(R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_4 R_1 s (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_4 C_5 L_4 L_5 R_1 g_m s^4 + 2C_4 C_5 L_4 L_5 s^4 + 2C_4 C_5 L_4 R_1 s^3 + 2C_4 L_4 R_1 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2 + 2C_5 L_5 R_1 g_m s^2 + 2C_5 L_5 s^2 + 2C_5 R_1 s + 2R_1 g_m + 2}$$

10.43 INVALID-ORDER-43 $Z(s) = \left(R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = \frac{L_4 R_1 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_4 C_5 L_4 L_5 R_1 s^4 + 2C_4 L_4 L_5 R_1 g_m s^3 + 2C_4 L_4 L_5 s^3 + 2C_4 L_4 R_1 s^2 + 2C_5 L_4 L_5 R_1 g_m s^3 + C_5 L_4 L_5 s^3 + 2C_5 L_5 R_1 s^2 + 2L_4 R_1 g_m s + L_4 s + 2L_5 R_1 g_m s + 2L_5 s + 2R_1}$$

10.44 INVALID-ORDER-44 $Z(s) = \left(R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_4 R_1 s (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_4 L_5 R_1 g_m s^4 + 2C_4 C_5 L_4 L_5 s^4 + 2C_4 C_5 L_4 R_1 R_5 g_m s^3 + 2C_4 C_5 L_4 R_1 s^3 + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 L_4 R_1 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2 + 2C_5 L_5 R_1 g_m s^2 + 2C_5 L_5 s^2 + 2C_5 R_1 R_5 g_m s + 2C_5 R_1 s + 2C_5 R_5 s + 2R_1 g_m + 2}$$

10.45 INVALID-ORDER-45 $Z(s) = \left(R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = \frac{L_4 R_1 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_4 C_5 L_4 L_5 R_1 R_5 s^4 + 2C_4 L_4 L_5 R_1 R_5 g_m s^3 + 2C_4 L_4 L_5 R_1 s^3 + 2C_4 L_4 L_5 R_5 s^3 + 2C_4 L_4 R_1 R_5 s^2 + 2C_5 L_4 L_5 R_1 R_5 g_m s^3 + C_5 L_4 L_5 R_5 s^3 + 2C_5 L_5 R_1 R_5 s^2 + 2L_4 L_5 R_1 g_m s^2 + L_4 L_5 s^2 + 2L_4 R_1 R_5 g_m s + L_4 R_5 s + 2L_5 R_1 R_5 g_m s + 2L_5 R_1 s + 2L_5 R_5 s + 2R_1 R_5}$$

10.46 INVALID-ORDER-46 $Z(s) = \left(R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{L_4 R_1 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_4 C_5 L_4 L_5 R_1 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 R_1 s^4 + 2C_4 C_5 L_4 L_5 R_5 s^4 + 2C_4 L_4 L_5 R_1 g_m s^3 + 2C_4 L_4 L_5 s^3 + 2C_4 L_4 R_1 R_5 g_m s^2 + 2C_4 L_4 R_1 s^2 + 2C_4 L_4 R_5 s^2 + 2C_5 L_4 L_5 R_1 g_m s^3 + C_5 L_4 L_5 s^3 + 2C_5 L_5 R_1 R_5 g_m s^2 + 2C_5 L_5 R_1 s^2 + 2C_5 L_5 R_5 s^2 + 2L_4 R_1 g_m s + L_4 s + 2L_5 R_1 g_m s +}$$

10.47 INVALID-ORDER-47 $Z(s) = \left(R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{L_4 R_1 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_4 C_5 L_4 L_5 R_1 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 R_1 s^4 + 2C_4 C_5 L_4 L_5 R_5 s^4 + 2C_4 C_5 L_4 R_1 R_5 s^3 + 2C_4 L_4 R_1 R_5 g_m s^2 + 2C_4 L_4 R_1 s^2 + 2C_4 L_4 R_5 s^2 + 2C_5 L_4 L_5 R_1 g_m s^3 + C_5 L_4 L_5 s^3 + 2C_5 L_4 R_1 R_5 g_m s^2 + C_5 L_4 R_5 s^2 + 2C_5 L_5 R_1 R_5 g_m s^2 + 2C_5 L_5 R_1 s^2 + 2C_5 L_5 R_5 s^2 + 2C_5 R_1 R_5 s + 2}$$

10.48 INVALID-ORDER-48 $Z(s) = \left(R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{R_1 (C_5 s - g_m) (C_4 L_4 s^2 + C_4 R_4 s + 1)}{s (2C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2 + 2C_4 C_5 R_1 R_4 g_m s + 2C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

10.49 INVALID-ORDER-49 $Z(s) = \left(R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_4 C_5 L_4 R_1 R_5 g_m s^3 + C_4 C_5 L_4 R_5 s^3 + 2C_4 C_5 R_1 R_4 R_5 g_m s^2 + 2C_4 C_5 R_1 R_5 s^2 + C_4 C_5 R_4 R_5 s^2 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + C_4 R_4 s + 2C_4 R_5 s + 2C_5 R_1 R_5 g_m s + C_5 R_5 s + 2R_1 g_m + 1}$$

$$\mathbf{10.50 \quad INVALID-ORDER-50} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2 + 2C_4 C_5 R_1 R_4 g_m s + 2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2C_4 C_5 R_5 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.51 \quad INVALID-ORDER-51} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2 + 2C_4 C_5 L_5 R_1 g_m s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 C_5 R_1 R_4 g_m s + 2C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.52 \quad INVALID-ORDER-52} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_4 C_5 L_4 L_5 R_1 g_m s^4 + C_4 C_5 L_4 L_5 s^4 + 2C_4 C_5 L_5 R_1 R_4 g_m s^3 + 2C_4 C_5 L_5 R_1 s^3 + C_4 C_5 L_5 R_4 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 L_5 R_1 g_m s^2 + 2C_4 L_5 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_1 s + C_4 R_4 s + 2C_5 L_5 R_1 g_m s^2 + C_5 L_5 s^2 + 2R_1 g_m + 1}$$

$$\mathbf{10.53 \quad INVALID-ORDER-53} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2 + 2C_4 C_5 L_5 R_1 g_m s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 C_5 R_1 R_4 g_m s + 2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2C_4 C_5 R_5 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.54 \quad INVALID-ORDER-54} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_4 C_5 L_4 L_5 R_1 R_5 g_m s^4 + C_4 C_5 L_4 L_5 R_5 s^4 + 2C_4 C_5 L_5 R_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 R_5 s^3 + C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 L_4 L_5 R_1 g_m s^3 + C_4 L_4 L_5 s^3 + 2C_4 L_4 R_1 R_5 g_m s^2 + C_4 L_4 R_5 s^2 + 2C_4 L_5 R_1 R_4 g_m s^2 + 2C_4 L_5 R_1 R_5 g_m s^2 + 2C_4 L_5 R_1 s^2 + C_4 L_5 R_4 s^2 + 2C_4 L_5 R_5 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + C_4 R_4 s + 2C_4 R_5 s + 2C_5 L_5 R_1 g_m s^2 + C_5 L_5 R_5 g_m s - C_5 s + g_m}$$

$$\mathbf{10.55 \quad INVALID-ORDER-55} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_4 C_5 L_4 L_5 R_1 g_m s^4 + C_4 C_5 L_4 L_5 s^4 + 2C_4 C_5 L_5 R_1 R_4 g_m s^3 + 2C_4 C_5 L_5 R_1 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 s^3 + C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 L_5 R_1 g_m s^2 + 2C_4 L_5 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + C_4 R_4 s + 2C_4 R_5 s + 2C_5 L_5 R_1 g_m s^2 + C_5 L_5 R_5 g_m s - C_5 s + g_m}$$

$$\mathbf{10.56 \quad INVALID-ORDER-56} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m + 1)}{2C_4 C_5 L_4 L_5 R_1 g_m s^4 + C_4 C_5 L_4 L_5 s^4 + 2C_4 C_5 L_4 R_1 R_5 g_m s^3 + C_4 C_5 L_4 R_5 s^3 + 2C_4 C_5 L_5 R_1 R_4 g_m s^3 + 2C_4 C_5 L_5 R_1 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 s^3 + C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 L_5 R_1 g_m s^2 + 2C_4 L_5 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + C_4 R_4 s + 2C_4 R_5 s + 2C_5 L_5 R_1 g_m s^2 + C_5 L_5 R_5 g_m s - C_5 s + g_m}$$

$$\mathbf{10.57 \quad INVALID-ORDER-57} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_4 s (-C_5 s + g_m)}{2C_4 C_5 L_4 R_1 R_4 s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_4 s^2 + 2C_5 L_4 R_1 R_4 g_m s^2 + 2C_5 L_4 R_1 s^2 + C_5 L_4 R_4 s^2 + 2C_5 R_1 R_4 s + 2L_4 R_1 g_m s + 2L_4 s + 2R_1 R_4 g_m + 2R_4}$$

$$\mathbf{10.58 \quad INVALID-ORDER-58} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_4 s (-C_5 R_5 s + R_5 g_m - 1)}{2C_4 C_5 L_4 R_1 R_4 R_5 s^3 + 2C_4 L_4 R_1 R_4 R_5 g_m s^2 + 2C_4 L_4 R_1 R_4 s^2 + 2C_4 L_4 R_4 R_5 s^2 + 2C_5 L_4 R_1 R_4 R_5 g_m s^2 + 2C_5 L_4 R_1 R_5 s^2 + C_5 L_4 R_4 R_5 s^2 + 2C_5 R_1 R_4 R_5 s + 2L_4 R_1 R_4 g_m s + 2L_4 R_1 R_5 g_m s + 2L_4 R_1 s + L_4 R_4 s + 2L_4 R_5 s + 2R_1 R_4 R_5 g_m + 2R_1 R_4 + 2R_4 R_5}$$

$$\mathbf{10.59 \quad INVALID-ORDER-59} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_4 s (C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_4 R_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_4 R_1 R_4 s^3 + 2C_4 C_5 L_4 R_4 R_5 s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_4 s^2 + 2C_5 L_4 R_1 R_4 g_m s^2 + 2C_5 L_4 R_1 R_5 g_m s^2 + 2C_5 L_4 R_1 s^2 + C_5 L_4 R_4 s^2 + 2C_5 L_4 R_5 s^2 + 2C_5 R_1 R_4 R_5 g_m s + 2C_5 R_1 R_4 s + 2C_5 R_4 R_5 s + 2L_4 R_1 g_m s + 2L_4 s + 2R_1 R_4 g_m + 2R_1 R_4 s + 2R_4 R_5 s + 2R_4 g_m s + 2R_4 s + 2R_5 g_m s + 2R_5 s + 2g_m}$$

$$\mathbf{10.60 \quad INVALID-ORDER-60} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_4 s (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_4 C_5 L_4 L_5 R_1 R_4 g_m s^4 + 2C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 C_5 L_4 R_1 R_4 s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_4 s^2 + 2C_5 L_4 L_5 R_1 g_m s^3 + 2C_5 L_4 L_5 s^3 + 2C_5 L_4 R_1 R_4 g_m s^2 + 2C_5 L_4 R_1 s^2 + C_5 L_4 R_4 s^2 + 2C_5 L_5 R_1 R_4 g_m s^2 + 2C_5 L_5 R_4 s^2 + 2C_5 R_1 R_4 s + 2L_4 R_1 g_m s + 2L_4 s + 2R_1 R_4 g_m + 2R_1 R_4 s + 2R_4 R_5 s + 2R_4 g_m s + 2R_4 s + 2R_5 g_m s + 2R_5 s + 2g_m}$$

$$\mathbf{10.61 \quad INVALID-ORDER-61} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_4 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_4 C_5 L_4 L_5 R_1 R_4 s^4 + 2C_4 L_4 L_5 R_1 R_4 g_m s^3 + 2C_4 L_4 L_5 R_4 s^3 + 2C_4 L_4 R_1 R_4 s^2 + 2C_5 L_4 L_5 R_1 R_4 g_m s^3 + 2C_5 L_4 L_5 R_1 s^3 + C_5 L_4 L_5 R_4 s^3 + 2C_5 L_5 R_1 R_4 s^2 + 2L_4 L_5 R_1 g_m s^2 + 2L_4 L_5 s^2 + 2L_4 R_1 R_4 g_m s + 2L_4 R_1 s + L_4 R_4 s + 2L_5 R_1 R_4 g_m s + 2L_5 R_4 s + 2R_1 R_4 s + 2R_4 R_5 s + 2R_4 g_m s + 2R_4 s + 2R_5 g_m s + 2R_5 s + 2g_m}$$

$$\mathbf{10.62 \quad INVALID-ORDER-62} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_4 s (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_4 L_5 R_1 R_4 g_m s^4 + 2C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 C_5 L_4 R_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_4 R_1 R_4 s^3 + 2C_4 C_5 L_4 R_4 R_5 s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_4 s^2 + 2C_5 L_4 L_5 R_1 g_m s^3 + 2C_5 L_4 L_5 s^3 + 2C_5 L_4 R_1 R_4 g_m s^2 + 2C_5 L_4 R_1 R_5 g_m s^2 + 2C_5 L_4 R_1 s^2 + C_5 L_4 R_4 s^2 + 2C_5 L_4 R_5 s^2 + 2C_5 R_1 R_4 R_5 g_m s + 2C_5 R_1 R_4 s + 2C_5 R_4 R_5 s + 2L_4 R_1 g_m s + 2L_4 s + 2R_1 R_4 g_m + 2R_1 R_4 s + 2R_4 R_5 s + 2R_4 g_m s + 2R_4 s + 2R_5 g_m s + 2R_5 s + 2g_m}$$

$$\mathbf{10.63 \quad INVALID-ORDER-63} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_4 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_4 C_5 L_4 L_5 R_1 R_4 R_5 s^4 + 2C_4 L_4 L_5 R_1 R_4 R_5 g_m s^3 + 2C_4 L_4 L_5 R_1 R_4 s^3 + 2C_4 L_4 L_5 R_4 R_5 s^3 + 2C_4 L_4 R_1 R_4 R_5 s^2 + 2C_5 L_4 L_5 R_1 R_4 R_5 g_m s^3 + 2C_5 L_4 L_5 R_1 R_5 s^3 + C_5 L_4 L_5 R_4 R_5 s^3 + 2C_5 L_5 R_1 R_4 R_5 s^2 + 2L_4 L_5 R_1 R_4 g_m s^2 + 2L_4 L_5 R_1 R_5 g_m s^2 + 2L_4 L_5 R_1 s^2 + L_4 L_5 R_4 s^2 + 2L_4 L_5 R_5 s^2 + 2L_4 R_1 R_4 R_5 g_m s + 2L_4 R_1 R_4 s + 2L_4 R_4 R_5 s + 2L_5 R_1 R_4 R_5 g_m s + 2L_5 R_1 R_4 s + 2L_5 R_4 R_5 s + 2L_5 R_1 s + L_5 R_4 s + 2R_1 R_4 R_5 g_m s + 2R_1 R_4 R_5 s + 2R_1 R_4 s + 2R_1 R_5 s + 2R_1 s + 2R_4 R_5 s + 2R_4 g_m s + 2R_4 s + 2R_5 g_m s + 2R_5 s + 2g_m}$$

$$\mathbf{10.64 \quad INVALID-ORDER-64} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - R_5)}{2C_4 C_5 L_4 L_5 R_1 R_4 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 R_1 R_4 s^4 + 2C_4 C_5 L_4 L_5 R_4 R_5 s^4 + 2C_4 L_4 L_5 R_1 R_4 g_m s^3 + 2C_4 L_4 L_5 R_4 s^3 + 2C_4 L_4 R_1 R_4 R_5 g_m s^2 + 2C_4 L_4 R_1 R_4 s^2 + 2C_4 L_4 R_4 R_5 s^2 + 2C_5 L_4 L_5 R_1 R_4 g_m s^3 + 2C_5 L_4 L_5 R_1 R_5 g_m s^3 + 2C_5 L_4 L_5 R_1 s^3 + C_5 L_4 L_5 R_4 s^3 + 2C_5 L_4 L_5 R_5 s^3 + 2C_5 R_1 R_4 R_5 g_m s + 2C_5 R_1 R_4 s + 2C_5 R_4 R_5 s + 2L_4 R_1 R_4 R_5 g_m s + 2L_4 R_1 R_4 s + 2L_4 R_4 R_5 s + 2L_5 R_1 R_4 R_5 g_m s + 2L_5 R_1 R_4 s + 2L_5 R_4 R_5 s + 2L_5 R_1 s + L_5 R_4 s + 2R_1 R_4 R_5 g_m s + 2R_1 R_4 R_5 s + 2R_1 R_4 s + 2R_1 R_5 s + 2R_1 s + 2R_4 R_5 s + 2R_4 g_m s + 2R_4 s + 2R_5 g_m s + 2R_5 s + 2g_m}$$

$$\mathbf{10.65 \quad INVALID-ORDER-65} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - R_5)}{2C_4 C_5 L_4 L_5 R_1 R_4 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 R_1 R_4 s^4 + 2C_4 C_5 L_4 L_5 R_4 R_5 s^4 + 2C_4 C_5 L_4 R_1 R_4 R_5 s^3 + 2C_4 L_4 R_1 R_4 R_5 g_m s^2 + 2C_4 L_4 R_1 R_4 s^2 + 2C_4 L_4 R_4 R_5 s^2 + 2C_5 L_4 L_5 R_1 R_4 g_m s^3 + 2C_5 L_4 L_5 R_1 R_5 g_m s^3 + 2C_5 L_4 L_5 R_1 s^3 + C_5 L_4 L_5 R_4 s^3 + 2C_5 L_4 L_5 R_5 s^3 + 2C_5 L_4 R_1 R_4 R_5 g_m s + 2C_5 L_4 R_1 R_4 s + 2C_5 L_4 R_4 R_5 s + 2L_4 R_1 R_4 R_5 g_m s + 2L_4 R_1 R_4 s + 2L_4 R_4 R_5 s + 2L_5 R_1 R_4 R_5 g_m s + 2L_5 R_1 R_4 s + 2L_5 R_4 R_5 s + 2L_5 R_1 s + L_5 R_4 s + 2R_1 R_4 R_5 g_m s + 2R_1 R_4 R_5 s + 2R_1 R_4 s + 2R_1 R_5 s + 2R_1 s + 2R_4 R_5 s + 2R_4 g_m s + 2R_4 s + 2R_5 g_m s + 2R_5 s + 2g_m}$$

$$\mathbf{10.66 \quad INVALID-ORDER-66} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_5 s - g_m) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{2C_4 C_5 L_4 R_1 R_4 g_m s^3 + 2C_4 C_5 L_4 R_1 s^3 + C_4 C_5 L_4 R_4 s^3 + 2C_4 L_4 R_1 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2 + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2R_1 g_m + 2R_1 s + 2R_4 g_m s + 2R_4 s + 2R_5 g_m s + 2R_5 s + 2g_m}$$

$$\mathbf{10.67 \quad INVALID-ORDER-67} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_5 R_5 s - R_5 g_m + 1) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{2C_4 C_5 L_4 R_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_4 R_1 R_5 s^3 + C_4 C_5 L_4 R_4 R_5 s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_1 R_5 g_m s^2 + 2C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_5 s^2 + 2C_5 L_4 R_1 R_5 g_m s^2 + C_5 L_4 R_5 s^2 + 2C_5 R_1 R_4 R_5 g_m s + 2C_5 R_1 R_5 s + C_5 R_4 R_5 s + 2L_4 R_1 g_m s + L_4 s + 2R_1 R_4 g_m + 2R_1 R_4 s + 2R_4 R_5 s + 2R_4 g_m s + 2R_4 s + 2R_5 g_m s + 2R_5 s + 2g_m}$$

$$\mathbf{10.68 \quad INVALID-ORDER-68} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_4 R_1 R_4 g_m s^3 + 2C_4 C_5 L_4 R_1 R_5 g_m s^3 + 2C_4 C_5 L_4 R_1 s^3 + C_4 C_5 L_4 R_4 s^3 + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 L_4 R_1 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2 + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 R_5 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2C_5 R_5 s + 2R_1 g_m + 2}$$

$$\mathbf{10.69 \quad INVALID-ORDER-69} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_4 C_5 L_4 L_5 R_1 g_m s^4 + 2C_4 C_5 L_4 L_5 s^4 + 2C_4 C_5 L_4 R_1 R_4 g_m s^3 + 2C_4 C_5 L_4 R_1 s^3 + C_4 C_5 L_4 R_4 s^3 + 2C_4 L_4 R_1 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2 + 2C_5 L_5 R_1 g_m s^2 + 2C_5 L_5 s^2 + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2R_1 g_m + 2}$$

$$\mathbf{10.70 \quad INVALID-ORDER-70} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_5 L_5 s^2 - L_5 g_m s + 1) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{2C_4 C_5 L_4 L_5 R_1 R_4 g_m s^4 + 2C_4 C_5 L_4 L_5 R_1 s^4 + C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 L_4 L_5 R_1 g_m s^3 + 2C_4 L_4 L_5 s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + 2C_5 L_4 L_5 R_1 g_m s^3 + C_5 L_4 L_5 s^3 + 2C_5 L_5 R_1 R_4 g_m s^2 + 2C_5 L_5 R_1 s^2 + C_5 L_5 R_4 s^2 + 2L_4 R_1 g_m s + L_4 s + 2L_5 R_1 g_m s + 2}$$

$$\mathbf{10.71 \quad INVALID-ORDER-71} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_4 L_5 R_1 g_m s^4 + 2C_4 C_5 L_4 L_5 s^4 + 2C_4 C_5 L_4 R_1 R_4 g_m s^3 + 2C_4 C_5 L_4 R_1 R_5 g_m s^3 + 2C_4 C_5 L_4 R_1 s^3 + C_4 C_5 L_4 R_4 s^3 + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 L_4 R_1 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2 + 2C_5 L_5 R_1 g_m s^2 + 2C_5 L_5 s^2 + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 R_5 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2C_5 R_5 s + 2R_1 g_m + 2}$$

$$\mathbf{10.72 \quad INVALID-ORDER-72} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_4 C_5 L_4 L_5 R_1 R_4 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 R_1 R_5 s^4 + C_4 C_5 L_4 L_5 R_4 R_5 s^4 + 2C_4 L_4 L_5 R_1 R_4 g_m s^3 + 2C_4 L_4 L_5 R_1 R_5 g_m s^3 + 2C_4 L_4 L_5 R_1 s^3 + C_4 L_4 L_5 R_4 s^3 + 2C_4 L_4 L_5 R_5 s^3 + 2C_4 L_4 R_1 R_4 R_5 g_m s^2 + 2C_4 L_4 R_1 R_5 s^2 + C_4 L_4 R_4 R_5 s^2 + 2C_5 L_4 L_5 R_1 R_5 g_m s^3 + C_5 L_4 L_5 R_5 s^3 + 2C_5 L_5 R_1 R_4 g_m s + 2C_5 L_5 R_1 s + C_5 R_4 s + 2C_5 R_5 s + 2R_1 g_m + 2}$$

$$\mathbf{10.73 \quad INVALID-ORDER-73} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_4 C_5 L_4 L_5 R_1 R_4 g_m s^4 + 2C_4 C_5 L_4 L_5 R_1 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 R_1 s^4 + C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 C_5 L_4 L_5 R_5 s^4 + 2C_4 L_4 L_5 R_1 g_m s^3 + 2C_4 L_4 L_5 s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_1 R_5 g_m s^2 + 2C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_5 s^2 + 2C_5 L_4 L_5 R_1 g_m s^3 + C_5 L_4 L_5 s^3 + 2C_5 L_5 R_1 R_4 g_m s + 2C_5 L_5 R_1 s + C_5 R_4 s + 2C_5 R_5 s + 2R_1 g_m + 2}$$

$$\mathbf{10.74 \quad INVALID-ORDER-74} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_4 L_4 R_4 s^2 + L_4 s + R_4) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_4 C_5 L_4 L_5 R_1 R_4 g_m s^4 + 2C_4 C_5 L_4 L_5 R_1 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 R_1 s^4 + C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 C_5 L_4 L_5 R_5 s^4 + 2C_4 L_4 L_5 R_1 g_m s^3 + 2C_4 L_4 L_5 s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_1 R_5 g_m s^2 + 2C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_5 s^2 + 2C_5 L_4 L_5 R_1 g_m s^3 + C_5 L_4 L_5 s^3 + 2C_5 L_5 R_1 R_4 g_m s + 2C_5 L_5 R_1 s + C_5 R_4 s + 2C_5 R_5 s + 2R_1 g_m + 2}$$

$$\mathbf{10.75 \quad INVALID-ORDER-75} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 R_4 (C_5 s - g_m) (C_4 L_4 s^2 + 1)}{2C_4 C_5 L_4 R_1 R_4 g_m s^3 + 2C_4 C_5 L_4 R_1 s^3 + C_4 C_5 L_4 R_4 s^3 + 2C_4 C_5 R_1 R_4 s^2 + 2C_4 L_4 R_1 g_m s^2 + 2C_4 L_4 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_4 s + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2R_1 g_m + 2}$$

$$\mathbf{10.76 \quad INVALID-ORDER-76} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 R_4 (C_4 L_4 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_4 C_5 L_4 R_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_4 R_1 R_5 s^3 + C_4 C_5 L_4 R_4 R_5 s^3 + 2C_4 C_5 R_1 R_4 R_5 s^2 + 2C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_1 R_5 g_m s^2 + 2C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_5 s^2 + 2C_5 R_1 R_4 R_5 g_m s + 2C_5 R_1 R_5 s + C_5 R_4 R_5 s + 2R_1 g_m + 2}$$

$$\mathbf{10.77 \quad INVALID-ORDER-77} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, \quad R_5 + \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = \frac{R_1R_4 \left(C_4L_4s^2 + 1 \right) \left(C_5R_5g_ms - C_5s + g_m \right)}{2C_4C_5L_4R_1R_4g_ms^3 + 2C_4C_5L_4R_1R_5g_ms^3 + 2C_4C_5L_4R_1s^3 + C_4C_5L_4R_4s^3 + 2C_4C_5L_4R_5s^3 + 2C_4C_5R_1R_4R_5g_ms^2 + 2C_4C_5R_1R_4s^2 + 2C_4C_5R_4R_5s^2 + 2C_4L_4R_1g_ms^2 + 2C_4L_4s^2 + 2C_4R_1R_4g_ms + 2C_4R_4s + 2C_5R_1R_4g_ms + 2C_5R_1R_5g_ms + 2C_5R_1s + C_5R_4s + 2C_5R_5s}$$

$$\mathbf{10.78 \quad INVALID-ORDER-78} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, \quad L_5s + \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = \frac{R_1R_4 \left(C_4L_4s^2 + 1 \right) \left(C_5L_5g_ms^2 - C_5s + g_m \right)}{2C_4C_5L_4L_5R_1g_ms^4 + 2C_4C_5L_4L_5s^4 + 2C_4C_5L_4R_1R_4g_ms^3 + 2C_4C_5L_4R_1s^3 + C_4C_5L_4R_4s^3 + 2C_4C_5L_5R_1R_4g_ms^3 + 2C_4C_5L_5R_4s^3 + 2C_4C_5R_1R_4s^2 + 2C_4L_4R_1g_ms^2 + 2C_4L_4s^2 + 2C_4R_1R_4g_ms + 2C_4R_4s + 2C_5L_5R_1g_ms^2 + 2C_5L_5s^2 + 2C_5R_1R_4g_ms + 2C_5R_1s + C_5R_4s + 2C_5R_5s}$$

$$\mathbf{10.79 \quad INVALID-ORDER-79} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, \quad \frac{L_5s}{C_5L_5s^2+1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1R_4 \left(C_4L_4s^2 + 1 \right) \left(C_5L_5s^2 - L_5g_ms + 1 \right)}{2C_4C_5L_4L_5R_1R_4g_ms^4 + 2C_4C_5L_4L_5R_1s^4 + C_4C_5L_4L_5R_4s^4 + 2C_4C_5L_5R_1R_4s^3 + 2C_4L_4L_5R_1g_ms^3 + 2C_4L_4L_5s^3 + 2C_4L_4R_1R_4g_ms^2 + 2C_4L_4R_1s^2 + C_4L_4R_4s^2 + 2C_4L_5R_1R_4g_ms^2 + 2C_4L_5R_4s^2 + 2C_4R_1R_4s + 2C_5L_5R_1R_4g_ms^2 + 2C_5L_5R_1s^2 + C_5L_5R_4s^2 + 2C_5R_1R_4g_ms + 2C_5R_1s + C_5R_4s + 2C_5R_5s}$$

$$\mathbf{10.80 \quad INVALID-ORDER-80} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, \quad L_5s + R_5 + \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = \frac{R_1R_4 \left(C_4L_4s^2 + 1 \right) \left(C_5L_5g_ms^2 + C_5R_5g_ms - C_5s + g_m \right)}{2C_4C_5L_4L_5R_1g_ms^4 + 2C_4C_5L_4L_5s^4 + 2C_4C_5L_4R_1R_4g_ms^3 + 2C_4C_5L_4R_1R_5g_ms^3 + 2C_4C_5L_4R_1s^3 + C_4C_5L_4R_4s^3 + 2C_4C_5L_4R_5s^3 + 2C_4C_5L_5R_1R_4g_ms^3 + 2C_4C_5L_5R_4s^3 + 2C_4C_5R_1R_4R_5g_ms^2 + 2C_4C_5R_1R_4s^2 + 2C_4C_5R_4R_5s^2 + 2C_4L_4R_1g_ms^2 + 2C_4L_4s^2 + 2C_4R_1R_4g_ms + 2C_4R_4s + 2C_5L_5R_1g_ms^2 + 2C_5L_5s^2 + 2C_5R_1R_4g_ms + 2C_5R_1s + C_5R_4s + 2C_5R_5s}$$

$$\mathbf{10.81 \quad INVALID-ORDER-81} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, \quad \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \quad \infty \right)$$

$$H(s) = -\frac{R_1R_4 \left(C_4L_4s^2 + 1 \right) \left(C_5L_5R_5s^2 - L_5R_5g_ms + L_5s + R_5 \right)}{2C_4C_5L_4L_5R_1R_4R_5g_ms^4 + 2C_4C_5L_4L_5R_1R_5s^4 + C_4C_5L_4L_5R_4R_5s^4 + 2C_4C_5L_5R_1R_4R_5s^3 + 2C_4L_4L_5R_1R_4g_ms^3 + 2C_4L_4L_5R_1R_5g_ms^3 + 2C_4L_4L_5R_1s^3 + C_4L_4L_5R_4s^3 + 2C_4L_4L_5R_5s^3 + 2C_4L_4R_1R_4R_5g_ms^2 + 2C_4L_4R_1R_5s^2 + C_4L_4R_4R_5s^2 + 2C_4L_5R_1R_4R_5s^2 + 2C_4L_5R_1R_4s^2 + 2C_4L_5R_4R_5s^2 + 2C_4R_1R_4R_5g_ms + 2C_4R_1R_4s + 2C_5L_5R_1R_4g_ms + 2C_5L_5R_1s + C_5R_4R_5s + 2C_5R_1R_4g_ms + 2C_5R_1s + C_5R_4s + 2C_5R_5s}$$

$$\mathbf{10.82 \quad INVALID-ORDER-82} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, \quad \frac{L_5s}{C_5L_5s^2+1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1R_4 \left(C_4L_4s^2 + 1 \right) \left(C_5L_5R_5g_ms^2 - C_5s + g_m \right)}{2C_4C_5L_4L_5R_1R_4g_ms^4 + 2C_4C_5L_4L_5R_1R_5g_ms^4 + 2C_4C_5L_4L_5R_1s^4 + C_4C_5L_4L_5R_4s^4 + 2C_4C_5L_4L_5R_5s^4 + 2C_4C_5L_5R_1R_4R_5g_ms^3 + 2C_4C_5L_5R_1R_4s^3 + 2C_4C_5L_5R_4R_5s^3 + 2C_4L_4L_5R_1g_ms^3 + 2C_4L_4L_5s^3 + 2C_4L_4R_1R_4g_ms^2 + 2C_4L_4R_1R_5g_ms^2 + 2C_4L_4R_1s^2 + 2C_4L_4R_4g_ms + 2C_4L_4R_4s + 2C_5L_5R_1R_4g_ms + 2C_5L_5R_1s + C_5R_4R_5s + 2C_5R_1R_4g_ms + 2C_5R_1s + C_5R_4s + 2C_5R_5s}$$

$$\mathbf{10.83 \quad INVALID-ORDER-83} \quad Z(s) = \left(R_1, \quad \infty, \quad \infty, \quad \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, \quad \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1R_4 \left(C_4L_4s^2 + 1 \right) \left(C_5L_5R_5s^2 + C_5R_5g_ms - C_5s + g_m \right)}{2C_4C_5L_4L_5R_1R_4g_ms^4 + 2C_4C_5L_4L_5R_1R_5g_ms^4 + 2C_4C_5L_4L_5R_1s^4 + C_4C_5L_4L_5R_4s^4 + 2C_4C_5L_4L_5R_5s^4 + 2C_4C_5L_4R_1R_4R_5g_ms^3 + 2C_4C_5L_4R_1R_5s^3 + C_4C_5L_4R_4R_5s^3 + 2C_4C_5L_5R_1R_4R_5g_ms^3 + 2C_4C_5L_5R_1R_4s^3 + 2C_4C_5L_5R_4R_5s^3 + 2C_4C_5R_1R_4R_5s^2 + 2C_4L_4R_1R_4R_5g_ms^2 + 2C_4L_4R_1R_5s^2 + C_4L_4R_4R_5s^2 + 2C_4L_5R_1R_4R_5s^2 + 2C_4L_5R_1R_4s^2 + 2C_4L_5R_4R_5s^2 + 2C_4R_1R_4R_5g_ms + 2C_4R_1R_4s + 2C_5L_5R_1R_4g_ms + 2C_5L_5R_1s + C_5R_4R_5s + 2C_5R_1R_4g_ms + 2C_5R_1s + C_5R_4s + 2C_5R_5s}$$

$$\mathbf{10.84 \quad INVALID-ORDER-84} \quad Z(s) = (L_1s, \quad \infty, \quad \infty, \quad R_4, \quad R_5, \quad \infty)$$

$$H(s) = \frac{L_1R_4s \left(R_5g_m - 1 \right)}{2L_1R_4g_ms + 2L_1R_5g_ms + 2L_1s + R_4 + 2R_5}$$

$$\mathbf{10.85 \quad INVALID-ORDER-85} \quad Z(s) = \left(L_1s, \quad \infty, \quad \infty, \quad R_4, \quad L_5s + \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = \frac{L_1R_4s \left(C_5L_5g_ms^2 - C_5s + g_m \right)}{2C_5L_1L_5g_ms^3 + 2C_5L_1R_4g_ms^2 + 2C_5L_1s^2 + 2C_5L_5s^2 + C_5R_4s + 2L_1g_ms + 2}$$

10.86 INVALID-ORDER-86 $Z(s) = \left(L_1 s, \infty, \infty, R_4, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 L_5 s^3 + C_5 L_5 R_4 s^2 + 2L_1 L_5 g_m s^2 + 2L_1 R_4 g_m s + 2L_1 s + 2L_5 s + R_4}$$

10.87 INVALID-ORDER-87 $Z(s) = \left(L_1 s, \infty, \infty, R_4, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_5 L_1 L_5 g_m s^3 + 2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 R_5 g_m s^2 + 2C_5 L_1 s^2 + 2C_5 L_5 s^2 + C_5 R_4 s + 2C_5 R_5 s + 2L_1 g_m s + 2}$$

10.88 INVALID-ORDER-88 $Z(s) = \left(L_1 s, \infty, \infty, R_4, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_5 L_1 L_5 R_4 R_5 g_m s^3 + 2C_5 L_1 L_5 R_5 s^3 + C_5 L_5 R_4 R_5 s^2 + 2L_1 L_5 R_4 g_m s^2 + 2L_1 L_5 R_5 g_m s^2 + 2L_1 L_5 s^2 + 2L_1 R_4 R_5 g_m s + 2L_1 R_5 s + L_5 R_4 s + 2L_5 R_5 s + R_4 R_5}$$

10.89 INVALID-ORDER-89 $Z(s) = \left(L_1 s, \infty, \infty, R_4, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 L_5 R_5 g_m s^3 + 2C_5 L_1 L_5 s^3 + C_5 L_5 R_4 s^2 + 2C_5 L_5 R_5 s^2 + 2L_1 L_5 g_m s^2 + 2L_1 R_4 g_m s + 2L_1 R_5 g_m s + 2L_1 s + 2L_5 s + R_4 + 2R_5}$$

10.90 INVALID-ORDER-90 $Z(s) = \left(L_1 s, \infty, \infty, R_4, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 L_5 R_5 g_m s^3 + 2C_5 L_1 L_5 s^3 + 2C_5 L_1 R_4 R_5 g_m s^2 + 2C_5 L_1 R_5 s^2 + C_5 L_5 R_4 s^2 + 2C_5 L_5 R_5 s^2 + C_5 R_4 R_5 s + 2L_1 R_4 g_m s + 2L_1 R_5 g_m s + 2L_1 s + R_4 + 2R_5}$$

10.91 INVALID-ORDER-91 $Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{L_1 s (-C_5 R_5 s + R_5 g_m - 1)}{2C_4 C_5 L_1 R_5 s^3 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + 2C_4 R_5 s + 2C_5 L_1 R_5 g_m s^2 + C_5 R_5 s + 2L_1 g_m s + 1}$$

10.92 INVALID-ORDER-92 $Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

10.93 INVALID-ORDER-93 $Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = \frac{L_1 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_4 C_5 L_1 L_5 s^4 + 2C_4 L_1 L_5 g_m s^3 + 2C_4 L_1 s^2 + 2C_4 L_5 s^2 + 2C_5 L_1 L_5 g_m s^3 + C_5 L_5 s^2 + 2L_1 g_m s + 1}$$

10.94 INVALID-ORDER-94 $Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 R_5 g_m s^2 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 C_5 R_5 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

10.95 INVALID-ORDER-95 $Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = \frac{L_1 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_4 C_5 L_1 L_5 R_5 s^4 + 2C_4 L_1 L_5 R_5 g_m s^3 + 2C_4 L_1 L_5 s^3 + 2C_4 L_1 R_5 s^2 + 2C_4 L_5 R_5 s^2 + 2C_5 L_1 L_5 R_5 g_m s^3 + C_5 L_5 R_5 s^2 + 2L_1 L_5 g_m s^2 + 2L_1 R_5 g_m s + L_5 s + R_5}$$

10.96 INVALID-ORDER-96 $Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{L_1 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 s^4 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_1 L_5 g_m s^3 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + 2C_4 L_5 s^2 + 2C_4 R_5 s + 2C_5 L_1 L_5 g_m s^3 + C_5 L_5 s^2 + 2L_1 g_m s + 1}$$

10.97 INVALID-ORDER-97 $Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{L_1 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 s^4 + 2C_4 C_5 L_1 R_5 s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + 2C_4 R_5 s + 2C_5 L_1 L_5 g_m s^3 + 2C_5 L_1 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s + 2L_1 g_m s + 1}$$

10.98 INVALID-ORDER-98 $Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (-C_5 s + g_m)}{2C_4 C_5 L_1 R_4 s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 R_4 s + 2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 s^2 + C_5 R_4 s + 2L_1 g_m s + 2}$$

10.99 INVALID-ORDER-99 $Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (-C_5 R_5 s + R_5 g_m - 1)}{2C_4 C_5 L_1 R_4 R_5 s^3 + 2C_4 L_1 R_4 R_5 g_m s^2 + 2C_4 L_1 R_4 s^2 + 2C_4 R_4 R_5 s + 2C_5 L_1 R_4 R_5 g_m s^2 + 2C_5 L_1 R_5 s^2 + C_5 R_4 R_5 s + 2L_1 R_4 g_m s + 2L_1 R_5 g_m s + 2L_1 s + R_4 + 2R_5}$$

10.100 INVALID-ORDER-100 $Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_1 R_4 s^3 + 2C_4 C_5 R_4 R_5 s^2 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 R_4 s + 2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 R_5 g_m s^2 + 2C_5 L_1 s^2 + C_5 R_4 s + 2C_5 R_5 s + 2L_1 g_m s + 2}$$

10.101 INVALID-ORDER-101 $Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 R_4 s^3 + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 R_4 s + 2C_5 L_1 L_5 g_m s^3 + 2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 s^2 + 2C_5 L_5 s^2 + C_5 R_4 s + 2L_1 g_m s + 2}$$

10.102 INVALID-ORDER-102 $Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_4 C_5 L_1 L_5 R_4 s^4 + 2C_4 L_1 L_5 R_4 g_m s^3 + 2C_4 L_1 R_4 s^2 + 2C_4 L_5 R_4 s^2 + 2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 L_5 s^3 + C_5 L_5 R_4 s^2 + 2L_1 L_5 g_m s^2 + 2L_1 R_4 g_m s + 2L_1 s + 2L_5 s + R_4}$$

10.103 INVALID-ORDER-103 $Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_1 R_4 s^3 + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 R_4 R_5 s^2 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 R_4 s + 2C_5 L_1 L_5 g_m s^3 + 2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 R_5 g_m s^2 + 2C_5 L_1 s^2 + 2C_5 L_5 s^2 + C_5 R_4 s + 2C_5 R_5 s + 2L_1 g_m s + 2}$$

$$\mathbf{10.104 \quad INVALID-ORDER-104} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_4 C_5 L_1 L_5 R_4 R_5 s^4 + 2C_4 L_1 L_5 R_4 R_5 g_m s^3 + 2C_4 L_1 L_5 R_4 s^3 + 2C_4 L_1 R_4 R_5 s^2 + 2C_4 L_5 R_4 R_5 s^2 + 2C_5 L_1 L_5 R_4 R_5 g_m s^3 + 2C_5 L_1 L_5 R_5 s^3 + C_5 L_5 R_4 R_5 s^2 + 2L_1 L_5 R_4 g_m s^2 + 2L_1 L_5 R_5 g_m s^2 + 2L_1 L_5 s^2 + 2L_1 R_4 R_5 g_m s + 2L_1 R_5 s + L_5 R_4 s + 2L_5 R_5 s + R_4 R_5}$$

$$\mathbf{10.105 \quad INVALID-ORDER-105} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_4 C_5 L_1 L_5 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 R_4 s^4 + 2C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 L_1 L_5 R_4 g_m s^3 + 2C_4 L_1 R_4 R_5 g_m s^2 + 2C_4 L_1 R_4 s^2 + 2C_4 L_5 R_4 s^2 + 2C_4 R_4 R_5 s + 2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 L_5 R_5 g_m s^3 + 2C_5 L_1 L_5 s^3 + C_5 L_5 R_4 s^2 + 2C_5 L_5 R_5 s^2 + 2L_1 L_5 g_m s^2 + 2L_1 R_4 g_m s + 2L_1 R_5 s + L_5 R_4 s + 2L_5 R_5 s + R_4 R_5}$$

$$\mathbf{10.106 \quad INVALID-ORDER-106} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_4 C_5 L_1 L_5 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 R_4 s^4 + 2C_4 C_5 L_1 R_4 R_5 s^3 + 2C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 L_1 R_4 R_5 g_m s^2 + 2C_4 L_1 R_4 s^2 + 2C_4 R_4 R_5 s + 2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 L_5 R_5 g_m s^3 + 2C_5 L_1 L_5 s^3 + 2C_5 L_1 R_4 R_5 g_m s^2 + 2C_5 L_1 R_5 s^2 + C_5 L_5 R_4 s^2 + 2C_5 L_5 R_5 s^2 + C_5 R_4 R_5 s + 2L_1 L_5 g_m s^2 + 2L_1 R_4 g_m s + 2L_1 R_5 s + L_5 R_4 s + 2L_5 R_5 s + R_4 R_5}$$

$$\mathbf{10.107 \quad INVALID-ORDER-107} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 R_4 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_1 R_5 s^3 + C_4 C_5 R_4 R_5 s^2 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + C_4 R_4 s + 2C_4 R_5 s + 2C_5 L_1 R_5 g_m s^2 + C_5 R_5 s + 2L_1 g_m s + 1}$$

$$\mathbf{10.108 \quad INVALID-ORDER-108} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_4 R_4 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 R_4 g_m s^2 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 L_5 s^2 + C_4 C_5 R_4 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.109 \quad INVALID-ORDER-109} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 R_4 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 L_5 s^4 + C_4 C_5 L_5 R_4 s^3 + 2C_4 L_1 L_5 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 s^2 + 2C_4 L_5 s^2 + C_4 R_4 s + 2C_5 L_1 L_5 g_m s^3 + C_5 L_5 s^2 + 2L_1 g_m s + 1}$$

$$\mathbf{10.110 \quad INVALID-ORDER-110} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_4 R_4 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 R_4 g_m s^2 + 2C_4 C_5 L_1 R_5 g_m s^2 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 L_5 s^2 + C_4 C_5 R_4 s + 2C_4 C_5 R_5 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.111 \quad INVALID-ORDER-111} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 R_4 s + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_4 C_5 L_1 L_5 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 R_5 s^4 + C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 L_1 L_5 R_4 g_m s^3 + 2C_4 L_1 L_5 R_5 g_m s^3 + 2C_4 L_1 L_5 s^3 + 2C_4 L_1 R_4 R_5 g_m s^2 + 2C_4 L_1 R_5 s^2 + C_4 L_5 R_4 s^2 + 2C_4 L_5 R_5 s^2 + C_4 R_4 R_5 s + 2C_5 L_1 L_5 R_5 g_m s^3 + C_5 L_5 R_5 s^2 + 2L_1 L_5 g_m s^2 + 2L_1 R_5 g_m s + L_5 s + R_5 + R_4 R_5}$$

$$\mathbf{10.112 \quad INVALID-ORDER-112} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (C_4 R_4 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 s^4 + C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_1 L_5 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + 2C_4 L_5 s^2 + C_4 R_4 s + 2C_4 R_5 s + 2C_5 L_1 L_5 g_m s^3 + C_5 L_5 s^2 + 2L_1 g_m s + 1}$$

$$10.113 \quad \text{INVALID-ORDER-113} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 R_4 s + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m + 1)}{2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 s^4 + 2C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_1 R_5 s^3 + C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 L_5 R_5 s^3 + C_4 C_5 R_4 R_5 s^2 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + C_4 R_4 s + 2C_4 R_5 s + 2C_5 L_1 L_5 g_m s^3 + 2C_5 L_1 R_5 g_m s^2 + C_5 L_5 s^2 + 1}$$

$$10.114 \quad \text{INVALID-ORDER-114} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (R_5 g_m - 1) (C_4 L_4 s^2 + 1)}{2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + C_4 L_4 s^2 + 2C_4 R_5 s + 2L_1 g_m s + 1}$$

$$10.115 \quad \text{INVALID-ORDER-115} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 (C_5 s - g_m) (C_4 L_4 s^2 + 1)}{2C_4 C_5 L_1 L_4 g_m s^3 + 2C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$10.116 \quad \text{INVALID-ORDER-116} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 L_4 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2C_4 C_5 L_1 R_5 s^3 + C_4 C_5 L_4 R_5 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + C_4 L_4 s^2 + 2C_4 R_5 s + 2C_5 L_1 R_5 g_m s^2 + C_5 R_5 s + 2L_1 g_m s + 1}$$

$$10.117 \quad \text{INVALID-ORDER-117} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_4 L_4 s^2 + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_1 L_4 g_m s^3 + 2C_4 C_5 L_1 R_5 g_m s^2 + 2C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + 2C_4 C_5 R_5 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$10.118 \quad \text{INVALID-ORDER-118} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_4 C_5 L_1 L_4 g_m s^3 + 2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$10.119 \quad \text{INVALID-ORDER-119} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 L_4 s^2 + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2C_4 C_5 L_1 L_5 s^4 + C_4 C_5 L_4 L_5 s^4 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 L_5 g_m s^3 + 2C_4 L_1 s^2 + C_4 L_4 s^2 + 2C_4 L_5 s^2 + 2C_5 L_1 L_5 g_m s^3 + C_5 L_5 s^2 + 2L_1 g_m s + 1}$$

$$10.120 \quad \text{INVALID-ORDER-120} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_1 L_4 g_m s^3 + 2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 R_5 g_m s^2 + 2C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 C_5 R_5 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$10.121 \quad \text{INVALID-ORDER-121} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_4 C_5 L_1 L_4 L_5 R_5 g_m s^5 + 2C_4 C_5 L_1 L_5 R_5 s^4 + C_4 C_5 L_4 L_5 R_5 s^4 + 2C_4 L_1 L_4 L_5 g_m s^4 + 2C_4 L_1 L_4 R_5 g_m s^3 + 2C_4 L_1 L_5 R_5 g_m s^3 + 2C_4 L_1 L_5 s^3 + 2C_4 L_1 R_5 s^2 + C_4 L_4 L_5 s^3 + C_4 L_4 R_5 s^2 + 2C_4 L_5 R_5 s^2 + 2C_5 L_1 L_5 R_5 g_m s^3 + C_5 L_5 R_5 s^2 + 2L_1 L_5 g_m s^2 + 2L_1 R_5 g_m s + L_5 s + R_5 + 1}$$

$$\mathbf{10.122 \quad INVALID-ORDER-122} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 s^4 + C_4 C_5 L_4 L_5 s^4 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 L_5 g_m s^3 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + C_4 L_4 s^2 + 2C_4 L_5 s^2 + 2C_4 R_5 s + 2C_5 L_1 L_5 g_m s^3 + C_5 L_5 s^2 + 2L_1 g_m s + 1}$$

$$\mathbf{10.123 \quad INVALID-ORDER-123} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 L_4 s^2 + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m + 1)}{2C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 s^4 + 2C_4 C_5 L_1 R_5 s^3 + C_4 C_5 L_4 L_5 s^4 + C_4 C_5 L_4 R_5 s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + C_4 L_4 s^2 + 2C_4 R_5 s + 2C_5 L_1 L_5 g_m s^3 + 2C_5 L_1 R_5 g_m s^2 + C_5 L_5 s^2 + 2L_1 g_m s + 1}$$

$$\mathbf{10.124 \quad INVALID-ORDER-124} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 (R_5 g_m - 1)}{2C_4 L_1 L_4 R_5 g_m s^3 + 2C_4 L_1 L_4 s^3 + 2C_4 L_4 R_5 s^2 + 2L_1 L_4 g_m s^2 + 2L_1 R_5 g_m s + 2L_1 s + L_4 s + 2R_5}$$

$$\mathbf{10.125 \quad INVALID-ORDER-125} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 (-C_5 s + g_m)}{2C_4 C_5 L_1 L_4 s^4 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_4 s^2 + 2C_5 L_1 L_4 g_m s^3 + 2C_5 L_1 s^2 + C_5 L_4 s^2 + 2L_1 g_m s + 2}$$

$$\mathbf{10.126 \quad INVALID-ORDER-126} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 (-C_5 R_5 s + R_5 g_m - 1)}{2C_4 C_5 L_1 L_4 R_5 s^4 + 2C_4 L_1 L_4 R_5 g_m s^3 + 2C_4 L_1 L_4 s^3 + 2C_4 L_4 R_5 s^2 + 2C_5 L_1 L_4 R_5 g_m s^3 + 2C_5 L_1 R_5 s^2 + C_5 L_4 R_5 s^2 + 2L_1 L_4 g_m s^2 + 2L_1 R_5 g_m s + 2L_1 s + L_4 s + 2R_5}$$

$$\mathbf{10.127 \quad INVALID-ORDER-127} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 (C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_4 s^4 + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_4 s^2 + 2C_5 L_1 L_4 g_m s^3 + 2C_5 L_1 R_5 g_m s^2 + 2C_5 L_1 s^2 + C_5 L_4 s^2 + 2C_5 R_5 s + 2L_1 g_m s + 2}$$

$$\mathbf{10.128 \quad INVALID-ORDER-128} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2C_4 C_5 L_1 L_4 s^4 + 2C_4 C_5 L_4 L_5 s^4 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_4 s^2 + 2C_5 L_1 L_4 g_m s^3 + 2C_5 L_1 L_5 g_m s^3 + 2C_5 L_1 s^2 + C_5 L_4 s^2 + 2C_5 L_5 s^2 + 2L_1 g_m s + 2}$$

$$\mathbf{10.129 \quad INVALID-ORDER-129} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s (C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_4 C_5 L_1 L_4 L_5 s^4 + 2C_4 L_1 L_4 L_5 g_m s^3 + 2C_4 L_1 L_4 s^2 + 2C_4 L_4 L_5 s^2 + 2C_5 L_1 L_4 L_5 g_m s^3 + 2C_5 L_1 L_5 s^2 + C_5 L_4 L_5 s^2 + 2L_1 L_4 g_m s + 2L_1 L_5 g_m s + 2L_1 + L_4 + 2L_5}$$

$$\mathbf{10.130 \quad INVALID-ORDER-130} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_4 s^4 + 2C_4 C_5 L_4 L_5 s^4 + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_4 s^2 + 2C_5 L_1 L_4 g_m s^3 + 2C_5 L_1 L_5 g_m s^3 + 2C_5 L_1 R_5 g_m s^2 + 2C_5 L_1 s^2 + C_5 L_4 s^2 + 2C_5 L_5 s^2 + 2C_5 R_5 s + 2L_1 g_m s + 2}$$

$$\mathbf{10.131 \quad INVALID-ORDER-131} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s \left(-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5 \right)}{2C_4 C_5 L_1 L_4 L_5 R_5 s^4 + 2C_4 L_1 L_4 L_5 R_5 g_m s^3 + 2C_4 L_1 L_4 L_5 s^3 + 2C_4 L_1 L_4 R_5 s^2 + 2C_4 L_4 L_5 R_5 s^2 + 2C_5 L_1 L_4 L_5 R_5 g_m s^3 + 2C_5 L_1 L_5 R_5 s^2 + C_5 L_4 L_5 R_5 s^2 + 2L_1 L_4 L_5 g_m s^2 + 2L_1 L_4 R_5 g_m s + 2L_1 L_5 R_5 g_m s + 2L_1 L_5 s + 2L_1 R_5 + L_4 L_5 s + L_4 R_5 + 2L_5 R_5}$$

$$\mathbf{10.132 \quad INVALID-ORDER-132} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 \left(C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1 \right)}{2C_4 C_5 L_1 L_4 L_5 R_5 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 s^5 + 2C_4 C_5 L_4 L_5 R_5 s^4 + 2C_4 L_1 L_4 L_5 g_m s^4 + 2C_4 L_1 L_4 R_5 g_m s^3 + 2C_4 L_1 L_4 s^3 + 2C_4 L_4 L_5 s^3 + 2C_4 L_4 R_5 s^2 + 2C_5 L_1 L_4 L_5 g_m s^4 + 2C_5 L_1 L_5 R_5 g_m s^3 + 2C_5 L_1 L_5 s^3 + C_5 L_4 L_5 s^3 + 2C_5 L_5 R_5 s^2 + 2L_1 L_4 g_m s^2 + 2L_1 L_5 g_m s^2 + 2L_1 R_5 g_m s + 2L_1 L_5 s + 2L_1 R_5 + L_4 L_5 s + L_4 R_5 + 2L_5 R_5}$$

$$\mathbf{10.133 \quad INVALID-ORDER-133} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 \left(C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1 \right)}{2C_4 C_5 L_1 L_4 L_5 R_5 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 s^5 + 2C_4 C_5 L_1 L_4 R_5 s^4 + 2C_4 C_5 L_4 L_5 R_5 s^4 + 2C_4 L_1 L_4 R_5 g_m s^3 + 2C_4 L_1 L_4 s^3 + 2C_4 L_4 R_5 s^2 + 2C_5 L_1 L_4 L_5 g_m s^4 + 2C_5 L_1 L_4 R_5 g_m s^3 + 2C_5 L_1 L_5 R_5 g_m s^3 + 2C_5 L_1 L_5 s^3 + 2C_5 L_1 R_5 s^2 + C_5 L_4 L_5 s^3 + C_5 L_4 R_5 s^2 + 2C_5 L_5 R_5 s^2 + 2L_1 L_4 g_m s^2 + 2L_1 L_5 g_m s^2 + 2L_1 R_5 g_m s + 2L_1 L_5 s + 2L_1 R_5 + L_4 L_5 s + L_4 R_5 + 2L_5 R_5}$$

$$\mathbf{10.134 \quad INVALID-ORDER-134} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 s \left(R_5 g_m - 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2C_4 R_5 s + 2L_1 g_m s + 1}$$

$$\mathbf{10.135 \quad INVALID-ORDER-135} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 \left(C_5 s - g_m \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{2C_4 C_5 L_1 L_4 g_m s^3 + 2C_4 C_5 L_1 R_4 g_m s^2 + 2C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + C_4 C_5 R_4 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.136 \quad INVALID-ORDER-136} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_5 R_5 s - R_5 g_m + 1 \right)}{2C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_1 R_5 s^3 + C_4 C_5 L_4 R_5 s^3 + C_4 C_5 R_4 R_5 s^2 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2C_4 R_5 s + 2C_5 L_1 R_5 g_m s^2 + C_5 R_5 s + 2L_1 g_m s + 1}$$

$$\mathbf{10.137 \quad INVALID-ORDER-137} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_5 R_5 g_m s - C_5 s + g_m \right)}{2C_4 C_5 L_1 L_4 g_m s^3 + 2C_4 C_5 L_1 R_4 g_m s^2 + 2C_4 C_5 L_1 R_5 g_m s^2 + 2C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + C_4 C_5 R_4 s + 2C_4 C_5 R_5 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.138 \quad INVALID-ORDER-138} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_5 L_5 g_m s^2 - C_5 s + g_m \right)}{2C_4 C_5 L_1 L_4 g_m s^3 + 2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 R_4 g_m s^2 + 2C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + 2C_4 C_5 L_5 s^2 + C_4 C_5 R_4 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.139 \quad INVALID-ORDER-139} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_5 L_5 s^2 - L_5 g_m s + 1 \right)}{2C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 L_5 s^4 + C_4 C_5 L_4 L_5 s^4 + C_4 C_5 L_5 R_4 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 L_5 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 s^2 + C_4 L_4 s^2 + 2C_4 L_5 s^2 + C_4 R_4 s + 2C_5 L_1 L_5 g_m s^3 + C_5 L_5 s^2 + 2L_1 g_m s + 1}$$

$$\mathbf{10.140 \quad INVALID-ORDER-140} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_1 L_4 g_m s^3 + 2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 R_4 g_m s^2 + 2C_4 C_5 L_1 R_5 g_m s^2 + 2C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + 2C_4 C_5 L_5 s^2 + C_4 C_5 R_4 s + 2C_4 C_5 R_5 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.141 \quad INVALID-ORDER-141} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_4 C_5 L_1 L_4 L_5 R_5 g_m s^5 + 2C_4 C_5 L_1 L_5 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 R_5 s^4 + C_4 C_5 L_4 L_5 R_5 s^4 + C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 L_1 L_4 L_5 g_m s^4 + 2C_4 L_1 L_4 R_5 g_m s^3 + 2C_4 L_1 L_5 R_4 g_m s^3 + 2C_4 L_1 L_5 R_5 g_m s^3 + 2C_4 L_1 L_5 s^3 + 2C_4 L_1 R_4 R_5 g_m s^2 + 2C_4 L_1 R_5 s^2 + C_4 L_4 L_5 s^3 + C_4 L_4 R_5 s^2 +}$$

$$\mathbf{10.142 \quad INVALID-ORDER-142} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 s^4 + C_4 C_5 L_4 L_5 s^4 + C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 L_5 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + C_4 L_4 s^2 + 2C_4 L_5 s^2 + C_4 R_4 s + 2C_4 R_5 s + 2C_5 L_1}$$

$$\mathbf{10.143 \quad INVALID-ORDER-143} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 L_4 s^2 + C_4 R_4 s + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m + 1)}{2C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 s^4 + 2C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_1 R_5 s^3 + C_4 C_5 L_4 L_5 s^4 + C_4 C_5 L_4 R_5 s^3 + C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 L_5 R_5 s^3 + C_4 C_5 R_4 R_5 s^2 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 +}$$

$$\mathbf{10.144 \quad INVALID-ORDER-144} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s^2 (R_5 g_m - 1)}{2C_4 L_1 L_4 R_4 R_5 g_m s^3 + 2C_4 L_1 L_4 R_4 s^3 + 2C_4 L_4 R_4 R_5 s^2 + 2L_1 L_4 R_4 g_m s^2 + 2L_1 L_4 R_5 g_m s^2 + 2L_1 L_4 s^2 + 2L_1 R_4 R_5 g_m s + 2L_1 R_4 s + L_4 R_4 s + 2L_4 R_5 s + 2R_4 R_5}$$

$$\mathbf{10.145 \quad INVALID-ORDER-145} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s^2 (-C_5 s + g_m)}{2C_4 C_5 L_1 L_4 R_4 s^4 + 2C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_4 R_4 s^2 + 2C_5 L_1 L_4 R_4 g_m s^3 + 2C_5 L_1 L_4 s^3 + 2C_5 L_1 R_4 s^2 + C_5 L_4 R_4 s^2 + 2L_1 L_4 g_m s^2 + 2L_1 R_4 g_m s + 2L_4 s + 2R_4}$$

$$\mathbf{10.146 \quad INVALID-ORDER-146} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s^2 (-C_5 R_5 s + R_5 g_m - 1)}{2C_4 C_5 L_1 L_4 R_4 R_5 s^4 + 2C_4 L_1 L_4 R_4 R_5 g_m s^3 + 2C_4 L_1 L_4 R_4 s^3 + 2C_4 L_4 R_4 R_5 s^2 + 2C_5 L_1 L_4 R_4 R_5 g_m s^3 + 2C_5 L_1 L_4 R_5 s^3 + 2C_5 L_1 R_4 R_5 s^2 + C_5 L_4 R_4 R_5 s^2 + 2L_1 L_4 R_4 g_m s^2 + 2L_1 L_4 R_5 g_m s^2 + 2L_1 L_4 s^2 + 2L_1 R_4 R_5 g_m s + 2L_1 R_4 s + L_4 R_4 s + 2L_4 R_5 s + 2R_4 R_5}$$

$$\mathbf{10.147 \quad INVALID-ORDER-147} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s^2 (C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_1 L_4 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_4 R_4 s^4 + 2C_4 C_5 L_4 R_4 R_5 s^3 + 2C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_4 R_4 s^2 + 2C_5 L_1 L_4 R_4 g_m s^3 + 2C_5 L_1 L_4 R_5 g_m s^3 + 2C_5 L_1 L_4 s^3 + 2C_5 L_1 R_4 R_5 g_m s^2 + 2C_5 L_1 R_4 s^2 + C_5 L_4 R_4 s^2 + 2C_5 L_4 R_5 s^2 + 2C_5 R_4 R_5 s + 2L_1 L_4 g_m s^2 + 2L_1 R_4 g_m s + 2L_4 s +}$$

$$\mathbf{10.148 \quad INVALID-ORDER-148} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s^2 (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_4 C_5 L_1 L_4 L_5 R_4 g_m s^5 + 2C_4 C_5 L_1 L_4 R_4 s^4 + 2C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_4 R_4 s^2 + 2C_5 L_1 L_4 L_5 g_m s^4 + 2C_5 L_1 L_4 R_4 g_m s^3 + 2C_5 L_1 L_4 s^3 + 2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 R_4 s^2 + 2C_5 L_4 R_4 s^2 + 2C_5 L_5 R_4 s^2 + 2L_1 L_4 g_m s^2 + 2L_1 R_4 g_m s + 2L_4 s +}$$

$$\mathbf{10.149 \quad INVALID-ORDER-149} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_4 C_5 L_1 L_4 L_5 R_4 s^4 + 2C_4 L_1 L_4 L_5 R_4 g_m s^3 + 2C_4 L_1 L_4 R_4 s^2 + 2C_4 L_4 L_5 R_4 s^2 + 2C_5 L_1 L_4 L_5 R_4 g_m s^3 + 2C_5 L_1 L_4 L_5 s^3 + 2C_5 L_1 L_5 R_4 s^2 + C_5 L_4 L_5 R_4 s^2 + 2L_1 L_4 L_5 g_m s^2 + 2L_1 L_4 R_4 g_m s + 2L_1 L_4 s + 2L_1 L_5 R_4 g_m s + 2L_1 R_4 + 2L_4 L_5 s + L_4 R_4 + 2L_5 R_4}$$

$$\mathbf{10.150 \quad INVALID-ORDER-150} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s^2 (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_1 L_4 L_5 R_4 g_m s^5 + 2C_4 C_5 L_1 L_4 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_4 R_4 s^4 + 2C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 C_5 L_4 R_4 R_5 s^3 + 2C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_4 R_4 s^2 + 2C_5 L_1 L_4 L_5 g_m s^4 + 2C_5 L_1 L_4 R_4 g_m s^3 + 2C_5 L_1 L_4 R_5 g_m s^3 + 2C_5 L_1 L_4 s^3 + 2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 R_4 R_5 g_m s^2 + 2C_5 L_1 R_4 s^2 + 2C_5 L_1 R_5 s + g_m}$$

$$\mathbf{10.151 \quad INVALID-ORDER-151} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_4 C_5 L_1 L_4 L_5 R_4 R_5 s^4 + 2C_4 L_1 L_4 L_5 R_4 R_5 g_m s^3 + 2C_4 L_1 L_4 L_5 R_4 s^3 + 2C_4 L_1 L_4 R_4 R_5 s^2 + 2C_4 L_4 L_5 R_4 R_5 s^2 + 2C_5 L_1 L_4 L_5 R_4 R_5 g_m s^3 + 2C_5 L_1 L_4 L_5 R_5 s^3 + 2C_5 L_1 L_5 R_4 R_5 s^2 + C_5 L_4 L_5 R_4 R_5 s^2 + 2L_1 L_4 L_5 R_4 g_m s^2 + 2L_1 L_4 L_5 R_5 g_m s^2 + 2L_1 L_4 L_5 s^2 + 2L_1 L_4 R_4 R_5 g_m s + 2L_1 L_4 R_4 s^2 + 2L_1 L_5 R_4 s + R_5}$$

$$\mathbf{10.152 \quad INVALID-ORDER-152} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s^2 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m)}{2C_4 C_5 L_1 L_4 L_5 R_4 R_5 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 R_4 s^5 + 2C_4 C_5 L_4 L_5 R_4 R_5 s^4 + 2C_4 L_1 L_4 L_5 R_4 g_m s^4 + 2C_4 L_1 L_4 R_4 R_5 g_m s^3 + 2C_4 L_1 L_4 R_4 s^3 + 2C_4 L_4 L_5 R_4 s^3 + 2C_4 L_4 R_4 R_5 s^2 + 2C_5 L_1 L_4 L_5 R_4 g_m s^4 + 2C_5 L_1 L_4 L_5 R_5 g_m s^4 + 2C_5 L_1 L_4 L_5 s^4 + 2C_5 L_1 L_5 R_4 R_5 g_m s^3 + 2C_5 L_1 L_5 R_4 s^3 + 2C_5 L_1 R_4 R_5 s^2 + 2C_5 L_1 R_4 s^2 + 2C_5 L_1 R_5 s + g_m}$$

$$\mathbf{10.153 \quad INVALID-ORDER-153} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s^2 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m)}{2C_4 C_5 L_1 L_4 L_5 R_4 R_5 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 R_4 s^5 + 2C_4 C_5 L_1 L_4 R_4 R_5 s^4 + 2C_4 C_5 L_4 L_5 R_4 R_5 s^4 + 2C_4 L_1 L_4 R_4 R_5 g_m s^3 + 2C_4 L_1 L_4 R_4 s^3 + 2C_4 L_4 R_4 R_5 s^2 + 2C_5 L_1 L_4 L_5 R_4 g_m s^4 + 2C_5 L_1 L_4 L_5 R_5 g_m s^4 + 2C_5 L_1 L_4 L_5 s^4 + 2C_5 L_1 L_4 R_4 R_5 g_m s^3 + 2C_5 L_1 L_4 R_5 s^3 + 2C_5 L_1 L_5 R_4 s^2 + 2C_5 L_1 R_4 R_5 s^2 + 2C_5 L_1 R_4 s^2 + 2C_5 L_1 R_5 s + g_m}$$

$$\mathbf{10.154 \quad INVALID-ORDER-154} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (R_5 g_m - 1) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{2C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_1 L_4 R_5 g_m s^3 + 2C_4 L_1 L_4 s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_5 s^2 + 2L_1 L_4 g_m s^2 + 2L_1 R_4 g_m s + 2L_1 R_5 g_m s + 2L_1 s + L_4 s + R_4 + 2R_5}$$

$$\mathbf{10.155 \quad INVALID-ORDER-155} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_5 s - g_m) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{2C_4 C_5 L_1 L_4 R_4 g_m s^4 + 2C_4 C_5 L_1 L_4 s^4 + C_4 C_5 L_4 R_4 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_4 s^2 + 2C_5 L_1 L_4 g_m s^3 + 2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 s^2 + C_5 L_4 s^2 + C_5 R_4 s + 2L_1 g_m s + 2}$$

$$\mathbf{10.156 \quad INVALID-ORDER-156} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_5 R_5 s - R_5 g_m + 1) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{2C_4 C_5 L_1 L_4 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_4 R_5 s^4 + C_4 C_5 L_4 R_4 R_5 s^3 + 2C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_1 L_4 R_5 g_m s^3 + 2C_4 L_1 L_4 s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_5 s^2 + 2C_5 L_1 L_4 R_5 g_m s^3 + 2C_5 L_1 R_4 R_5 g_m s^2 + 2C_5 L_1 R_5 s^2 + C_5 L_4 R_5 s^2 + C_5 R_4 R_5 s + 2L_1 L_4 g_m s^2 + 2L_1 R_4 g_m s + 2L_1 R_5 g_m s + 2L_1 s + L_4 s + R_4 + 2R_5}$$

$$\mathbf{10.157 \quad INVALID-ORDER-157} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_1 L_4 R_4 g_m s^4 + 2C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_4 s^4 + C_4 C_5 L_4 R_4 s^3 + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_4 s^2 + 2C_5 L_1 L_4 g_m s^3 + 2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 R_5 g_m s^2 + 2C_5 L_1 s^2 + C_5 L_4 s^2 + C_5 R_4 s + 2C_5 R_5 s + 2L_1 g_m s + 2}$$

$$\mathbf{10.158 \quad INVALID-ORDER-158} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2 C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2 C_4 C_5 L_1 L_4 R_4 g_m s^4 + 2 C_4 C_5 L_1 L_4 s^4 + 2 C_4 C_5 L_4 L_5 s^4 + C_4 C_5 L_4 R_4 s^3 + 2 C_4 L_1 L_4 g_m s^3 + 2 C_4 L_4 s^2 + 2 C_5 L_1 L_4 g_m s^3 + 2 C_5 L_1 L_5 g_m s^3 + 2 C_5 L_1 R_4 g_m s^2 + 2 C_5 L_1 s^2 + C_5 L_4 s^2 + 2 C_5 L_5 s^2 + C_5 R_4 s + 2 L_1 g_m s + 2}$$

$$\mathbf{10.159 \quad INVALID-ORDER-159} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_5 L_5 s^2 - L_5 g_m s + 1) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{2 C_4 C_5 L_1 L_4 L_5 R_4 g_m s^5 + 2 C_4 C_5 L_1 L_4 L_5 s^5 + C_4 C_5 L_4 L_5 R_4 s^4 + 2 C_4 L_1 L_4 L_5 g_m s^4 + 2 C_4 L_1 L_4 R_4 g_m s^3 + 2 C_4 L_1 L_4 s^3 + 2 C_4 L_4 L_5 s^3 + C_4 L_4 R_4 s^2 + 2 C_5 L_1 L_4 L_5 g_m s^4 + 2 C_5 L_1 L_5 R_4 g_m s^3 + 2 C_5 L_1 L_5 s^3 + C_5 L_4 L_5 s^3 + C_5 L_5 R_4 s^2 + 2 L_1 L_4 g_m s^2 + 2 L_1 L_5 g_m s^2 + 2 L_1 R_4 g_m s + 2}$$

$$\mathbf{10.160 \quad INVALID-ORDER-160} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2 C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2 C_4 C_5 L_1 L_4 R_4 g_m s^4 + 2 C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2 C_4 C_5 L_1 L_4 s^4 + 2 C_4 C_5 L_4 L_5 s^4 + C_4 C_5 L_4 R_4 s^3 + 2 C_4 C_5 L_4 R_5 s^3 + 2 C_4 L_1 L_4 g_m s^3 + 2 C_4 L_4 s^2 + 2 C_5 L_1 L_4 g_m s^3 + 2 C_5 L_1 L_5 g_m s^3 + 2 C_5 L_1 R_4 g_m s^2 + 2 C_5 L_1 R_5 g_m s^2 + 2 C_5 L_1 s^2 + C_5 L_4 s^2 + 2 C_5 L_5 s^2}$$

$$\mathbf{10.161 \quad INVALID-ORDER-161} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s)}{2 C_4 C_5 L_1 L_4 L_5 R_4 R_5 g_m s^5 + 2 C_4 C_5 L_1 L_4 L_5 R_5 s^5 + C_4 C_5 L_4 L_5 R_4 R_5 s^4 + 2 C_4 L_1 L_4 L_5 R_4 g_m s^4 + 2 C_4 L_1 L_4 L_5 R_5 g_m s^4 + 2 C_4 L_1 L_4 L_5 s^4 + 2 C_4 L_1 L_4 R_4 R_5 g_m s^3 + 2 C_4 L_1 L_4 R_5 s^3 + C_4 L_4 L_5 R_4 s^3 + 2 C_4 L_4 L_5 R_5 s^3 + C_4 L_4 R_4 R_5 s^2 + 2 C_5 L_1 L_4 L_5 R_5 g_m s^4 + 2 C_5 L_1 L_5 R_4 R_5 g_m s^3 + 2 C_5 L_1 L_5 R_5 s^2 + 2 C_5 L_1 R_4 R_5 s^2 + 2 C_5 L_1 s^2 + C_5 L_4 s^2 + 2 C_5 L_5 s^2}$$

$$\mathbf{10.162 \quad INVALID-ORDER-162} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2 C_4 C_5 L_1 L_4 L_5 R_4 g_m s^5 + 2 C_4 C_5 L_1 L_4 L_5 R_5 g_m s^5 + 2 C_4 C_5 L_1 L_4 L_5 s^5 + C_4 C_5 L_4 L_5 R_4 s^4 + 2 C_4 C_5 L_4 L_5 R_5 s^4 + 2 C_4 L_1 L_4 L_5 g_m s^4 + 2 C_4 L_1 L_4 R_4 g_m s^3 + 2 C_4 L_1 L_4 R_5 g_m s^3 + 2 C_4 L_1 L_4 s^3 + 2 C_4 L_4 L_5 s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_5 s^2 + 2 C_5 L_1 L_4 L_5 g_m s^4 + 2 C_5 L_1 L_5 R_4 g_m s^3 + 2 C_5 L_1 L_5 R_5 s^2 + 2 C_5 L_1 R_4 R_5 s^2 + 2 C_5 L_1 s^2 + C_5 L_4 s^2 + 2 C_5 L_5 s^2}$$

$$\mathbf{10.163 \quad INVALID-ORDER-163} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 L_4 R_4 s^2 + L_4 s + R_4) (-C_5 L_5 R_5 g_m s + L_5 s)}{2 C_4 C_5 L_1 L_4 L_5 R_4 g_m s^5 + 2 C_4 C_5 L_1 L_4 L_5 R_5 g_m s^5 + 2 C_4 C_5 L_1 L_4 L_5 s^5 + 2 C_4 C_5 L_1 L_4 R_4 R_5 g_m s^4 + 2 C_4 C_5 L_1 L_4 R_5 s^4 + C_4 C_5 L_4 L_5 R_4 s^4 + 2 C_4 C_5 L_4 L_5 R_5 s^4 + C_4 C_5 L_4 R_4 R_5 s^3 + 2 C_4 L_1 L_4 R_4 g_m s^3 + 2 C_4 L_1 L_4 R_5 g_m s^3 + 2 C_4 L_1 L_4 s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_5 s^2 + 2 C_5 L_1 L_4 L_5 g_m s^4 + 2 C_5 L_1 L_5 R_4 R_5 g_m s^3 + 2 C_5 L_1 L_5 R_5 s^2 + 2 C_5 L_1 R_4 R_5 s^2 + 2 C_5 L_1 s^2 + C_5 L_4 s^2 + 2 C_5 L_5 s^2}$$

$$\mathbf{10.164 \quad INVALID-ORDER-164} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (R_5 g_m - 1) (C_4 L_4 s^2 + 1)}{2 C_4 L_1 L_4 R_4 g_m s^3 + 2 C_4 L_1 L_4 R_5 g_m s^3 + 2 C_4 L_1 L_4 s^3 + 2 C_4 L_1 R_4 R_5 g_m s^2 + 2 C_4 L_1 R_4 s^2 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_5 s^2 + 2 C_4 R_4 R_5 s + 2 L_1 R_4 g_m s + 2 L_1 R_5 g_m s + 2 L_1 s + R_4 + 2 R_5}$$

$$\mathbf{10.165 \quad INVALID-ORDER-165} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 R_4 s (C_5 s - g_m) (C_4 L_4 s^2 + 1)}{2 C_4 C_5 L_1 L_4 R_4 g_m s^4 + 2 C_4 C_5 L_1 L_4 s^4 + 2 C_4 C_5 L_1 R_4 s^3 + C_4 C_5 L_4 R_4 s^3 + 2 C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 R_4 g_m s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + 2 C_5 L_1 R_4 g_m s^2 + 2 C_5 L_1 s^2 + C_5 R_4 s + 2 L_1 g_m s + 2}$$

$$\mathbf{10.166 \quad INVALID-ORDER-166} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 R_4 s (C_4 L_4 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{2 C_4 C_5 L_1 L_4 R_4 R_5 g_m s^4 + 2 C_4 C_5 L_1 L_4 R_5 s^4 + 2 C_4 C_5 L_1 R_4 R_5 s^3 + C_4 C_5 L_4 R_4 R_5 s^3 + 2 C_4 L_1 L_4 R_4 g_m s^3 + 2 C_4 L_1 L_4 R_5 g_m s^3 + 2 C_4 L_1 L_4 s^3 + 2 C_4 L_1 R_4 R_5 g_m s^2 + 2 C_4 L_1 R_4 s^2 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_5 s^2 + 2 C_4 R_4 R_5 s + 2 C_5 L_1 R_4 R_5 g_m s^2 + 2 C_5 L_1 R_5 s^2 + C_5 R_4 R_5 s + 2 L_1 R_4 g_m s + 2 L_1 R_5 g_m s + 2 L_1 s + R_4 + 2 R_5}$$

$$\mathbf{10.167 \quad INVALID-ORDER-167} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (C_4 L_4 s^2 + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_1 L_4 R_4 g_m s^4 + 2C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_4 s^4 + 2C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_1 R_4 s^3 + C_4 C_5 L_4 R_4 s^3 + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 C_5 R_4 R_5 s^2 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_4 s^2 + 2C_4 R_4 s + 2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 R_5 g_m s^2 + 2C_5 L_1 s^2 + C_5 R_4 s}$$

$$\mathbf{10.168 \quad INVALID-ORDER-168} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2C_4 C_5 L_1 L_4 R_4 g_m s^4 + 2C_4 C_5 L_1 L_4 s^4 + 2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 R_4 s^3 + 2C_4 C_5 L_4 L_5 s^4 + C_4 C_5 L_4 R_4 s^3 + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_4 s^2 + 2C_4 R_4 s + 2C_5 L_1 L_5 g_m s^3 + 2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 s^2 + 2C_5 L_5 s^2}$$

$$\mathbf{10.169 \quad INVALID-ORDER-169} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 R_4 s (C_4 L_4 s^2 + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_4 C_5 L_1 L_4 L_5 R_4 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 s^5 + 2C_4 C_5 L_1 L_5 R_4 s^4 + C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 L_1 L_4 L_5 g_m s^4 + 2C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_1 L_4 s^3 + 2C_4 L_1 L_5 R_4 g_m s^3 + 2C_4 L_1 R_4 s^2 + 2C_4 L_4 L_5 s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_5 R_4 s^2 + 2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 L_5 s^3 + C_5 L_5 R_4 s^2 + 2C_5 L_5 s^2}$$

$$\mathbf{10.170 \quad INVALID-ORDER-170} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2C_4 C_5 L_1 L_4 R_4 g_m s^4 + 2C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_4 s^4 + 2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_1 R_4 s^3 + 2C_4 C_5 L_4 L_5 s^4 + C_4 C_5 L_4 R_4 s^3 + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 R_4 R_5 s^2 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_4 s^2 + 2C_4 R_4 s + 2C_5 L_1 L_5 g_m s^3 + 2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 s^2 + 2C_5 L_5 s^2}$$

$$\mathbf{10.171 \quad INVALID-ORDER-171} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 R_4 s (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_4 C_5 L_1 L_4 L_5 R_4 R_5 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 R_5 s^5 + 2C_4 C_5 L_1 L_5 R_4 R_5 s^4 + C_4 C_5 L_4 L_5 R_4 R_5 s^4 + 2C_4 L_1 L_4 L_5 R_4 g_m s^4 + 2C_4 L_1 L_4 L_5 R_5 g_m s^4 + 2C_4 L_1 L_4 L_5 s^4 + 2C_4 L_1 L_4 R_4 R_5 g_m s^3 + 2C_4 L_1 L_4 R_5 s^3 + 2C_4 L_1 L_5 R_4 R_5 g_m s^3 + 2C_4 L_1 L_5 R_4 s^3 + 2C_4 L_1 R_4 R_5 s^2 + C_4 L_4 L_5 s^2 + C_4 L_5 R_4 s^2 + C_4 R_4 s + 2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 L_5 s^3 + C_5 L_5 R_4 s^2 + 2C_5 L_5 s^2}$$

$$\mathbf{10.172 \quad INVALID-ORDER-172} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 g_m s^2 - L_5 R_5 s + R_5)}{2C_4 C_5 L_1 L_4 L_5 R_4 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 R_5 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 s^5 + 2C_4 C_5 L_1 L_5 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 R_4 s^4 + C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 C_5 L_4 L_5 R_5 s^4 + 2C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 L_1 L_4 L_5 g_m s^4 + 2C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_1 L_4 R_5 g_m s^3 + 2C_4 L_1 L_4 s^3 + 2C_4 L_1 L_5 R_4 g_m s^3 + 2C_4 L_1 L_5 R_4 s^3 + 2C_4 L_1 R_4 R_5 s^2 + C_4 L_4 L_5 s^2 + C_4 L_5 R_4 s^2 + C_4 R_4 s + 2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 L_5 s^3 + C_5 L_5 R_4 s^2 + 2C_5 L_5 s^2}$$

$$\mathbf{10.173 \quad INVALID-ORDER-173} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \infty, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \frac{R_5(C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 R_4 s (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 s + R_5)}{2C_4 C_5 L_1 L_4 L_5 R_4 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 R_5 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 s^5 + 2C_4 C_5 L_1 L_4 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_4 R_5 s^4 + 2C_4 C_5 L_1 L_5 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 R_4 s^4 + 2C_4 C_5 L_1 R_4 R_5 s^3 + C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 C_5 L_4 L_5 R_5 s^4 + C_4 C_5 L_4 R_4 R_5 s^3 + 2C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 L_1 L_4 L_5 g_m s^4 + 2C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_1 L_4 R_5 g_m s^3 + 2C_4 L_1 L_4 s^3 + 2C_4 L_1 L_5 R_4 g_m s^3 + 2C_4 L_1 L_5 R_4 s^3 + 2C_4 L_1 R_4 R_5 s^2 + C_4 L_4 L_5 s^2 + C_4 L_5 R_4 s^2 + C_4 R_4 s + 2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 L_5 s^3 + C_5 L_5 R_4 s^2 + 2C_5 L_5 s^2}$$

$$\mathbf{10.174 \quad INVALID-ORDER-174} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{R_4 (R_5 g_m - 1)}{C_1 R_4 s + 2C_1 R_5 s + 2R_4 g_m + 2R_5 g_m + 2}$$

$$\mathbf{10.175 \quad INVALID-ORDER-175} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_5 L_5 s^3 + C_1 C_5 R_4 s^2 + 2C_1 s + 2C_5 L_5 g_m s^2 + 2C_5 R_4 g_m s + 2C_5 s + 2g_m}$$

10.176 INVALID-ORDER-176 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = \frac{R_4 (-C_5 L_5 s^2 + L_5 g_m s - 1)}{C_1 C_5 L_5 R_4 s^3 + 2C_1 L_5 s^2 + C_1 R_4 s + 2C_5 L_5 R_4 g_m s^2 + 2C_5 L_5 s^2 + 2L_5 g_m s + 2R_4 g_m + 2}$$

10.177 INVALID-ORDER-177 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4 (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_5 L_5 s^3 + C_1 C_5 R_4 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 s + 2C_5 L_5 g_m s^2 + 2C_5 R_4 g_m s + 2C_5 R_5 g_m s + 2C_5 s + 2g_m}$$

10.178 INVALID-ORDER-178 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = \frac{R_4 (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{C_1 C_5 L_5 R_4 R_5 s^3 + C_1 L_5 R_4 s^2 + 2C_1 L_5 R_5 s^2 + C_1 R_4 R_5 s + 2C_5 L_5 R_4 R_5 g_m s^2 + 2C_5 L_5 R_5 s^2 + 2L_5 R_4 g_m s + 2L_5 R_5 g_m s + 2L_5 s + 2R_4 R_5 g_m + 2R_5}$$

10.179 INVALID-ORDER-179 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{R_4 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_5 L_5 R_4 s^3 + 2C_1 C_5 L_5 R_5 s^3 + 2C_1 L_5 s^2 + C_1 R_4 s + 2C_1 R_5 s + 2C_5 L_5 R_4 g_m s^2 + 2C_5 L_5 R_5 g_m s^2 + 2C_5 L_5 s^2 + 2L_5 g_m s + 2R_4 g_m + 2R_5 g_m + 2}$$

10.180 INVALID-ORDER-180 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{R_4 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{C_1 C_5 L_5 R_4 s^3 + 2C_1 C_5 L_5 R_5 s^3 + C_1 C_5 R_4 R_5 s^2 + C_1 R_4 s + 2C_1 R_5 s + 2C_5 L_5 R_4 g_m s^2 + 2C_5 L_5 R_5 g_m s^2 + 2C_5 L_5 s^2 + 2C_5 R_4 R_5 g_m s + 2C_5 R_5 s + 2R_4 g_m + 2R_5 g_m + 2}$$

10.181 INVALID-ORDER-181 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{-C_5 s + g_m}{s (2C_1 C_4 s + C_1 C_5 s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

10.182 INVALID-ORDER-182 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{C_5 R_5 g_m s - C_5 s + g_m}{s (2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 s + C_1 C_5 s + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

10.183 INVALID-ORDER-183 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{C_5 L_5 g_m s^2 - C_5 s + g_m}{s (2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 s + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

10.184 INVALID-ORDER-184 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = \frac{-C_5 L_5 s^2 + L_5 g_m s - 1}{2C_1 C_4 L_5 s^3 + C_1 C_5 L_5 s^3 + C_1 s + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 s + 2C_5 L_5 g_m s^2 + 2g_m}$$

10.185 INVALID-ORDER-185 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m}{s (2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 s + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

10.186 INVALID-ORDER-186 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = \frac{-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5}{2C_1 C_4 L_5 R_5 s^3 + C_1 C_5 L_5 R_5 s^3 + C_1 L_5 s^2 + C_1 R_5 s + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_5 R_5 g_m s^2 + 2C_4 L_5 s^2 + 2C_4 R_5 s + 2C_5 L_5 R_5 g_m s^2 + 2L_5 g_m s + 2R_5 g_m}$$

10.187 INVALID-ORDER-187 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1}{2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_5 s^2 + C_1 C_5 L_5 s^3 + C_1 s + 2C_4 C_5 L_5 R_5 g_m s^3 + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 R_5 g_m s + 2C_4 s + 2C_5 L_5 g_m s^2 + 2g_m}$$

10.188 INVALID-ORDER-188 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1}{2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 R_5 s^2 + C_1 C_5 L_5 s^3 + C_1 C_5 R_5 s^2 + C_1 s + 2C_4 C_5 L_5 R_5 g_m s^3 + 2C_4 C_5 L_5 s^3 + 2C_4 C_5 R_5 s^2 + 2C_4 R_5 g_m s + 2C_4 s + 2C_5 L_5 g_m s^2 + 2C_5 R_5 g_m s + 2g_m}$$

10.189 INVALID-ORDER-189 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4 (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 R_4 s^2 + C_1 C_5 R_4 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 s + 2C_4 C_5 R_4 R_5 g_m s^2 + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 R_4 g_m s + 2C_5 R_5 g_m s + 2C_5 s + 2g_m}$$

10.190 INVALID-ORDER-190 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4 (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 L_5 s^3 + C_1 C_5 R_4 s^2 + 2C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 L_5 g_m s^2 + 2C_5 R_4 g_m s + 2C_5 s + 2g_m}$$

10.191 INVALID-ORDER-191 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = \frac{R_4 (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_1 C_4 L_5 R_4 s^3 + C_1 C_5 L_5 R_4 s^3 + 2C_1 L_5 s^2 + C_1 R_4 s + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 L_5 R_4 g_m s^2 + 2C_4 R_4 s + 2C_5 L_5 R_4 g_m s^2 + 2C_5 L_5 s^2 + 2L_5 g_m s + 2R_4 g_m + 2}$$

10.192 INVALID-ORDER-192 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4 (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 L_5 s^3 + C_1 C_5 R_4 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 R_4 R_5 g_m s^2 + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 L_5 g_m s^2 + 2C_5 R_4 g_m s + 2C_5 R_5 g_m s + 2C_5 s + 2g_m}$$

10.193 INVALID-ORDER-193 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = \frac{R_4 (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_1 C_4 L_5 R_4 R_5 s^3 + C_1 C_5 L_5 R_4 R_5 s^3 + C_1 L_5 R_4 s^2 + 2C_1 L_5 R_5 s^2 + C_1 R_4 R_5 s + 2C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 L_5 R_4 R_5 g_m s^2 + 2C_4 L_5 R_4 s^2 + 2C_4 R_4 R_5 s + 2C_5 L_5 R_4 R_5 g_m s^2 + 2C_5 L_5 R_5 s^2 + 2L_5 R_4 g_m s + 2L_5 R_5 g_m s + 2L_5 s + 2R_4 R_5 g_m + 2R_5}$$

$$\mathbf{10.194 \quad INVALID-ORDER-194} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_5 R_4 R_5 s^4 + 2C_1 C_4 L_5 R_4 s^3 + 2C_1 C_4 R_4 R_5 s^2 + C_1 C_5 L_5 R_4 s^3 + 2C_1 C_5 L_5 R_5 s^3 + 2C_1 L_5 s^2 + C_1 R_4 s + 2C_1 R_5 s + 2C_4 C_5 L_5 R_4 R_5 g_m s^3 + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 L_5 R_4 g_m s^2 + 2C_4 R_4 R_5 g_m s + 2C_4 R_4 s + 2C_5 L_5 R_4 g_m s^2 + 2C_5 L_5 R_5 g_m s^2 + 2C_5 L_5 s^2 + 2L_5 g_m s +}$$

$$\mathbf{10.195 \quad INVALID-ORDER-195} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_5 R_4 R_5 s^4 + 2C_1 C_4 R_4 R_5 s^2 + C_1 C_5 L_5 R_4 s^3 + 2C_1 C_5 L_5 R_5 s^3 + C_1 C_5 R_4 R_5 s^2 + C_1 R_4 s + 2C_1 R_5 s + 2C_4 C_5 L_5 R_4 R_5 g_m s^3 + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 R_4 R_5 s^2 + 2C_4 R_4 R_5 g_m s + 2C_4 R_4 s + 2C_5 L_5 R_4 g_m s^2 + 2C_5 L_5 R_5 g_m s^2 + 2C_5 L_5 s^2 + 2C_5 R_4 R_5 g_m s + 2C_5 R_5}$$

$$\mathbf{10.196 \quad INVALID-ORDER-196} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 s - g_m)(C_4 R_4 s + 1)}{s(C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 s + C_1 C_5 s + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.197 \quad INVALID-ORDER-197} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_4 R_4 s + 1)(C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 R_4 R_5 s^3 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + C_1 C_5 R_5 s^2 + C_1 s + 2C_4 C_5 R_4 R_5 g_m s^2 + 2C_4 C_5 R_5 s^2 + 2C_4 R_4 g_m s + 2C_4 R_5 g_m s + 2C_4 s + 2C_5 R_5 g_m s + 2g_m}$$

$$\mathbf{10.198 \quad INVALID-ORDER-198} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_4 R_4 s + 1)(C_5 R_5 g_m s - C_5 s + g_m)}{s(C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 s + C_1 C_5 s + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.199 \quad INVALID-ORDER-199} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_4 R_4 s + 1)(C_5 L_5 g_m s^2 - C_5 s + g_m)}{s(2C_1 C_4 C_5 L_5 s^3 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 s + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.200 \quad INVALID-ORDER-200} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_4 R_4 s + 1)(C_5 L_5 s^2 - L_5 g_m s + 1)}{C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 L_5 s^3 + C_1 C_4 R_4 s^2 + C_1 C_5 L_5 s^3 + C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 s + 2C_5 L_5 g_m s^2 + 2g_m}$$

$$\mathbf{10.201 \quad INVALID-ORDER-201} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_4 R_4 s + 1)(C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s(2C_1 C_4 C_5 L_5 s^3 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 s + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.202 \quad INVALID-ORDER-202} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{(C_4 R_4 s + 1)(C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{C_1 C_4 C_5 L_5 R_4 R_5 s^4 + C_1 C_4 L_5 R_4 s^3 + 2C_1 C_4 L_5 R_5 s^3 + C_1 C_4 R_4 R_5 s^2 + C_1 C_5 L_5 R_5 s^3 + C_1 L_5 s^2 + C_1 R_5 s + 2C_4 C_5 L_5 R_4 R_5 g_m s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_5 R_4 g_m s^2 + 2C_4 L_5 R_5 g_m s^2 + 2C_4 L_5 s^2 + 2C_4 R_4 R_5 g_m s + 2C_4 R_5 s + 2C_5 L_5 R_5 g_m s^2 + 2L_5 g_m s + 2R_5 g_m}$$

$$\mathbf{10.203 \quad INVALID-ORDER-203} \quad Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$$

$$H(s) = \frac{(C_4 R_4 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_4 C_5 L_5 R_4 s^4 + 2 C_1 C_4 C_5 L_5 R_5 s^4 + 2 C_1 C_4 L_5 s^3 + C_1 C_4 R_4 s^2 + 2 C_1 C_4 R_5 s^2 + C_1 C_5 L_5 s^3 + C_1 s + 2 C_4 C_5 L_5 R_4 g_m s^3 + 2 C_4 C_5 L_5 R_5 g_m s^3 + 2 C_4 C_5 L_5 s^3 + 2 C_4 L_5 g_m s^2 + 2 C_4 R_4 g_m s + 2 C_4 R_5 g_m s + 2 C_4 s + 2 C_5 L_5 g_m s^2 + 2 g_m}$$

$$\mathbf{10.204 \quad INVALID-ORDER-204} \quad Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$$

$$H(s) = - \frac{(C_4 R_4 s + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 L_5 R_4 s^4 + 2 C_1 C_4 C_5 L_5 R_5 s^4 + C_1 C_4 C_5 R_4 R_5 s^3 + C_1 C_4 R_4 s^2 + 2 C_1 C_4 R_5 s^2 + C_1 C_5 L_5 s^3 + C_1 C_5 R_5 s^2 + C_1 s + 2 C_4 C_5 L_5 R_4 g_m s^3 + 2 C_4 C_5 L_5 R_5 g_m s^3 + 2 C_4 C_5 L_5 s^3 + 2 C_4 C_5 R_4 R_5 g_m s^2 + 2 C_4 C_5 R_5 s^2 + 2 C_4 R_4 g_m s + 2 C_4 R_5 g_m s + 2 C_4 s + 2 C_5 L_5 g_m s^2 + 2 C_5 s}$$

$$\mathbf{10.205 \quad INVALID-ORDER-205} \quad Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, R_5, \infty \right)$$

$$H(s) = \frac{(R_5 g_m - 1) (C_4 L_4 s^2 + 1)}{C_1 C_4 L_4 s^3 + 2 C_1 C_4 R_5 s^2 + C_1 s + 2 C_4 L_4 g_m s^2 + 2 C_4 R_5 g_m s + 2 C_4 s + 2 g_m}$$

$$\mathbf{10.206 \quad INVALID-ORDER-206} \quad Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{1}{C_5 s}, \infty \right)$$

$$H(s) = - \frac{(C_5 s - g_m) (C_4 L_4 s^2 + 1)}{s (C_1 C_4 C_5 L_4 s^3 + 2 C_1 C_4 s + C_1 C_5 s + 2 C_4 C_5 L_4 g_m s^2 + 2 C_4 C_5 s + 2 C_4 g_m + 2 C_5 g_m)}$$

$$\mathbf{10.207 \quad INVALID-ORDER-207} \quad Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$$

$$H(s) = - \frac{(C_4 L_4 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 L_4 R_5 s^4 + C_1 C_4 L_4 s^3 + 2 C_1 C_4 R_5 s^2 + C_1 C_5 R_5 s^2 + C_1 s + 2 C_4 C_5 L_4 R_5 g_m s^3 + 2 C_4 C_5 R_5 s^2 + 2 C_4 L_4 g_m s^2 + 2 C_4 R_5 g_m s + 2 C_4 s + 2 C_5 R_5 g_m s + 2 g_m}$$

$$\mathbf{10.208 \quad INVALID-ORDER-208} \quad Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, R_5 + \frac{1}{C_5 s}, \infty \right)$$

$$H(s) = \frac{(C_4 L_4 s^2 + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (C_1 C_4 C_5 L_4 s^3 + 2 C_1 C_4 C_5 R_5 s^2 + 2 C_1 C_4 s + C_1 C_5 s + 2 C_4 C_5 L_4 g_m s^2 + 2 C_4 C_5 R_5 g_m s + 2 C_4 C_5 s + 2 C_4 g_m + 2 C_5 g_m)}$$

$$\mathbf{10.209 \quad INVALID-ORDER-209} \quad Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, L_5 s + \frac{1}{C_5 s}, \infty \right)$$

$$H(s) = \frac{(C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (C_1 C_4 C_5 L_4 s^3 + 2 C_1 C_4 C_5 L_5 s^3 + 2 C_1 C_4 s + C_1 C_5 s + 2 C_4 C_5 L_4 g_m s^2 + 2 C_4 C_5 L_5 g_m s^2 + 2 C_4 C_5 s + 2 C_4 g_m + 2 C_5 g_m)}$$

$$\mathbf{10.210 \quad INVALID-ORDER-210} \quad Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$$

$$H(s) = - \frac{(C_4 L_4 s^2 + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{C_1 C_4 C_5 L_4 L_5 s^5 + C_1 C_4 L_4 s^3 + 2 C_1 C_4 L_5 s^3 + C_1 C_5 L_5 s^3 + C_1 s + 2 C_4 C_5 L_4 L_5 g_m s^4 + 2 C_4 C_5 L_5 s^3 + 2 C_4 L_4 g_m s^2 + 2 C_4 L_5 g_m s^2 + 2 C_4 s + 2 C_5 L_5 g_m s^2 + 2 g_m}$$

$$\mathbf{10.211 \quad INVALID-ORDER-211} \quad Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$$

$$H(s) = \frac{(C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (C_1 C_4 C_5 L_4 s^3 + 2 C_1 C_4 C_5 L_5 s^3 + 2 C_1 C_4 C_5 R_5 s^2 + 2 C_1 C_4 s + C_1 C_5 s + 2 C_4 C_5 L_4 g_m s^2 + 2 C_4 C_5 L_5 g_m s^2 + 2 C_4 C_5 R_5 g_m s + 2 C_4 C_5 s + 2 C_4 g_m + 2 C_5 g_m)}$$

$$\mathbf{10.212 \quad INVALID-ORDER-212} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = - \frac{(C_4 L_4 s^2 + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{C_1 C_4 C_5 L_4 L_5 R_5 s^5 + C_1 C_4 L_4 L_5 s^4 + C_1 C_4 L_4 R_5 s^3 + 2 C_1 C_4 L_5 R_5 s^3 + C_1 C_5 L_5 R_5 s^3 + C_1 L_5 s^2 + C_1 R_5 s + 2 C_4 C_5 L_4 L_5 R_5 g_m s^4 + 2 C_4 C_5 L_5 R_5 s^3 + 2 C_4 L_4 L_5 g_m s^3 + 2 C_4 L_4 R_5 g_m s^2 + 2 C_4 L_5 R_5 g_m s^2 + 2 C_4 L_5 s^2 + 2 C_4 R_5 s + 2 C_5 L_5 R_5 g_m s^2 + 2 L_5 g_m s + 2 R_5 g_m}$$

$$\mathbf{10.213 \quad INVALID-ORDER-213} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_4 L_4 s^2 + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_4 C_5 L_4 L_5 s^5 + 2 C_1 C_4 C_5 L_5 R_5 s^4 + C_1 C_4 L_4 s^3 + 2 C_1 C_4 L_5 s^3 + 2 C_1 C_4 R_5 s^2 + C_1 C_5 L_5 s^3 + C_1 s + 2 C_4 C_5 L_4 L_5 g_m s^4 + 2 C_4 C_5 L_5 R_5 g_m s^3 + 2 C_4 C_5 L_5 s^3 + 2 C_4 L_4 g_m s^2 + 2 C_4 L_5 g_m s^2 + 2 C_4 R_5 g_m s + 2 C_4 s + 2 C_5 L_5 g_m s^2 + 2 g_m}$$

$$\mathbf{10.214 \quad INVALID-ORDER-214} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = - \frac{(C_4 L_4 s^2 + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 L_4 L_5 s^5 + C_1 C_4 C_5 L_4 R_5 s^4 + 2 C_1 C_4 C_5 L_5 R_5 s^4 + C_1 C_4 L_4 s^3 + 2 C_1 C_4 R_5 s^2 + C_1 C_5 L_5 s^3 + C_1 C_5 R_5 s^2 + C_1 s + 2 C_4 C_5 L_4 L_5 g_m s^4 + 2 C_4 C_5 L_4 R_5 g_m s^3 + 2 C_4 C_5 L_5 R_5 g_m s^3 + 2 C_4 C_5 L_5 s^3 + 2 C_4 C_5 R_5 s^2 + 2 C_4 L_4 g_m s^2 + 2 C_4 R_5 g_m s + 2 C_4 s + 2 C_5 L_5 g_m s^2 + 2 C_5 L_5 s^2 + 2 C_5 R_5 s + 2 g_m}$$

$$\mathbf{10.215 \quad INVALID-ORDER-215} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (R_5 g_m - 1)}{2 C_1 C_4 L_4 R_5 s^3 + C_1 L_4 s^2 + 2 C_1 R_5 s + 2 C_4 L_4 R_5 g_m s^2 + 2 C_4 L_4 s^2 + 2 L_4 g_m s + 2 R_5 g_m + 2}$$

$$\mathbf{10.216 \quad INVALID-ORDER-216} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (-C_5 s + g_m)}{2 C_1 C_4 L_4 s^3 + C_1 C_5 L_4 s^3 + 2 C_1 s + 2 C_4 C_5 L_4 s^3 + 2 C_4 L_4 g_m s^2 + 2 C_5 L_4 g_m s^2 + 2 C_5 s + 2 g_m}$$

$$\mathbf{10.217 \quad INVALID-ORDER-217} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (-C_5 R_5 s + R_5 g_m - 1)}{2 C_1 C_4 L_4 R_5 s^3 + C_1 C_5 L_4 R_5 s^3 + C_1 L_4 s^2 + 2 C_1 R_5 s + 2 C_4 C_5 L_4 R_5 s^3 + 2 C_4 L_4 R_5 g_m s^2 + 2 C_4 L_4 s^2 + 2 C_5 L_4 R_5 g_m s^2 + 2 C_5 R_5 s + 2 L_4 g_m s + 2 R_5 g_m + 2}$$

$$\mathbf{10.218 \quad INVALID-ORDER-218} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_5 R_5 g_m s - C_5 s + g_m)}{2 C_1 C_4 C_5 L_4 R_5 s^4 + 2 C_1 C_4 L_4 s^3 + C_1 C_5 L_4 s^3 + 2 C_1 C_5 R_5 s^2 + 2 C_1 s + 2 C_4 C_5 L_4 R_5 g_m s^3 + 2 C_4 C_5 L_4 s^3 + 2 C_4 L_4 g_m s^2 + 2 C_5 L_4 g_m s^2 + 2 C_5 R_5 g_m s + 2 C_5 s + 2 g_m}$$

$$\mathbf{10.219 \quad INVALID-ORDER-219} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2 C_1 C_4 C_5 L_4 L_5 s^5 + 2 C_1 C_4 L_4 s^3 + C_1 C_5 L_4 s^3 + 2 C_1 C_5 L_5 s^3 + 2 C_1 s + 2 C_4 C_5 L_4 L_5 g_m s^4 + 2 C_4 C_5 L_4 s^3 + 2 C_4 L_4 g_m s^2 + 2 C_5 L_4 g_m s^2 + 2 C_5 L_5 g_m s^2 + 2 C_5 s + 2 g_m}$$

$$\mathbf{10.220 \quad INVALID-ORDER-220} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2 C_1 C_4 L_4 L_5 s^4 + C_1 C_5 L_4 L_5 s^4 + C_1 L_4 s^2 + 2 C_1 L_5 s^2 + 2 C_4 C_5 L_4 L_5 s^4 + 2 C_4 L_4 L_5 g_m s^3 + 2 C_4 L_4 s^2 + 2 C_5 L_4 L_5 g_m s^3 + 2 C_5 L_5 s^2 + 2 L_4 g_m s + 2 L_5 g_m s + 2}$$

$$10.221 \quad \text{INVALID-ORDER-221} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 L_4 s^3 + C_1 C_5 L_4 s^3 + 2C_1 C_5 L_5 s^3 + 2C_1 C_5 R_5 s^2 + 2C_1 s + 2C_4 C_5 L_4 L_5 g_m s^4 + 2C_4 C_5 L_4 R_5 g_m s^3 + 2C_4 C_5 L_4 s^3 + 2C_4 L_4 g_m s^2 + 2C_5 L_4 g_m s^2 + 2C_5 L_5 g_m s^2 + 2C_5 R_5 g_m s + 2C_5 s + 2g_m}$$

$$10.222 \quad \text{INVALID-ORDER-222} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_1 C_4 L_4 L_5 R_5 s^4 + C_1 C_5 L_4 L_5 R_5 s^4 + C_1 L_4 L_5 s^3 + C_1 L_4 R_5 s^2 + 2C_1 L_5 R_5 s^2 + 2C_4 C_5 L_4 L_5 R_5 s^4 + 2C_4 L_4 L_5 R_5 g_m s^3 + 2C_4 L_4 L_5 s^3 + 2C_4 L_4 R_5 s^2 + 2C_5 L_4 L_5 R_5 g_m s^3 + 2C_5 L_5 R_5 s^2 + 2L_4 L_5 g_m s^2 + 2L_4 R_5 g_m s + 2L_5 R_5 g_m s + 2L_5 s + 2R_5}$$

$$10.223 \quad \text{INVALID-ORDER-223} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_4 L_5 R_5 s^5 + 2C_1 C_4 L_4 L_5 s^4 + 2C_1 C_4 L_4 R_5 s^3 + C_1 C_5 L_4 L_5 s^4 + 2C_1 C_5 L_5 R_5 s^3 + C_1 L_4 s^2 + 2C_1 L_5 s^2 + 2C_1 R_5 s + 2C_4 C_5 L_4 L_5 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 s^4 + 2C_4 L_4 L_5 g_m s^3 + 2C_4 L_4 R_5 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 L_5 g_m s^3 + 2C_5 L_5 R_5 g_m s^2 + 2C_5 L_5 s^2 + 2L_4 g_m s + 2R_5}$$

$$10.224 \quad \text{INVALID-ORDER-224} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_4 L_5 R_5 s^5 + 2C_1 C_4 L_4 R_5 s^3 + C_1 C_5 L_4 L_5 s^4 + C_1 C_5 L_4 R_5 s^3 + 2C_1 C_5 L_5 R_5 s^3 + C_1 L_4 s^2 + 2C_1 R_5 s + 2C_4 C_5 L_4 L_5 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 s^4 + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 L_4 R_5 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 L_5 g_m s^3 + 2C_5 L_4 R_5 g_m s^2 + 2C_5 L_5 R_5 g_m s^2 + 2C_5 L_5 s^2 + 2C_5 R_5 s + 2R_5}$$

$$10.225 \quad \text{INVALID-ORDER-225} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{(R_5 g_m - 1) (C_4 L_4 s^2 + C_4 R_4 s + 1)}{C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + C_1 s + 2C_4 L_4 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

$$10.226 \quad \text{INVALID-ORDER-226} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 s - g_m) (C_4 L_4 s^2 + C_4 R_4 s + 1)}{s (C_1 C_4 C_5 L_4 s^3 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 s + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$10.227 \quad \text{INVALID-ORDER-227} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 L_4 R_5 s^4 + C_1 C_4 C_5 R_4 R_5 s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + C_1 C_5 R_5 s^2 + C_1 s + 2C_4 C_5 L_4 R_5 g_m s^3 + 2C_4 C_5 R_4 R_5 g_m s^2 + 2C_4 C_5 R_5 s^2 + 2C_4 L_4 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 R_5 g_m s + 2C_4 s + 2C_5 R_5 g_m s + 2g_m}$$

$$10.228 \quad \text{INVALID-ORDER-228} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (C_1 C_4 C_5 L_4 s^3 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 s + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$10.229 \quad \text{INVALID-ORDER-229} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 L_5 s^3 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 s + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.230 \quad INVALID-ORDER-230} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = - \frac{(C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{C_1 C_4 C_5 L_4 L_5 s^5 + C_1 C_4 C_5 L_5 R_4 s^4 + C_1 C_4 L_4 s^3 + 2 C_1 C_4 L_5 s^3 + C_1 C_4 R_4 s^2 + C_1 C_5 L_5 s^3 + C_1 s + 2 C_4 C_5 L_4 L_5 g_m s^4 + 2 C_4 C_5 L_5 R_4 g_m s^3 + 2 C_4 C_5 L_5 s^3 + 2 C_4 L_4 g_m s^2 + 2 C_4 L_5 g_m s^2 + 2 C_4 R_4 g_m s + 2 C_4 s + 2 C_5 L_5 g_m s^2 + 2 g_m}$$

$$\mathbf{10.231 \quad INVALID-ORDER-231} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (C_1 C_4 C_5 L_4 s^3 + 2 C_1 C_4 C_5 L_5 s^3 + C_1 C_4 C_5 R_4 s^2 + 2 C_1 C_4 C_5 R_5 s^2 + 2 C_1 C_4 s + C_1 C_5 s + 2 C_4 C_5 L_4 g_m s^2 + 2 C_4 C_5 L_5 g_m s^2 + 2 C_4 C_5 R_4 g_m s + 2 C_4 C_5 R_5 g_m s + 2 C_4 C_5 s + 2 C_4 g_m + 2 C_5 g_m)}$$

$$\mathbf{10.232 \quad INVALID-ORDER-232} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = - \frac{(C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{C_1 C_4 C_5 L_4 L_5 R_5 s^5 + C_1 C_4 C_5 L_5 R_4 R_5 s^4 + C_1 C_4 L_4 L_5 s^4 + C_1 C_4 L_4 R_5 s^3 + C_1 C_4 L_5 R_4 s^3 + 2 C_1 C_4 L_5 R_5 s^3 + C_1 C_4 R_4 R_5 s^2 + C_1 C_5 L_5 R_5 s^3 + C_1 L_5 s^2 + C_1 R_5 s + 2 C_4 C_5 L_4 L_5 R_5 g_m s^4 + 2 C_4 C_5 L_5 R_4 R_5 g_m s^3 + 2 C_4 C_5 L_5 R_5 s^3 + 2 C_4 L_4 L_5 g_m s^3 + 2 C_4 L_4 R_5 g_m s^2 + 2 C_4 L_5 g_m s^2 + 2 C_4 R_4 g_m s + 2 C_4 s + 2 C_5 L_5 g_m s^2 + 2 g_m}$$

$$\mathbf{10.233 \quad INVALID-ORDER-233} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_4 C_5 L_4 L_5 s^5 + C_1 C_4 C_5 L_5 R_4 s^4 + 2 C_1 C_4 C_5 L_5 R_5 s^4 + C_1 C_4 L_4 s^3 + 2 C_1 C_4 L_5 s^3 + C_1 C_4 R_4 s^2 + 2 C_1 C_4 R_5 s^2 + C_1 C_5 L_5 s^3 + C_1 s + 2 C_4 C_5 L_4 L_5 g_m s^4 + 2 C_4 C_5 L_5 R_4 g_m s^3 + 2 C_4 C_5 L_5 R_5 g_m s^3 + 2 C_4 C_5 L_5 s^3 + 2 C_4 L_4 g_m s^2 + 2 C_4 L_5 g_m s^2 + 2 C_4 R_4 g_m s + 2 C_4 R_5 g_m s + 2 C_4 s + 2 C_5 L_5 g_m s^2 + 2 g_m}$$

$$\mathbf{10.234 \quad INVALID-ORDER-234} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = - \frac{(C_4 L_4 s^2 + C_4 R_4 s + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 L_4 L_5 s^5 + C_1 C_4 C_5 L_4 R_5 s^4 + C_1 C_4 C_5 L_5 R_4 s^4 + 2 C_1 C_4 C_5 L_5 R_5 s^4 + C_1 C_4 C_5 R_4 R_5 s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + 2 C_1 C_4 R_5 s^2 + C_1 C_5 L_5 s^3 + C_1 C_5 R_5 s^2 + C_1 s + 2 C_4 C_5 L_4 L_5 g_m s^4 + 2 C_4 C_5 L_4 R_5 g_m s^3 + 2 C_4 C_5 L_5 R_4 g_m s^3 + 2 C_4 C_5 L_5 R_5 g_m s^3 + 2 C_4 C_5 L_5 s^3 + 2 C_4 L_4 g_m s^2 + 2 C_4 L_5 g_m s^2 + 2 C_4 R_4 g_m s + 2 C_4 R_5 g_m s + 2 C_4 s + 2 C_5 L_5 g_m s^2 + 2 g_m}$$

$$\mathbf{10.235 \quad INVALID-ORDER-235} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_4 s (R_5 g_m - 1)}{2 C_1 C_4 L_4 R_4 R_5 s^3 + C_1 L_4 R_4 s^2 + 2 C_1 L_4 R_5 s^2 + 2 C_1 R_4 R_5 s + 2 C_4 L_4 R_4 R_5 g_m s^2 + 2 C_4 L_4 R_4 s^2 + 2 L_4 R_4 g_m s + 2 L_4 R_5 g_m s + 2 L_4 s + 2 R_4 R_5 g_m + 2 R_4}$$

$$\mathbf{10.236 \quad INVALID-ORDER-236} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_4 s (-C_5 s + g_m)}{2 C_1 C_4 L_4 R_4 s^3 + C_1 C_5 L_4 R_4 s^3 + 2 C_1 L_4 s^2 + 2 C_1 R_4 s + 2 C_4 C_5 L_4 R_4 s^3 + 2 C_4 L_4 R_4 g_m s^2 + 2 C_5 L_4 R_4 g_m s^2 + 2 C_5 L_4 s^2 + 2 C_5 R_4 s + 2 L_4 g_m s + 2 R_4 g_m}$$

$$\mathbf{10.237 \quad INVALID-ORDER-237} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_4 s (-C_5 R_5 s + R_5 g_m - 1)}{2 C_1 C_4 L_4 R_4 R_5 s^3 + C_1 C_5 L_4 R_4 R_5 s^3 + C_1 L_4 R_4 s^2 + 2 C_1 L_4 R_5 s^2 + 2 C_1 R_4 R_5 s + 2 C_4 C_5 L_4 R_4 R_5 s^3 + 2 C_4 L_4 R_4 R_5 g_m s^2 + 2 C_4 L_4 R_4 s^2 + 2 C_5 L_4 R_4 R_5 g_m s^2 + 2 C_5 L_4 R_5 s^2 + 2 C_5 R_4 R_5 s + 2 L_4 R_4 g_m s + 2 L_4 R_5 g_m s + 2 L_4 s + 2 R_4 R_5 g_m + 2 R_4}$$

$$\mathbf{10.238 \quad INVALID-ORDER-238} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_4 s (C_5 R_5 g_m s - C_5 s + g_m)}{2 C_1 C_4 C_5 L_4 R_4 R_5 s^4 + 2 C_1 C_4 L_4 R_4 s^3 + C_1 C_5 L_4 R_4 s^3 + 2 C_1 C_5 L_4 R_5 s^3 + 2 C_1 C_5 R_4 R_5 s^2 + 2 C_1 L_4 s^2 + 2 C_1 R_4 s + 2 C_4 C_5 L_4 R_4 R_5 g_m s^3 + 2 C_4 C_5 L_4 R_4 s^3 + 2 C_4 L_4 R_4 g_m s^2 + 2 C_5 L_4 R_4 g_m s^2 + 2 C_5 L_4 R_5 g_m s^2 + 2 C_5 L_4 s^2 + 2 C_5 R_4 R_5 g_m s + 2 C_5 R_4 s + 2 L_4 g_m s + 2 R_4 g_m}$$

$$\mathbf{10.239 \quad INVALID-ORDER-239} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_4 s (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_4 L_5 R_4 s^5 + 2C_1 C_4 L_4 R_4 s^3 + 2C_1 C_5 L_4 L_5 s^4 + C_1 C_5 L_4 R_4 s^3 + 2C_1 C_5 L_5 R_4 s^3 + 2C_1 L_4 s^2 + 2C_1 R_4 s + 2C_4 C_5 L_4 L_5 R_4 g_m s^4 + 2C_4 C_5 L_4 R_4 s^3 + 2C_4 L_4 R_4 g_m s^2 + 2C_5 L_4 L_5 g_m s^3 + 2C_5 L_4 R_4 g_m s^2 + 2C_5 L_4 s^2 + 2C_5 L_5 R_4 g_m s^2 + 2C_5 R_4 s + 2L_4 g_m s + 2R_4 g_m}$$

$$\mathbf{10.240 \quad INVALID-ORDER-240} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_4 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_1 C_4 L_4 L_5 R_4 s^4 + C_1 C_5 L_4 L_5 R_4 s^4 + 2C_1 L_4 L_5 s^3 + C_1 L_4 R_4 s^2 + 2C_1 L_5 R_4 s^2 + 2C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 L_4 L_5 R_4 g_m s^3 + 2C_4 L_4 R_4 s^2 + 2C_5 L_4 L_5 R_4 g_m s^3 + 2C_5 L_4 L_5 s^3 + 2C_5 L_5 R_4 s^2 + 2L_4 L_5 g_m s^2 + 2L_4 R_4 g_m s + 2L_4 s + 2L_5 R_4 g_m s + 2R_4}$$

$$\mathbf{10.241 \quad INVALID-ORDER-241} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_4 s (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_4 L_5 R_4 s^5 + 2C_1 C_4 C_5 L_4 R_4 R_5 s^4 + 2C_1 C_4 L_4 R_4 s^3 + 2C_1 C_5 L_4 L_5 s^4 + C_1 C_5 L_4 R_4 s^3 + 2C_1 C_5 L_4 R_5 s^3 + 2C_1 C_5 L_5 R_4 s^3 + 2C_1 C_5 R_4 R_5 s^2 + 2C_1 L_4 s^2 + 2C_1 R_4 s + 2C_4 C_5 L_4 L_5 R_4 g_m s^4 + 2C_4 C_5 L_4 R_4 R_5 g_m s^3 + 2C_4 C_5 L_4 R_4 s^3 + 2C_4 L_4 R_4 g_m s^2 + 2C_5 L_4 L_5 g_m s^3}$$

$$\mathbf{10.242 \quad INVALID-ORDER-242} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_4 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_1 C_4 L_4 L_5 R_4 R_5 s^4 + C_1 C_5 L_4 L_5 R_4 R_5 s^4 + C_1 L_4 L_5 R_4 s^3 + 2C_1 L_4 L_5 R_5 s^3 + C_1 L_4 R_4 R_5 s^2 + 2C_1 L_5 R_4 R_5 s^2 + 2C_4 C_5 L_4 L_5 R_4 R_5 s^4 + 2C_4 L_4 L_5 R_4 R_5 g_m s^3 + 2C_4 L_4 L_5 R_4 s^3 + 2C_4 L_4 R_4 R_5 s^2 + 2C_5 L_4 L_5 R_4 R_5 g_m s^3 + 2C_5 L_4 L_5 R_5 s^3 + 2C_5 L_5 R_4 R_5 s^2 + 2L_4 L_5 R_4 g_m s^2 +}$$

$$\mathbf{10.243 \quad INVALID-ORDER-243} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_4 L_5 R_4 R_5 s^5 + 2C_1 C_4 L_4 L_5 R_4 s^4 + 2C_1 C_4 L_4 R_4 R_5 s^3 + C_1 C_5 L_4 L_5 R_4 s^4 + 2C_1 C_5 L_4 L_5 R_5 s^4 + 2C_1 C_5 L_5 R_4 R_5 s^3 + 2C_1 L_4 L_5 s^3 + C_1 L_4 R_4 s^2 + 2C_1 L_4 R_5 s^2 + 2C_1 L_5 R_4 s^2 + 2C_1 R_4 R_5 s + 2C_4 C_5 L_4 L_5 R_4 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 L_4 L_5 R_4 g_m s^3 + 2C_4 L_4 R_4 s^2 +}$$

$$\mathbf{10.244 \quad INVALID-ORDER-244} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_4 L_5 R_4 R_5 s^5 + 2C_1 C_4 L_4 R_4 R_5 s^3 + C_1 C_5 L_4 L_5 R_4 s^4 + 2C_1 C_5 L_4 L_5 R_5 s^4 + C_1 C_5 L_4 R_4 R_5 s^3 + 2C_1 C_5 L_5 R_4 R_5 s^3 + C_1 L_4 R_4 s^2 + 2C_1 L_4 R_5 s^2 + 2C_1 R_4 R_5 s + 2C_4 C_5 L_4 L_5 R_4 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 C_5 L_4 R_4 R_5 s^3 + 2C_4 L_4 R_4 R_5 g_m s^2 + 2C_4 L_4 R_4 s^2 +}$$

$$\mathbf{10.245 \quad INVALID-ORDER-245} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{(R_5 g_m - 1) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{C_1 C_4 L_4 R_4 s^3 + 2C_1 C_4 L_4 R_5 s^3 + C_1 L_4 s^2 + C_1 R_4 s + 2C_1 R_5 s + 2C_4 L_4 R_4 g_m s^2 + 2C_4 L_4 R_5 g_m s^2 + 2C_4 L_4 s^2 + 2L_4 g_m s + 2R_4 g_m + 2R_5 g_m + 2}$$

$$\mathbf{10.246 \quad INVALID-ORDER-246} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 s - g_m) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{C_1 C_4 C_5 L_4 R_4 s^4 + 2C_1 C_4 L_4 s^3 + C_1 C_5 L_4 s^3 + C_1 C_5 R_4 s^2 + 2C_1 s + 2C_4 C_5 L_4 R_4 g_m s^3 + 2C_4 C_5 L_4 s^3 + 2C_4 L_4 g_m s^2 + 2C_5 L_4 g_m s^2 + 2C_5 R_4 g_m s + 2C_5 s + 2g_m}$$

$$\mathbf{10.247 \quad INVALID-ORDER-247} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 R_5 s - R_5 g_m + 1) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{C_1 C_4 C_5 L_4 R_4 R_5 s^4 + C_1 C_4 L_4 R_4 s^3 + 2C_1 C_4 L_4 R_5 s^3 + C_1 C_5 L_4 R_5 s^3 + C_1 C_5 R_4 R_5 s^2 + C_1 L_4 s^2 + C_1 R_4 s + 2C_1 R_5 s + 2C_4 C_5 L_4 R_4 R_5 g_m s^3 + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 L_4 R_4 g_m s^2 + 2C_4 L_4 R_5 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 R_5 g_m s^2 + 2C_5 R_4 R_5 g_m s + 2C_5 R_5 s + 2L_4 g_m s + 2R_4 g_m + 2R_5 g_m + 2}$$

$$\mathbf{10.248 \quad INVALID-ORDER-248} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 R_5 g_m s - C_5 s + g_m)}{C_1 C_4 C_5 L_4 R_4 s^4 + 2 C_1 C_4 C_5 L_4 R_5 s^4 + 2 C_1 C_4 L_4 s^3 + C_1 C_5 L_4 s^3 + C_1 C_5 R_4 s^2 + 2 C_1 C_5 R_5 s^2 + 2 C_1 s + 2 C_4 C_5 L_4 R_4 g_m s^3 + 2 C_4 C_5 L_4 R_5 g_m s^3 + 2 C_4 C_5 L_4 s^3 + 2 C_4 L_4 g_m s^2 + 2 C_5 L_4 g_m s^2 + 2 C_5 R_4 g_m s + 2 C_5 R_5 g_m s + 2 C_5 s + 2 g_m}$$

$$\mathbf{10.249 \quad INVALID-ORDER-249} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2 C_1 C_4 C_5 L_4 L_5 s^5 + C_1 C_4 C_5 L_4 R_4 s^4 + 2 C_1 C_4 L_4 s^3 + C_1 C_5 L_4 s^3 + 2 C_1 C_5 L_5 s^3 + C_1 C_5 R_4 s^2 + 2 C_1 s + 2 C_4 C_5 L_4 L_5 g_m s^4 + 2 C_4 C_5 L_4 R_4 g_m s^3 + 2 C_4 C_5 L_4 s^3 + 2 C_4 L_4 g_m s^2 + 2 C_5 L_4 g_m s^2 + 2 C_5 L_5 g_m s^2 + 2 C_5 R_4 g_m s + 2 C_5 s + 2 g_m}$$

$$\mathbf{10.250 \quad INVALID-ORDER-250} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 L_5 s^2 - L_5 g_m s + 1) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{C_1 C_4 C_5 L_4 L_5 R_4 s^5 + 2 C_1 C_4 L_4 L_5 s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_5 L_4 L_5 s^4 + C_1 C_5 L_5 R_4 s^3 + C_1 L_4 s^2 + 2 C_1 L_5 s^2 + C_1 R_4 s + 2 C_4 C_5 L_4 L_5 R_4 g_m s^4 + 2 C_4 C_5 L_4 L_5 s^4 + 2 C_4 L_4 L_5 g_m s^3 + 2 C_4 L_4 R_4 g_m s^2 + 2 C_4 L_4 s^2 + 2 C_5 L_4 L_5 g_m s^3 + 2 C_5 L_5 R_4 g_m s^2 + 2 C_5 L_5 s^2 + 2 L_4 g_m s + 2 L_5 g_m s + 1}$$

$$\mathbf{10.251 \quad INVALID-ORDER-251} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2 C_1 C_4 C_5 L_4 L_5 s^5 + C_1 C_4 C_5 L_4 R_4 s^4 + 2 C_1 C_4 C_5 L_4 R_5 s^4 + 2 C_1 C_4 L_4 s^3 + C_1 C_5 L_4 s^3 + 2 C_1 C_5 L_5 s^3 + C_1 C_5 R_4 s^2 + 2 C_1 C_5 R_5 s^2 + 2 C_1 s + 2 C_4 C_5 L_4 L_5 g_m s^4 + 2 C_4 C_5 L_4 R_4 g_m s^3 + 2 C_4 C_5 L_4 R_5 g_m s^3 + 2 C_4 C_5 L_4 s^3 + 2 C_4 L_4 g_m s^2 + 2 C_5 L_4 g_m s^2 + 2 C_5 L_5 g_m s^2 + 2 C_5 R_4 g_m s + 2 C_5 R_5 g_m s + 2 C_5 s + 2 g_m}$$

$$\mathbf{10.252 \quad INVALID-ORDER-252} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{(C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{C_1 C_4 C_5 L_4 L_5 R_4 R_5 s^5 + C_1 C_4 L_4 L_5 R_4 s^4 + 2 C_1 C_4 L_4 L_5 R_5 s^4 + C_1 C_4 L_4 R_4 R_5 s^3 + C_1 C_5 L_4 L_5 R_5 s^4 + C_1 C_5 L_5 R_4 R_5 s^3 + C_1 L_4 L_5 s^3 + C_1 L_4 R_5 s^2 + C_1 L_5 R_4 s^2 + 2 C_1 L_5 R_5 s^2 + C_1 R_4 R_5 s + 2 C_4 C_5 L_4 L_5 R_4 R_5 g_m s^4 + 2 C_4 C_5 L_4 L_5 R_5 s^4 + 2 C_4 L_4 L_5 R_4 g_m s^3 + 2 C_4 L_4 L_5 R_5 s^3 + 2 C_4 L_4 L_5 R_4 s^2 + 2 C_5 L_4 L_5 R_5 s^2 + 2 C_5 R_4 R_5 s + 2 C_5 s + 2 g_m}$$

$$\mathbf{10.253 \quad INVALID-ORDER-253} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_4 C_5 L_4 L_5 R_4 s^5 + 2 C_1 C_4 C_5 L_4 L_5 R_5 s^5 + 2 C_1 C_4 L_4 L_5 s^4 + C_1 C_4 L_4 R_4 s^3 + 2 C_1 C_4 L_4 R_5 s^3 + C_1 C_5 L_4 L_5 s^4 + C_1 C_5 L_5 R_4 s^3 + 2 C_1 C_5 L_5 R_5 s^3 + C_1 L_4 s^2 + 2 C_1 L_5 s^2 + C_1 R_4 s + 2 C_1 R_5 s + 2 C_4 C_5 L_4 L_5 R_4 g_m s^4 + 2 C_4 C_5 L_4 L_5 R_5 g_m s^4 + 2 C_4 C_5 L_4 L_5 s^4 + 2 C_4 L_4 L_5 g_m s^3 + 2 C_5 L_4 L_5 g_m s^2 + 2 C_5 R_4 g_m s + 2 C_5 R_5 g_m s + 2 C_5 s + 2 g_m}$$

$$\mathbf{10.254 \quad INVALID-ORDER-254} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_4 L_4 R_4 s^2 + L_4 s + R_4) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_4 C_5 L_4 L_5 R_4 s^5 + 2 C_1 C_4 C_5 L_4 L_5 R_5 s^5 + C_1 C_4 C_5 L_4 R_4 R_5 s^4 + C_1 C_4 L_4 R_4 s^3 + 2 C_1 C_4 L_4 R_5 s^3 + C_1 C_5 L_4 L_5 s^4 + C_1 C_5 L_4 R_5 s^3 + C_1 C_5 L_5 R_4 s^3 + 2 C_1 C_5 L_5 R_5 s^3 + C_1 C_5 R_4 R_5 s^2 + C_1 L_4 s^2 + C_1 R_4 s + 2 C_1 R_5 s + 2 C_4 C_5 L_4 L_5 R_4 g_m s^4 + 2 C_4 C_5 L_4 L_5 R_5 g_m s^4 + 2 C_4 C_5 L_4 L_5 s^4 + 2 C_4 L_4 L_5 g_m s^3 + 2 C_5 L_4 L_5 g_m s^2 + 2 C_5 R_4 g_m s + 2 C_5 R_5 g_m s + 2 C_5 s + 2 g_m}$$

$$\mathbf{10.255 \quad INVALID-ORDER-255} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{R_4 (R_5 g_m - 1) (C_4 L_4 s^2 + 1)}{C_1 C_4 L_4 R_4 s^3 + 2 C_1 C_4 L_4 R_5 s^3 + 2 C_1 C_4 R_4 R_5 s^2 + C_1 R_4 s + 2 C_1 R_5 s + 2 C_4 L_4 R_4 g_m s^2 + 2 C_4 L_4 R_5 g_m s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 R_5 g_m s + 2 C_4 R_4 s + 2 R_4 g_m + 2 R_5 g_m + 2}$$

$$\mathbf{10.256 \quad INVALID-ORDER-256} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_5 s - g_m) (C_4 L_4 s^2 + 1)}{C_1 C_4 C_5 L_4 R_4 s^4 + 2 C_1 C_4 L_4 s^3 + 2 C_1 C_4 R_4 s^2 + C_1 C_5 R_4 s^2 + 2 C_1 s + 2 C_4 C_5 L_4 R_4 g_m s^3 + 2 C_4 C_5 L_4 s^3 + 2 C_4 C_5 R_4 s^2 + 2 C_4 L_4 g_m s^2 + 2 C_4 R_4 g_m s + 2 C_5 R_4 g_m s + 2 C_5 s + 2 g_m}$$

$$10.266 \quad \text{INVALID-ORDER-266} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_5 L_5 R_1 s^3 + C_1 C_5 R_1 R_4 s^2 + 2C_1 R_1 s + 2C_5 L_5 R_1 g_m s^2 + 2C_5 L_5 s^2 + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2R_1 g_m + 2}$$

$$10.267 \quad \text{INVALID-ORDER-267} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (-C_5 L_5 s^2 + L_5 g_m s - 1)}{C_1 C_5 L_5 R_1 R_4 s^3 + 2C_1 L_5 R_1 s^2 + C_1 R_1 R_4 s + 2C_5 L_5 R_1 R_4 g_m s^2 + 2C_5 L_5 R_1 s^2 + C_5 L_5 R_4 s^2 + 2L_5 R_1 g_m s + 2L_5 s + 2R_1 R_4 g_m + 2R_1 + R_4}$$

$$10.268 \quad \text{INVALID-ORDER-268} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_5 L_5 R_1 s^3 + C_1 C_5 R_1 R_4 s^2 + 2C_1 C_5 R_1 R_5 s^2 + 2C_1 R_1 s + 2C_5 L_5 R_1 g_m s^2 + 2C_5 L_5 s^2 + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 R_5 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2C_5 R_5 s + 2R_1 g_m + 2}$$

$$10.269 \quad \text{INVALID-ORDER-269} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{C_1 C_5 L_5 R_1 R_4 R_5 s^3 + C_1 L_5 R_1 R_4 s^2 + 2C_1 L_5 R_1 R_5 s^2 + C_1 R_1 R_4 R_5 s + 2C_5 L_5 R_1 R_4 R_5 g_m s^2 + 2C_5 L_5 R_1 R_5 s^2 + C_5 L_5 R_4 R_5 s^2 + 2L_5 R_1 R_4 g_m s + 2L_5 R_1 R_5 g_m s + 2L_5 R_1 s + L_5 R_4 s + 2L_5 R_5 s + 2R_1 R_4 R_5 g_m + 2R_1 R_5 + R_4 R_5}$$

$$10.270 \quad \text{INVALID-ORDER-270} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_5 L_5 R_1 R_4 s^3 + 2C_1 C_5 L_5 R_1 R_5 s^3 + 2C_1 L_5 R_1 s^2 + C_1 R_1 R_4 s + 2C_1 R_1 R_5 s + 2C_5 L_5 R_1 R_4 g_m s^2 + 2C_5 L_5 R_1 R_5 g_m s^2 + 2C_5 L_5 R_1 s^2 + C_5 L_5 R_4 s^2 + 2C_5 L_5 R_5 s^2 + 2L_5 R_1 g_m s + 2L_5 s + 2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$$

$$10.271 \quad \text{INVALID-ORDER-271} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{C_1 C_5 L_5 R_1 R_4 s^3 + 2C_1 C_5 L_5 R_1 R_5 s^3 + C_1 C_5 R_1 R_4 R_5 s^2 + C_1 R_1 R_4 s + 2C_1 R_1 R_5 s + 2C_5 L_5 R_1 R_4 g_m s^2 + 2C_5 L_5 R_1 R_5 g_m s^2 + 2C_5 L_5 R_1 s^2 + C_5 L_5 R_4 s^2 + 2C_5 L_5 R_5 s^2 + 2C_5 R_1 R_4 R_5 g_m s + 2C_5 R_1 R_5 s + C_5 R_4 R_5 s + 2R_1 R_4 g_m + 2R_1 R_5 g_m + 2R_1 + R_4 + 2R_5}$$

$$10.272 \quad \text{INVALID-ORDER-272} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (-C_5 s + g_m)}{s (2C_1 C_4 R_1 s + C_1 C_5 R_1 s + 2C_4 C_5 R_1 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

$$10.273 \quad \text{INVALID-ORDER-273} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 R_1 R_5 s^2 + 2C_1 C_4 R_1 s + C_1 C_5 R_1 s + 2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + 2C_4 C_5 R_5 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

$$10.274 \quad \text{INVALID-ORDER-274} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_5 R_1 s^3 + 2C_1 C_4 R_1 s + C_1 C_5 R_1 s + 2C_4 C_5 L_5 R_1 g_m s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 C_5 R_1 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.275 \quad INVALID-ORDER-275} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_1 C_4 L_5 R_1 s^3 + C_1 C_5 L_5 R_1 s^3 + C_1 R_1 s + 2C_4 C_5 L_5 R_1 s^3 + 2C_4 L_5 R_1 g_m s^2 + 2C_4 L_5 s^2 + 2C_4 R_1 s + 2C_5 L_5 R_1 g_m s^2 + C_5 L_5 s^2 + 2R_1 g_m + 1}$$

$$\mathbf{10.276 \quad INVALID-ORDER-276} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_5 R_1 s^3 + 2C_1 C_4 C_5 R_1 R_5 s^2 + 2C_1 C_4 R_1 s + C_1 C_5 R_1 s + 2C_4 C_5 L_5 R_1 g_m s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + 2C_4 C_5 R_5 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.277 \quad INVALID-ORDER-277} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_1 C_4 L_5 R_1 R_5 s^3 + C_1 C_5 L_5 R_1 R_5 s^3 + C_1 L_5 R_1 s^2 + C_1 R_1 R_5 s + 2C_4 C_5 L_5 R_1 R_5 s^3 + 2C_4 L_5 R_1 R_5 g_m s^2 + 2C_4 L_5 R_1 s^2 + 2C_4 L_5 R_5 s^2 + 2C_4 R_1 R_5 s + 2C_5 L_5 R_1 R_5 g_m s^2 + C_5 L_5 R_5 s^2 + 2L_5 R_1 g_m s + L_5 s + 2R_1 R_5 g_m + R_5}$$

$$\mathbf{10.278 \quad INVALID-ORDER-278} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_5 R_1 R_5 s^4 + 2C_1 C_4 L_5 R_1 s^3 + 2C_1 C_4 R_1 R_5 s^2 + C_1 C_5 L_5 R_1 s^3 + C_1 R_1 s + 2C_4 C_5 L_5 R_1 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_5 R_1 g_m s^2 + 2C_4 L_5 s^2 + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + 2C_4 R_5 s + 2C_5 L_5 R_1 g_m s^2 + C_5 L_5 s^2 + 2R_1 g_m + 1}$$

$$\mathbf{10.279 \quad INVALID-ORDER-279} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_5 R_1 R_5 s^4 + 2C_1 C_4 R_1 R_5 s^2 + C_1 C_5 L_5 R_1 s^3 + C_1 C_5 R_1 R_5 s^2 + C_1 R_1 s + 2C_4 C_5 L_5 R_1 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 C_5 R_1 R_5 s^2 + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + 2C_4 R_5 s + 2C_5 L_5 R_1 g_m s^2 + C_5 L_5 s^2 + 2C_5 R_1 R_5 g_m s + C_5 R_5 s + 2R_1 g_m + 1}$$

$$\mathbf{10.280 \quad INVALID-ORDER-280} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 R_1 R_4 R_5 s^3 + 2C_1 C_4 R_1 R_4 s^2 + C_1 C_5 R_1 R_4 s^2 + 2C_1 C_5 R_1 R_5 s^2 + 2C_1 R_1 s + 2C_4 C_5 R_1 R_4 R_5 g_m s^2 + 2C_4 C_5 R_1 R_4 s^2 + 2C_4 C_5 R_4 R_5 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_4 s + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 R_5 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2C_5 R_5 s + 2R_1 g_m + 2}$$

$$\mathbf{10.281 \quad INVALID-ORDER-281} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_5 R_1 R_4 s^4 + 2C_1 C_4 R_1 R_4 s^2 + 2C_1 C_5 L_5 R_1 s^3 + C_1 C_5 R_1 R_4 s^2 + 2C_1 R_1 s + 2C_4 C_5 L_5 R_1 R_4 g_m s^3 + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 R_1 R_4 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_4 s + 2C_5 L_5 R_1 g_m s^2 + 2C_5 L_5 s^2 + 2C_5 R_1 R_4 g_m s + 2C_5 R_1 s + C_5 R_4 s + 2R_1 g_m + 2}$$

$$\mathbf{10.282 \quad INVALID-ORDER-282} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_1 C_4 L_5 R_1 R_4 s^3 + C_1 C_5 L_5 R_1 R_4 s^3 + 2C_1 L_5 R_1 s^2 + C_1 R_1 R_4 s + 2C_4 C_5 L_5 R_1 R_4 s^3 + 2C_4 L_5 R_1 R_4 g_m s^2 + 2C_4 L_5 R_4 s^2 + 2C_4 R_1 R_4 s + 2C_5 L_5 R_1 R_4 g_m s^2 + 2C_5 L_5 R_1 s^2 + C_5 L_5 R_4 s^2 + 2L_5 R_1 g_m s + 2L_5 s + 2R_1 R_4 g_m + 2R_1 + R_4}$$

$$\mathbf{10.283 \quad INVALID-ORDER-283} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_5 R_1 R_4 s^4 + 2C_1 C_4 C_5 R_1 R_4 R_5 s^3 + 2C_1 C_4 R_1 R_4 s^2 + 2C_1 C_5 L_5 R_1 s^3 + C_1 C_5 R_1 R_4 s^2 + 2C_1 C_5 R_1 R_5 s^2 + 2C_1 R_1 s + 2C_4 C_5 L_5 R_1 R_4 g_m s^3 + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 R_1 R_4 R_5 g_m s^2 + 2C_4 C_5 R_1 R_4 s^2 + 2C_4 C_5 R_4 R_5 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_4 s + 2C_5 L_5 R_1 g_m s^2}$$

$$\mathbf{10.284 \quad INVALID-ORDER-284} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_1 C_4 L_5 R_1 R_4 R_5 s^3 + C_1 C_5 L_5 R_1 R_4 R_5 s^3 + C_1 L_5 R_1 R_4 s^2 + 2C_1 L_5 R_1 R_5 s^2 + C_1 R_1 R_4 R_5 s + 2C_4 C_5 L_5 R_1 R_4 R_5 s^3 + 2C_4 L_5 R_1 R_4 R_5 g_m s^2 + 2C_4 L_5 R_1 R_4 s^2 + 2C_4 L_5 R_4 R_5 s^2 + 2C_4 R_1 R_4 R_5 s + 2C_5 L_5 R_1 R_4 R_5 g_m s^2 + 2C_5 L_5 R_1 R_5 s^2 + C_5 L_5 R_4 R_5 s^2 + 2L_5 R_1 R_4 g_m s + 2L_5 R_1 R_4 s + 2L_5 R_4 R_5 s + 2R_5 g_m s + R_5 s + R_5}$$

$$\mathbf{10.285 \quad INVALID-ORDER-285} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_5 R_1 R_4 R_5 s^4 + 2C_1 C_4 L_5 R_1 R_4 s^3 + 2C_1 C_4 R_1 R_4 R_5 s^2 + C_1 C_5 L_5 R_1 R_4 s^3 + 2C_1 C_5 L_5 R_1 R_5 s^3 + 2C_1 L_5 R_1 s^2 + C_1 R_1 R_4 s + 2C_1 R_1 R_5 s + 2C_4 C_5 L_5 R_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 R_4 s^3 + 2C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 L_5 R_1 R_4 g_m s^2 + 2C_4 L_5 R_4 s^2 + 2C_4 R_1 R_4 R_5 g_m s + 2C_4 R_1 R_4 s + 2C_4 R_4 R_5 s + 2R_5 g_m s + R_5 s + R_5}$$

$$\mathbf{10.286 \quad INVALID-ORDER-286} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_5 R_1 R_4 R_5 s^4 + 2C_1 C_4 R_1 R_4 R_5 s^2 + C_1 C_5 L_5 R_1 R_4 s^3 + 2C_1 C_5 L_5 R_1 R_5 s^3 + C_1 C_5 R_1 R_4 R_5 s^2 + C_1 R_1 R_4 s + 2C_1 R_1 R_5 s + 2C_4 C_5 L_5 R_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 R_4 s^3 + 2C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 C_5 R_1 R_4 R_5 s^2 + 2C_4 R_1 R_4 R_5 g_m s + 2C_4 R_1 R_4 s + 2C_4 R_4 R_5 s + 2R_5 g_m s + R_5 s + R_5}$$

$$\mathbf{10.287 \quad INVALID-ORDER-287} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_5 s - g_m) (C_4 R_4 s + 1)}{s (C_1 C_4 C_5 R_1 R_4 s^2 + 2C_1 C_4 R_1 s + C_1 C_5 R_1 s + 2C_4 C_5 R_1 R_4 g_m s + 2C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.288 \quad INVALID-ORDER-288} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_4 R_4 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 R_1 R_4 R_5 s^3 + C_1 C_4 R_1 R_4 s^2 + 2C_1 C_4 R_1 R_5 s^2 + C_1 C_5 R_1 R_5 s^2 + C_1 R_1 s + 2C_4 C_5 R_1 R_4 R_5 g_m s^2 + 2C_4 C_5 R_1 R_5 s^2 + C_4 C_5 R_4 R_5 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + C_4 R_4 s + 2C_4 R_5 s + 2C_5 R_1 R_5 g_m s + C_5 R_5 s + 2R_1 g_m + 1}$$

$$\mathbf{10.289 \quad INVALID-ORDER-289} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 R_4 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (C_1 C_4 C_5 R_1 R_4 s^2 + 2C_1 C_4 C_5 R_1 R_5 s^2 + 2C_1 C_4 R_1 s + C_1 C_5 R_1 s + 2C_4 C_5 R_1 R_4 g_m s + 2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2C_4 C_5 R_5 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.290 \quad INVALID-ORDER-290} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 R_4 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_5 R_1 s^3 + C_1 C_4 C_5 R_1 R_4 s^2 + 2C_1 C_4 R_1 s + C_1 C_5 R_1 s + 2C_4 C_5 L_5 R_1 g_m s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 C_5 R_1 R_4 g_m s + 2C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.291 \quad INVALID-ORDER-291} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_4 R_4 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{C_1 C_4 C_5 L_5 R_1 R_4 s^4 + 2C_1 C_4 L_5 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_5 L_5 R_1 s^3 + C_1 R_1 s + 2C_4 C_5 L_5 R_1 R_4 g_m s^3 + 2C_4 C_5 L_5 R_1 s^3 + C_4 C_5 L_5 R_4 s^3 + 2C_4 L_5 R_1 g_m s^2 + 2C_4 L_5 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_1 s + C_4 R_4 s + 2C_5 L_5 R_1 g_m s^2 + C_5 L_5 s^2 + 2R_1 g_m + 1}$$

$$\mathbf{10.292 \quad INVALID-ORDER-292} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 R_4 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_5 R_1 s^3 + C_1 C_4 C_5 R_1 R_4 s^2 + 2C_1 C_4 C_5 R_1 R_5 s^2 + 2C_1 C_4 R_1 s + C_1 C_5 R_1 s + 2C_4 C_5 L_5 R_1 g_m s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 C_5 R_1 R_4 g_m s + 2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2C_4 C_5 R_5 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.302 \quad INVALID-ORDER-302} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (C_1 C_4 C_5 L_4 R_1 s^3 + 2C_1 C_4 C_5 L_5 R_1 s^3 + 2C_1 C_4 C_5 R_1 R_5 s^2 + 2C_1 C_4 R_1 s + C_1 C_5 R_1 s + 2C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2 + 2C_4 C_5 L_5 R_1 g_m s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + 2C_4 C_5 R_5 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.303 \quad INVALID-ORDER-303} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{C_1 C_4 C_5 L_4 L_5 R_1 R_5 s^5 + C_1 C_4 L_4 L_5 R_1 s^4 + C_1 C_4 L_4 R_1 R_5 s^3 + 2C_1 C_4 L_5 R_1 R_5 s^3 + C_1 C_5 L_5 R_1 R_5 s^3 + C_1 L_5 R_1 s^2 + C_1 R_1 R_5 s + 2C_4 C_5 L_4 L_5 R_1 R_5 g_m s^4 + C_4 C_5 L_4 L_5 R_5 s^4 + 2C_4 C_5 L_5 R_1 R_5 s^3 + 2C_4 L_4 L_5 R_1 g_m s^3 + C_4 L_4 L_5 s^3 + 2C_4 L_4 R_1 R_5 g_m s^2 + C_4 L_4 R_5 s^2 + 2C_4 L_4 R_1 R_5 g_m s + 2C_4 L_4 R_1 s + 2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + 2C_4 C_5 R_5 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5}$$

$$\mathbf{10.304 \quad INVALID-ORDER-304} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_4 C_5 L_4 L_5 R_1 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_5 s^4 + C_1 C_4 L_4 R_1 s^3 + 2C_1 C_4 L_5 R_1 s^3 + 2C_1 C_4 R_1 R_5 s^2 + C_1 C_5 L_5 R_1 s^3 + C_1 R_1 s + 2C_4 C_5 L_4 L_5 R_1 g_m s^4 + C_4 C_5 L_4 L_5 s^4 + 2C_4 C_5 L_5 R_1 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 L_5 R_1 g_m s^2 + 2C_4 L_4 R_1 R_5 g_m s + 2C_4 L_4 R_1 s + 2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + 2C_4 C_5 R_5 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5}$$

$$\mathbf{10.305 \quad INVALID-ORDER-305} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_4 L_4 s^2 + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 L_4 L_5 R_1 s^5 + C_1 C_4 C_5 L_4 R_1 R_5 s^4 + 2C_1 C_4 C_5 L_5 R_1 R_5 s^4 + C_1 C_4 L_4 R_1 s^3 + 2C_1 C_4 R_1 R_5 s^2 + C_1 C_5 L_5 R_1 s^3 + C_1 C_5 R_1 R_5 s^2 + C_1 R_1 s + 2C_4 C_5 L_4 L_5 R_1 g_m s^4 + C_4 C_5 L_4 L_5 s^4 + 2C_4 C_5 L_4 R_1 R_5 g_m s^3 + C_4 C_5 L_4 R_5 s^3 + 2C_4 C_5 L_5 R_1 R_5 g_m s^3 + 2C_4 C_5 L_5 R_1 s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 L_5 R_1 g_m s^2 + 2C_4 L_4 R_1 R_5 g_m s + 2C_4 L_4 R_1 s + 2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + 2C_4 C_5 R_5 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5}$$

$$\mathbf{10.306 \quad INVALID-ORDER-306} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 s (R_5 g_m - 1)}{2C_1 C_4 L_4 R_1 R_5 s^3 + C_1 L_4 R_1 s^2 + 2C_1 R_1 R_5 s + 2C_4 L_4 R_1 R_5 g_m s^2 + 2C_4 L_4 R_1 s^2 + 2C_4 L_4 R_5 s^2 + 2L_4 R_1 g_m s + L_4 s + 2R_1 R_5 g_m + 2R_1 + 2R_5}$$

$$\mathbf{10.307 \quad INVALID-ORDER-307} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 s (-C_5 s + g_m)}{2C_1 C_4 L_4 R_1 s^3 + C_1 C_5 L_4 R_1 s^3 + 2C_1 R_1 s + 2C_4 C_5 L_4 R_1 s^3 + 2C_4 L_4 R_1 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2 + 2C_5 R_1 s + 2R_1 g_m + 2}$$

$$\mathbf{10.308 \quad INVALID-ORDER-308} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 s (-C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 L_4 R_1 R_5 s^3 + C_1 C_5 L_4 R_1 R_5 s^3 + C_1 L_4 R_1 s^2 + 2C_1 R_1 R_5 s + 2C_4 C_5 L_4 R_1 R_5 s^3 + 2C_4 L_4 R_1 R_5 g_m s^2 + 2C_4 L_4 R_1 s^2 + 2C_4 L_4 R_5 s^2 + 2C_5 L_4 R_1 R_5 g_m s^2 + C_5 L_4 R_5 s^2 + 2C_5 R_1 R_5 s + 2L_4 R_1 g_m s + L_4 s + 2R_1 R_5 g_m + 2R_1 + 2R_5}$$

$$\mathbf{10.309 \quad INVALID-ORDER-309} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 s (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_4 R_1 R_5 s^4 + 2C_1 C_4 L_4 R_1 s^3 + C_1 C_5 L_4 R_1 s^3 + 2C_1 C_5 R_1 R_5 s^2 + 2C_1 R_1 s + 2C_4 C_5 L_4 R_1 R_5 g_m s^3 + 2C_4 C_5 L_4 R_1 s^3 + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 L_4 R_1 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2 + 2C_5 R_1 R_5 g_m s + 2C_5 R_1 s + 2C_5 R_5 s + 2R_1 g_m + 2}$$

$$\mathbf{10.310 \quad INVALID-ORDER-310} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 s (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_4 L_5 R_1 s^5 + 2C_1 C_4 L_4 R_1 s^3 + C_1 C_5 L_4 R_1 s^3 + 2C_1 C_5 L_5 R_1 s^3 + 2C_1 R_1 s + 2C_4 C_5 L_4 L_5 R_1 g_m s^4 + 2C_4 C_5 L_4 L_5 s^4 + 2C_4 C_5 L_4 R_1 s^3 + 2C_4 L_4 R_1 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2 + 2C_5 L_5 R_1 g_m s^2 + 2C_5 L_5 s^2 + 2C_5 R_1 s + 2R_1 g_m + 2}$$

$$\mathbf{10.311 \quad INVALID-ORDER-311} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_1 C_4 L_4 L_5 R_1 s^4 + C_1 C_5 L_4 L_5 R_1 s^4 + C_1 L_4 R_1 s^2 + 2C_1 L_5 R_1 s^2 + 2C_4 C_5 L_4 L_5 R_1 s^4 + 2C_4 L_4 L_5 R_1 g_m s^3 + 2C_4 L_4 L_5 s^3 + 2C_4 L_4 R_1 s^2 + 2C_5 L_4 L_5 R_1 g_m s^3 + C_5 L_4 L_5 s^3 + 2C_5 L_5 R_1 s^2 + 2L_4 R_1 g_m s + L_4 s + 2L_5 R_1 g_m s + 2L_5 s + 2R_1}$$

$$\mathbf{10.312 \quad INVALID-ORDER-312} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 s (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_4 L_5 R_1 s^5 + 2C_1 C_4 C_5 L_4 R_1 R_5 s^4 + 2C_1 C_4 L_4 R_1 s^3 + C_1 C_5 L_4 R_1 s^3 + 2C_1 C_5 L_5 R_1 s^3 + 2C_1 C_5 R_1 R_5 s^2 + 2C_1 R_1 s + 2C_4 C_5 L_4 L_5 R_1 g_m s^4 + 2C_4 C_5 L_4 L_5 s^4 + 2C_4 C_5 L_4 R_1 R_5 g_m s^3 + 2C_4 C_5 L_4 R_1 s^3 + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 L_4 R_1 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 R_1 g_m s^2 + 2C_5 L_5 R_1 s^2 + 2L_4 R_1 g_m s + L_4 s + 2L_5 R_1 g_m s + 2L_5 s + 2R_1}$$

$$\mathbf{10.313 \quad INVALID-ORDER-313} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_1 C_4 L_4 L_5 R_1 R_5 s^4 + C_1 C_5 L_4 L_5 R_1 R_5 s^4 + C_1 L_4 L_5 R_1 s^3 + C_1 L_4 R_1 R_5 s^2 + 2C_1 L_5 R_1 R_5 s^2 + 2C_4 C_5 L_4 L_5 R_1 R_5 s^4 + 2C_4 L_4 L_5 R_1 R_5 g_m s^3 + 2C_4 L_4 L_5 R_1 s^3 + 2C_4 L_4 L_5 R_5 s^3 + 2C_4 L_4 R_1 R_5 s^2 + 2C_5 L_4 L_5 R_1 R_5 g_m s^3 + C_5 L_4 L_5 R_5 s^3 + 2C_5 L_5 R_1 R_5 s^2 + 2L_4 L_5 R_1 g_m s^2 + 2L_4 L_5 R_1 s^2 + 2L_5 R_1 g_m s + L_4 s + 2L_5 R_1 g_m s + 2L_5 s + 2R_1}$$

$$\mathbf{10.314 \quad INVALID-ORDER-314} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_4 L_5 R_1 R_5 s^5 + 2C_1 C_4 L_4 L_5 R_1 s^4 + 2C_1 C_4 L_4 R_1 R_5 s^3 + C_1 C_5 L_4 L_5 R_1 s^4 + 2C_1 C_5 L_5 R_1 R_5 s^3 + C_1 L_4 R_1 s^2 + 2C_1 L_5 R_1 s^2 + 2C_1 R_1 R_5 s + 2C_4 C_5 L_4 L_5 R_1 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 R_1 s^4 + 2C_4 C_5 L_4 L_5 R_5 s^4 + 2C_4 C_5 L_4 R_1 R_5 s^3 + 2C_4 L_4 R_1 R_5 g_m s^2 + 2C_4 L_4 R_1 s^2 + 2C_4 L_4 R_5 s^2 + 2C_5 L_4 L_5 R_1 R_5 g_m s^3 + C_5 L_4 L_5 R_5 s^3 + 2C_5 L_5 R_1 R_5 s^2 + 2L_4 L_5 R_1 g_m s^2 + 2L_4 L_5 R_1 s^2 + 2L_5 R_1 g_m s + L_4 s + 2L_5 R_1 g_m s + 2L_5 s + 2R_1}$$

$$\mathbf{10.315 \quad INVALID-ORDER-315} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_4 L_5 R_1 R_5 s^5 + 2C_1 C_4 L_4 R_1 R_5 s^3 + C_1 C_5 L_4 L_5 R_1 s^4 + C_1 C_5 L_4 R_1 R_5 s^3 + 2C_1 C_5 L_5 R_1 R_5 s^3 + C_1 L_4 R_1 s^2 + 2C_1 R_1 R_5 s + 2C_4 C_5 L_4 L_5 R_1 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 R_1 s^4 + 2C_4 C_5 L_4 L_5 R_5 s^4 + 2C_4 C_5 L_4 R_1 R_5 s^3 + 2C_4 L_4 R_1 R_5 g_m s^2 + 2C_4 L_4 R_1 s^2 + 2C_4 L_4 R_5 s^2 + 2C_5 L_4 L_5 R_1 R_5 g_m s^3 + C_5 L_4 L_5 R_5 s^3 + 2C_5 L_5 R_1 R_5 s^2 + 2L_4 L_5 R_1 g_m s^2 + 2L_4 L_5 R_1 s^2 + 2L_5 R_1 g_m s + L_4 s + 2L_5 R_1 g_m s + 2L_5 s + 2R_1}$$

$$\mathbf{10.316 \quad INVALID-ORDER-316} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1 (R_5 g_m - 1) (C_4 L_4 s^2 + C_4 R_4 s + 1)}{C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + 2C_1 C_4 R_1 R_5 s^2 + C_1 R_1 s + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + C_4 R_4 s + 2C_4 R_5 s + 2R_1 g_m + 1}$$

$$\mathbf{10.317 \quad INVALID-ORDER-317} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_5 s - g_m) (C_4 L_4 s^2 + C_4 R_4 s + 1)}{s (C_1 C_4 C_5 L_4 R_1 s^3 + C_1 C_4 C_5 R_1 R_4 s^2 + 2C_1 C_4 R_1 s + C_1 C_5 R_1 s + 2C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2 + 2C_4 C_5 R_1 R_4 g_m s + 2C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.318 \quad INVALID-ORDER-318} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 L_4 R_1 R_5 s^4 + C_1 C_4 C_5 R_1 R_4 R_5 s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + 2C_1 C_4 R_1 R_5 s^2 + C_1 C_5 R_1 R_5 s^2 + C_1 R_1 s + 2C_4 C_5 L_4 R_1 R_5 g_m s^3 + C_4 C_5 L_4 R_5 s^3 + 2C_4 C_5 R_1 R_4 R_5 g_m s^2 + 2C_4 C_5 R_1 R_5 s^2 + C_4 C_5 R_4 R_5 s^2 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 R_1 R_4 g_m s + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + C_4 R_4 s + 2C_4 R_5 s + 2R_1 g_m + 1}$$

$$\mathbf{10.319 \quad INVALID-ORDER-319} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (C_1 C_4 C_5 L_4 R_1 s^3 + C_1 C_4 C_5 R_1 R_4 s^2 + 2C_1 C_4 C_5 R_1 R_5 s^2 + 2C_1 C_4 R_1 s + C_1 C_5 R_1 s + 2C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2 + 2C_4 C_5 R_1 R_4 g_m s + 2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2C_4 C_5 R_5 s + 2C_4 R_1 g_m + 2C_4 + 2C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.320 \quad INVALID-ORDER-320} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (C_1 C_4 C_5 L_4 R_1 s^3 + 2 C_1 C_4 C_5 L_5 R_1 s^3 + C_1 C_4 C_5 R_1 R_4 s^2 + 2 C_1 C_4 R_1 s + C_1 C_5 R_1 s + 2 C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2 + 2 C_4 C_5 L_5 R_1 g_m s^2 + 2 C_4 C_5 L_5 s^2 + 2 C_4 C_5 R_1 R_4 g_m s + 2 C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2 C_4 R_1 g_m + 2 C_4 + 2 C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.321 \quad INVALID-ORDER-321} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{C_1 C_4 C_5 L_4 L_5 R_1 s^5 + C_1 C_4 C_5 L_5 R_1 R_4 s^4 + C_1 C_4 L_4 R_1 s^3 + 2 C_1 C_4 L_5 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_5 L_5 R_1 s^3 + C_1 R_1 s + 2 C_4 C_5 L_4 L_5 R_1 g_m s^4 + C_4 C_5 L_4 L_5 s^4 + 2 C_4 C_5 L_5 R_1 R_4 g_m s^3 + 2 C_4 C_5 L_5 R_1 s^3 + C_4 C_5 L_5 R_4 s^3 + 2 C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2 C_4 L_5 R_1 g_m s^2 + 2 C_4 L_5 s^2 + 2 C_4 R_1 g_m + 2 C_4 + 2 C_5 R_1 g_m + C_5}$$

$$\mathbf{10.322 \quad INVALID-ORDER-322} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (C_1 C_4 C_5 L_4 R_1 s^3 + 2 C_1 C_4 C_5 L_5 R_1 s^3 + C_1 C_4 C_5 R_1 R_4 s^2 + 2 C_1 C_4 C_5 R_1 R_5 s^2 + 2 C_1 C_4 R_1 s + C_1 C_5 R_1 s + 2 C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2 + 2 C_4 C_5 L_5 R_1 g_m s^2 + 2 C_4 C_5 L_5 s^2 + 2 C_4 C_5 R_1 R_4 g_m s + 2 C_4 C_5 R_1 R_5 g_m s + 2 C_4 C_5 R_1 s + C_4 C_5 R_4 s + 2 C_4 C_5 R_5 s + 2 C_4 R_1 g_m + 2 C_4 + 2 C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.323 \quad INVALID-ORDER-323} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 R_5 s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_4 C_5 L_4 L_5 R_1 R_5 s^5 + C_1 C_4 C_5 L_5 R_1 R_4 R_5 s^4 + C_1 C_4 L_4 L_5 R_1 s^4 + C_1 C_4 L_4 R_1 R_5 s^3 + C_1 C_4 L_5 R_1 R_4 s^3 + 2 C_1 C_4 L_5 R_1 R_5 s^3 + C_1 C_4 R_1 R_4 R_5 s^2 + C_1 C_5 L_5 R_1 R_5 s^3 + C_1 L_5 R_1 s^2 + C_1 R_1 R_5 s + 2 C_4 C_5 L_4 L_5 R_1 R_5 g_m s^4 + C_4 C_5 L_4 L_5 R_5 s^4 + 2 C_4 C_5 L_5 R_1 R_4 R_5 g_m s^3 + 2 C_4 C_5 L_5 R_1 R_5 g_m s^3 + 2 C_4 C_5 L_5 R_1 s^3 + C_4 C_5 L_5 R_4 s^3 + 2 C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2 C_4 L_5 R_1 g_m s^2 + 2 C_4 L_5 s^2 + 2 C_4 R_1 g_m + 2 C_4 + 2 C_5 R_1 g_m + C_5}$$

$$\mathbf{10.324 \quad INVALID-ORDER-324} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_4 C_5 L_4 L_5 R_1 s^5 + C_1 C_4 C_5 L_5 R_1 R_4 s^4 + 2 C_1 C_4 C_5 L_5 R_1 R_5 s^4 + C_1 C_4 L_4 R_1 s^3 + 2 C_1 C_4 L_5 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + 2 C_1 C_4 R_1 R_5 s^2 + C_1 C_5 L_5 R_1 s^3 + C_1 R_1 s + 2 C_4 C_5 L_4 L_5 R_1 g_m s^4 + C_4 C_5 L_4 L_5 s^4 + 2 C_4 C_5 L_5 R_1 R_4 g_m s^3 + 2 C_4 C_5 L_5 R_1 R_5 g_m s^3 + 2 C_4 C_5 L_5 R_1 s^3 + C_4 C_5 L_5 R_4 s^3 + 2 C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2 C_4 L_5 R_1 g_m s^2 + 2 C_4 L_5 s^2 + 2 C_4 R_1 g_m + 2 C_4 + 2 C_5 R_1 g_m + C_5}$$

$$\mathbf{10.325 \quad INVALID-ORDER-325} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 R_5 s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_4 C_5 L_4 L_5 R_1 s^5 + C_1 C_4 C_5 L_4 R_1 R_5 s^4 + C_1 C_4 C_5 L_5 R_1 R_4 s^4 + 2 C_1 C_4 C_5 L_5 R_1 R_5 s^4 + C_1 C_4 C_5 R_1 R_4 R_5 s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + 2 C_1 C_4 R_1 R_5 s^2 + C_1 C_5 L_5 R_1 s^3 + C_1 C_5 R_1 R_5 s^2 + C_1 R_1 s + 2 C_4 C_5 L_4 L_5 R_1 g_m s^4 + C_4 C_5 L_4 L_5 s^4 + 2 C_4 C_5 L_4 R_1 R_5 g_m s^3 + 2 C_4 C_5 L_4 R_1 R_5 s^3 + 2 C_4 C_5 L_5 R_1 R_4 g_m s^3 + 2 C_4 C_5 L_5 R_1 s^3 + C_4 C_5 L_5 R_4 s^3 + 2 C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2 C_4 L_5 R_1 g_m s^2 + 2 C_4 L_5 s^2 + 2 C_4 R_1 g_m + 2 C_4 + 2 C_5 R_1 g_m + C_5}$$

$$\mathbf{10.326 \quad INVALID-ORDER-326} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_4 s (R_5 g_m - 1)}{2 C_1 C_4 L_4 R_1 R_4 R_5 s^3 + C_1 L_4 R_1 R_4 s^2 + 2 C_1 L_4 R_1 R_5 s^2 + 2 C_1 R_1 R_4 R_5 s + 2 C_4 L_4 R_1 R_4 R_5 g_m s^2 + 2 C_4 L_4 R_1 R_4 s^2 + 2 C_4 L_4 R_4 R_5 s^2 + 2 L_4 R_1 R_4 g_m s + 2 L_4 R_1 R_5 g_m s + 2 L_4 R_1 s + L_4 R_4 s + 2 L_4 R_5 s + 2 R_1 R_4 R_5 g_m + 2 R_1 R_4 + 2 R_4 R_5}$$

$$\mathbf{10.327 \quad INVALID-ORDER-327} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_4 s (-C_5 s + g_m)}{2 C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_5 L_4 R_1 R_4 s^3 + 2 C_1 L_4 R_1 s^2 + 2 C_1 R_1 R_4 s + 2 C_4 C_5 L_4 R_1 R_4 s^3 + 2 C_4 L_4 R_1 R_4 g_m s^2 + 2 C_4 L_4 R_4 s^2 + 2 C_5 L_4 R_1 R_4 g_m s^2 + 2 C_5 L_4 R_1 s^2 + C_5 L_4 R_4 s^2 + 2 C_5 R_1 R_4 s + 2 L_4 R_1 g_m s + 2 L_4 s + 2 R_1 R_4 g_m + 2 R_4}$$

$$\mathbf{10.328 \quad INVALID-ORDER-328} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_4 s (-C_5 R_5 s + R_5 g_m - 1)}{2 C_1 C_4 L_4 R_1 R_4 R_5 s^3 + C_1 C_5 L_4 R_1 R_4 R_5 s^3 + C_1 L_4 R_1 R_4 s^2 + 2 C_1 L_4 R_1 R_5 s^2 + 2 C_1 R_1 R_4 R_5 s + 2 C_4 C_5 L_4 R_1 R_4 R_5 s^3 + 2 C_4 L_4 R_1 R_4 R_5 g_m s^2 + 2 C_4 L_4 R_1 R_4 s^2 + 2 C_4 L_4 R_4 R_5 s^2 + 2 C_5 L_4 R_1 R_4 R_5 g_m s^2 + 2 C_5 L_4 R_1 R_5 s^2 + C_5 L_4 R_4 R_5 s^2 + 2 C_5 R_1 R_4 R_5 s + 2 L_4 R_1 R_4 g_m s + 2 L_4 R_1 R_5 g_m s + 2 L_4 R_1 s + L_4 R_4 s + 2 L_4 R_5 s + 2 R_1 R_4 R_5 g_m + 2 R_1 R_4 + 2 R_4 R_5}$$

10.329 **INVALID-ORDER-329** $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_4 R_1 R_4 s (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_4 R_1 R_4 R_5 s^4 + 2C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_5 L_4 R_1 R_4 s^3 + 2C_1 C_5 L_4 R_1 R_5 s^3 + 2C_1 C_5 R_1 R_4 R_5 s^2 + 2C_1 L_4 R_1 s^2 + 2C_1 R_1 R_4 s + 2C_4 C_5 L_4 R_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_4 R_1 R_4 s^3 + 2C_4 C_5 L_4 R_4 R_5 s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_4 s^2 + 2C_5 L_4 R_1 R_4 g_m s^2 + 2C_5 L_4 R_1 R_4 s^2}$$

10.330 INVALID-ORDER-330 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_4 R_1 R_4 s (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_4 L_5 R_1 R_4 s^5 + 2C_1 C_4 L_4 R_1 R_4 s^3 + 2C_1 C_5 L_4 L_5 R_1 s^4 + C_1 C_5 L_4 R_1 R_4 s^3 + 2C_1 C_5 L_5 R_1 R_4 s^3 + 2C_1 L_4 R_1 s^2 + 2C_1 R_1 R_4 s + 2C_4 C_5 L_4 L_5 R_1 R_4 g_m s^4 + 2C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 C_5 L_4 R_1 R_4 s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_4 s^2 + 2C_5 L_4 L_5 R_1 g_m s^3 + 2C_5 L_4 L_5 s^3}$$

10.331 INVALID-ORDER-331 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = \frac{L_4 R_1 R_4 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_1 C_4 L_4 L_5 R_1 R_4 s^4 + C_1 C_5 L_4 L_5 R_1 R_4 s^4 + 2C_1 L_4 L_5 R_1 s^3 + C_1 L_4 R_1 R_4 s^2 + 2C_1 L_5 R_1 R_4 s^2 + 2C_4 C_5 L_4 L_5 R_1 R_4 s^4 + 2C_4 L_4 L_5 R_1 R_4 g_m s^3 + 2C_4 L_4 L_5 R_4 s^3 + 2C_4 L_4 R_1 R_4 s^2 + 2C_5 L_4 L_5 R_1 R_4 g_m s^3 + 2C_5 L_4 L_5 R_1 s^3 + C_5 L_4 L_5 R_4 s^3 + 2C_5 L_5 R_1 R_4 s^2 + 2L_4 L_5 R_1 g_m s^2 +}$$

10.332 INVALID-ORDER-332 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{1}{2C_1C_4C_5L_4L_5R_1R_4s^5 + 2C_1C_4C_5L_4R_1R_4R_5s^4 + 2C_1C_4L_4R_1R_4s^3 + 2C_1C_5L_4L_5R_1s^4 + C_1C_5L_4R_1R_4s^3 + 2C_1C_5L_4R_1R_5s^3 + 2C_1C_5L_5R_1R_4s^3 + 2C_1C_5R_1R_4R_5s^2 + 2C_1L_4R_1s^2 + 2C_1R_1R_4s + 2C_4C_5L_4L_5R_1R_4g_m s^4 + 2C_4C_5L_4L_5R_4s^4 + 2C_4C_5L_4R_1R_4R_5g_m}$$

10.333 INVALID-ORDER-333 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = \frac{L_4 R_1 R_4 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s)}{2C_1 C_4 L_4 L_5 R_1 R_4 R_5 s^4 + C_1 C_5 L_4 L_5 R_1 R_4 R_5 s^4 + C_1 L_4 L_5 R_1 R_4 s^3 + 2C_1 L_4 L_5 R_1 R_5 s^3 + C_1 L_4 R_1 R_4 R_5 s^2 + 2C_1 L_5 R_1 R_4 R_5 s^2 + 2C_4 C_5 L_4 L_5 R_1 R_4 R_5 s^4 + 2C_4 L_4 L_5 R_1 R_4 R_5 g_m s^3 + 2C_4 L_4 L_5 R_1 R_4 s^3 + 2C_4 L_4 L_5 R_4 R_5 s^3 + 2C_4 L_4 R_1 R_4 R_5 s^2 + 2C_5 L_4 L_5 R_1 R_4 R_5 g_m s^3 +}$$

10.334 INVALID-ORDER-334 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{1}{2C_1C_4C_5L_4L_5R_1R_4R_5s^5 + 2C_1C_4L_4L_5R_1R_4s^4 + 2C_1C_4L_4R_1R_4R_5s^3 + C_1C_5L_4L_5R_1R_4s^4 + 2C_1C_5L_4L_5R_1R_5s^4 + 2C_1C_5L_5R_1R_4R_5s^3 + 2C_1L_4L_5R_1s^3 + C_1L_4R_1R_4s^2 + 2C_1L_4R_1R_5s^2 + 2C_1L_5R_1R_4s^2 + 2C_1R_1R_4R_5s + 2C_4C_5L_4L_5R_1R_4R_5g_m s^4 + 2C_4C_5L_4L_5}$$

10.335 INVALID-ORDER-335 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{2C_1C_4C_5L_4L_5R_1R_4R_5s^5 + 2C_1C_4L_4R_1R_4R_5s^3 + C_1C_5L_4L_5R_1R_4s^4 + 2C_1C_5L_4L_5R_1R_5s^4 + C_1C_5L_4R_1R_4R_5s^3 + 2C_1C_5L_5R_1R_4R_5s^3 + C_1L_4R_1R_4s^2 + 2C_1L_4R_1R_5s^2 + 2C_1R_1R_4R_5s + 2C_4C_5L_4L_5R_1R_4R_5g_m s^4 + 2C_4C_5L_4L_5R_1R_4s^4 + 2C_4C_5L_4L_5R_4R_5s^4 + 2}$$

10.336 INVALID-ORDER-336 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, R_5, \infty \right)$

$$H(s) = \frac{R_1 (R_5 g_m - 1) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{C_1 C_4 L_4 R_1 R_4 s^3 + 2 C_1 C_4 L_4 R_1 R_5 s^3 + C_1 L_4 R_1 s^2 + C_1 R_1 R_4 s + 2 C_1 R_1 R_5 s + 2 C_4 L_4 R_1 R_4 g_m s^2 + 2 C_4 L_4 R_1 R_5 g_m s^2 + 2 C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_5 s^2 + 2 L_4 R_1 g_m s + L_4 s + 2 R_1 R_4 g_m + 2 R_1 R_5 g_m + 2 R_1 + R_4 + 2 R_5}$$

10.337 INVALID-ORDER-337 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{R_1 (C_5 s - g_m) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{C_1 C_4 C_5 L_4 R_1 R_4 s^4 + 2 C_1 C_4 L_4 R_1 s^3 + C_1 C_5 L_4 R_1 s^3 + C_1 C_5 R_1 R_4 s^2 + 2 C_1 R_1 s + 2 C_4 C_5 L_4 R_1 R_4 g_m s^3 + 2 C_4 C_5 L_4 R_1 s^3 + C_4 C_5 L_4 R_4 s^3 + 2 C_4 L_4 R_1 g_m s^2 + 2 C_4 L_4 s^2 + 2 C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2 + 2 C_5 R_1 R_4 g_m s + 2 C_5 R_1 s + C_5 R_4 s + 2 R_1 g_m + 2}$$

$$\mathbf{10.338 \quad INVALID-ORDER-338} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = - \frac{R_1 (C_5 R_5 s - R_5 g_m + 1) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{C_1 C_4 C_5 L_4 R_1 R_4 R_5 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + 2 C_1 C_4 L_4 R_1 R_5 s^3 + C_1 C_5 L_4 R_1 R_5 s^3 + C_1 C_5 R_1 R_4 R_5 s^2 + C_1 L_4 R_1 s^2 + C_1 R_1 R_4 s + 2 C_1 R_1 R_5 s + 2 C_4 C_5 L_4 R_1 R_4 R_5 g_m s^3 + 2 C_4 C_5 L_4 R_1 R_5 s^3 + C_4 C_5 L_4 R_4 R_5 s^3 + 2 C_4 L_4 R_1 R_4 g_m s^2 + 2 C_4 L_4 R_1 R_5 g_m s^2 + 2 C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 R_4 s^2 + C_4 R_5 s^2 + C_4 R_5 g_m s^2 + C_4 R_5 s + C_4 R_5 g_m}$$

$$\mathbf{10.339 \quad INVALID-ORDER-339} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 R_5 g_m s - C_5 s + g_m)}{C_1 C_4 C_5 L_4 R_1 R_4 s^4 + 2 C_1 C_4 C_5 L_4 R_1 R_5 s^4 + 2 C_1 C_4 L_4 R_1 s^3 + C_1 C_5 L_4 R_1 s^3 + C_1 C_5 R_1 R_4 s^2 + 2 C_1 C_5 R_1 R_5 s^2 + 2 C_1 R_1 s + 2 C_4 C_5 L_4 R_1 R_4 g_m s^3 + 2 C_4 C_5 L_4 R_1 R_5 g_m s^3 + 2 C_4 C_5 L_4 R_1 s^3 + C_4 C_5 L_4 R_4 s^3 + 2 C_4 C_5 L_4 R_5 s^3 + 2 C_4 L_4 R_1 g_m s^2 + 2 C_4 L_4 s^2 + 2 C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2 + C_5 R_1 g_m s^2 + C_5 R_1 s^2 + C_5 R_5 g_m s^2 + C_5 R_5 s^2 + C_5 R_5 s + C_5 R_5 g_m}$$

$$\mathbf{10.340 \quad INVALID-ORDER-340} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2 C_1 C_4 C_5 L_4 L_5 R_1 s^5 + C_1 C_4 C_5 L_4 R_1 R_4 s^4 + 2 C_1 C_4 L_4 R_1 s^3 + C_1 C_5 L_4 R_1 s^3 + 2 C_1 C_5 L_5 R_1 s^3 + C_1 C_5 R_1 R_4 s^2 + 2 C_1 R_1 s + 2 C_4 C_5 L_4 L_5 R_1 g_m s^4 + 2 C_4 C_5 L_4 L_5 s^4 + 2 C_4 C_5 L_4 R_1 R_4 g_m s^3 + 2 C_4 C_5 L_4 R_1 s^3 + C_4 C_5 L_4 R_4 s^3 + 2 C_4 L_4 R_1 g_m s^2 + 2 C_4 L_4 s^2 + 2 C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2 + C_5 R_1 g_m s^2 + C_5 R_1 s^2 + C_5 R_5 g_m s^2 + C_5 R_5 s^2 + C_5 R_5 s + C_5 R_5 g_m}$$

$$\mathbf{10.341 \quad INVALID-ORDER-341} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = - \frac{R_1 (C_5 L_5 s^2 - L_5 g_m s + 1) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{C_1 C_4 C_5 L_4 L_5 R_1 R_4 s^5 + 2 C_1 C_4 L_4 L_5 R_1 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_5 L_4 L_5 R_1 s^4 + C_1 C_5 L_5 R_1 R_4 s^3 + C_1 L_4 R_1 s^2 + 2 C_1 L_5 R_1 s^2 + C_1 R_1 R_4 s + 2 C_4 C_5 L_4 L_5 R_1 R_4 g_m s^4 + 2 C_4 C_5 L_4 L_5 R_1 s^4 + C_4 C_5 L_4 L_5 R_4 s^4 + 2 C_4 L_4 L_5 R_1 g_m s^3 + 2 C_4 L_4 L_5 s^3 + 2 C_4 L_4 R_1 R_4 g_m s^2 + 2 C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 R_4 s^2 + C_4 R_5 s^2 + C_4 R_5 g_m s^2 + C_4 R_5 s + C_4 R_5 g_m}$$

$$\mathbf{10.342 \quad INVALID-ORDER-342} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_4 L_4 R_4 s^2 + L_4 s + R_4) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2 C_1 C_4 C_5 L_4 L_5 R_1 s^5 + C_1 C_4 C_5 L_4 R_1 R_4 s^4 + 2 C_1 C_4 C_5 L_4 R_1 R_5 s^4 + 2 C_1 C_4 L_4 R_1 s^3 + C_1 C_5 L_4 R_1 s^3 + 2 C_1 C_5 L_5 R_1 s^3 + C_1 C_5 R_1 R_4 s^2 + 2 C_1 C_5 R_1 R_5 s^2 + 2 C_1 R_1 s + 2 C_4 C_5 L_4 L_5 R_1 g_m s^4 + 2 C_4 C_5 L_4 L_5 s^4 + 2 C_4 C_5 L_4 R_1 R_4 g_m s^3 + 2 C_4 C_5 L_4 R_1 R_5 g_m s^3 + 2 C_4 C_5 L_4 R_1 s^3 + C_4 C_5 L_4 R_4 s^3 + 2 C_4 L_4 R_1 g_m s^2 + 2 C_4 L_4 s^2 + 2 C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2 + C_5 R_1 g_m s^2 + C_5 R_1 s^2 + C_5 R_5 g_m s^2 + C_5 R_5 s^2 + C_5 R_5 s + C_5 R_5 g_m}$$

$$\mathbf{10.343 \quad INVALID-ORDER-343} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = - \frac{R_1 (C_5 L_5 R_5 s^2 + L_5 s + R_5) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{C_1 C_4 C_5 L_4 L_5 R_1 R_4 R_5 s^5 + C_1 C_4 L_4 L_5 R_1 R_4 s^4 + 2 C_1 C_4 L_4 L_5 R_1 R_5 s^4 + C_1 C_4 L_4 R_1 R_4 R_5 s^3 + C_1 C_5 L_4 L_5 R_1 R_5 s^4 + C_1 C_5 L_5 R_1 R_4 R_5 s^3 + C_1 L_4 L_5 R_1 s^3 + C_1 L_4 R_1 R_5 s^2 + C_1 L_5 R_1 R_4 s^2 + 2 C_1 L_5 R_1 R_5 s^2 + C_1 R_1 R_4 R_5 s + 2 C_4 C_5 L_4 L_5 R_1 R_4 R_5 g_m s^4 + 2 C_4 C_5 L_4 L_5 R_1 R_4 s^4 + 2 C_4 C_5 L_4 L_5 R_1 R_5 s^4 + 2 C_4 C_5 L_4 L_5 R_1 s^4 + C_4 C_5 L_4 L_5 R_4 s^4 + 2 C_4 L_4 L_5 R_1 g_m s^3 + 2 C_4 L_4 L_5 s^3 + 2 C_4 L_4 R_1 R_4 g_m s^2 + 2 C_4 L_4 R_1 R_5 s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 R_4 s^2 + C_4 R_5 s^2 + C_4 R_5 g_m s^2 + C_4 R_5 s + C_4 R_5 g_m}$$

$$\mathbf{10.344 \quad INVALID-ORDER-344} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1 (C_5 L_5 s^2 + L_5 s + R_5) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{C_1 C_4 C_5 L_4 L_5 R_1 R_4 s^5 + 2 C_1 C_4 C_5 L_4 L_5 R_1 R_5 s^5 + 2 C_1 C_4 L_4 L_5 R_1 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + 2 C_1 C_4 L_4 R_1 R_5 s^3 + C_1 C_5 L_4 L_5 R_1 s^4 + C_1 C_5 L_5 R_1 R_4 s^3 + 2 C_1 C_5 L_5 R_1 R_5 s^3 + C_1 L_4 R_1 s^2 + 2 C_1 L_5 R_1 s^2 + C_1 R_1 R_4 s + 2 C_1 R_1 R_5 s + 2 C_4 C_5 L_4 L_5 R_1 R_4 g_m s^4 + 2 C_4 C_5 L_4 L_5 R_1 R_5 s^4 + 2 C_4 C_5 L_4 L_5 R_1 s^4 + C_4 C_5 L_4 L_5 R_4 s^4 + 2 C_4 L_4 L_5 R_1 g_m s^3 + 2 C_4 L_4 L_5 s^3 + 2 C_4 L_4 R_1 R_4 g_m s^2 + 2 C_4 L_4 R_1 R_5 s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 R_4 s^2 + C_4 R_5 s^2 + C_4 R_5 g_m s^2 + C_4 R_5 s + C_4 R_5 g_m}$$

$$\mathbf{10.345 \quad INVALID-ORDER-345} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = - \frac{R_1 (C_5 L_5 s^2 + 1) (C_4 L_4 R_4 s^2 + L_4 s + R_4)}{C_1 C_4 C_5 L_4 L_5 R_1 R_4 s^5 + 2 C_1 C_4 C_5 L_4 L_5 R_1 R_5 s^5 + C_1 C_4 C_5 L_4 R_1 R_4 R_5 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + 2 C_1 C_4 L_4 R_1 R_5 s^3 + C_1 C_5 L_4 L_5 R_1 s^4 + C_1 C_5 L_4 R_1 R_5 s^3 + C_1 C_5 L_5 R_1 R_4 s^3 + 2 C_1 C_5 L_5 R_1 R_5 s^3 + C_1 C_5 R_1 R_4 R_5 s^2 + C_1 L_4 R_1 s^2 + C_1 R_1 R_4 s + 2 C_1 R_1 R_5 s + 2 C_4 C_5 L_4 L_5 R_1 R_4 R_5 g_m s^4 + 2 C_4 C_5 L_4 L_5 R_1 R_4 s^4 + 2 C_4 C_5 L_4 L_5 R_1 R_5 s^4 + 2 C_4 C_5 L_4 L_5 R_1 s^4 + C_4 C_5 L_4 L_5 R_4 s^4 + 2 C_4 L_4 L_5 R_1 g_m s^3 + 2 C_4 L_4 L_5 s^3 + 2 C_4 L_4 R_1 R_4 g_m s^2 + 2 C_4 L_4 R_1 R_5 s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_4 R_4 s^2 + C_4 R_5 s^2 + C_4 R_5 g_m s^2 + C_4 R_5 s + C_4 R_5 g_m}$$

$$\mathbf{10.346 \quad INVALID-ORDER-346} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (R_5 g_m - 1) (C_4 L_4 s^2 + 1)}{C_1 C_4 L_4 R_1 R_4 s^3 + 2 C_1 C_4 L_4 R_1 R_5 s^3 + 2 C_1 C_4 R_1 R_4 R_5 s^2 + C_1 R_1 R_4 s + 2 C_1 R_1 R_5 s + 2 C_4 L_4 R_1 R_4 g_m s^2 + 2 C_4 L_4 R_1 R_5 g_m s^2 + 2 C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_5 s^2 + 2 C_4 R_1 R_4 R_5 g_m s + 2 C_4 R_1 R_4 s + 2 C_4 R_4 R_5 s + 2 R_1 R_4 g_m + 2 R_1 R_5 g_m + 2 R_1 + R_4 + 2 R_5}$$

$$10.356 \quad \text{INVALID-ORDER-356} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{R_4 (R_5 g_m - 1) (C_1 R_1 s + 1)}{2C_1 R_1 R_4 g_m s + 2C_1 R_1 R_5 g_m s + 2C_1 R_1 s + C_1 R_4 s + 2C_1 R_5 s + 2R_4 g_m + 2R_5 g_m + 2}$$

$$10.357 \quad \text{INVALID-ORDER-357} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 R_1 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_5 L_5 R_1 g_m s^3 + 2C_1 C_5 L_5 s^3 + 2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 s^2 + C_1 C_5 R_4 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_5 L_5 g_m s^2 + 2C_5 R_4 g_m s + 2C_5 s + 2g_m}$$

$$10.358 \quad \text{INVALID-ORDER-358} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 R_1 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_5 L_5 R_1 R_4 g_m s^3 + 2C_1 C_5 L_5 R_1 s^3 + C_1 C_5 L_5 R_4 s^3 + 2C_1 L_5 R_1 g_m s^2 + 2C_1 L_5 s^2 + 2C_1 R_1 R_4 g_m s + 2C_1 R_1 s + C_1 R_4 s + 2C_5 L_5 R_4 g_m s^2 + 2C_5 L_5 s^2 + 2L_5 g_m s + 2R_4 g_m + 2}$$

$$10.359 \quad \text{INVALID-ORDER-359} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 R_1 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_5 L_5 R_1 g_m s^3 + 2C_1 C_5 L_5 s^3 + 2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 R_5 g_m s^2 + 2C_1 C_5 R_1 s^2 + C_1 C_5 R_4 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_5 L_5 g_m s^2 + 2C_5 R_4 g_m s + 2C_5 R_5 g_m s + 2C_5 s + 2g_m}$$

$$10.360 \quad \text{INVALID-ORDER-360} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 R_1 s + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_1 C_5 L_5 R_1 R_4 R_5 g_m s^3 + 2C_1 C_5 L_5 R_1 R_5 s^3 + C_1 C_5 L_5 R_4 R_5 s^3 + 2C_1 L_5 R_1 R_4 g_m s^2 + 2C_1 L_5 R_1 R_5 g_m s^2 + 2C_1 L_5 R_1 s^2 + C_1 L_5 R_4 s^2 + 2C_1 L_5 R_5 s^2 + 2C_1 R_1 R_4 R_5 g_m s + 2C_1 R_1 R_5 s + C_1 R_4 R_5 s + 2C_5 L_5 R_4 R_5 g_m s^2 + 2C_5 L_5 R_5 s^2 + 2L_5 R_4 g_m s + 2L_5 R_5 g_m s + 2L_5 s + 2R_4 g_m + 2R_5 g_m + 2R_5 s + 2}$$

$$10.361 \quad \text{INVALID-ORDER-361} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 R_1 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_5 L_5 R_1 R_4 g_m s^3 + 2C_1 C_5 L_5 R_1 R_5 g_m s^3 + 2C_1 C_5 L_5 R_1 s^3 + C_1 C_5 L_5 R_4 s^3 + 2C_1 C_5 L_5 R_5 s^3 + 2C_1 L_5 R_1 g_m s^2 + 2C_1 L_5 s^2 + 2C_1 R_1 R_4 g_m s + 2C_1 R_1 R_5 g_m s + 2C_1 R_1 s + C_1 R_4 s + 2C_1 R_5 s + 2C_5 L_5 R_4 g_m s^2 + 2C_5 L_5 R_5 g_m s^2 + 2C_5 L_5 s^2 + 2L_5 g_m s + 2R_4 g_m + 2R_5 g_m - 2}$$

$$10.362 \quad \text{INVALID-ORDER-362} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 R_1 s + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_5 L_5 R_1 R_4 g_m s^3 + 2C_1 C_5 L_5 R_1 R_5 g_m s^3 + 2C_1 C_5 L_5 R_1 s^3 + C_1 C_5 L_5 R_4 s^3 + 2C_1 C_5 L_5 R_5 s^3 + 2C_1 C_5 R_1 R_4 R_5 g_m s^2 + 2C_1 C_5 R_1 R_5 s^2 + C_1 C_5 R_4 R_5 s^2 + 2C_1 R_1 R_4 g_m s + 2C_1 R_1 R_5 g_m s + 2C_1 R_1 s + C_1 R_4 s + 2C_1 R_5 s + 2C_5 L_5 R_4 g_m s^2 + 2C_5 L_5 R_5 g_m s^2 + 2C_5 L_5 s^2 + 2L_5 g_m s + 2R_4 g_m + 2R_5 g_m + 2}$$

$$10.363 \quad \text{INVALID-ORDER-363} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 s - g_m) (C_1 R_1 s + 1)}{s (2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$10.364 \quad \text{INVALID-ORDER-364} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 R_1 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 R_1 R_5 s^3 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 R_1 R_5 g_m s^2 + C_1 C_5 R_5 s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_4 C_5 R_5 s^2 + 2C_4 R_5 g_m s + 2C_4 s + 2C_5 R_5 g_m s + 2g_m}$$

$$\mathbf{10.365 \quad INVALID-ORDER-365} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 R_1 R_5 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.366 \quad INVALID-ORDER-366} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.367 \quad INVALID-ORDER-367} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 R_1 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_5 R_1 s^4 + 2C_1 C_4 L_5 R_1 g_m s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_1 s^2 + 2C_1 C_5 L_5 R_1 g_m s^3 + C_1 C_5 L_5 s^3 + 2C_1 R_1 g_m s + C_1 s + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 s + 2C_5 L_5 g_m s^2 + 2g_m}$$

$$\mathbf{10.368 \quad INVALID-ORDER-368} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 R_5 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.369 \quad INVALID-ORDER-369} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 R_1 s + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_1 C_4 C_5 L_5 R_1 R_5 s^4 + 2C_1 C_4 L_5 R_1 R_5 g_m s^3 + 2C_1 C_4 L_5 R_1 s^3 + 2C_1 C_4 L_5 R_5 s^3 + 2C_1 C_4 R_1 R_5 s^2 + 2C_1 C_5 L_5 R_1 R_5 g_m s^3 + C_1 C_5 L_5 R_5 s^3 + 2C_1 L_5 R_1 g_m s^2 + C_1 L_5 s^2 + 2C_1 R_1 R_5 g_m s + C_1 R_5 s + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_5 R_5 g_m s^2 + 2C_4 L_5 s^2 + 2C_4 R_5 s + 2C_5 L_5 R_5 g_m s^2}$$

$$\mathbf{10.370 \quad INVALID-ORDER-370} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_5 R_1 g_m s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_5 R_1 g_m s^3 + C_1 C_5 L_5 s^3 + 2C_1 R_1 g_m s + C_1 s + 2C_4 C_5 L_5 R_5 g_m s^3 + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 R_5 g_m s + 2C_4 s}$$

$$\mathbf{10.371 \quad INVALID-ORDER-371} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 R_1 s + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 C_5 R_1 R_5 s^3 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_5 R_1 g_m s^3 + C_1 C_5 L_5 s^3 + 2C_1 C_5 R_1 R_5 g_m s^2 + C_1 C_5 R_5 s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_4 C_5 L_5 R_5 g_m s^3 + 2C_4 C_5 L_5 s^3 + 2C_4 C_5 R_5 g_m s^2 + 2C_4 C_5 s^2 + 2C_4 R_5 g_m s + 2C_4 s}$$

$$\mathbf{10.372 \quad INVALID-ORDER-372} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_5 s - g_m) (C_1 R_1 s + 1)}{2C_1 C_4 C_5 R_1 R_4 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 s^2 + C_1 C_5 R_4 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 R_4 g_m s + 2C_5 s + 2g_m}$$

$$\mathbf{10.373 \quad INVALID-ORDER-373} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 R_1 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 R_1 R_4 R_5 s^3 + 2C_1 C_4 R_1 R_4 R_5 g_m s^2 + 2C_1 C_4 R_1 R_4 s^2 + 2C_1 C_4 R_4 R_5 s^2 + 2C_1 C_5 R_1 R_4 R_5 g_m s^2 + 2C_1 C_5 R_1 R_5 s^2 + C_1 C_5 R_4 R_5 s^2 + 2C_1 R_1 R_4 g_m s + 2C_1 R_1 R_5 g_m s + 2C_1 R_1 s + C_1 R_4 s + 2C_1 R_5 s + 2C_4 C_5 R_4 R_5 s^2 + 2C_4 R_4 R_5 g_m s + 2C_4 R_4 s + 2C_5 R_4 R_5 g_m s + 2C_5 R_4 s + 2g_m}$$

$$\mathbf{10.374 \quad INVALID-ORDER-374} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 R_1 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 R_1 R_4 R_5 g_m s^3 + 2C_1 C_4 C_5 R_1 R_4 s^3 + 2C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 R_5 g_m s^2 + 2C_1 C_5 R_1 s^2 + C_1 C_5 R_4 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 R_4 R_5 g_m s^2 + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 R_4 g_m s}$$

$$\mathbf{10.375 \quad INVALID-ORDER-375} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 R_1 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 C_5 R_1 R_4 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 L_5 R_1 g_m s^3 + 2C_1 C_5 L_5 s^3 + 2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 s^2 + C_1 C_5 R_4 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 L_5 g_m s^2}$$

$$\mathbf{10.376 \quad INVALID-ORDER-376} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 R_1 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_5 R_1 R_4 s^4 + 2C_1 C_4 L_5 R_1 R_4 g_m s^3 + 2C_1 C_4 L_5 R_4 s^3 + 2C_1 C_4 R_1 R_4 s^2 + 2C_1 C_5 L_5 R_1 R_4 g_m s^3 + 2C_1 C_5 L_5 R_1 s^3 + C_1 C_5 L_5 R_4 s^3 + 2C_1 L_5 R_1 g_m s^2 + 2C_1 L_5 s^2 + 2C_1 R_1 R_4 g_m s + 2C_1 R_1 s + C_1 R_4 s + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 L_5 R_4 g_m s^2 + 2C_4 R_4 s + 2C_5 L_5 R_4 g_m s^2}$$

$$\mathbf{10.377 \quad INVALID-ORDER-377} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 R_1 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 C_5 R_1 R_4 R_5 g_m s^3 + 2C_1 C_4 C_5 R_1 R_4 s^3 + 2C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 L_5 R_1 g_m s^3 + 2C_1 C_5 L_5 s^3 + 2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 R_5 g_m s^2 + 2C_1 C_5 R_1 s^2 + C_1 C_5 R_4 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 L_5 R_4 g_m s^2}$$

$$\mathbf{10.378 \quad INVALID-ORDER-378} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 R_1 s + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_1 C_4 C_5 L_5 R_1 R_4 R_5 s^4 + 2C_1 C_4 L_5 R_1 R_4 R_5 g_m s^3 + 2C_1 C_4 L_5 R_1 R_4 s^3 + 2C_1 C_4 L_5 R_4 R_5 s^3 + 2C_1 C_4 R_1 R_4 R_5 s^2 + 2C_1 C_5 L_5 R_1 R_4 R_5 g_m s^3 + 2C_1 C_5 L_5 R_1 R_5 s^3 + C_1 C_5 L_5 R_4 R_5 s^3 + 2C_1 L_5 R_1 R_4 g_m s^2 + 2C_1 L_5 R_1 R_5 g_m s^2 + 2C_1 L_5 R_1 s^2 + C_1 L_5 R_4 s^2 + 2C_1 L_5 R_5 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 L_5 R_4 g_m s^2}$$

$$\mathbf{10.379 \quad INVALID-ORDER-379} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 R_1 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_5 R_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_4 R_5 s^4 + 2C_1 C_4 L_5 R_1 R_4 g_m s^3 + 2C_1 C_4 L_5 R_4 s^3 + 2C_1 C_4 R_1 R_4 R_5 g_m s^2 + 2C_1 C_4 R_1 R_4 s^2 + 2C_1 C_4 R_4 R_5 s^2 + 2C_1 C_5 L_5 R_1 R_4 g_m s^3 + 2C_1 C_5 L_5 R_1 R_5 g_m s^3 + 2C_1 C_5 L_5 R_1 s^3 + C_1 C_5 L_5 R_4 s^3 + 2C_1 C_5 L_5 R_5 s^3 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 L_5 R_4 g_m s^2}$$

$$\mathbf{10.380 \quad INVALID-ORDER-380} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 R_1 s + 1) (-C_5 s + g_m)}{2C_1 C_4 C_5 L_5 R_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_4 R_5 s^4 + 2C_1 C_4 C_5 R_1 R_4 R_5 s^3 + 2C_1 C_4 R_1 R_4 R_5 g_m s^2 + 2C_1 C_4 R_1 R_4 s^2 + 2C_1 C_4 R_4 R_5 s^2 + 2C_1 C_5 L_5 R_1 R_4 g_m s^3 + 2C_1 C_5 L_5 R_1 R_5 g_m s^3 + 2C_1 C_5 L_5 R_1 s^3 + C_1 C_5 L_5 R_4 s^3 + 2C_1 C_5 L_5 R_5 s^3 + 2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 R_5 g_m s^2 + 2C_1 C_5 R_1 s^2 + C_1 C_5 R_4 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 L_5 R_4 g_m s^2}$$

$$\mathbf{10.381 \quad INVALID-ORDER-381} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 s - g_m) (C_1 R_1 s + 1) (C_4 R_4 s + 1)}{s (2C_1 C_4 C_5 R_1 R_4 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.382 \quad INVALID-ORDER-382} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 R_1 s + 1) (C_4 R_4 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 R_1 R_4 R_5 g_m s^3 + 2C_1 C_4 C_5 R_1 R_5 s^3 + C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 R_1 R_5 g_m s^2 + C_1 C_5 R_5 s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_4 C_5 R_4 R_5 g_m s^2 + 2C_4 C_5 R_5 s^2 + 2C_4 R_4 g_m s + 2C_4 R_5 g_m s}$$

$$\mathbf{10.383 \quad INVALID-ORDER-383} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_4 R_4 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 R_1 R_4 g_m s^2 + 2C_1 C_4 C_5 R_1 R_5 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.384 \quad INVALID-ORDER-384} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_4 R_4 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 R_4 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.385 \quad INVALID-ORDER-385} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 R_1 s + 1) (C_4 R_4 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 L_5 R_1 g_m s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_5 L_5 R_1 g_m s^3 + C_1 C_5 L_5 s^3 + 2C_1 R_1 g_m s + C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 s}$$

$$\mathbf{10.386 \quad INVALID-ORDER-386} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_4 R_4 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 R_4 g_m s^2 + 2C_1 C_4 C_5 R_1 R_5 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.387 \quad INVALID-ORDER-387} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 R_1 s + 1) (C_4 R_4 s + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_1 C_4 C_5 L_5 R_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 R_5 s^4 + C_1 C_4 C_5 L_5 R_4 R_5 s^4 + 2C_1 C_4 L_5 R_1 R_4 g_m s^3 + 2C_1 C_4 L_5 R_1 R_5 g_m s^3 + 2C_1 C_4 L_5 R_1 s^3 + C_1 C_4 L_5 R_4 s^3 + 2C_1 C_4 L_5 R_5 s^3 + 2C_1 C_4 R_1 R_4 R_5 g_m s^2 + 2C_1 C_4 R_1 R_5 s^2 + C_1 C_4 R_4 R_5 s^2 + 2C_1 C_5 L_5 R_1 R_5 g_m s^3 + C_1 C_5 L_5 R_5 s^3 + 2C_1 R_1 g_m s + C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 s}$$

$$\mathbf{10.388 \quad INVALID-ORDER-388} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_4 R_4 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_5 R_1 g_m s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_5 R_1 g_m s^3 + C_1 C_5 L_5 s^3 + 2C_1 R_1 g_m s + C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 s}$$

$$\mathbf{10.389 \quad INVALID-ORDER-389} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 R_1 s + 1) (C_4 R_4 s + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 C_5 R_1 R_4 R_5 g_m s^3 + 2C_1 C_4 C_5 R_1 R_5 s^3 + C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_5 R_1 g_m s^3 + C_1 C_5 L_5 s^3 + 2C_1 R_1 g_m s + C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 s}$$

$$\mathbf{10.390 \quad INVALID-ORDER-390} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{(R_5 g_m - 1) (C_1 R_1 s + 1) (C_4 L_4 s^2 + 1)}{2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_4 L_4 g_m s^2 + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

$$\mathbf{10.391 \quad INVALID-ORDER-391} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 s - g_m) (C_1 R_1 s + 1) (C_4 L_4 s^2 + 1)}{s (2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.392 \quad INVALID-ORDER-392} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 R_1 s + 1) (C_4 L_4 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_4 R_1 R_5 g_m s^4 + C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 C_5 R_1 R_5 s^3 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 R_1 R_5 g_m s^2 + C_1 C_5 R_5 s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_4 C_5 L_4 R_5 g_m s^3 + 2C_4 C_5 R_5 s^2 + 2C_4 L_4 g_m s^2 + 2C_4 R_5 g_m s -$$

$$\mathbf{10.393 \quad INVALID-ORDER-393} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_4 L_4 s^2 + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 R_1 R_5 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.394 \quad INVALID-ORDER-394} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.395 \quad INVALID-ORDER-395} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 R_1 s + 1) (C_4 L_4 s^2 + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_4 L_5 R_1 g_m s^5 + C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 L_5 R_1 g_m s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_1 s^2 + 2C_1 C_5 L_5 R_1 g_m s^3 + C_1 C_5 L_5 s^3 + 2C_1 R_1 g_m s + C_1 s + 2C_4 C_5 L_4 L_5 g_m s^4 + 2C_4 C_5 L_5 s^3 + 2C_4 L_4 g_m s^2 + 2C_4 L_5 g_m s^2 +$$

$$\mathbf{10.396 \quad INVALID-ORDER-396} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 R_5 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.397 \quad INVALID-ORDER-397} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 R_1 s + 1) (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_1 C_4 C_5 L_4 L_5 R_1 R_5 g_m s^5 + C_1 C_4 C_5 L_4 L_5 R_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_5 s^4 + 2C_1 C_4 L_4 L_5 R_1 g_m s^4 + C_1 C_4 L_4 L_5 s^4 + 2C_1 C_4 L_4 R_1 R_5 g_m s^3 + C_1 C_4 L_4 R_5 s^3 + 2C_1 C_4 L_5 R_1 R_5 g_m s^3 + 2C_1 C_4 L_5 R_1 s^3 + 2C_1 C_4 L_5 R_5 s^3 + 2C_1 C_4 R_1 R_5 s^2 + 2C_1 C_5 L_5 R_1 R_5 g_m s^3 + C_1 C_5 L_5 R_5 s^3 +$$

$$\mathbf{10.398 \quad INVALID-ORDER-398} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_4 L_5 R_1 g_m s^5 + C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 L_5 R_1 g_m s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_5 R_1 g_m s^3 + C_1 C_5 L_5 s^3 + 2C_1 C_5 R_5 s^3 +$$

$$\mathbf{10.399 \quad INVALID-ORDER-399} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 R_1 s + 1) (C_4 L_4 s^2 + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_4 L_5 R_1 g_m s^5 + C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_4 R_1 R_5 g_m s^4 + C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 C_5 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 C_5 R_1 R_5 s^3 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_5 R_1 g_m s^3 + C_1 C_5 L_5 s^3 + 2C_1 C_5 R_5 s^3 +$$

$$\mathbf{10.400 \quad INVALID-ORDER-400} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (R_5 g_m - 1) (C_1 R_1 s + 1)}{2C_1 C_4 L_4 R_1 R_5 g_m s^3 + 2C_1 C_4 L_4 R_1 s^3 + 2C_1 C_4 L_4 R_5 s^3 + 2C_1 L_4 R_1 g_m s^2 + C_1 L_4 s^2 + 2C_1 R_1 R_5 g_m s + 2C_1 R_1 s + 2C_1 R_5 s + 2C_4 L_4 R_5 g_m s^2 + 2C_4 L_4 s^2 + 2L_4 g_m s + 2R_5 g_m + 2}$$

$$\mathbf{10.401 \quad INVALID-ORDER-401} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_5 s - g_m) (C_1 R_1 s + 1)}{2C_1 C_4 C_5 L_4 R_1 s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + 2C_1 C_4 L_4 s^3 + 2C_1 C_5 L_4 R_1 g_m s^3 + C_1 C_5 L_4 s^3 + 2C_1 C_5 R_1 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 L_4 s^3 + 2C_4 L_4 g_m s^2 + 2C_5 L_4 g_m s^2 + 2C_5 s + 2g_m}$$

$$\mathbf{10.402 \quad INVALID-ORDER-402} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_1 R_1 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_4 R_1 R_5 s^4 + 2C_1 C_4 L_4 R_1 R_5 g_m s^3 + 2C_1 C_4 L_4 R_1 s^3 + 2C_1 C_4 L_4 R_5 s^3 + 2C_1 C_5 L_4 R_1 R_5 g_m s^3 + C_1 C_5 L_4 R_5 s^3 + 2C_1 C_5 R_1 R_5 s^2 + 2C_1 L_4 R_1 g_m s^2 + C_1 L_4 s^2 + 2C_1 R_1 R_5 g_m s + 2C_1 R_1 s + 2C_1 R_5 s + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 L_4 R_5 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 R_5 g_m s^2 + 2C_5 R_5 s + 2g_m}$$

$$\mathbf{10.403 \quad INVALID-ORDER-403} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_1 R_1 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_4 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_4 R_1 s^4 + 2C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + 2C_1 C_4 L_4 s^3 + 2C_1 C_5 L_4 R_1 g_m s^3 + C_1 C_5 L_4 s^3 + 2C_1 C_5 R_1 R_5 g_m s^2 + 2C_1 C_5 R_1 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 L_4 R_5 g_m s^3 + 2C_4 C_5 L_4 s^3 + 2C_4 L_4 g_m s^2 + 2C_5 L_4 g_m s^2 + 2C_5 R_5 s + 2g_m}$$

$$\mathbf{10.404 \quad INVALID-ORDER-404} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_1 R_1 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_4 L_5 R_1 g_m s^5 + 2C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_4 R_1 s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + 2C_1 C_4 L_4 s^3 + 2C_1 C_5 L_4 R_1 g_m s^3 + C_1 C_5 L_4 s^3 + 2C_1 C_5 L_5 R_1 g_m s^3 + 2C_1 C_5 L_5 s^3 + 2C_1 C_5 R_1 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 L_4 L_5 g_m s^4 + 2C_4 C_5 L_4 s^3 + 2C_4 L_4 g_m s^2 + 2C_5 L_4 g_m s^2 + 2C_5 R_5 s + 2g_m}$$

$$\mathbf{10.405 \quad INVALID-ORDER-405} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_1 R_1 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_4 L_5 R_1 s^5 + 2C_1 C_4 L_4 L_5 R_1 g_m s^4 + 2C_1 C_4 L_4 L_5 s^4 + 2C_1 C_4 L_4 R_1 s^3 + 2C_1 C_5 L_4 L_5 R_1 g_m s^4 + C_1 C_5 L_4 L_5 s^4 + 2C_1 C_5 L_5 R_1 s^3 + 2C_1 L_4 R_1 g_m s^2 + C_1 L_4 s^2 + 2C_1 L_5 R_1 g_m s^2 + 2C_1 L_5 s^2 + 2C_1 R_1 s + 2C_4 C_5 L_4 L_5 s^4 + 2C_4 L_4 L_5 g_m s^3 + 2C_4 L_4 s^2 + 2C_5 L_4 L_5 g_m s^2 + 2C_5 R_5 s + 2g_m}$$

$$\mathbf{10.406 \quad INVALID-ORDER-406} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_1 R_1 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_4 L_5 R_1 g_m s^5 + 2C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_4 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_4 R_1 s^4 + 2C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + 2C_1 C_4 L_4 s^3 + 2C_1 C_5 L_4 R_1 g_m s^3 + C_1 C_5 L_4 s^3 + 2C_1 C_5 L_5 R_1 g_m s^3 + 2C_1 C_5 L_5 s^3 + 2C_1 C_5 R_1 R_5 g_m s^2 + 2C_1 C_5 R_1 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 L_4 L_5 g_m s^4 + 2C_4 C_5 L_4 s^3 + 2C_4 L_4 g_m s^2 + 2C_5 L_4 g_m s^2 + 2C_5 R_5 s + 2g_m}$$

$$\mathbf{10.407 \quad INVALID-ORDER-407} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_1 R_1 s + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_1 C_4 C_5 L_4 L_5 R_1 R_5 s^5 + 2C_1 C_4 L_4 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 L_4 L_5 R_1 s^4 + 2C_1 C_4 L_4 L_5 R_5 s^4 + 2C_1 C_4 L_4 R_1 R_5 s^3 + 2C_1 C_5 L_4 L_5 R_1 R_5 g_m s^4 + C_1 C_5 L_4 L_5 R_5 s^4 + 2C_1 C_5 L_5 R_1 R_5 s^3 + 2C_1 L_4 L_5 R_1 g_m s^3 + C_1 L_4 L_5 s^3 + 2C_1 L_4 R_1 R_5 g_m s^2 + C_1 L_4 R_5 s^2 + 2C_1 L_5 R_1 R_5 g_m s^2 + 2C_1 L_5 R_5 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 L_4 L_5 g_m s^4 + 2C_4 C_5 L_4 s^3 + 2C_4 L_4 g_m s^2 + 2C_5 L_4 g_m s^2 + 2C_5 R_5 s + 2g_m}$$

$$\mathbf{10.408 \quad INVALID-ORDER-408} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_1 R_1 s + 1) (C_5 L_5 R_5 g_m s^2 - L_5 R_5 s + R_5)}{2C_1 C_4 C_5 L_4 L_5 R_1 R_5 g_m s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_5 s^5 + 2C_1 C_4 L_4 L_5 R_1 g_m s^4 + 2C_1 C_4 L_4 L_5 s^4 + 2C_1 C_4 L_4 R_1 R_5 g_m s^3 + 2C_1 C_4 L_4 R_1 s^3 + 2C_1 C_4 L_4 R_5 s^3 + 2C_1 C_5 L_4 L_5 R_1 g_m s^4 + C_1 C_5 L_4 L_5 s^4 + 2C_1 C_5 L_5 R_1 R_5 g_m s^3 + 2C_1 C_5 L_5 R_1 s^3 + 2C_1 C_5 L_5 R_5 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 L_4 L_5 g_m s^4 + 2C_4 C_5 L_4 s^3 + 2C_4 L_4 g_m s^2 + 2C_5 L_4 g_m s^2 + 2C_5 R_5 s + 2g_m}$$

$$\mathbf{10.409 \quad INVALID-ORDER-409} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_1 R_1 s + 1) (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - R_5)}{2C_1 C_4 C_5 L_4 L_5 R_1 R_5 g_m s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_5 s^5 + 2C_1 C_4 C_5 L_4 R_1 R_5 s^4 + 2C_1 C_4 L_4 R_1 R_5 g_m s^3 + 2C_1 C_4 L_4 R_1 s^3 + 2C_1 C_4 L_4 R_5 s^3 + 2C_1 C_5 L_4 L_5 R_1 g_m s^4 + C_1 C_5 L_4 L_5 s^4 + 2C_1 C_5 L_4 R_1 R_5 g_m s^3 + C_1 C_5 L_4 R_5 s^3 + 2C_1 C_5 L_5 R_1 R_5 g_m s^3 + 2C_1 C_5 L_5 R_5 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 L_4 L_5 g_m s^4 + 2C_4 C_5 L_4 s^3 + 2C_4 L_4 g_m s^2 + 2C_5 L_4 g_m s^2 + 2C_5 R_5 s + 2g_m}$$

$$\mathbf{10.410 \quad INVALID-ORDER-410} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{(R_5 g_m - 1)(C_1 R_1 s + 1)(C_4 L_4 s^2 + C_4 R_4 s + 1)}{2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_4 L_4 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

$$\mathbf{10.411 \quad INVALID-ORDER-411} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 s - g_m)(C_1 R_1 s + 1)(C_4 L_4 s^2 + C_4 R_4 s + 1)}{s(2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 R_1 R_4 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.412 \quad INVALID-ORDER-412} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 R_1 s + 1)(C_4 L_4 s^2 + C_4 R_4 s + 1)(C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_4 R_1 R_5 g_m s^4 + C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 C_5 R_1 R_4 R_5 g_m s^3 + 2C_1 C_4 C_5 R_1 R_5 s^3 + C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 R_1 R_5 g_m s^2 + C_1 C_5 R_5 s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_4 L_4 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

$$\mathbf{10.413 \quad INVALID-ORDER-413} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1)(C_4 L_4 s^2 + C_4 R_4 s + 1)(C_5 R_5 g_m s - C_5 s + g_m)}{s(2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 R_1 R_4 g_m s^2 + 2C_1 C_4 C_5 R_1 R_5 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.414 \quad INVALID-ORDER-414} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1)(C_4 L_4 s^2 + C_4 R_4 s + 1)(C_5 L_5 g_m s^2 - C_5 s + g_m)}{s(2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 R_4 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.415 \quad INVALID-ORDER-415} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 R_1 s + 1)(C_4 L_4 s^2 + C_4 R_4 s + 1)(C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_4 L_5 R_1 g_m s^5 + C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 L_5 R_1 g_m s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_5 L_5 R_1 g_m s^3 + C_1 C_5 L_5 s^3 + 2C_1 R_1 g_m s + C_1 s + 2C_4 L_4 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 L_5 g_m s^2 + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

$$\mathbf{10.416 \quad INVALID-ORDER-416} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1)(C_4 L_4 s^2 + C_4 R_4 s + 1)(C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s(2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 R_4 g_m s^2 + 2C_1 C_4 C_5 R_1 R_5 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.417 \quad INVALID-ORDER-417} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 R_1 s + 1)(C_4 L_4 s^2 + C_4 R_4 s + 1)(C_5 L_5 R_5 s^2 + L_5 s + R_5)}{2C_1 C_4 C_5 L_4 L_5 R_1 R_5 g_m s^5 + C_1 C_4 C_5 L_4 L_5 R_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 R_5 s^4 + C_1 C_4 C_5 L_5 R_4 R_5 s^4 + 2C_1 C_4 L_4 L_5 R_1 g_m s^4 + C_1 C_4 L_4 L_5 s^4 + 2C_1 C_4 L_4 R_1 R_5 g_m s^3 + C_1 C_4 L_4 R_5 s^3 + 2C_1 C_4 L_5 R_1 R_4 g_m s^3 + 2C_1 C_4 L_5 R_1 R_5 g_m s^3 + 2C_1 C_4 L_5 R_1 s^3 + C_1 C_4 L_5 R_4 g_m s^2 + 2C_1 C_4 L_5 R_4 s^2 + 2C_1 C_4 L_5 R_5 s^2 + 2C_1 C_4 R_1 R_4 g_m s + 2C_1 C_4 R_1 R_5 g_m s + 2C_1 C_4 R_1 s + C_1 C_4 R_4 g_m s + C_1 C_4 R_4 s + C_1 C_4 R_5 s + C_1 C_4 s + 2C_4 L_4 g_m s^2 + 2C_4 L_4 R_4 g_m s + 2C_4 L_4 R_5 g_m s + 2C_4 L_4 s + 2C_4 L_5 g_m s^2 + 2C_4 L_5 R_4 g_m s + 2C_4 L_5 R_5 g_m s + 2C_4 L_5 s + 2C_4 R_4 g_m s + 2C_4 R_4 s + 2C_4 R_5 g_m s + 2C_4 R_5 s + 2C_4 s + 2g_m}$$

$$\mathbf{10.418 \quad INVALID-ORDER-418} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_1 R_1 s + 1)(C_4 L_4 s^2 + C_4 R_4 s + 1)(C_5 L_5 R_5 g_m s^2 + L_5 s + R_5)}{2C_1 C_4 C_5 L_4 L_5 R_1 g_m s^5 + C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 L_5 R_1 g_m s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + C_1 C_4 R_4 g_m s + C_1 C_4 R_4 s + C_1 C_4 R_5 g_m s + C_1 C_4 R_5 s + C_1 C_4 s + 2C_4 L_4 g_m s^2 + 2C_4 L_4 R_4 g_m s + 2C_4 L_4 R_5 g_m s + 2C_4 L_4 s + 2C_4 L_5 g_m s^2 + 2C_4 L_5 R_4 g_m s + 2C_4 L_5 R_5 g_m s + 2C_4 L_5 s + 2C_4 R_4 g_m s + 2C_4 R_4 s + 2C_4 R_5 g_m s + 2C_4 R_5 s + 2C_4 s + 2g_m}$$

10.437 **INVALID-ORDER-437** $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = -\frac{2C_1 C_4 C_5 L_4 L_5 R_1 R_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 R_5 s^5 + C_1 C_4 C_5 L_4 L_5 R_4 R_5 s^5 + 2C_1 C_4 L_4 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 L_4 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 L_4 L_5 R_1 s^4 + C_1 C_4 L_4 L_5 R_4 s^4 + 2C_1 C_4 L_4 L_5 R_5 s^4 + 2C_1 C_4 L_4 R_1 R_4 R_5 g_m s^3 + 2C_1 C_4 L_4 R_1 R_5 s^3 + C_1 C_4 L_4 R_4 R_5 s^3 + 2C_1 C_5}{}$$

10.438 INVALID-ORDER-438 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \overline{2C_1 C_4 C_5 L_4 L_5 R_1 R_4 g_m s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 R_5 g_m s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 s^5 + C_1 C_4 C_5 L_4 L_5 R_4 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_5 s^5 + 2C_1 C_4 L_4 L_5 R_1 g_m s^4 + 2C_1 C_4 L_4 L_5 s^4 + 2C_1 C_4 L_4 R_1 R_4 g_m s^3 + 2C_1 C_4 L_4 R_1 R_5 g_m s^3 + 2C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 + 2C_1 C_4 L_4 R_5 s^3 + 2C_1}$$

10.439 INVALID-ORDER-439 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_4L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_4L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_4L_5R_1s^5 + C_1C_4C_5L_4L_5R_4s^5 + 2C_1C_4C_5L_4L_5R_5s^5 + 2C_1C_4C_5L_4R_1R_4R_5g_ms^4 + 2C_1C_4C_5L_4R_1R_5s^4 + C_1C_4C_5L_4R_4R_5s^4 + 2C_1C_4L_4R_1R_4g_ms^3 + 2C_1C_4L_4R_1R_5g_ms^3 + 2C_1C_4L_4R_1s^3 + C_1}{2C_1C_4C_5L_4L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_4L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_4L_5R_1s^5 + C_1C_4C_5L_4L_5R_4s^5 + 2C_1C_4C_5L_4L_5R_5s^5 + 2C_1C_4C_5L_4R_1R_4R_5g_ms^4 + 2C_1C_4C_5L_4R_1R_5s^4 + C_1C_4C_5L_4R_4R_5s^4 + 2C_1C_4L_4R_1R_4g_ms^3 + 2C_1C_4L_4R_1R_5g_ms^3 + 2C_1C_4L_4R_1s^3 + C_1}$$

10.440 INVALID-ORDER-440 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, R_5, \infty \right)$

$$H(s) = \frac{R_4(R_5 g_m - 1)(C_1 R_1 s + 1)(C_4 L_4 s^2 + 1)}{2C_1 C_4 L_4 R_1 R_4 g_m s^3 + 2C_1 C_4 L_4 R_1 R_5 g_m s^3 + 2C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 + 2C_1 C_4 L_4 R_5 s^3 + 2C_1 C_4 R_1 R_4 R_5 g_m s^2 + 2C_1 C_4 R_1 R_4 s^2 + 2C_1 C_4 R_4 R_5 s^2 + 2C_1 R_1 R_4 g_m s + 2C_1 R_1 R_5 g_m s + 2C_1 R_1 s + C_1 R_4 s + 2C_1 R_5 s + 2C_4 L_4 R_4 g_m s^2 + 2C_4 L_4 R_5 g_m s^2 + 2C_4 L_4 s^2 +}$$

10.441 INVALID-ORDER-441 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{R_4(C_5 s - g_m)(C_1 R_1 s + 1)(C_4 L_4 s^2 + 1)}{2C_1 C_4 C_5 L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_4 R_1 s^4 + C_1 C_4 C_5 L_4 R_4 s^4 + 2C_1 C_4 C_5 R_1 R_4 s^3 + 2C_1 C_4 L_4 R_1 g_m s^3 + 2C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 s^2 + C_1 C_5 R_4 s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 L_4 R_4 g_m s^3 + 2C_4 C_5 L_4 s^3 + 2C_4}$$

10.442 INVALID-ORDER-442 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{R_4(C_1 R_1 s + 2C_1 C_4 C_5 L_4 R_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_4 R_1 R_5 s^4 + C_1 C_4 C_5 L_4 R_4 R_5 s^4 + 2C_1 C_4 C_5 R_1 R_4 R_5 s^3 + 2C_1 C_4 L_4 R_1 R_4 g_m s^3 + 2C_1 C_4 L_4 R_1 R_5 g_m s^3 + 2C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 + 2C_1 C_4 L_4 R_5 s^3 + 2C_1 C_4 R_1 R_4 R_5 g_m s^2 + 2C_1 C_4 R_1 R_4 s^2 + 2C_1 C_4 R_4 R_5 s^2 + 2C_1 C_5 R_1 R_4$$

10.443 INVALID-ORDER-443 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4 (C_1 R_1 s + 1) (C_4 L_4 s^2 + 1) (C_5 R_5 g}{2C_1 C_4 C_5 L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_4 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_4 R_1 s^4 + C_1 C_4 C_5 L_4 R_4 s^4 + 2C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 C_5 R_1 R_4 R_5 g_m s^3 + 2C_1 C_4 C_5 R_1 R_4 s^3 + 2C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 L_4 R_1 g_m s^3 + 2C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 R_1 R_4 g_m s^2 +$$

10.444 INVALID-ORDER-444 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4 (C_1 R_1 s + 1) (C_4 L_4 s^2 + 1) (C_5 L_5 g_m}{2C_1 C_4 C_5 L_4 L_5 R_1 g_m s^5 + 2C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_4 R_1 s^4 + C_1 C_4 C_5 L_4 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 C_5 R_1 R_4 s^3 + 2C_1 C_4 L_4 R_1 g_m s^3 + 2C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 L_5 R_1 g_m s^3 +$$

10.445 INVALID-ORDER-445 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = -\frac{R_4(C_1 R_1 s + 2C_1 C_4 C_5 L_4 L_5 R_1 R_4 g_m s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 s^5 + C_1 C_4 C_5 L_4 L_5 R_4 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_4 s^4 + 2C_1 C_4 L_4 L_5 R_1 g_m s^4 + 2C_1 C_4 L_4 L_5 s^4 + 2C_1 C_4 L_4 R_1 R_4 g_m s^3 + 2C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 + 2C_1 C_4 L_5 R_1 R_4 g_m s^3 + 2C_1 C_4 L_5 R_4 s^3 + 2C_1 C_4 R_1 R_4 s^2 + 2C_1 C_5 L_5 R_1 R_4 s)}{2C_1 C_4 C_5 L_4 L_5 R_1 R_4 g_m s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 s^5 + C_1 C_4 C_5 L_4 L_5 R_4 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_4 s^4 + 2C_1 C_4 L_4 L_5 R_1 g_m s^4 + 2C_1 C_4 L_4 L_5 s^4 + 2C_1 C_4 L_4 R_1 R_4 g_m s^3 + 2C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_4 s^3 + 2C_1 C_4 L_5 R_1 R_4 g_m s^3 + 2C_1 C_4 L_5 R_4 s^3 + 2C_1 C_4 R_1 R_4 s^2 + 2C_1 C_5 L_5 R_1 R_4 s}$$

10.446 INVALID-ORDER-446 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{2C_1C_4C_5L_4L_5R_1g_ms^5 + 2C_1C_4C_5L_4L_5s^5 + 2C_1C_4C_5L_4R_1R_4g_ms^4 + 2C_1C_4C_5L_4R_1R_5g_ms^4 + 2C_1C_4C_5L_4R_1s^4 + C_1C_4C_5L_4R_4s^4 + 2C_1C_4C_5L_4R_5s^4 + 2C_1C_4C_5L_5R_1R_4g_ms^4 + 2C_1C_4C_5L_5R_4s^4 + 2C_1C_4C_5R_1R_4R_5g_ms^3 + 2C_1C_4C_5R_1R_4s^3 + 2C_1C_4C_5R_4R_5s^3}{2C_1C_4C_5L_4L_5R_1g_ms^5 + 2C_1C_4C_5L_4L_5s^5 + 2C_1C_4C_5L_4R_1R_4g_ms^4 + 2C_1C_4C_5L_4R_1R_5g_ms^4 + 2C_1C_4C_5L_4R_1s^4 + C_1C_4C_5L_4R_4s^4 + 2C_1C_4C_5L_4R_5s^4 + 2C_1C_4C_5L_5R_1R_4g_ms^4 + 2C_1C_4C_5L_5R_4s^4 + 2C_1C_4C_5R_1R_4R_5g_ms^3 + 2C_1C_4C_5R_1R_4s^3 + 2C_1C_4C_5R_4R_5s^3}$$

10.447 INVALID-ORDER-447 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

10.448 INVALID-ORDER-448 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

10.449 INVALID-ORDER-449 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{R_5(C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_4L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_4L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_4L_5R_1s^5 + C_1C_4C_5L_4L_5R_4s^5 + 2C_1C_4C_5L_4L_5R_5s^5 + 2C_1C_4C_5L_4R_1R_4R_5g_ms^4 + 2C_1C_4C_5L_4R_1R_5s^4 + C_1C_4C_5L_4R_4R_5s^4 + 2C_1C_4C_5L_5R_1R_4R_5g_ms^4 + 2C_1C_4C_5L_5R_1R_4s^4 + 2C_1C_4C_5L_5R_4s^4 + 2C_1C_4C_5L_5R_5s^4 + 2C_1C_4C_5L_5R_5s^4 + 2C_1C_4C_5L_5s^4 + 2C_1C_4C_5s^4}{2C_1C_4C_5L_4L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_4L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_4L_5R_1s^5 + C_1C_4C_5L_4L_5R_4s^5 + 2C_1C_4C_5L_4L_5R_5s^5 + 2C_1C_4C_5L_4R_1R_4R_5g_ms^4 + 2C_1C_4C_5L_4R_1R_5s^4 + C_1C_4C_5L_4R_4R_5s^4 + 2C_1C_4C_5L_5R_1R_4R_5g_ms^4 + 2C_1C_4C_5L_5R_1R_4s^4 + 2C_1C_4C_5L_5R_4s^4 + 2C_1C_4C_5L_5R_5s^4 + 2C_1C_4C_5L_5s^4 + 2C_1C_4C_5s^4}.$$

10.450 INVALID-ORDER-450 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{R_4(C_5s - g_m)(C_1L_1s^2 + 1)}{2C_1C_5L_1R_4g_ms^3 + 2C_1C_5L_1s^3 + C_1C_5R_4s^2 + 2C_1L_1g_ms^2 + 2C_1s + 2C_5R_4g_ms + 2C_5s + 2g_m}$$

10.451 INVALID-ORDER-451 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{R_4 (C_1 L_1 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_5 L_1 R_4 R_5 g_m s^3 + 2C_1 C_5 L_1 R_5 s^3 + C_1 C_5 R_4 R_5 s^2 + 2C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_5 g_m s^2 + 2C_1 L_1 s^2 + C_1 R_4 s + 2C_1 R_5 s + 2C_5 R_4 R_5 g_m s + 2C_5 R_5 s + 2R_4 g_m + 2R_5 g_m + 2}$$

10.452 INVALID-ORDER-452 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4 (C_1 L_1 s^2 + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_5 L_1 R_4 g_m s^3 + 2C_1 C_5 L_1 R_5 g_m s^3 + 2C_1 C_5 L_1 s^3 + C_1 C_5 R_4 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 s + 2C_5 R_4 g_m s + 2C_5 R_5 g_m s + 2C_5 s + 2g_m}$$

10.453 INVALID-ORDER-453 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4 (C_1 L_1 s^2 + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 R_4 g_m s^3 + 2C_1 C_5 L_1 s^3 + 2C_1 C_5 L_5 s^3 + C_1 C_5 R_4 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 s + 2C_5 L_5 g_m s^2 + 2C_5 R_4 g_m s + 2C_5 s + 2g_m}$$

10.454 INVALID-ORDER-454 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = -\frac{R_4 \left(C_1 L_1 s^2 + 1 \right) \left(C_5 L_5 s^2 - L_5 g_m s + 1 \right)}{2 C_1 C_5 L_1 L_5 R_4 g_m s^4 + 2 C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_5 R_4 s^3 + 2 C_1 L_1 L_5 g_m s^3 + 2 C_1 L_1 R_4 g_m s^2 + 2 C_1 L_1 s^2 + 2 C_1 L_5 s^2 + C_1 R_4 s + 2 C_5 L_5 R_4 g_m s^2 + 2 C_5 L_5 s^2 + 2 L_5 g_m s + 2 R_4 g_m + 2}$$

$$\mathbf{10.455 \quad INVALID-ORDER-455} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 L_1 s^2 + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 R_4 g_m s^3 + 2C_1 C_5 L_1 R_5 g_m s^3 + 2C_1 C_5 L_1 s^3 + 2C_1 C_5 L_5 s^3 + C_1 C_5 R_4 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 s + 2C_5 L_5 g_m s^2 + 2C_5 R_4 g_m s + 2C_5 R_5 g_m s + 2C_5 s + 2g_m}$$

$$\mathbf{10.456 \quad INVALID-ORDER-456} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 L_1 s^2 + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_1 C_5 L_1 L_5 R_4 R_5 g_m s^4 + 2C_1 C_5 L_1 L_5 R_5 s^4 + C_1 C_5 L_5 R_4 R_5 s^3 + 2C_1 L_1 L_5 R_4 g_m s^3 + 2C_1 L_1 L_5 R_5 g_m s^3 + 2C_1 L_1 L_5 s^3 + 2C_1 L_1 R_4 R_5 g_m s^2 + 2C_1 L_1 R_5 s^2 + C_1 L_5 R_4 s^2 + 2C_1 L_5 R_5 s^2 + C_1 R_4 R_5 s + 2C_5 L_5 R_4 R_5 g_m s^2 + 2C_5 L_5 R_5 s^2 + 2L_5 R_4 g_m s + 2L_5 R_5 g_m s + 2L_5 s + 2g_m}$$

$$\mathbf{10.457 \quad INVALID-ORDER-457} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 L_1 s^2 + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_5 L_1 L_5 R_4 g_m s^4 + 2C_1 C_5 L_1 L_5 R_5 g_m s^4 + 2C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_5 R_4 s^3 + 2C_1 C_5 L_5 R_5 s^3 + 2C_1 L_1 L_5 g_m s^3 + 2C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_5 g_m s^2 + 2C_1 L_1 s^2 + 2C_1 L_5 s^2 + C_1 R_4 s + 2C_1 R_5 s + 2C_5 L_5 R_4 g_m s^2 + 2C_5 L_5 R_5 g_m s^2 + 2C_5 L_5 s^2 + 2L_5 g_m s + 2R_4 g_m + 2R_5 g_m + 2g_m}$$

$$\mathbf{10.458 \quad INVALID-ORDER-458} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 L_1 s^2 + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_5 L_1 L_5 R_4 g_m s^4 + 2C_1 C_5 L_1 L_5 R_5 g_m s^4 + 2C_1 C_5 L_1 L_5 s^4 + 2C_1 C_5 L_1 R_4 R_5 g_m s^3 + 2C_1 C_5 L_1 R_5 s^3 + C_1 C_5 L_5 R_4 s^3 + 2C_1 C_5 L_5 R_5 s^3 + C_1 C_5 R_4 R_5 s^2 + 2C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_5 g_m s^2 + 2C_1 L_1 s^2 + C_1 R_4 s + 2C_1 R_5 s + 2C_5 L_5 R_4 g_m s^2 + 2C_5 L_5 R_5 g_m s^2 + 2C_5 L_5 s^2 + 2L_5 g_m s + 2R_4 g_m + 2R_5 g_m + 2g_m}$$

$$\mathbf{10.459 \quad INVALID-ORDER-459} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{(R_5 g_m - 1) (C_1 L_1 s^2 + 1)}{2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 R_5 s^2 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

$$\mathbf{10.460 \quad INVALID-ORDER-460} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 s - g_m) (C_1 L_1 s^2 + 1)}{s (2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.461 \quad INVALID-ORDER-461} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_1 R_5 s^4 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_1 R_5 g_m s^3 + C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 R_5 s^2 + 2C_4 R_5 g_m s + 2C_4 s + 2C_5 R_5 g_m s + 2g_m}$$

$$\mathbf{10.462 \quad INVALID-ORDER-462} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.463 \quad INVALID-ORDER-463} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.464 \quad INVALID-ORDER-464} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_5 L_1 L_5 g_m s^4 + C_1 C_5 L_5 s^3 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 s + 2C_5 L_5 g_m s^2 + 2g_m}$$

$$\mathbf{10.465 \quad INVALID-ORDER-465} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.466 \quad INVALID-ORDER-466} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_1 C_4 C_5 L_1 L_5 R_5 s^5 + 2C_1 C_4 L_1 L_5 R_5 g_m s^4 + 2C_1 C_4 L_1 L_5 s^4 + 2C_1 C_4 L_1 R_5 s^3 + 2C_1 C_4 L_5 R_5 s^3 + 2C_1 C_5 L_1 L_5 R_5 g_m s^4 + C_1 C_5 L_5 R_5 s^3 + 2C_1 L_1 L_5 g_m s^3 + 2C_1 L_1 R_5 g_m s^2 + C_1 L_5 s^2 + C_1 R_5 s + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_5 R_5 g_m s^2 + 2C_4 L_5 s^2 + 2C_4 R_5 s + 2C_5 L_5 R_5 g_m s^2}$$

$$\mathbf{10.467 \quad INVALID-ORDER-467} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_5 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4 + C_1 C_5 L_5 s^3 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_5 R_5 g_m s^3 + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 R_5 g_m s}$$

$$\mathbf{10.468 \quad INVALID-ORDER-468} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_1 L_5 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_1 R_5 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 R_5 g_m s^3 + C_1 C_5 L_5 s^3 + C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_5 R_5 g_m s^3 + 2C_4 C_5 L_5 s^3 + 2C_4 C_5 R_5 s^2 + 2C_4 C_5 g_m s}$$

$$\mathbf{10.469 \quad INVALID-ORDER-469} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{R_4 (R_5 g_m - 1) (C_1 L_1 s^2 + 1)}{2C_1 C_4 L_1 R_4 R_5 g_m s^3 + 2C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 R_4 R_5 s^2 + 2C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_5 g_m s^2 + 2C_1 L_1 s^2 + C_1 R_4 s + 2C_1 R_5 s + 2C_4 R_4 R_5 g_m s + 2C_4 R_4 s + 2R_4 g_m + 2R_5 g_m + 2}$$

$$\mathbf{10.470 \quad INVALID-ORDER-470} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_5 s - g_m) (C_1 L_1 s^2 + 1)}{2C_1 C_4 C_5 L_1 R_4 s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 L_1 R_4 g_m s^3 + 2C_1 C_5 L_1 s^3 + C_1 C_5 R_4 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 s + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 R_4 g_m s + 2C_5 s + 2g_m}$$

$$\mathbf{10.471 \quad INVALID-ORDER-471} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 L_1 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_1 R_4 R_5 s^4 + 2C_1 C_4 L_1 R_4 R_5 g_m s^3 + 2C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 R_4 R_5 s^2 + 2C_1 C_5 L_1 R_4 R_5 g_m s^3 + 2C_1 C_5 L_1 R_5 s^3 + C_1 C_5 R_4 R_5 s^2 + 2C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_5 g_m s^2 + 2C_1 L_1 s^2 + C_1 R_4 s + 2C_1 R_5 s + 2C_4 C_5 R_4 R_5 s^2 + 2C_4 R_4 R_5 g_m s + 2C_4 R_4 s + 2C_5 R_4 R_5 g_m s}$$

$$\mathbf{10.472 \quad INVALID-ORDER-472} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 L_1 s^2 + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 s^4 + 2C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 L_1 R_4 g_m s^3 + 2C_1 C_5 L_1 R_5 g_m s^3 + C_1 C_5 R_4 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 s + 2C_4 C_5 R_4 R_5 g_m s^2 + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 R_4 g_m s}$$

$$\mathbf{10.473 \quad INVALID-ORDER-473} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 L_1 s^2 + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_5 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 R_4 g_m s^3 + 2C_1 C_5 L_1 s^3 + 2C_1 C_5 L_5 s^3 + C_1 C_5 R_4 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 L_5 g_m s^2}$$

$$\mathbf{10.474 \quad INVALID-ORDER-474} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 L_1 s^2 + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2C_1 C_4 L_1 L_5 R_4 g_m s^4 + 2C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_5 R_4 s^3 + 2C_1 C_5 L_1 L_5 R_4 g_m s^4 + 2C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_5 R_4 s^3 + 2C_1 L_1 L_5 g_m s^3 + 2C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 s^2 + 2C_1 L_5 s^2 + C_1 R_4 s + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 L_5 R_4 g_m s^2 + 2C_4 R_4 s + 2C_5 L_5 R_4 g_m s^2}$$

$$\mathbf{10.475 \quad INVALID-ORDER-475} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 L_1 s^2 + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_5 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 R_4 g_m s^3 + 2C_1 C_5 L_1 R_5 g_m s^3 + 2C_1 C_5 L_1 s^3 + 2C_1 C_5 L_5 s^3 + C_1 C_5 R_4 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 L_1 s^2 + C_1 R_4 s + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 L_5 R_4 g_m s^2 + 2C_4 R_4 s + 2C_5 L_5 R_4 g_m s^2}$$

$$\mathbf{10.476 \quad INVALID-ORDER-476} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 L_1 s^2 + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_1 C_4 C_5 L_1 L_5 R_4 R_5 s^5 + 2C_1 C_4 L_1 L_5 R_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_5 R_4 s^4 + 2C_1 C_4 L_1 R_4 R_5 s^3 + 2C_1 C_4 L_5 R_4 R_5 s^3 + 2C_1 C_5 L_1 L_5 R_4 R_5 g_m s^4 + 2C_1 C_5 L_1 L_5 R_5 s^4 + C_1 C_5 L_5 R_4 R_5 s^3 + 2C_1 L_1 L_5 R_4 g_m s^3 + 2C_1 L_1 L_5 R_5 g_m s^3 + 2C_1 L_1 L_5 s^3 + 2C_1 L_1 R_4 R_5 g_m s^2 + 2C_1 L_1 R_5 s^2 + C_1 R_4 s + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 L_5 R_4 g_m s^2 + 2C_4 R_4 s + 2C_5 L_5 R_4 g_m s^2}$$

$$\mathbf{10.477 \quad INVALID-ORDER-477} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 L_1 s^2 + 1) (C_5 L_5 R_5 g_m s^2 - C_5 R_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_5 R_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2C_1 C_4 C_5 L_5 R_4 R_5 s^4 + 2C_1 C_4 L_1 L_5 R_4 g_m s^4 + 2C_1 C_4 L_1 R_4 R_5 g_m s^3 + 2C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_5 R_4 s^3 + 2C_1 C_4 R_4 R_5 s^2 + 2C_1 C_5 L_1 L_5 R_4 g_m s^4 + 2C_1 C_5 L_1 L_5 R_5 g_m s^4 + 2C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_5 R_4 s^3 + 2C_1 C_5 L_5 R_5 s^3 + 2C_1 L_1 g_m s^2 + 2C_1 L_1 s^2 + C_1 R_4 s + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 L_5 R_4 g_m s^2 + 2C_4 R_4 s + 2C_5 L_5 R_4 g_m s^2}$$

$$\mathbf{10.478 \quad INVALID-ORDER-478} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 L_1 s^2 + 1) (-C_5 L_5 R_5 s^2 + C_5 R_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_5 R_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2C_1 C_4 C_5 L_1 R_4 R_5 s^4 + 2C_1 C_4 C_5 L_5 R_4 R_5 s^4 + 2C_1 C_4 L_1 R_4 R_5 g_m s^3 + 2C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 R_4 R_5 s^2 + 2C_1 C_5 L_1 L_5 R_4 g_m s^4 + 2C_1 C_5 L_1 L_5 R_5 g_m s^4 + 2C_1 C_5 L_1 L_5 s^4 + 2C_1 C_5 L_1 R_4 R_5 g_m s^3 + 2C_1 C_5 L_1 R_5 s^3 + C_1 C_5 R_4 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 L_1 s^2 + C_1 R_4 s + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 L_5 R_4 g_m s^2 + 2C_4 R_4 s + 2C_5 L_5 R_4 g_m s^2}$$

$$\mathbf{10.479 \quad INVALID-ORDER-479} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{(R_5 g_m - 1) (C_1 L_1 s^2 + 1) (C_4 R_4 s + 1)}{2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 R_4 g_m s + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

$$\mathbf{10.480 \quad INVALID-ORDER-480} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 s - g_m) (C_1 L_1 s^2 + 1) (C_4 R_4 s + 1)}{s (2C_1 C_4 C_5 L_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.481 \quad INVALID-ORDER-481} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1) (C_4 R_4 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_5 s^4 + C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_1 R_5 g_m s^3 + C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 R_4 R_5 g_m s^2 + 2C_4 C_5 R_5 s^2 + 2C_4 R_4 g_m s + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

$$\mathbf{10.482 \quad INVALID-ORDER-482} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_4 R_4 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.483 \quad INVALID-ORDER-483} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_4 R_4 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_5 s^3 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.484 \quad INVALID-ORDER-484} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1) (C_4 R_4 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_5 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_5 s^3 + C_1 C_4 R_4 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4 + C_1 C_5 L_5 s^3 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 s + 2C_5 g_m}$$

$$\mathbf{10.485 \quad INVALID-ORDER-485} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_4 R_4 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_5 s^3 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.486 \quad INVALID-ORDER-486} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1) (C_4 R_4 s + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_1 C_4 C_5 L_1 L_5 R_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 s^5 + C_1 C_4 C_5 L_5 R_4 R_5 s^4 + 2C_1 C_4 L_1 L_5 R_4 g_m s^4 + 2C_1 C_4 L_1 L_5 R_5 g_m s^4 + 2C_1 C_4 L_1 L_5 s^4 + 2C_1 C_4 L_1 R_4 R_5 g_m s^3 + 2C_1 C_4 L_1 R_5 s^3 + C_1 C_4 L_5 R_4 s^3 + 2C_1 C_4 L_5 R_5 s^3 + C_1 C_4 R_4 R_5 s^2 + 2C_1 C_5 L_1 L_5 R_5 g_m s^4 + C_1 C_5 L_5 R_5 s^3 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 s + 2C_5 g_m}$$

$$\mathbf{10.487 \quad INVALID-ORDER-487} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_4 R_4 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_5 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_5 s^3 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4 + C_1 C_5 L_5 s^3 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 s + 2C_5 g_m}$$

$$\mathbf{10.488 \quad INVALID-ORDER-488} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1) (C_4 R_4 s + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + R_5 g_m s + R_5)}{2C_1 C_4 C_5 L_1 L_5 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_5 s^4 + C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4 + C_1 C_5 L_5 s^3 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_5 R_4 g_m s^3 + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 s + 2C_5 g_m}$$

$$\mathbf{10.489 \quad INVALID-ORDER-489} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{(R_5 g_m - 1) (C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + 1)}{2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_5 s^2 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 L_4 g_m s^2 + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

$$\mathbf{10.490 \quad INVALID-ORDER-490} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 s - g_m) (C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + 1)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.491 \quad INVALID-ORDER-491} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_1 L_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 R_5 s^4 + C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_1 R_5 g_m s^3 + C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_4 R_5 g_m s^3 + 2C_4 C_5 R_5 s^2 + 2C_4 L_4 g_m s^2 + 2C_4 R_5 g_m s + 2C_4 g_m + 2C_5 g_m}$$

$$\mathbf{10.492 \quad INVALID-ORDER-492} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.493 \quad INVALID-ORDER-493} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.494 \quad INVALID-ORDER-494} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_5 s^5 + C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_5 L_1 L_5 g_m s^4 + C_1 C_5 L_5 s^3 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_4 L_5 g_m s^4 + 2C_4 C_5 L_5 s^3 + 2C_4 L_4 g_m s^2 + 2C_4 L_5 g_m s^2 + 2C_4 g_m + 2C_5 g_m}$$

$$\mathbf{10.495 \quad INVALID-ORDER-495} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.496 \quad INVALID-ORDER-496} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_5 R_5 s^5 + C_1 C_4 C_5 L_4 L_5 R_5 s^5 + 2C_1 C_4 L_1 L_4 L_5 g_m s^5 + 2C_1 C_4 L_1 L_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_5 R_5 g_m s^4 + 2C_1 C_4 L_1 L_5 s^4 + 2C_1 C_4 L_1 R_5 s^3 + C_1 C_4 L_4 L_5 s^4 + C_1 C_4 L_4 R_5 s^3 + 2C_1 C_4 L_5 R_5 s^3 + 2C_1 C_5 L_1 L_5 R_5 g_m s^4 + C_1 C_5 L_5 R_5 s^3 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_4 L_5 g_m s^4 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_4 g_m s^2 + 2C_4 L_5 g_m s^2 + 2C_4 g_m + 2C_5 g_m}$$

$$\mathbf{10.497 \quad INVALID-ORDER-497} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_5 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4 + C_1 C_5 L_5 s^3 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_4 L_5 g_m s^4 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_4 g_m s^2 + 2C_4 L_5 g_m s^2 + 2C_4 g_m + 2C_5 g_m}$$

$$\mathbf{10.498 \quad INVALID-ORDER-498} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_1 R_5 s^4 + C_1 C_4 C_5 L_4 L_5 s^5 + C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4 + C_1 C_5 L_5 s^3 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_4 L_5 g_m s^4 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_4 g_m s^2 + 2C_4 L_5 g_m s^2 + 2C_4 g_m + 2C_5 g_m}$$

$$\mathbf{10.499 \quad INVALID-ORDER-499} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (R_5 g_m - 1) (C_1 L_1 s^2 + 1)}{2C_1 C_4 L_1 L_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_4 R_5 s^3 + 2C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 R_5 g_m s^2 + 2C_1 L_1 s^2 + C_1 L_4 s^2 + 2C_1 R_5 s + 2C_4 L_4 R_5 g_m s^2 + 2C_4 L_4 s^2 + 2L_4 g_m s + 2R_5 g_m + 2}$$

$$\mathbf{10.500 \quad INVALID-ORDER-500} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_5 s - g_m) (C_1 L_1 s^2 + 1)}{2C_1 C_4 C_5 L_1 L_4 s^5 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_4 s^3 + 2C_1 C_5 L_1 L_4 g_m s^4 + 2C_1 C_5 L_1 s^3 + C_1 C_5 L_4 s^3 + 2C_1 L_1 g_m s^2 + 2C_1 s + 2C_4 C_5 L_4 s^3 + 2C_4 L_4 g_m s^2 + 2C_5 L_4 g_m s^2 + 2C_5 s + 2g_m}$$

$$\mathbf{10.501 \quad INVALID-ORDER-501} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_1 L_1 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_1 L_4 R_5 s^5 + 2C_1 C_4 L_1 L_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_4 R_5 s^3 + 2C_1 C_5 L_1 L_4 R_5 g_m s^4 + 2C_1 C_5 L_1 R_5 s^3 + C_1 C_5 L_4 R_5 s^3 + 2C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 R_5 g_m s^2 + 2C_1 L_1 s^2 + C_1 L_4 s^2 + 2C_1 R_5 s + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 L_4 R_5 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 R_5 g_m s}$$

$$\mathbf{10.502 \quad INVALID-ORDER-502} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_1 L_1 s^2 + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_4 s^5 + 2C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_4 s^3 + 2C_1 C_5 L_1 L_4 g_m s^4 + 2C_1 C_5 L_1 R_5 g_m s^3 + 2C_1 C_5 L_1 s^3 + C_1 C_5 L_4 s^3 + 2C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 s + 2C_4 C_5 L_4 R_5 g_m s^3 + 2C_4 C_5 L_4 s^3 + 2C_4 L_4 g_m s^2 + 2C_5 L_4 g_m s^2}$$

$$\mathbf{10.503 \quad INVALID-ORDER-503} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_1 L_1 s^2 + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 s^5 + 2C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_4 s^3 + 2C_1 C_5 L_1 L_4 g_m s^4 + 2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 s^3 + C_1 C_5 L_4 s^3 + 2C_1 C_5 L_5 s^3 + 2C_1 L_1 g_m s^2 + 2C_1 s + 2C_4 C_5 L_4 L_5 g_m s^4 + 2C_4 C_5 L_4 s^3 + 2C_4 L_4 g_m s^2 + 2C_5 L_4 g_m s^2}$$

$$\mathbf{10.504 \quad INVALID-ORDER-504} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_1 L_1 s^2 + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2C_1 C_4 L_1 L_4 L_5 g_m s^5 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_4 L_5 s^4 + 2C_1 C_5 L_1 L_4 L_5 g_m s^5 + 2C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_4 L_5 s^4 + 2C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 L_5 g_m s^3 + 2C_1 L_1 s^2 + C_1 L_4 s^2 + 2C_1 L_5 s^2 + 2C_4 C_5 L_4 L_5 s^4 + 2C_4 L_4 L_5 g_m s^3 + 2C_4 L_4 s^2 + 2C_5 L_4 L_5 g_m s^3}$$

$$\mathbf{10.505 \quad INVALID-ORDER-505} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_1 L_1 s^2 + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_4 s^5 + 2C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_4 s^3 + 2C_1 C_5 L_1 L_4 g_m s^4 + 2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 R_5 g_m s^3 + 2C_1 C_5 L_1 s^3 + C_1 C_5 L_4 s^3 + 2C_1 C_5 L_5 s^3 + 2C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 s + 2C_4 C_5 L_4 L_5 g_m s^4 + 2C_4 C_5 L_4 s^3 + 2C_4 L_4 g_m s^2 + 2C_5 L_4 g_m s^2}$$

$$\mathbf{10.506 \quad INVALID-ORDER-506} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_1 L_1 s^2 + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + 2C_1 C_4 L_1 L_4 L_5 R_5 g_m s^5 + 2C_1 C_4 L_1 L_4 L_5 s^5 + 2C_1 C_4 L_1 L_4 R_5 s^4 + 2C_1 C_4 L_4 L_5 R_5 s^4 + 2C_1 C_5 L_1 L_4 L_5 R_5 g_m s^5 + 2C_1 C_5 L_1 L_5 R_5 s^4 + C_1 C_5 L_4 L_5 R_5 s^4 + 2C_1 L_1 L_4 L_5 g_m s^4 + 2C_1 L_1 L_4 R_5 g_m s^3 + 2C_1 L_1 L_5 R_5 g_m s^3 + 2C_1 L_1 L_5 s^3 + 2C_1 L_1 R_5 s^2 + 2C_1 s + 2C_4 C_5 L_4 L_5 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 s^3 + 2C_4 L_4 L_5 g_m s^2 + 2C_5 L_4 L_5 R_5 g_m s^2 + 2C_5 L_4 L_5 s^2 + 2C_5 L_4 R_5 s^2 + 2C_5 s + 2R_5}$$

$$\mathbf{10.507 \quad INVALID-ORDER-507} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_1 L_1 s^2 + 1) (C_5 L_5 R_5 g_m s^2 - L_5 R_5 s + R_5)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2C_1 C_4 C_5 L_4 L_5 R_5 s^5 + 2C_1 C_4 L_1 L_4 L_5 g_m s^5 + 2C_1 C_4 L_1 L_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_4 L_5 s^4 + 2C_1 C_4 L_4 R_5 s^3 + 2C_1 C_5 L_1 L_4 L_5 g_m s^5 + 2C_1 C_5 L_1 L_5 R_5 g_m s^4 + 2C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_4 L_5 s^4 + 2C_1 C_5 L_5 R_5 s^3 + 2C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 s + 2C_4 C_5 L_4 L_5 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 s^3 + 2C_4 L_4 L_5 g_m s^2 + 2C_5 L_4 L_5 R_5 g_m s^2 + 2C_5 L_4 L_5 s^2 + 2C_5 L_4 R_5 s^2 + 2C_5 s + 2R_5}$$

$$\mathbf{10.508 \quad INVALID-ORDER-508} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_1 L_1 s^2 + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 s + R_5)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2C_1 C_4 C_5 L_1 L_4 R_5 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_5 s^5 + 2C_1 C_4 L_1 L_4 L_5 g_m s^4 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_4 L_5 s^4 + 2C_1 C_4 L_4 R_5 s^3 + 2C_1 C_5 L_1 L_4 L_5 g_m s^5 + 2C_1 C_5 L_1 L_4 R_5 g_m s^4 + 2C_1 C_5 L_1 L_5 R_5 g_m s^4 + 2C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_4 L_5 s^4 + 2C_1 C_5 L_5 R_5 s^3 + 2C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 s + 2C_4 C_5 L_4 L_5 R_5 g_m s^4 + 2C_4 C_5 L_4 L_5 s^3 + 2C_4 L_4 L_5 g_m s^2 + 2C_5 L_4 L_5 R_5 g_m s^2 + 2C_5 L_4 L_5 s^2 + 2C_5 L_4 R_5 s^2 + 2C_5 s + 2R_5}$$

$$\mathbf{10.509 \quad INVALID-ORDER-509} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{(R_5 g_m - 1) (C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1)}{2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 L_4 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

$$\mathbf{10.510 \quad INVALID-ORDER-510} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 s - g_m) (C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + C_1 C_4 C_5 L_4 s^3 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.511 \quad INVALID-ORDER-511} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_1 L_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_5 s^4 + C_1 C_4 C_5 L_4 R_5 s^4 + C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_1 R_5 g_m s^3 + C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m}$$

$$\mathbf{10.512 \quad INVALID-ORDER-512} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + C_1 C_4 C_5 L_4 s^3 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.513 \quad INVALID-ORDER-513} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 L_5 s^3 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.514 \quad INVALID-ORDER-514} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_5 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + C_1 C_4 C_5 L_4 L_5 s^5 + C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 L_5 s^3 + C_1 C_4 R_4 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4 + C_1 C_5 L_5 s^3 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m}$$

$$\mathbf{10.515 \quad INVALID-ORDER-515} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 L_5 s^3 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 R_4 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.516 \quad INVALID-ORDER-516} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 R_5 s^2 + L_5 s + R_5)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_5 R_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 s^5 + C_1 C_4 C_5 L_4 L_5 R_5 s^5 + C_1 C_4 C_5 L_5 R_4 R_5 s^4 + 2C_1 C_4 L_1 L_4 L_5 g_m s^5 + 2C_1 C_4 L_1 L_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_5 R_4 g_m s^4 + 2C_1 C_4 L_1 L_5 R_5 g_m s^4 + 2C_1 C_4 L_1 L_5 s^4 + 2C_1 C_4 L_1 R_4 R_5 g_m s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + C_1 C_4 L_4 R_5 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 L_5 R_5 g_m s^3 + C_1 C_4 R_4 R_5 s^2 + 2C_1 C_5 L_1 L_5 R_5 g_m s^4 + C_1 C_5 L_5 R_5 s^3 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 L_5 R_5 g_m s^2 + 2C_4 C_5 R_4 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m}$$

$$\mathbf{10.517 \quad INVALID-ORDER-517} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 R_5 g_m s^2 + L_5 s + R_5)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_5 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + C_1 C_4 C_5 L_4 L_5 s^5 + C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 L_5 R_5 g_m s^3 + C_1 C_4 R_4 R_5 s^2 + 2C_1 C_5 L_1 L_5 R_5 g_m s^4 + C_1 C_5 L_5 R_5 s^3 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 L_5 R_5 g_m s^2 + 2C_4 C_5 R_4 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m}$$

10.518 INVALID-ORDER-518 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_1L_4L_5g_ms^6 + 2C_1C_4C_5L_1L_4R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_4g_ms^5 + 2C_1C_4C_5L_1L_5R_5g_ms^5 + 2C_1C_4C_5L_1L_5s^5 + 2C_1C_4C_5L_1R_4R_5g_ms^4 + 2C_1C_4C_5L_1R_5s^4 + C_1C_4C_5L_4L_5s^5 + C_1C_4C_5L_4R_5s^4 + C_1C_4C_5L_5R_4s^4 + 2C_1C_4C_5L_5R_5s^4 + C_1C_4C_5R_4R_5s^3 +$$

10.519 INVALID-ORDER-519 $Z(s) = \left(L_1 s + \frac{1}{C_{1s}}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, R_5, \infty \right)$

$$H(s) = \frac{L_4 R_4 s (R_5 g_m - 1) (C_1 L_1 s^2 + 1)}{2C_1 C_4 L_1 L_4 R_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 R_4 s^4 + 2C_1 C_4 L_4 R_4 R_5 s^3 + 2C_1 L_1 L_4 R_4 g_m s^3 + 2C_1 L_1 L_4 R_5 g_m s^3 + 2C_1 L_1 L_4 s^3 + 2C_1 L_1 R_4 R_5 g_m s^2 + 2C_1 L_1 R_4 s^2 + C_1 L_4 R_4 s^2 + 2C_1 L_4 R_5 s^2 + 2C_1 R_4 R_5 s + 2C_4 L_4 R_4 R_5 g_m s^2 + 2C_4 L_4 R_4 s^2 + 2L_4 R_4 g_m s + 2L_4 R_5 g_m s + 2L_4 s + 2R_4}$$

10.520 INVALID-ORDER-520 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{L_4 R_4 s (C_5 s - g_m) (C_1 L_1 s^2 + 1)}{2C_1 C_4 C_5 L_1 L_4 R_4 s^5 + 2C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2C_1 C_4 L_4 R_4 s^3 + 2C_1 C_5 L_1 L_4 R_4 g_m s^4 + 2C_1 C_5 L_1 L_4 s^4 + 2C_1 C_5 L_1 R_4 s^3 + C_1 C_5 L_4 R_4 s^3 + 2C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 R_4 g_m s^2 + 2C_1 L_4 s^2 + 2C_1 R_4 s + 2C_4 C_5 L_4 R_4 s^3 + 2C_4 L_4 R_4 g_m s^2 + 2C_5 L_4 R_4 g_m s^2 + 2C_5 L_4 s^2 + 2C_5 R_4}$$

10.521 INVALID-ORDER-521 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{L_4 R_4 s (C_1 L_1 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_1 L_4 R_4 R_5 s^5 + 2C_1 C_4 L_1 L_4 R_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 R_4 s^4 + 2C_1 C_4 L_4 R_4 R_5 s^3 + 2C_1 C_5 L_1 L_4 R_4 R_5 g_m s^4 + 2C_1 C_5 L_1 L_4 R_5 s^4 + 2C_1 C_5 L_1 R_4 R_5 s^3 + C_1 C_5 L_4 R_4 R_5 s^3 + 2C_1 L_1 L_4 R_4 g_m s^3 + 2C_1 L_1 L_4 R_5 g_m s^3 + 2C_1 L_1 L_4 s^3 + 2C_1 L_1 R_4 R_5 g_m s^2 + 2C_1 L_1 R_4 s^2}$$

10.522 INVALID-ORDER-522 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_4 R_4 s (C_1 L_1 s^2 + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 R_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_4 R_4 s^5 + 2C_1 C_4 C_5 L_4 R_4 R_5 s^4 + 2C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2C_1 C_4 L_4 R_4 s^3 + 2C_1 C_5 L_1 L_4 R_4 g_m s^4 + 2C_1 C_5 L_1 L_4 R_5 g_m s^4 + 2C_1 C_5 L_1 L_4 s^4 + 2C_1 C_5 L_1 R_4 R_5 g_m s^3 + 2C_1 C_5 L_1 R_4 s^3 + C_1 C_5 L_4 R_4 s^3 + 2C_1 C_5 L_4 R_5 s^3 + 2C_1 C_5 R_4 R_5 s^2}$$

10.523 INVALID-ORDER-523 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_4 R_4 s (C_1 L_1 s^2 + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_4 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 R_4 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_4 s^5 + 2C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2C_1 C_4 L_4 R_4 s^3 + 2C_1 C_5 L_1 L_4 L_5 g_m s^5 + 2C_1 C_5 L_1 L_4 R_4 g_m s^4 + 2C_1 C_5 L_1 L_4 s^4 + 2C_1 C_5 L_1 L_5 R_4 g_m s^4 + 2C_1 C_5 L_1 R_4 s^3 + 2C_1 C_5 L_4 L_5 s^4 + C_1 C_5 L_4 R_4 s^3 + 2C_1 C_5 L_5 R_4 s^3 +$$

10.524 INVALID-ORDER-524 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = -\frac{L_4 R_4 s (C_1 L_1 s^2 + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_4 s^6 + 2C_1 C_4 L_1 L_4 L_5 R_4 g_m s^5 + 2C_1 C_4 L_1 L_4 R_4 s^4 + 2C_1 C_4 L_4 L_5 R_4 s^4 + 2C_1 C_5 L_1 L_4 L_5 R_4 g_m s^5 + 2C_1 C_5 L_1 L_4 L_5 s^5 + 2C_1 C_5 L_1 L_5 R_4 s^4 + C_1 C_5 L_4 L_5 R_4 s^4 + 2C_1 L_1 L_4 L_5 g_m s^4 + 2C_1 L_1 L_4 R_4 g_m s^3 + 2C_1 L_1 L_4 s^3 + 2C_1 L_1 L_5 R_4 g_m s^3 + 2C_1 L_1 R_4 s^2 +}$$

10.525 INVALID-ORDER-525 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{2C_1C_4C_5L_1L_4L_5R_4g_ms^6 + 2C_1C_4C_5L_1L_4R_4R_5g_ms^5 + 2C_1C_4C_5L_1L_4R_4s^5 + 2C_1C_4C_5L_4L_5R_4s^5 + 2C_1C_4C_5L_4R_4R_5s^4 + 2C_1C_4L_1L_4R_4g_ms^4 + 2C_1C_4L_4R_4s^3 + 2C_1C_5L_1L_4L_5g_ms^5 + 2C_1C_5L_1L_4R_4g_ms^4 + 2C_1C_5L_1L_4R_5g_ms^4 + 2C_1C_5L_1L_4s^4 + 2C_1C_5L_1L_5R_4$$

10.526 INVALID-ORDER-526 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_1L_4L_5R_4R_5s^6 + 2C_1C_4L_1L_4L_5R_4R_5g_ms^5 + 2C_1C_4L_1L_4L_5R_4s^5 + 2C_1C_4L_1L_4R_4R_5s^4 + 2C_1C_4L_4L_5R_4R_5s^4 + 2C_1C_5L_1L_4L_5R_4R_5g_ms^5 + 2C_1C_5L_1L_4L_5R_5s^5 + 2C_1C_5L_1L_5R_4R_5s^4 + C_1C_5L_4L_5R_4R_5s^4 + 2C_1L_1L_4L_5R_4g_ms^4 + 2C_1L_1L_4L_5R_5g_ms^4}{\dots}$$

10.536 INVALID-ORDER-536 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = -\frac{2C_1 C_4 C_5 L_1 L_4 L_5 R_4 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + C_1 C_4 C_5 L_4 L_5 R_4 R_5 s^5 + 2C_1 C_4 L_1 L_4 L_5 R_4 g_m s^5 + 2C_1 C_4 L_1 L_4 L_5 R_5 g_m s^5 + 2C_1 C_4 L_1 L_4 L_5 s^5 + 2C_1 C_4 L_1 L_4 R_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 R_5 s^4 + C_1 C_4 L_4 L_5 R_4 s^4 + 2C_1 C_4 L_4 L_5 R_5 s^4 + C_1 C_4 L_4 R_4 R_5 s^3 + 2C_1 C_5 L}$$

10.537 INVALID-ORDER-537 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \overline{2C_1C_4C_5L_1L_4L_5R_4g_ms^6 + 2C_1C_4C_5L_1L_4L_5R_5g_ms^6 + 2C_1C_4C_5L_1L_4L_5s^6 + C_1C_4C_5L_4L_5R_4s^5 + 2C_1C_4C_5L_4L_5R_5s^5 + 2C_1C_4L_1L_4L_5g_ms^5 + 2C_1C_4L_1L_4R_4g_ms^4 + 2C_1C_4L_1L_4R_5g_ms^4 + 2C_1C_4L_1L_4s^4 + 2C_1C_4L_4L_5s^4 + C_1C_4L_4R_4s^3 + 2C_1C_4L_4R_5s^3 + 2C_1C_5}$$

10.538 INVALID-ORDER-538 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{2C_1 C_4 C_5 L_1 L_4 L_5 R_4 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2C_1 C_4 C_5 L_1 L_4 R_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_4 R_5 s^5 + C_1 C_4 C_5 L_4 L_5 R_4 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_5 s^5 + C_1 C_4 C_5 L_4 R_4 R_5 s^4 + 2C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2C_1 C_4 L_1 L_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 L_4 s^4}{(s^7 + C_1 C_4 C_5 L_1 L_4 L_5 R_4 g_m s^6 + \dots)}$$

10.539 INVALID-ORDER-539 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, R_5, \infty \right)$

$$H(s) = \frac{R_4(R_5g_m - 1)(C_1L_1s^2 + 1)(C_4L_4s^2 + 1)}{2C_1C_4L_1L_4R_4g_ms^4 + 2C_1C_4L_1L_4R_5g_ms^4 + 2C_1C_4L_1L_4s^4 + 2C_1C_4L_1R_4R_5g_ms^3 + 2C_1C_4L_1R_4s^3 + C_1C_4L_4R_4s^3 + 2C_1C_4L_4R_5s^3 + 2C_1C_4R_4R_5s^2 + 2C_1L_1R_4g_ms^2 + 2C_1L_1R_5g_ms^2 + 2C_1L_1s^2 + C_1R_4s + 2C_1R_5s + 2C_4L_4R_4g_ms^2 + 2C_4L_4R_5g_ms^2 + 2C_4L_4s^2}$$

10.540 INVALID-ORDER-540 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{R_4(C_5s - g_m)(C_1L_1s^2 + 1)(C_4L_4s^2 + 1)}{2C_1C_4C_5L_1L_4R_4g_ms^5 + 2C_1C_4C_5L_1L_4s^5 + 2C_1C_4C_5L_1R_4s^4 + C_1C_4C_5L_4R_4s^4 + 2C_1C_4L_1L_4g_ms^4 + 2C_1C_4L_1R_4g_ms^3 + 2C_1C_4L_4s^3 + 2C_1C_4R_4s^2 + 2C_1C_5L_1R_4g_ms^3 + 2C_1C_5L_1s^3 + C_1C_5R_4s^2 + 2C_1L_1g_ms^2 + 2C_1s + 2C_4C_5L_4R_4g_ms^3 + 2C_4C_5L_4s^3 + 2C_4C_5R_4s^2 + 2C_4L_1L_4s^2 + 2C_4L_1s + 2C_4L_4s^2 + 2C_4s + 1}$$

10.541 INVALID-ORDER-541 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

[illegible]

10.542 INVALID-ORDER-542 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4 (C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + 1) (C_5 R_5 g)}{2C_1 C_4 C_5 L_1 L_4 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_4 s^5 + 2C_1 C_4 C_5 L_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 s^4 + C_1 C_4 C_5 L_4 R_4 s^4 + 2C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_4 s^3 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 L_1 R_4 g_m s^3 +}$$

10.543 INVALID-ORDER-543 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4(C_1 L_1 s^2 + 1)(C_4 L_4 s^2 + 1)(C_5 L_5 g_m)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_4 s^5 + 2C_1 C_4 C_5 L_1 L_5 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 R_4 s^4 + 2C_1 C_4 C_5 L_4 L_5 s^5 + C_1 C_4 C_5 L_4 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_4 s^3 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 R_4 s^3 + 2C_1 C_5 L_4 s^2 + 2C_1 C_5 R_4 s + 2C_1 C_4 C_5 L_1 L_4 L_5 g_m}$$

10.544 INVALID-ORDER-544 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = -\frac{R_4(C_1 L_1 s^2 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_4 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2C_1 C_4 C_5 L_1 L_5 R_4 s^5 + C_1 C_4 C_5 L_4 L_5 R_4 s^5 + 2C_1 C_4 L_1 L_4 L_5 g_m s^5 + 2C_1 C_4 L_1 L_4 R_4 g_m s^4 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 L_5 R_4 g_m s^4 + 2C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_4 L_5 s^4 + C_1 C_4 L_4 R_4 s^3 + 2C_1 C_4 L_5 R_4 s^3 + 2C_1 C_5 L_1 L_5 R_4}{R_4(C_1 L_1 s^2 +$$

$$10.554 \quad \text{INVALID-ORDER-554} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad R_4, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_1 R_4 s^3 + 2C_1 C_5 L_1 R_5 s^3 + 2C_1 L_1 s^2 + 2C_5 L_1 L_5 g_m s^3 + 2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 R_5 g_m s^2 + 2C_5 L_1 s^2 + 2C_5 L_5 s^2 + C_5 R_4 s + 2C_5 R_5 s + 2L_1 g_m s + 2}$$

$$10.555 \quad \text{INVALID-ORDER-555} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{C_1 C_5 L_1 L_5 R_4 R_5 s^4 + C_1 L_1 L_5 R_4 s^3 + 2C_1 L_1 L_5 R_5 s^3 + C_1 L_1 R_4 R_5 s^2 + 2C_5 L_1 L_5 R_4 R_5 g_m s^3 + 2C_5 L_1 L_5 R_5 s^3 + C_5 L_5 R_4 R_5 s^2 + 2L_1 L_5 R_4 g_m s^2 + 2L_1 L_5 R_5 g_m s^2 + 2L_1 L_5 s^2 + 2L_1 R_4 R_5 g_m s + 2L_1 R_5 s + L_5 R_4 s + 2L_5 R_5 s + R_4 R_5}$$

$$10.556 \quad \text{INVALID-ORDER-556} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_5 L_1 L_5 R_4 s^4 + 2C_1 C_5 L_1 L_5 R_5 s^4 + 2C_1 L_1 L_5 s^3 + C_1 L_1 R_4 s^2 + 2C_1 L_1 R_5 s^2 + 2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 L_5 R_5 g_m s^3 + 2C_5 L_1 L_5 s^3 + C_5 L_5 R_4 s^2 + 2C_5 L_5 R_5 s^2 + 2L_1 L_5 g_m s^2 + 2L_1 R_4 g_m s + 2L_1 R_5 g_m s + 2L_1 s + 2L_5 s + R_4 + 2R_5}$$

$$10.557 \quad \text{INVALID-ORDER-557} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{C_1 C_5 L_1 L_5 R_4 s^4 + 2C_1 C_5 L_1 L_5 R_5 s^4 + C_1 C_5 L_1 R_4 R_5 s^3 + C_1 L_1 R_4 s^2 + 2C_1 L_1 R_5 s^2 + 2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 L_5 R_5 g_m s^3 + 2C_5 L_1 L_5 s^3 + 2C_5 L_1 R_4 R_5 g_m s^2 + 2C_5 L_1 R_5 s^2 + C_5 L_5 R_4 s^2 + 2C_5 L_5 R_5 s^2 + C_5 R_4 R_5 s + 2L_1 R_4 g_m s + 2L_1 R_5 g_m s + 2L_1 s + R_4 + 2R_5}$$

$$10.558 \quad \text{INVALID-ORDER-558} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (R_5 g_m - 1)}{2C_1 C_4 L_1 R_5 s^3 + C_1 L_1 s^2 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + 2C_4 R_5 s + 2L_1 g_m s + 1}$$

$$10.559 \quad \text{INVALID-ORDER-559} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (-C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 L_1 R_5 s^3 + C_1 C_5 L_1 R_5 s^3 + C_1 L_1 s^2 + 2C_4 C_5 L_1 R_5 s^3 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + 2C_4 R_5 s + 2C_5 L_1 R_5 g_m s^2 + C_5 R_5 s + 2L_1 g_m s + 1}$$

$$10.560 \quad \text{INVALID-ORDER-560} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 R_5 s^3 + 2C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 R_5 g_m s^2 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 R_5 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$10.561 \quad \text{INVALID-ORDER-561} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_5 s^4 + 2C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$10.562 \quad \text{INVALID-ORDER-562} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_1 C_4 L_1 L_5 s^4 + C_1 C_5 L_1 L_5 s^4 + C_1 L_1 s^2 + 2C_4 C_5 L_1 L_5 s^4 + 2C_4 L_1 L_5 g_m s^3 + 2C_4 L_1 s^2 + 2C_4 L_5 s^2 + 2C_5 L_1 L_5 g_m s^3 + C_5 L_5 s^2 + 2L_1 g_m s + 1}$$

$$\mathbf{10.563 \quad INVALID-ORDER-563} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_5 s^4 + 2C_1 C_4 C_5 L_1 R_5 s^3 + 2C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 R_5 g_m s^2 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 C_5 R_5 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.564 \quad INVALID-ORDER-564} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_1 C_4 L_1 L_5 R_5 s^4 + C_1 C_5 L_1 L_5 R_5 s^4 + C_1 L_1 L_5 s^3 + C_1 L_1 R_5 s^2 + 2C_4 C_5 L_1 L_5 R_5 s^4 + 2C_4 L_1 L_5 R_5 g_m s^3 + 2C_4 L_1 L_5 s^3 + 2C_4 L_1 R_5 s^2 + 2C_4 L_5 R_5 s^2 + 2C_5 L_1 L_5 R_5 g_m s^3 + C_5 L_5 R_5 s^2 + 2L_1 L_5 g_m s^2 + 2L_1 R_5 g_m s + L_5 s + R_5}$$

$$\mathbf{10.565 \quad INVALID-ORDER-565} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_5 R_5 s^5 + 2C_1 C_4 L_1 L_5 s^4 + 2C_1 C_4 L_1 R_5 s^3 + C_1 C_5 L_1 L_5 s^4 + C_1 L_1 s^2 + 2C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 s^4 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_1 L_5 g_m s^3 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + 2C_4 L_5 s^2 + 2C_4 R_5 s + 2C_5 L_1 L_5 g_m s^3 + C_5 L_5 s^2 + 2L_1 g_m s + 1}$$

$$\mathbf{10.566 \quad INVALID-ORDER-566} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_5 R_5 s^5 + 2C_1 C_4 L_1 R_5 s^3 + C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_1 R_5 s^3 + C_1 L_1 s^2 + 2C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 s^4 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + 2C_4 R_5 s + 2C_5 L_1 L_5 g_m s^3 + 2C_5 L_1 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s + 2L_1 g_m s + 1}$$

$$\mathbf{10.567 \quad INVALID-ORDER-567} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (R_5 g_m - 1)}{2C_1 C_4 L_1 R_4 R_5 s^3 + C_1 L_1 R_4 s^2 + 2C_1 L_1 R_5 s^2 + 2C_4 L_1 R_4 R_5 g_m s^2 + 2C_4 L_1 R_4 s^2 + 2C_4 R_4 R_5 s + 2L_1 R_4 g_m s + 2L_1 R_5 g_m s + 2L_1 s + R_4 + 2R_5}$$

$$\mathbf{10.568 \quad INVALID-ORDER-568} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (-C_5 s + g_m)}{2C_1 C_4 L_1 R_4 s^3 + C_1 C_5 L_1 R_4 s^3 + 2C_1 L_1 s^2 + 2C_4 C_5 L_1 R_4 s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 R_4 s + 2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 s^2 + C_5 R_4 s + 2L_1 g_m s + 2}$$

$$\mathbf{10.569 \quad INVALID-ORDER-569} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (-C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 L_1 R_4 R_5 s^3 + C_1 C_5 L_1 R_4 R_5 s^3 + C_1 L_1 R_4 s^2 + 2C_1 L_1 R_5 s^2 + 2C_4 C_5 L_1 R_4 R_5 s^3 + 2C_4 L_1 R_4 R_5 g_m s^2 + 2C_4 L_1 R_4 s^2 + 2C_4 R_4 R_5 s + 2C_5 L_1 R_4 R_5 g_m s^2 + 2C_5 L_1 R_5 s^2 + C_5 R_4 R_5 s + 2L_1 R_4 g_m s + 2L_1 R_5 g_m s + 2L_1 s + R_4 + 2R_5}$$

$$\mathbf{10.570 \quad INVALID-ORDER-570} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 R_4 R_5 s^4 + 2C_1 C_4 L_1 R_4 s^3 + C_1 C_5 L_1 R_4 s^3 + 2C_1 C_5 L_1 R_5 s^3 + 2C_1 L_1 s^2 + 2C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_1 R_4 s^3 + 2C_4 C_5 R_4 R_5 s^2 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 R_4 s + 2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 R_5 g_m s^2 + 2C_5 L_1 s^2 + C_5 R_4 s + 2C_5 R_5 s + 2L_1 g_m s + 2}$$

$$\mathbf{10.571 \quad INVALID-ORDER-571} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2C_1 C_4 L_1 R_4 s^3 + 2C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_1 R_4 s^3 + 2C_1 L_1 s^2 + 2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 R_4 s^3 + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 R_4 s + 2C_5 L_1 L_5 g_m s^3 + 2C_5 L_1 R_4 g_m s^2 + 2C_5 L_1 s^2 + 2C_5 L_5 s^2 + C_5 R_4 s + 2L_1 g_m s + 2}$$

$$\mathbf{10.572 \quad INVALID-ORDER-572} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_1 C_4 L_1 L_5 R_4 s^4 + C_1 C_5 L_1 L_5 R_4 s^4 + 2C_1 L_1 L_5 s^3 + C_1 L_1 R_4 s^2 + 2C_4 C_5 L_1 L_5 R_4 s^4 + 2C_4 L_1 L_5 R_4 g_m s^3 + 2C_4 L_1 R_4 s^2 + 2C_4 L_5 R_4 s^2 + 2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 L_5 s^3 + C_5 L_5 R_4 s^2 + 2L_1 L_5 g_m s^2 + 2L_1 R_4 g_m s + 2L_1 s + 2L_5 s + R_4}$$

$$\mathbf{10.573 \quad INVALID-ORDER-573} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2C_1 C_4 C_5 L_1 R_4 R_5 s^4 + 2C_1 C_4 L_1 R_4 s^3 + 2C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_1 R_4 s^3 + 2C_1 C_5 L_1 R_5 s^3 + 2C_1 L_1 s^2 + 2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_1 R_4 s^3 + 2C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 R_4 R_5 s^2 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 R_4 s + 2C_5 L_1 L_5 g_m s^3 +}$$

$$\mathbf{10.574 \quad INVALID-ORDER-574} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_1 C_4 L_1 L_5 R_4 R_5 s^4 + C_1 C_5 L_1 L_5 R_4 R_5 s^4 + C_1 L_1 L_5 R_4 s^3 + 2C_1 L_1 L_5 R_5 s^3 + C_1 L_1 R_4 R_5 s^2 + 2C_4 C_5 L_1 L_5 R_4 R_5 s^4 + 2C_4 L_1 L_5 R_4 R_5 g_m s^3 + 2C_4 L_1 L_5 R_4 s^3 + 2C_4 L_1 R_4 R_5 s^2 + 2C_4 L_5 R_4 R_5 s^2 + 2C_5 L_1 L_5 R_4 R_5 g_m s^3 + 2C_5 L_1 L_5 R_5 s^3 + C_5 L_5 R_4 R_5 s^2 + 2L_1 L_5 R_4 g_m s^2 +}$$

$$\mathbf{10.575 \quad INVALID-ORDER-575} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_5 R_4 R_5 s^5 + 2C_1 C_4 L_1 L_5 R_4 s^4 + 2C_1 C_4 L_1 R_4 R_5 s^3 + C_1 C_5 L_1 L_5 R_4 s^4 + 2C_1 C_5 L_1 L_5 R_5 s^4 + 2C_1 L_1 L_5 s^3 + C_1 L_1 R_4 s^2 + 2C_1 L_1 R_5 s^2 + 2C_4 C_5 L_1 L_5 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 R_4 s^4 + 2C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 L_1 L_5 R_4 g_m s^3 + 2C_4 L_1 R_4 R_5 g_m s^2 + 2C_4 L_1 R_4 s^2 +}$$

$$\mathbf{10.576 \quad INVALID-ORDER-576} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_5 R_4 R_5 s^5 + 2C_1 C_4 L_1 R_4 R_5 s^3 + C_1 C_5 L_1 L_5 R_4 s^4 + 2C_1 C_5 L_1 L_5 R_5 s^4 + C_1 C_5 L_1 R_4 R_5 s^3 + C_1 L_1 R_4 s^2 + 2C_1 L_1 R_5 s^2 + 2C_4 C_5 L_1 L_5 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 R_4 s^4 + 2C_4 C_5 L_1 R_4 R_5 s^3 + 2C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 L_1 R_4 R_5 g_m s^2 + 2C_4 L_1 R_4 s^2 + 2C_4 R_4 R_5 s +}$$

$$\mathbf{10.577 \quad INVALID-ORDER-577} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (R_5 g_m - 1) (C_4 R_4 s + 1)}{C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_1 R_5 s^3 + C_1 L_1 s^2 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + C_4 R_4 s + 2C_4 R_5 s + 2L_1 g_m s + 1}$$

$$\mathbf{10.578 \quad INVALID-ORDER-578} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 (C_5 s - g_m) (C_4 R_4 s + 1)}{C_1 C_4 C_5 L_1 R_4 s^3 + 2C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 R_4 g_m s^2 + 2C_4 C_5 L_1 s^2 + C_4 C_5 R_4 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.579 \quad INVALID-ORDER-579} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 R_4 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 L_1 R_4 R_5 s^4 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_1 R_5 s^3 + C_1 C_5 L_1 R_5 s^3 + C_1 L_1 s^2 + 2C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_1 R_5 s^3 + C_4 C_5 R_4 R_5 s^2 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + C_4 R_4 s + 2C_4 R_5 s + 2C_5 L_1 R_5 g_m s^2 + C_5 R_5 s + 2L_1 g_m s + 1}$$

$$\mathbf{10.580 \quad INVALID-ORDER-580} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_4 R_4 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{C_1 C_4 C_5 L_1 R_4 s^3 + 2C_1 C_4 C_5 L_1 R_5 s^3 + 2C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 R_4 g_m s^2 + 2C_4 C_5 L_1 R_5 g_m s^2 + 2C_4 C_5 L_1 s^2 + C_4 C_5 R_4 s + 2C_4 C_5 R_5 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.581 \quad INVALID-ORDER-581} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_4 R_4 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_5 s^4 + C_1 C_4 C_5 L_1 R_4 s^3 + 2C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 R_4 g_m s^2 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 L_5 s^2 + C_4 C_5 R_4 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.582 \quad INVALID-ORDER-582} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 R_4 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2C_1 C_4 L_1 L_5 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_5 L_1 L_5 s^4 + C_1 L_1 s^2 + 2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 L_5 s^4 + C_4 C_5 L_5 R_4 s^3 + 2C_4 L_1 L_5 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 s^2 + 2C_4 L_5 s^2 + C_4 R_4 s + 2C_5 L_1 L_5 g_m s^3 + C_5 L_5 s^2 + 2L_1 g_m s + 1}$$

$$\mathbf{10.583 \quad INVALID-ORDER-583} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_4 R_4 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_5 s^4 + C_1 C_4 C_5 L_1 R_4 s^3 + 2C_1 C_4 C_5 L_1 R_5 s^3 + 2C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 R_4 g_m s^2 + 2C_4 C_5 L_1 R_5 g_m s^2 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 L_5 s^2 + C_4 C_5 R_4 s + 2C_4 C_5 R_5 s + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.584 \quad INVALID-ORDER-584} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 R_4 s + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{C_1 C_4 C_5 L_1 L_5 R_4 R_5 s^5 + C_1 C_4 L_1 L_5 R_4 s^4 + 2C_1 C_4 L_1 L_5 R_5 s^4 + C_1 C_4 L_1 R_4 R_5 s^3 + C_1 C_5 L_1 L_5 R_5 s^4 + C_1 L_1 L_5 s^3 + C_1 L_1 R_5 s^2 + 2C_4 C_5 L_1 L_5 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 R_5 s^4 + C_4 C_5 L_5 R_4 R_5 s^3 + 2C_4 L_1 L_5 R_4 g_m s^3 + 2C_4 L_1 L_5 R_5 g_m s^3 + 2C_4 L_1 L_5 s^3 + 2C_4 L_1 R_4 R_5 g_m s^2}$$

$$\mathbf{10.585 \quad INVALID-ORDER-585} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (C_4 R_4 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 s^5 + 2C_1 C_4 L_1 L_5 s^4 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_1 R_5 s^3 + C_1 C_5 L_1 L_5 s^4 + C_1 L_1 s^2 + 2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 s^4 + C_4 C_5 L_5 R_4 s^3 + 2C_4 C_5 L_5 R_5 s^3 + 2C_4 L_1 L_5 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_5 g_m s^2}$$

$$\mathbf{10.586 \quad INVALID-ORDER-586} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 R_4 s + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 s^5 + C_1 C_4 C_5 L_1 R_4 R_5 s^4 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_1 R_5 s^3 + C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_1 R_5 s^3 + C_1 L_1 s^2 + 2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 s^4 + 2C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_1 R_5 s^3 + C_4 C_5 L_5 R_4 s^3 + 2C_4 L_1 R_4 R_5 g_m s^2 + 2C_4 L_1 R_5 g_m s^2}$$

$$\mathbf{10.587 \quad INVALID-ORDER-587} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (R_5 g_m - 1) (C_4 L_4 s^2 + 1)}{C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 R_5 s^3 + C_1 L_1 s^2 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + C_4 L_4 s^2 + 2C_4 R_5 s + 2L_1 g_m s + 1}$$

$$\mathbf{10.588 \quad INVALID-ORDER-588} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 (C_5 s - g_m) (C_4 L_4 s^2 + 1)}{C_1 C_4 C_5 L_1 L_4 s^4 + 2C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 L_4 g_m s^3 + 2C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + 2C_4 L_1 g_m s + 2C_4 + 2C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.589 \quad INVALID-ORDER-589} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 s (C_4 L_4 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 L_1 L_4 R_5 s^5 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 R_5 s^3 + C_1 C_5 L_1 R_5 s^3 + C_1 L_1 s^2 + 2C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2C_4 C_5 L_1 R_5 s^3 + C_4 C_5 L_4 R_5 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + C_4 L_4 s^2 + 2C_4 R_5 s + 2C_5 L_1 R_5 g_m s^2 + C_5 R_5 s + 2L_1 g_m s + 1}$$

$$\mathbf{10.590 \quad INVALID-ORDER-590} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_4 L_4 s^2 + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{C_1 C_4 C_5 L_1 L_4 s^4 + 2 C_1 C_4 C_5 L_1 R_5 s^3 + 2 C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2 C_4 C_5 L_1 L_4 g_m s^3 + 2 C_4 C_5 L_1 R_5 g_m s^2 + 2 C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + 2 C_4 C_5 R_5 s + 2 C_4 L_1 g_m s + 2 C_4 + 2 C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.591 \quad INVALID-ORDER-591} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{C_1 C_4 C_5 L_1 L_4 s^4 + 2 C_1 C_4 C_5 L_1 L_5 s^4 + 2 C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2 C_4 C_5 L_1 L_4 g_m s^3 + 2 C_4 C_5 L_1 L_5 g_m s^3 + 2 C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + 2 C_4 C_5 L_5 s^2 + 2 C_4 L_1 g_m s + 2 C_4 + 2 C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.592 \quad INVALID-ORDER-592} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = - \frac{L_1 s (C_4 L_4 s^2 + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{C_1 C_4 C_5 L_1 L_4 L_5 s^6 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 L_5 s^4 + C_1 C_5 L_1 L_5 s^4 + C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2 C_4 C_5 L_1 L_5 s^4 + C_4 C_5 L_4 L_5 s^4 + 2 C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 L_5 g_m s^3 + 2 C_4 L_1 s^2 + C_4 L_4 s^2 + 2 C_4 L_5 s^2 + 2 C_5 L_1 L_5 g_m s^3 + C_5 L_5 s^2 + 2 L_1 g_m s + 1}$$

$$\mathbf{10.593 \quad INVALID-ORDER-593} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{C_1 C_4 C_5 L_1 L_4 s^4 + 2 C_1 C_4 C_5 L_1 L_5 s^4 + 2 C_1 C_4 C_5 L_1 R_5 s^3 + 2 C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2 C_4 C_5 L_1 L_4 g_m s^3 + 2 C_4 C_5 L_1 L_5 g_m s^3 + 2 C_4 C_5 L_1 R_5 g_m s^2 + 2 C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + 2 C_4 C_5 L_5 s^2 + 2 C_4 C_5 R_5 s + 2 C_4 L_1 g_m s + 2 C_4 + 2 C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.594 \quad INVALID-ORDER-594} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = - \frac{L_1 s (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + C_1 C_4 L_1 L_4 L_5 s^5 + C_1 C_4 L_1 L_4 R_5 s^4 + 2 C_1 C_4 L_1 L_5 R_5 s^4 + C_1 C_5 L_1 L_5 R_5 s^4 + C_1 L_1 L_5 s^3 + C_1 L_1 R_5 s^2 + 2 C_4 C_5 L_1 L_4 L_5 R_5 g_m s^5 + 2 C_4 C_5 L_1 L_5 R_5 s^4 + C_4 C_5 L_4 L_5 R_5 s^4 + 2 C_4 L_1 L_4 L_5 g_m s^4 + 2 C_4 L_1 L_4 R_5 g_m s^3 + 2 C_4 L_1 L_5 R_5 g_m s^3 + 2 C_4 L_1 L_5 s^3}$$

$$\mathbf{10.595 \quad INVALID-ORDER-595} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2 C_1 C_4 C_5 L_1 L_5 R_5 s^5 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 L_5 s^4 + 2 C_1 C_4 L_1 R_5 s^3 + C_1 C_5 L_1 L_5 s^4 + C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2 C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2 C_4 C_5 L_1 L_5 s^4 + C_4 C_5 L_4 L_5 s^4 + 2 C_4 C_5 L_5 R_5 s^3 + 2 C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 L_5 g_m s^3 + 2 C_4 L_1 R_5 g_m s^3}$$

$$\mathbf{10.596 \quad INVALID-ORDER-596} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = - \frac{L_1 s (C_4 L_4 s^2 + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 L_1 L_4 L_5 s^6 + C_1 C_4 C_5 L_1 L_4 R_5 s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_5 s^5 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_5 s^3 + C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_1 R_5 s^3 + C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2 C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2 C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2 C_4 C_5 L_1 L_5 s^4 + 2 C_4 C_5 L_1 R_5 s^3 + C_4 C_5 L_4 L_5 s^4 + C_4 C_5 L_5 R_5 s^3}$$

$$\mathbf{10.597 \quad INVALID-ORDER-597} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 (R_5 g_m - 1)}{2 C_1 C_4 L_1 L_4 R_5 s^4 + C_1 L_1 L_4 s^3 + 2 C_1 L_1 R_5 s^2 + 2 C_4 L_1 L_4 R_5 g_m s^3 + 2 C_4 L_1 L_4 s^3 + 2 C_4 L_4 R_5 s^2 + 2 L_1 L_4 g_m s^2 + 2 L_1 R_5 g_m s + 2 L_1 s + L_4 s + 2 R_5}$$

$$\mathbf{10.598 \quad INVALID-ORDER-598} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 (-C_5 s + g_m)}{2 C_1 C_4 L_1 L_4 s^4 + C_1 C_5 L_1 L_4 s^4 + 2 C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 s^4 + 2 C_4 L_1 L_4 g_m s^3 + 2 C_4 L_4 s^2 + 2 C_5 L_1 L_4 g_m s^3 + 2 C_5 L_1 s^2 + C_5 L_4 s^2 + 2 L_1 g_m s + 2}$$

$$\mathbf{10.599 \quad INVALID-ORDER-599} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 (-C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 L_1 L_4 R_5 s^4 + C_1 C_5 L_1 L_4 R_5 s^4 + C_1 L_1 L_4 s^3 + 2C_1 L_1 R_5 s^2 + 2C_4 C_5 L_1 L_4 R_5 s^4 + 2C_4 L_1 L_4 R_5 g_m s^3 + 2C_4 L_1 L_4 s^3 + 2C_4 L_4 R_5 s^2 + 2C_5 L_1 L_4 R_5 g_m s^3 + 2C_5 L_1 R_5 s^2 + C_5 L_4 R_5 s^2 + 2L_1 L_4 g_m s^2 + 2L_1 R_5 g_m s + 2L_1 s + L_4 s + 2R_5}$$

$$\mathbf{10.600 \quad INVALID-ORDER-600} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 R_5 s^5 + 2C_1 C_4 L_1 L_4 s^4 + C_1 C_5 L_1 L_4 s^4 + 2C_1 C_5 L_1 R_5 s^3 + 2C_1 L_1 s^2 + 2C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_4 s^4 + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_4 s^2 + 2C_5 L_1 L_4 g_m s^3 + 2C_5 L_1 R_5 g_m s^2 + 2C_5 L_1 s^2 + C_5 L_4 s^2 + 2C_5 R_5 s + 2L_1 g_m s + 2}$$

$$\mathbf{10.601 \quad INVALID-ORDER-601} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2C_1 C_4 L_1 L_4 s^4 + C_1 C_5 L_1 L_4 s^4 + 2C_1 C_5 L_1 L_5 s^4 + 2C_1 L_1 s^2 + 2C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2C_4 C_5 L_1 L_4 s^4 + 2C_4 C_5 L_4 L_5 s^4 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_4 s^2 + 2C_5 L_1 L_4 g_m s^3 + 2C_5 L_1 L_5 g_m s^3 + 2C_5 L_1 s^2 + C_5 L_4 s^2 + 2C_5 L_5 s^2 + 2L_1 g_m s + 2}$$

$$\mathbf{10.602 \quad INVALID-ORDER-602} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_1 C_4 L_1 L_4 L_5 s^4 + C_1 C_5 L_1 L_4 L_5 s^4 + C_1 L_1 L_4 s^2 + 2C_1 L_1 L_5 s^2 + 2C_4 C_5 L_1 L_4 L_5 s^4 + 2C_4 L_1 L_4 L_5 g_m s^3 + 2C_4 L_1 L_4 s^2 + 2C_4 L_4 L_5 s^2 + 2C_5 L_1 L_4 L_5 g_m s^3 + 2C_5 L_1 L_5 s^2 + C_5 L_4 L_5 s^2 + 2L_1 L_4 g_m s + 2L_1 L_5 g_m s + 2L_1 + L_4 + 2L_5}$$

$$\mathbf{10.603 \quad INVALID-ORDER-603} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2C_1 C_4 C_5 L_1 L_4 R_5 s^5 + 2C_1 C_4 L_1 L_4 s^4 + C_1 C_5 L_1 L_4 s^4 + 2C_1 C_5 L_1 L_5 s^4 + 2C_1 C_5 L_1 R_5 s^3 + 2C_1 L_1 s^2 + 2C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_4 s^4 + 2C_4 C_5 L_4 L_5 s^4 + 2C_4 C_5 L_4 R_5 s^3 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_4 s^2 + 2C_5 L_1 L_4 g_m s^3}$$

$$\mathbf{10.604 \quad INVALID-ORDER-604} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{2C_1 C_4 L_1 L_4 L_5 R_5 s^4 + C_1 C_5 L_1 L_4 L_5 R_5 s^4 + C_1 L_1 L_4 L_5 s^3 + C_1 L_1 L_4 R_5 s^2 + 2C_1 L_1 L_5 R_5 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_5 s^4 + 2C_4 L_1 L_4 L_5 R_5 g_m s^3 + 2C_4 L_1 L_4 L_5 s^3 + 2C_4 L_1 L_4 R_5 s^2 + 2C_4 L_4 L_5 R_5 s^2 + 2C_5 L_1 L_4 L_5 R_5 g_m s^3 + 2C_5 L_1 L_5 R_5 s^2 + C_5 L_4 L_5 R_5 s^2 + 2L_1 L_4 L_5 g_m s^2 + 2L_1 L_5 g_m s + 2L_1 R_5 s + L_4 s + 2R_5}$$

$$\mathbf{10.605 \quad INVALID-ORDER-605} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + 2C_1 C_4 L_1 L_4 L_5 s^5 + 2C_1 C_4 L_1 L_4 R_5 s^4 + C_1 C_5 L_1 L_4 L_5 s^5 + 2C_1 C_5 L_1 L_5 R_5 s^4 + C_1 L_1 L_4 s^3 + 2C_1 L_1 L_5 s^3 + 2C_1 L_1 R_5 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_5 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 s^5 + 2C_4 C_5 L_4 L_5 R_5 s^4 + 2C_4 L_1 L_4 L_5 g_m s^4 + 2C_4 L_1 L_4 R_5 g_m s^3 + 2C_4 L_1 L_4 s^3 + 2C_4 L_4 R_5 s^2 + 2C_5 L_1 L_4 L_5 R_5 g_m s^3 + 2C_5 L_1 L_5 R_5 s^2 + C_5 L_4 L_5 R_5 s^2 + 2L_1 L_4 L_5 g_m s^2 + 2L_1 L_5 g_m s + 2L_1 R_5 s + L_4 s + 2R_5}$$

$$\mathbf{10.606 \quad INVALID-ORDER-606} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 s^2 (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + 2C_1 C_4 L_1 L_4 R_5 s^4 + C_1 C_5 L_1 L_4 L_5 s^5 + C_1 C_5 L_1 L_4 R_5 s^4 + 2C_1 C_5 L_1 L_5 R_5 s^4 + C_1 L_1 L_4 s^3 + 2C_1 L_1 R_5 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_5 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 s^5 + 2C_4 C_5 L_1 L_4 R_5 s^4 + 2C_4 C_5 L_4 L_5 R_5 s^4 + 2C_4 L_1 L_4 R_5 g_m s^3 + 2C_4 L_1 L_4 s^3 + 2C_4 L_4 R_5 s^2 + 2C_5 L_1 L_4 L_5 R_5 g_m s^3 + 2C_5 L_1 L_5 R_5 s^2 + C_5 L_4 L_5 R_5 s^2 + 2L_1 L_4 L_5 g_m s^2 + 2L_1 L_5 g_m s + 2L_1 R_5 s + L_4 s + 2R_5}$$

$$\mathbf{10.607 \quad INVALID-ORDER-607} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (R_5 g_m - 1) (C_4 L_4 s^2 + C_4 R_4 s + 1)}{C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_1 R_5 s^3 + C_1 L_1 s^2 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2C_4 R_5 s + 2L_1 g_m s + 1}$$

$$\mathbf{10.608 \quad INVALID-ORDER-608} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = - \frac{L_1 (C_5 s - g_m) (C_4 L_4 s^2 + C_4 R_4 s + 1)}{C_1 C_4 C_5 L_1 L_4 s^4 + C_1 C_4 C_5 L_1 R_4 s^3 + 2 C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2 C_4 C_5 L_1 L_4 g_m s^3 + 2 C_4 C_5 L_1 R_4 g_m s^2 + 2 C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + C_4 C_5 R_4 s + 2 C_4 L_1 g_m s + 2 C_4 + 2 C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.609 \quad INVALID-ORDER-609} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = - \frac{L_1 s (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 L_1 L_4 R_5 s^5 + C_1 C_4 C_5 L_1 R_4 R_5 s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + 2 C_1 C_4 L_1 R_5 s^3 + C_1 C_5 L_1 R_5 s^3 + C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2 C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2 C_4 C_5 L_1 R_5 s^3 + C_4 C_5 L_4 R_5 s^3 + C_4 C_5 R_4 R_5 s^2 + 2 C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 R_4 g_m s^2 + 2 C_4 L_1 R_5 g_m s^2 + 2 C_4 L_1 g_m s + 2 C_4 + 2 C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.610 \quad INVALID-ORDER-610} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{C_1 C_4 C_5 L_1 L_4 s^4 + C_1 C_4 C_5 L_1 R_4 s^3 + 2 C_1 C_4 C_5 L_1 R_5 s^3 + 2 C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2 C_4 C_5 L_1 L_4 g_m s^3 + 2 C_4 C_5 L_1 R_4 g_m s^2 + 2 C_4 C_5 L_1 R_5 g_m s^2 + 2 C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + C_4 C_5 R_4 s + 2 C_4 C_5 R_5 s + 2 C_4 L_1 g_m s + 2 C_4 + 2 C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.611 \quad INVALID-ORDER-611} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{C_1 C_4 C_5 L_1 L_4 s^4 + 2 C_1 C_4 C_5 L_1 L_5 s^4 + C_1 C_4 C_5 L_1 R_4 s^3 + 2 C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2 C_4 C_5 L_1 L_4 g_m s^3 + 2 C_4 C_5 L_1 L_5 g_m s^3 + 2 C_4 C_5 L_1 R_4 g_m s^2 + 2 C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + 2 C_4 C_5 L_5 s^2 + C_4 C_5 R_4 s + 2 C_4 L_1 g_m s + 2 C_4 + 2 C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.612 \quad INVALID-ORDER-612} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = - \frac{L_1 s (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{C_1 C_4 C_5 L_1 L_4 L_5 s^6 + C_1 C_4 C_5 L_1 L_5 R_4 s^5 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 L_5 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_5 L_1 L_5 s^4 + C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2 C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2 C_4 C_5 L_1 L_5 s^4 + C_4 C_5 L_4 L_5 s^4 + C_4 C_5 L_5 R_4 s^3 + 2 C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 L_5 g_m s^3 + 2 C_4 L_1 R_4 g_m s^2 + 2 C_4 L_1 g_m s + 2 C_4 + 2 C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.613 \quad INVALID-ORDER-613} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{C_1 C_4 C_5 L_1 L_4 s^4 + 2 C_1 C_4 C_5 L_1 L_5 s^4 + C_1 C_4 C_5 L_1 R_4 s^3 + 2 C_1 C_4 C_5 L_1 R_5 s^3 + 2 C_1 C_4 L_1 s^2 + C_1 C_5 L_1 s^2 + 2 C_4 C_5 L_1 L_4 g_m s^3 + 2 C_4 C_5 L_1 L_5 g_m s^3 + 2 C_4 C_5 L_1 R_4 g_m s^2 + 2 C_4 C_5 L_1 R_5 g_m s^2 + 2 C_4 C_5 L_1 s^2 + C_4 C_5 L_4 s^2 + 2 C_4 C_5 L_5 s^2 + C_4 C_5 R_4 s + 2 C_4 C_5 R_5 s + 2 C_4 L_1 g_m s + 2 C_4 + 2 C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.614 \quad INVALID-ORDER-614} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = - \frac{L_1 s (C_4 L_4 s^2 + C_4 R_4 s + 1)}{C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + C_1 C_4 C_5 L_1 L_5 R_4 R_5 s^5 + C_1 C_4 L_1 L_4 L_5 s^5 + C_1 C_4 L_1 L_4 R_5 s^4 + C_1 C_4 L_1 L_5 R_4 s^4 + 2 C_1 C_4 L_1 L_5 R_5 s^4 + C_1 C_4 L_1 R_4 R_5 s^3 + C_1 C_5 L_1 L_5 R_5 s^4 + C_1 L_1 L_5 s^3 + C_1 L_1 R_5 s^2 + 2 C_4 C_5 L_1 L_4 L_5 R_5 g_m s^5 + 2 C_4 C_5 L_1 L_5 R_4 R_5 g_m s^4 + 2 C_4 C_5 L_1 L_5 R_5 s^4 + C_4 C_5 L_4 L_5 R_5 s^4 + C_4 C_5 L_5 R_4 R_5 s^3 + 2 C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 L_5 g_m s^3 + 2 C_4 L_1 R_4 g_m s^2 + 2 C_4 L_1 g_m s + 2 C_4 + 2 C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.615 \quad INVALID-ORDER-615} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 s (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_4 C_5 L_1 L_4 L_5 s^6 + C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_5 s^5 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 L_5 s^4 + C_1 C_4 L_1 R_4 s^3 + 2 C_1 C_4 L_1 R_5 s^3 + C_1 C_5 L_1 L_5 s^4 + C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2 C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2 C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2 C_4 C_5 L_1 L_5 s^4 + C_4 C_5 L_4 L_5 s^4 + C_4 C_5 L_5 R_4 R_5 s^3 + 2 C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 L_5 g_m s^3 + 2 C_4 L_1 R_4 g_m s^2 + 2 C_4 L_1 g_m s + 2 C_4 + 2 C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.616 \quad INVALID-ORDER-616} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = - \frac{L_1 s (C_4 L_4 s^2 + C_4 R_4 s + 1)}{C_1 C_4 C_5 L_1 L_4 L_5 s^6 + C_1 C_4 C_5 L_1 L_4 R_5 s^5 + C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_5 s^5 + C_1 C_4 C_5 L_1 R_4 R_5 s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + 2 C_1 C_4 L_1 R_5 s^3 + C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_1 R_5 s^3 + C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2 C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2 C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2 C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2 C_4 C_5 L_1 L_5 s^4 + C_4 C_5 L_4 L_5 s^4 + C_4 C_5 L_5 R_4 R_5 s^3 + 2 C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 L_5 g_m s^3 + 2 C_4 L_1 R_4 g_m s^2 + 2 C_4 L_1 g_m s + 2 C_4 + 2 C_5 L_1 g_m s + C_5}$$

$$\mathbf{10.617 \quad INVALID-ORDER-617} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s^2 (R_5 g_m - 1)}{2C_1 C_4 L_1 L_4 R_4 R_5 s^4 + C_1 L_1 L_4 R_4 s^3 + 2C_1 L_1 L_4 R_5 s^3 + 2C_1 L_1 R_4 R_5 s^2 + 2C_4 L_1 L_4 R_4 R_5 g_m s^3 + 2C_4 L_1 L_4 R_4 s^3 + 2C_4 L_4 R_4 R_5 s^2 + 2L_1 L_4 R_4 g_m s^2 + 2L_1 L_4 R_5 g_m s^2 + 2L_1 L_4 s^2 + 2L_1 R_4 R_5 g_m s + 2L_1 R_4 s + L_4 R_4 s + 2L_4 R_5 s + 2R_4 R_5}$$

$$\mathbf{10.618 \quad INVALID-ORDER-618} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s^2 (-C_5 s + g_m)}{2C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_5 L_1 L_4 R_4 s^4 + 2C_1 L_1 L_4 s^3 + 2C_1 L_1 R_4 s^2 + 2C_4 C_5 L_1 L_4 R_4 s^4 + 2C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_4 R_4 s^2 + 2C_5 L_1 L_4 R_4 g_m s^3 + 2C_5 L_1 L_4 s^3 + 2C_5 L_1 R_4 s^2 + C_5 L_4 R_4 s^2 + 2L_1 L_4 g_m s^2 + 2L_1 R_4 g_m s + 2L_4 s + 2R_4}$$

$$\mathbf{10.619 \quad INVALID-ORDER-619} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s^2 (-C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 L_1 L_4 R_4 R_5 s^4 + C_1 C_5 L_1 L_4 R_4 R_5 s^4 + C_1 L_1 L_4 R_4 s^3 + 2C_1 L_1 L_4 R_5 s^3 + 2C_1 L_1 R_4 R_5 s^2 + 2C_4 C_5 L_1 L_4 R_4 R_5 s^4 + 2C_4 L_1 L_4 R_4 R_5 g_m s^3 + 2C_4 L_1 L_4 R_4 s^3 + 2C_4 L_4 R_4 R_5 s^2 + 2C_5 L_1 L_4 R_4 R_5 g_m s^3 + 2C_5 L_1 L_4 R_5 s^3 + 2C_5 L_1 R_4 R_5 s^2 + C_5 L_4 R_4 R_5 s^2 + 2L_1 L_4 R_4 g_m s^2 + 2L_1 R_4 g_m s + 2L_4 R_5 s + 2R_4 R_5}$$

$$\mathbf{10.620 \quad INVALID-ORDER-620} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s^2 (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 R_4 R_5 s^5 + 2C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_5 L_1 L_4 R_4 s^4 + 2C_1 C_5 L_1 L_4 R_5 s^4 + 2C_1 C_5 L_1 R_4 R_5 s^3 + 2C_1 L_1 L_4 s^3 + 2C_1 L_1 R_4 s^2 + 2C_4 C_5 L_1 L_4 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_4 R_4 s^4 + 2C_4 C_5 L_4 R_4 R_5 s^3 + 2C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_4 R_4 s^2 + 2C_5 L_1 L_4 R_4 g_m s^3 + 2C_5 L_1 L_4 R_5 s^3 + 2C_5 L_1 R_4 R_5 s^2 + 2C_5 L_4 R_4 R_5 s^2 + 2L_1 L_4 R_4 g_m s^2 + 2L_1 R_4 g_m s + 2L_4 R_5 s + 2R_4 R_5}$$

$$\mathbf{10.621 \quad INVALID-ORDER-621} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s^2 (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_4 s^6 + 2C_1 C_4 L_1 L_4 R_4 s^4 + 2C_1 C_5 L_1 L_4 L_5 s^5 + C_1 C_5 L_1 L_4 R_4 s^4 + 2C_1 C_5 L_1 L_5 R_4 s^4 + 2C_1 L_1 L_4 s^3 + 2C_1 L_1 R_4 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_4 g_m s^5 + 2C_4 C_5 L_1 L_4 R_4 s^4 + 2C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_4 R_4 s^2 + 2C_5 L_1 L_4 L_5 g_m s^4 + 2C_5 L_1 L_4 R_4 g_m s^3 + 2C_5 L_1 L_4 L_5 s^3 + 2C_5 L_1 R_4 s^2 + 2C_5 L_4 L_5 R_4 s^2 + 2L_1 L_4 L_5 g_m s^2 + 2L_1 R_4 g_m s + 2L_4 R_5 s + 2R_4 R_5}$$

$$\mathbf{10.622 \quad INVALID-ORDER-622} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_1 C_4 L_1 L_4 L_5 R_4 s^4 + C_1 C_5 L_1 L_4 L_5 R_4 s^4 + 2C_1 L_1 L_4 L_5 s^3 + C_1 L_1 L_4 R_4 s^2 + 2C_1 L_1 L_5 R_4 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_4 s^4 + 2C_4 L_1 L_4 L_5 R_4 g_m s^3 + 2C_4 L_1 L_4 R_4 s^2 + 2C_4 L_4 L_5 R_4 s^2 + 2C_5 L_1 L_4 L_5 R_4 g_m s^3 + 2C_5 L_1 L_4 L_5 s^3 + 2C_5 L_1 L_5 R_4 s^2 + C_5 L_4 L_5 R_4 s^2 + 2L_1 L_4 L_5 g_m s^2 + 2L_1 R_4 g_m s + 2L_4 R_5 s + 2R_4 R_5}$$

$$\mathbf{10.623 \quad INVALID-ORDER-623} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s + R_5)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_4 s^6 + 2C_1 C_4 C_5 L_1 L_4 R_4 R_5 s^5 + 2C_1 C_4 L_1 L_4 R_4 s^4 + 2C_1 C_5 L_1 L_4 L_5 s^5 + C_1 C_5 L_1 L_4 R_4 s^4 + 2C_1 C_5 L_1 L_4 R_5 s^4 + 2C_1 C_5 L_1 L_5 R_4 s^4 + 2C_1 C_5 L_1 R_4 R_5 s^3 + 2C_1 L_1 L_4 s^3 + 2C_1 L_1 R_4 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_4 g_m s^5 + 2C_4 C_5 L_1 L_4 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_4 R_4 s^4 + 2C_4 C_5 L_4 L_5 R_4 s^4 + 2C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_4 R_4 s^2 + 2C_5 L_1 L_4 L_5 g_m s^4 + 2C_5 L_1 L_4 R_4 g_m s^3 + 2C_5 L_1 L_4 L_5 s^3 + 2C_5 L_1 R_4 s^2 + 2C_5 L_4 L_5 R_4 s^2 + 2L_1 L_4 L_5 g_m s^2 + 2L_1 R_4 g_m s + 2L_4 R_5 s + 2R_4 R_5}$$

$$\mathbf{10.624 \quad INVALID-ORDER-624} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s + R_5)}{2C_1 C_4 L_1 L_4 L_5 R_4 R_5 s^4 + C_1 C_5 L_1 L_4 L_5 R_4 R_5 s^4 + C_1 L_1 L_4 L_5 R_4 s^3 + 2C_1 L_1 L_4 L_5 R_5 s^3 + C_1 L_1 L_4 R_4 R_5 s^2 + 2C_1 L_1 L_5 R_4 R_5 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_4 R_5 s^4 + 2C_4 L_1 L_4 L_5 R_4 R_5 g_m s^3 + 2C_4 L_1 L_4 L_5 R_4 s^3 + 2C_4 L_1 L_4 R_4 R_5 s^2 + 2C_4 L_4 L_5 R_4 R_5 s^2 + 2C_5 L_1 L_4 L_5 R_4 g_m s^3 + 2C_5 L_1 L_4 L_5 s^3 + 2C_5 L_1 R_4 R_5 s^2 + 2C_5 L_4 L_5 R_4 R_5 s^2 + 2L_1 L_4 L_5 g_m s^2 + 2L_1 R_4 g_m s + 2L_4 R_5 s + 2R_4 R_5}$$

$$\mathbf{10.625 \quad INVALID-ORDER-625} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s + R_5)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_4 R_5 s^6 + 2C_1 C_4 L_1 L_4 L_5 R_4 s^5 + 2C_1 C_4 L_1 L_4 R_4 R_5 s^4 + C_1 C_5 L_1 L_4 L_5 R_4 s^5 + 2C_1 C_5 L_1 L_4 L_5 R_5 s^5 + 2C_1 C_5 L_1 L_5 R_4 R_5 s^4 + 2C_1 L_1 L_4 L_5 s^4 + C_1 L_1 L_4 R_4 s^3 + 2C_1 L_1 L_4 R_5 s^3 + 2C_1 L_1 L_5 R_4 s^3 + 2C_1 L_1 R_4 R_5 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_4 R_5 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 R_4 s^4 + 2C_4 C_5 L_4 L_5 R_4 R_5 s^4 + 2C_4 L_1 L_4 L_5 R_4 R_5 g_m s^3 + 2C_4 L_1 L_4 L_5 R_4 s^3 + 2C_4 L_1 L_4 R_4 R_5 s^2 + 2C_4 L_4 L_5 R_4 R_5 s^2 + 2C_5 L_1 L_4 L_5 R_4 g_m s^3 + 2C_5 L_1 L_4 L_5 s^3 + 2C_5 L_1 R_4 R_5 s^2 + 2C_5 L_4 L_5 R_4 R_5 s^2 + 2L_1 L_4 L_5 g_m s^2 + 2L_1 R_4 g_m s + 2L_4 R_5 s + 2R_4 R_5}$$

10.635 INVALID-ORDER-635 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{C_1 C_4 C_5 L_1 L_4 L_5 R_4 s^6 + 2 C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + 2 C_1 C_4 L_1 L_4 L_5 s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + 2 C_1 C_4 L_1 L_4 R_5 s^4 + C_1 C_5 L_1 L_4 L_5 s^5 + C_1 C_5 L_1 L_5 R_4 s^4 + 2 C_1 C_5 L_1 L_5 R_5 s^4 + C_1 L_1 L_4 s^3 + 2 C_1 L_1 L_5 s^3 + C_1 L_1 R_4 s^2 + 2 C_1 L_1 R_5 s^2 + 2 C_4 C_5 L_1 L_4 L_5 R_4 g_m s^5 + 2 C_4 C_5 L_1 L_4 L_5 R_5 g_r s^5}{C_1 C_4 C_5 L_1 L_4 L_5 R_4 s^6 + 2 C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + 2 C_1 C_4 L_1 L_4 L_5 s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + 2 C_1 C_4 L_1 L_4 R_5 s^4 + C_1 C_5 L_1 L_4 L_5 s^5 + C_1 C_5 L_1 L_5 R_4 s^4 + 2 C_1 C_5 L_1 L_5 R_5 s^4 + C_1 L_1 L_4 s^3 + 2 C_1 L_1 L_5 s^3 + C_1 L_1 R_4 s^2 + 2 C_1 L_1 R_5 s^2 + 2 C_4 C_5 L_1 L_4 L_5 R_4 g_m s^5 + 2 C_4 C_5 L_1 L_4 L_5 R_5 g_r s^5}$$

10.636 INVALID-ORDER-636 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{C_1 C_4 C_5 L_1 L_4 L_5 R_4 s^6 + 2 C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + C_1 C_4 C_5 L_1 L_4 R_4 R_5 s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + 2 C_1 C_4 L_1 L_4 R_5 s^4 + C_1 C_5 L_1 L_4 L_5 s^5 + C_1 C_5 L_1 L_4 R_5 s^4 + C_1 C_5 L_1 L_5 R_4 s^4 + 2 C_1 C_5 L_1 L_5 R_5 s^4 + C_1 C_5 L_1 R_4 R_5 s^3 + C_1 L_1 L_4 s^3 + C_1 L_1 R_4 s^2 + 2 C_1 L_1 R_5 s^2 + 2 C_4 C_5 L_1 L_4 L_5}{s^7 + C_1 C_4 C_5 L_1 L_4 L_5 R_4 s^6 + 2 C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + C_1 C_4 C_5 L_1 L_4 R_4 R_5 s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + 2 C_1 C_4 L_1 L_4 R_5 s^4 + C_1 C_5 L_1 L_4 L_5 s^5 + C_1 C_5 L_1 L_4 R_5 s^4 + C_1 C_5 L_1 L_5 R_4 s^4 + 2 C_1 C_5 L_1 L_5 R_5 s^4 + C_1 C_5 L_1 R_4 R_5 s^3 + C_1 L_1 L_4 s^3 + C_1 L_1 R_4 s^2 + 2 C_1 L_1 R_5 s^2 + 2 C_4 C_5 L_1 L_4 L_5}.$$

10.637 INVALID-ORDER-637 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, R_5, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (R_5 g_m - 1) (C_4 L_4 s^2 + 1)}{C_1 C_4 L_1 L_4 R_4 s^4 + 2 C_1 C_4 L_1 L_4 R_5 s^4 + 2 C_1 C_4 L_1 R_4 R_5 s^3 + C_1 L_1 R_4 s^2 + 2 C_1 L_1 R_5 s^2 + 2 C_4 L_1 L_4 R_4 g_m s^3 + 2 C_4 L_1 L_4 R_5 g_m s^3 + 2 C_4 L_1 L_4 s^3 + 2 C_4 L_1 R_4 R_5 g_m s^2 + 2 C_4 L_1 R_4 s^2 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_5 s^2 + 2 C_4 R_4 R_5 s + 2 L_1 R_4 g_m s + 2 L_1 R_5 g_m s + 2 L_1 s + R_4 + 2 R_5}$$

10.638 INVALID-ORDER-638 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{L_1 R_4 s (C_5 s - g_m) (C_4 L_4 s^2 + 1)}{C_1 C_4 C_5 L_1 L_4 R_4 s^5 + 2 C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_4 s^3 + C_1 C_5 L_1 R_4 s^3 + 2 C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 R_4 g_m s^4 + 2 C_4 C_5 L_1 L_4 s^4 + 2 C_4 C_5 L_1 R_4 s^3 + C_4 C_5 L_4 R_4 s^3 + 2 C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 R_4 g_m s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + 2 C_5 L_1 R_4 g_m s^2 + 2 C_5 L_1 s^2 + C_5 R_4 s + 2 L_1 g_m s +}$$

10.639 INVALID-ORDER-639 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{L_1 R_4 s (C_4 L_4 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 L_1 L_4 R_4 R_5 s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + 2 C_1 C_4 L_1 L_4 R_5 s^4 + 2 C_1 C_4 L_1 R_4 R_5 s^3 + C_1 C_5 L_1 R_4 R_5 s^3 + C_1 L_1 R_4 s^2 + 2 C_1 L_1 R_5 s^2 + 2 C_4 C_5 L_1 L_4 R_4 R_5 g_m s^4 + 2 C_4 C_5 L_1 L_4 R_5 s^4 + 2 C_4 C_5 L_1 R_4 R_5 s^3 + C_4 C_5 L_4 R_4 R_5 s^3 + 2 C_4 L_1 L_4 R_4 g_m s^3 + 2 C_4 L_1 L_4 R_5 g_m s^3 + 2 C_4 L_1 L_4 R_4 s^2 + 2 C_4 L_1 L_4 R_5 s^2 + 2 C_4 L_1 R_4 R_5 s + 2 C_4 L_1 R_5 s + 2 C_4 R_4 R_5}$$

10.640 INVALID-ORDER-640 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (C_4 L_4 s^2 + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{C_1 C_4 C_5 L_1 L_4 R_4 s^5 + 2 C_1 C_4 C_5 L_1 L_4 R_5 s^5 + 2 C_1 C_4 C_5 L_1 R_4 R_5 s^4 + 2 C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_4 s^3 + C_1 C_5 L_1 R_4 s^3 + 2 C_1 C_5 L_1 R_5 s^3 + 2 C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 R_4 g_m s^4 + 2 C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2 C_4 C_5 L_1 L_4 s^4 + 2 C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2 C_4 C_5 L_1 R_4 s^3 + C_4 C_5 L_4 R_4 s^3 +}$$

10.641 INVALID-ORDER-641 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_4 s (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 L_5 s^6 + C_1 C_4 C_5 L_1 L_4 R_4 s^5 + 2C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 R_4 s^3 + 2C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_1 R_4 s^3 + 2C_1 L_1 s^2 + 2C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2C_4 C_5 L_1 L_4 R_4 g_m s^4 + 2C_4 C_5 L_1 L_4 s^4 + 2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 R_4 s^3 + 2C_4 C_5 L_4 L_5 s^4 +}$$

10.642 INVALID-ORDER-642 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = -\frac{L_1 R_4 s (C_4 L_4 s^2 + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{C_1 C_4 C_5 L_1 L_4 L_5 R_4 s^6 + 2 C_1 C_4 L_1 L_4 L_5 s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + 2 C_1 C_4 L_1 L_5 R_4 s^4 + C_1 C_5 L_1 L_5 R_4 s^4 + 2 C_1 L_1 L_5 s^3 + C_1 L_1 R_4 s^2 + 2 C_4 C_5 L_1 L_4 L_5 R_4 g_m s^5 + 2 C_4 C_5 L_1 L_4 L_5 s^5 + 2 C_4 C_5 L_1 L_5 R_4 s^4 + C_4 C_5 L_4 L_5 R_4 s^4 + 2 C_4 L_1 L_4 L_5 g_m s^4 + 2 C_4 L_1 L_4 R_4 g_m s^3 + 2 C_4 L_1 L_4 s^2}$$

10.643 INVALID-ORDER-643 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{2C_1 C_4 C_5 L_1 L_4 L_5 s^6 + C_1 C_4 C_5 L_1 L_4 R_4 s^5 + 2C_1 C_4 C_5 L_1 L_4 R_5 s^5 + 2C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2C_1 C_4 C_5 L_1 R_4 R_5 s^4 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 R_4 s^3 + 2C_1 C_5 L_1 L_5 s^4 + C_1 C_5 L_1 R_4 s^3 + 2C_1 C_5 L_1 R_5 s^3 + 2C_1 L_1 s^2 + 2C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2C_4 C_5 L_1 L_4 R_4 g_m s^4 + 2C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2C_4 C_5 L_1 R_4 g_m s^3 + 2C_4 C_5 L_1 R_5 g_m s^3 + 2C_4 C_5 L_1 g_m s^2 + 2C_4 C_5 L_4 L_5 g_m s^5 + 2C_4 C_5 L_4 R_4 g_m s^4 + 2C_4 C_5 L_4 R_5 g_m s^4 + 2C_4 C_5 L_5 R_4 g_m s^4 + 2C_4 C_5 R_4 R_5 g_m s^3 + 2C_4 C_5 R_4 g_m s^3 + 2C_4 C_5 R_5 g_m s^3 + 2C_4 C_5 g_m s^2}{(s^2 + 2\zeta\omega_n s + \omega_n^2)(s^2 + 2\zeta\omega_{n1} s + \omega_{n1}^2)(s^2 + 2\zeta\omega_{n2} s + \omega_{n2}^2)}$$

10.644 INVALID-ORDER-644 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = -\frac{C_1 C_4 C_5 L_1 L_4 L_5 R_4 R_5 s^6 + C_1 C_4 L_1 L_4 L_5 R_4 s^5 + 2C_1 C_4 L_1 L_4 L_5 R_5 s^5 + C_1 C_4 L_1 L_4 R_4 R_5 s^4 + 2C_1 C_4 L_1 L_5 R_4 R_5 s^4 + C_1 C_5 L_1 L_5 R_4 R_5 s^4 + C_1 L_1 L_5 R_4 s^3 + 2C_1 L_1 L_5 R_5 s^3 + C_1 L_1 R_4 R_5 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_4 R_5 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 R_5 s^5 + 2C_4 C_5 L_1 L_5 R_4 R_5 s^4 + C_4}{1}$$

10.645 INVALID-ORDER-645 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{C_1 C_4 C_5 L_1 L_4 L_5 R_4 s^6 + 2 C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + 2 C_1 C_4 C_5 L_1 L_5 R_4 R_5 s^5 + 2 C_1 C_4 L_1 L_4 L_5 s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + 2 C_1 C_4 L_1 L_4 R_5 s^4 + 2 C_1 C_4 L_1 L_5 R_4 s^4 + 2 C_1 C_4 L_1 R_4 R_5 s^3 + C_1 C_5 L_1 L_5 R_4 s^4 + 2 C_1 C_5 L_1 L_5 R_5 s^4 + 2 C_1 L_1 L_5 s^3 + C_1 L_1 R_4 s^2 + 2 C_1 L_1 R_5 s^2 + 2 C_4 C_5 L_1 L_1}{C_1 C_4 C_5 L_1 L_4 L_5 R_4 s^6 + 2 C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + 2 C_1 C_4 C_5 L_1 L_5 R_4 R_5 s^5 + 2 C_1 C_4 L_1 L_4 L_5 s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + 2 C_1 C_4 L_1 L_4 R_5 s^4 + 2 C_1 C_4 L_1 L_5 R_4 s^4 + 2 C_1 C_4 L_1 R_4 R_5 s^3 + C_1 C_5 L_1 L_5 R_4 s^4 + 2 C_1 C_5 L_1 L_5 R_5 s^4 + 2 C_1 L_1 L_5 s^3 + C_1 L_1 R_4 s^2 + 2 C_1 L_1 R_5 s^2 + 2 C_4 C_5 L_1 L_1}$$

10.646 INVALID-ORDER-646 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{C_1 C_4 C_5 L_1 L_4 L_5 R_4 s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + C_1 C_4 C_5 L_1 L_4 R_4 R_5 s^5 + 2C_1 C_4 C_5 L_1 L_5 R_4 R_5 s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + 2C_1 C_4 L_1 L_4 R_5 s^4 + 2C_1 C_4 L_1 R_4 R_5 s^3 + C_1 C_5 L_1 L_5 R_4 s^4 + 2C_1 C_5 L_1 L_5 R_5 s^4 + C_1 C_5 L_1 R_4 R_5 s^3 + C_1 L_1 R_4 s^2 + 2C_1 L_1 R_5 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_4 g_m}{1}$$

10.647 INVALID-ORDER-647 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{R_4(C_5s - g_m)(C_1L_1s^2 + C_1R_1s + 1)}{2C_1C_5L_1R_4g_ms^3 + 2C_1C_5L_1s^3 + 2C_1C_5R_1R_4g_ms^2 + 2C_1C_5R_1s^2 + C_1C_5R_4s^2 + 2C_1L_1g_ms^2 + 2C_1R_1g_ms + 2C_1s + 2C_5R_4g_ms + 2C_5s + 2g_m}$$

10.648 INVALID-ORDER-648 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{R_4 (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_5 L_1 R_4 R_5 g_m s^3 + 2C_1 C_5 L_1 R_5 s^3 + 2C_1 C_5 R_1 R_4 R_5 g_m s^2 + 2C_1 C_5 R_1 R_5 s^2 + C_1 C_5 R_4 R_5 s^2 + 2C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_5 g_m s^2 + 2C_1 L_1 s^2 + 2C_1 R_1 R_4 g_m s + 2C_1 R_1 R_5 g_m s + 2C_1 R_1 s + C_1 R_4 s + 2C_1 R_5 s + 2C_5 R_4 R_5 g_m s + 2C_5 R_5 s + 2R_4 g_m + 2R_5 g_m + 2}$$

10.649 INVALID-ORDER-649 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4 (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_5 L_1 R_4 g_m s^3 + 2C_1 C_5 L_1 R_5 g_m s^3 + 2C_1 C_5 L_1 s^3 + 2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 R_5 g_m s^2 + 2C_1 C_5 R_1 s^2 + C_1 C_5 R_4 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_5 R_4 g_m s + 2C_5 R_5 g_m s + 2C_5 s + 2g_m}$$

10.650 INVALID-ORDER-650 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4 (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 R_4 g_m s^3 + 2C_1 C_5 L_1 s^3 + 2C_1 C_5 L_5 R_1 g_m s^3 + 2C_1 C_5 L_5 s^3 + 2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 s^2 + C_1 C_5 R_4 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_5 L_5 g_m s^2 + 2C_5 R_4 g_m s + 2C_5 s + 2g_m}$$

10.651 INVALID-ORDER-651 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = -\frac{R_4 (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_5 L_1 L_5 R_4 g_m s^4 + 2C_1 C_5 L_1 L_5 s^4 + 2C_1 C_5 L_5 R_1 R_4 g_m s^3 + 2C_1 C_5 L_5 R_1 s^3 + C_1 C_5 L_5 R_4 s^3 + 2C_1 L_1 L_5 g_m s^3 + 2C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 s^2 + 2C_1 L_5 R_1 g_m s^2 + 2C_1 L_5 s^2 + 2C_1 R_1 R_4 g_m s + 2C_1 R_1 s + C_1 R_4 s + 2C_5 L_5 R_4 g_m s^2 + 2C_5 L_5 s^2 + 2L_5 g_m s + 2R_4 g_m + 2}$$

10.652 INVALID-ORDER-652 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{R_4 (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 R_4 g_m s^3 + 2C_1 C_5 L_1 R_5 g_m s^3 + 2C_1 C_5 L_1 s^3 + 2C_1 C_5 L_5 R_1 g_m s^3 + 2C_1 C_5 L_5 s^3 + 2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 R_5 g_m s^2 + 2C_1 C_5 R_1 s^2 + C_1 C_5 R_4 s^2 + 2C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_5 L_5 g_m s^2 + 2C_5 R_4 g_m s + 2C_5 R_5 g_m s + 2C_5 s + g_m}$$

$$\mathbf{10.653 \quad INVALID-ORDER-653} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_1 C_5 L_1 L_5 R_4 R_5 g_m s^4 + 2C_1 C_5 L_1 L_5 R_5 s^4 + 2C_1 C_5 L_5 R_1 R_4 R_5 g_m s^3 + 2C_1 C_5 L_5 R_1 R_5 s^3 + C_1 C_5 L_5 R_4 R_5 s^3 + 2C_1 L_1 L_5 R_4 g_m s^3 + 2C_1 L_1 L_5 R_5 g_m s^3 + 2C_1 L_1 L_5 s^3 + 2C_1 L_1 R_4 R_5 g_m s^2 + 2C_1 L_1 R_5 s^2 + 2C_1 L_5 R_1 R_4 g_m s^2 + 2C_1 L_5 R_1 R_5 g_m s^2 + 2C_1 L_5 R_1 s^2 + C_1 L_5 R_4 g_m s^2 + C_1 L_5 R_4 s^2 + C_1 R_1 R_4 g_m s^2 + C_1 R_1 R_4 s^2 + C_1 R_1 s^2 + C_1 s + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

$$\mathbf{10.654 \quad INVALID-ORDER-654} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_5 L_1 L_5 R_4 g_m s^4 + 2C_1 C_5 L_1 L_5 R_5 g_m s^4 + 2C_1 C_5 L_1 L_5 s^4 + 2C_1 C_5 L_5 R_1 R_4 g_m s^3 + 2C_1 C_5 L_5 R_1 R_5 g_m s^3 + 2C_1 C_5 L_5 R_1 s^3 + C_1 C_5 L_5 R_4 s^3 + 2C_1 C_5 L_5 R_5 s^3 + 2C_1 L_1 L_5 g_m s^3 + 2C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_5 g_m s^2 + 2C_1 L_1 s^2 + 2C_1 L_5 R_1 g_m s^2 + 2C_1 L_5 s^2 + 2C_1 R_1 R_4 g_m s^2 + 2C_1 R_1 R_4 s^2 + 2C_1 R_1 s^2 + C_1 s + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

$$\mathbf{10.655 \quad INVALID-ORDER-655} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 L_1 s^2 + C_1 R_1 s + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s - R_5 g_m)}{2C_1 C_5 L_1 L_5 R_4 g_m s^4 + 2C_1 C_5 L_1 L_5 R_5 g_m s^4 + 2C_1 C_5 L_1 L_5 s^4 + 2C_1 C_5 L_5 R_1 R_4 g_m s^3 + 2C_1 C_5 L_5 R_1 R_5 g_m s^3 + 2C_1 C_5 L_5 R_1 s^3 + C_1 C_5 L_5 R_4 s^3 + 2C_1 C_5 L_5 R_5 s^3 + 2C_1 L_1 L_5 g_m s^3 + 2C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_5 g_m s^2 + 2C_1 L_1 s^2 + 2C_1 L_5 R_1 g_m s^2 + 2C_1 L_5 s^2 + 2C_1 R_1 R_4 g_m s^2 + 2C_1 R_1 R_4 s^2 + 2C_1 R_1 s^2 + C_1 s + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

$$\mathbf{10.656 \quad INVALID-ORDER-656} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{(R_5 g_m - 1) (C_1 L_1 s^2 + C_1 R_1 s + 1)}{2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

$$\mathbf{10.657 \quad INVALID-ORDER-657} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 s - g_m) (C_1 L_1 s^2 + C_1 R_1 s + 1)}{s (2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.658 \quad INVALID-ORDER-658} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_1 R_5 s^4 + 2C_1 C_4 C_5 R_1 R_5 s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_1 R_5 g_m s^3 + 2C_1 C_5 R_1 R_5 g_m s^2 + C_1 C_5 R_5 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_4 C_5 R_5 s^2 + 2C_4 R_5 g_m s + 2C_4 s + 2C_5 R_5 g_m s + 2C_5 R_5 s + 2C_5 g_m}$$

$$\mathbf{10.659 \quad INVALID-ORDER-659} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 R_1 R_5 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 R_5 g_m s + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.660 \quad INVALID-ORDER-660} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2 + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.661 \quad INVALID-ORDER-661} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_5 R_1 g_m s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_1 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_5 R_1 g_m s^3 + C_1 C_5 L_5 s^3 + 2C_1 L_1 g_m s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_4 C_5 L_5 s^3 + 2C_4 L_5 g_m s^2 + 2C_4 s + 2C_5 L_5 g_m s^2 + 2C_5 L_5 s + 2C_5 g_m}$$

$$\mathbf{10.662 \quad INVALID-ORDER-662} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 R_5 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2)}$$

$$\mathbf{10.663 \quad INVALID-ORDER-663} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2C_1 C_4 C_5 L_1 L_5 R_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_5 s^4 + 2C_1 C_4 L_1 L_5 R_5 g_m s^4 + 2C_1 C_4 L_1 L_5 s^4 + 2C_1 C_4 L_1 R_5 s^3 + 2C_1 C_4 L_5 R_1 R_5 g_m s^3 + 2C_1 C_4 L_5 R_1 s^3 + 2C_1 C_4 L_5 R_5 s^3 + 2C_1 C_4 R_1 R_5 s^2 + 2C_1 C_5 L_1 L_5 R_5 g_m s^4 + 2C_1 C_5 L_5 R_1 R_5 g_m s^3 + C_1 C_5 L_5 R_5 s^3 + 2C_1 L_1 L_5 g_m s^3 + 2C_1 L_1 R_5 g_m s + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2}$$

$$\mathbf{10.664 \quad INVALID-ORDER-664} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_5 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_5 R_1 g_m s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4}$$

$$\mathbf{10.665 \quad INVALID-ORDER-665} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (-C_5 L_5 R_5 g_m s^2 + C_5 L_5 s^2 + C_5 R_5 s)}{2C_1 C_4 C_5 L_1 L_5 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_1 R_5 s^4 + 2C_1 C_4 C_5 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 C_5 R_1 R_5 s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_5 R_1 g_m s^2 + 2C_1 C_4 R_1 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 R_5 g_m s + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2}$$

$$\mathbf{10.666 \quad INVALID-ORDER-666} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{R_4 (R_5 g_m - 1) (C_1 L_1 s^2 + C_1 R_1 s + 1)}{2C_1 C_4 L_1 R_4 R_5 g_m s^3 + 2C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 R_1 R_4 R_5 g_m s^2 + 2C_1 C_4 R_1 R_4 s^2 + 2C_1 C_4 R_4 R_5 s^2 + 2C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_5 g_m s^2 + 2C_1 L_1 s^2 + 2C_1 R_1 R_4 g_m s + 2C_1 R_1 R_5 g_m s + 2C_1 R_1 s + C_1 R_4 s + 2C_1 R_5 s + 2C_4 R_4 R_5 g_m s + 2C_4 R_4 s + 2R_4 g_m + 2R_5 g_m + 2}$$

$$\mathbf{10.667 \quad INVALID-ORDER-667} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_5 s - g_m) (C_1 L_1 s^2 + C_1 R_1 s + 1)}{2C_1 C_4 C_5 L_1 R_4 s^4 + 2C_1 C_4 C_5 R_1 R_4 s^3 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 L_1 R_4 g_m s^3 + 2C_1 C_5 L_1 s^3 + 2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 s^2 + C_1 C_5 R_4 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 R_4 g_m s + 2C_5 s + 2C_4 R_4 s + 2R_4 g_m + 2R_5 g_m + 2}$$

$$\mathbf{10.668 \quad INVALID-ORDER-668} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_1 R_4 R_5 s^4 + 2C_1 C_4 C_5 R_1 R_4 R_5 s^3 + 2C_1 C_4 L_1 R_4 R_5 g_m s^3 + 2C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 R_1 R_4 R_5 g_m s^2 + 2C_1 C_4 R_1 R_4 s^2 + 2C_1 C_4 R_4 R_5 s^2 + 2C_1 C_5 L_1 R_4 R_5 g_m s^3 + 2C_1 C_5 L_1 R_5 s^3 + 2C_1 C_5 R_1 R_4 R_5 g_m s^2 + 2C_1 C_5 R_1 R_5 s^2 + C_1 C_5 R_4 R_5 s^2 + 2C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_5 g_m s + C_1 C_5 s + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 R_4 g_m s + 2C_5 s + 2C_4 R_4 s + 2R_4 g_m + 2R_5 g_m + 2}$$

$$\mathbf{10.669 \quad INVALID-ORDER-669} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 s^4 + 2C_1 C_4 C_5 R_1 R_4 R_5 g_m s^3 + 2C_1 C_4 C_5 R_1 R_4 s^3 + 2C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 L_1 R_4 g_m s^3 + 2C_1 C_5 L_1 R_5 g_m s^3 + 2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 R_5 g_m s^2 + 2C_1 C_5 R_4 R_5 s^2 + 2C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_5 g_m s + C_1 C_5 s + 2C_4 C_5 R_4 s^2 + 2C_4 R_4 g_m s + 2C_5 R_4 g_m s + 2C_5 s + 2C_4 R_4 s + 2R_4 g_m + 2R_5 g_m + 2}$$

$$\mathbf{10.670 \quad INVALID-ORDER-670} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_5 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 C_5 R_1 R_4 s^3 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_4 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 R_4 g_m s^3 + 2C_1 C_5 L_1 s^3 + 2C_1 C_5 L_5 R_1 g_m s^3 + 2C_1 C_5 L_5 s^3 + 2C_1 C_5 R_1 R_4 g_m s^2 + 2C_1 C_5 R_1 R_5 g_m s^2 + 2C_1 C_5 R_4 R_5 s^2 + 2C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_5 g_m s + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2}$$

$$\mathbf{10.680 \quad INVALID-ORDER-680} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_4 R_4 s + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 R_4 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_5 g_m s^2 -$$

$$\mathbf{10.681 \quad INVALID-ORDER-681} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_4 R_4 s + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_5 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_5 R_1 g_m s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_5 L_1 L_5 g_m s^2 -$$

$$\mathbf{10.682 \quad INVALID-ORDER-682} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_4 R_4 s + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 R_4 g_m s^2 + 2C_1 C_4 C_5 R_1 R_5 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4$$

$$\mathbf{10.683 \quad INVALID-ORDER-683} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{2C_1 C_4 C_5 L_1 L_5 R_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 R_5 s^4 + C_1 C_4 C_5 L_5 R_4 R_5 s^4 + 2C_1 C_4 L_1 L_5 R_4 g_m s^4 + 2C_1 C_4 L_1 L_5 R_5 g_m s^4 + 2C_1 C_4 L_1 L_5 s^4 + 2C_1 C_4 L_1 R_4 R_5 g_m s^3 + 2C_1 C_4 L_1 R_5 s^3 + 2C_1 C_4 L_5 R_1 R_4 g_m s^3 + 2C_1 C_4 L_5 R_1 R_5 s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_1 R_4 R_5 g_m s^2 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + C_1 C_4 R_4 R_5 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4$$

$$\mathbf{10.684 \quad INVALID-ORDER-684} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_4 R_4 s + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_5 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_5 R_1 R_4 g_m s^2 + 2C_1 C_4 L_5 R_1 R_5 g_m s^2 + 2C_1 C_4 L_5 R_1 s^2 + C_1 C_4 L_5 R_4 s^2 + 2C_1 C_4 L_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4$$

$$\mathbf{10.685 \quad INVALID-ORDER-685} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad R_4 + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{2C_1 C_4 C_5 L_1 L_5 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_5 s^4 + 2C_1 C_4 C_5 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_5 R_1 R_4 g_m s^2 + 2C_1 C_4 L_5 R_1 R_5 g_m s^2 + 2C_1 C_4 L_5 R_1 s^2 + C_1 C_4 L_5 R_4 s^2 + 2C_1 C_4 L_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4$$

$$\mathbf{10.686 \quad INVALID-ORDER-686} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{(R_5 g_m - 1) (C_4 L_4 s^2 + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1)}{2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_4 L_4 g_m s^2 + 2C_4 R_5 g_m s + 2C_4 s + 2g_m}$$

$$\mathbf{10.687 \quad INVALID-ORDER-687} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 s - g_m) (C_4 L_4 s^2 + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 s + 2C_4 g_m + 2C_5 g_m)}$$

$$\mathbf{10.688 \quad INVALID-ORDER-688} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_4 L_4 s^2 + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_1 L_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 R_5 s^4 + 2C_1 C_4 C_5 L_4 R_1 R_5 g_m s^4 + C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 C_5 R_1 R_5 s^3 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 C_5 L_1 R_5 g_m s^2 -$$

$$\mathbf{10.689 \quad INVALID-ORDER-689} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_4 L_4 s^2 + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 R_1 R_5 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 R_1 g_m s + C_4 C_5 s)}$$

$$\mathbf{10.690 \quad INVALID-ORDER-690} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_4 L_4 s^2 + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2 + 2C_4 C_5 R_1 g_m s + C_4 C_5 s)}$$

$$\mathbf{10.691 \quad INVALID-ORDER-691} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_4 L_4 s^2 + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 g_m s^5 + C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 L_5 R_1 g_m s^3 + 2C_1 C_4 L_5 s^3 + 2C_1 C_4 R_1 s^2 + 2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 R_1 g_m s + C_1 C_5 s}$$

$$\mathbf{10.692 \quad INVALID-ORDER-692} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_4 L_4 s^2 + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s)}$$

$$\mathbf{10.693 \quad INVALID-ORDER-693} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{(C_4 L_4 s^2 + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 R_5 s^2 + L_5 s + R_5)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_5 R_5 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 R_5 g_m s^5 + C_1 C_4 C_5 L_4 L_5 R_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_5 s^4 + 2C_1 C_4 L_1 L_4 L_5 g_m s^5 + 2C_1 C_4 L_1 L_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_5 R_5 g_m s^4 + 2C_1 C_4 L_1 L_5 s^4 + 2C_1 C_4 L_1 R_5 s^3 + 2C_1 C_4 L_4 L_5 R_1 g_m s^4 + C_1 C_4 L_4 L_5 s^4 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s}$$

$$\mathbf{10.694 \quad INVALID-ORDER-694} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_4 L_4 s^2 + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 s^2 + L_5 s + R_5)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_5 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 g_m s^5 + C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_4 R_1 g_m s^4 + C_1 C_4 L_4 L_5 s^4 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s}$$

$$\mathbf{10.695 \quad INVALID-ORDER-695} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_4 L_4 s^2 + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 s^2 + C_5 R_5 s + 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_1 R_5 s^4 + 2C_1 C_4 C_5 L_4 L_5 R_1 g_m s^5 + C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_4 R_1 R_5 g_m s^4 + C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 C_5 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + 2C_1 C_4 C_5 L_5 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_4 R_1 g_m s^4 + C_1 C_4 L_4 L_5 s^4 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s}$$

$$\mathbf{10.696 \quad INVALID-ORDER-696} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (R_5 g_m - 1) (C_1 L_1 s^2 + C_1 R_1 s + 1)}{2C_1 C_4 L_1 L_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_4 R_1 R_5 g_m s^3 + 2C_1 C_4 L_4 R_1 s^3 + 2C_1 C_4 L_4 R_5 s^3 + 2C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 R_5 g_m s^2 + 2C_1 L_1 s^2 + 2C_1 L_4 R_1 g_m s^2 + C_1 L_4 s^2 + 2C_1 R_1 R_5 g_m s + 2C_1 R_1 s + 2C_1 R_5 s + 2C_4 L_4 R_5 g_m s^2 + 2C_4 L_4 s^2 + 2L_4 g_m s + 2R_5 g_m + 2}$$

$$\mathbf{10.697 \quad INVALID-ORDER-697} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_5 s - g_m) (C_1 L_1 s^2 + C_1 R_1 s + 1)}{2C_1 C_4 C_5 L_1 L_4 s^5 + 2C_1 C_4 C_5 L_4 R_1 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + 2C_1 C_4 L_4 s^3 + 2C_1 C_5 L_1 L_4 g_m s^4 + 2C_1 C_5 L_1 s^3 + 2C_1 C_5 L_4 R_1 g_m s^3 + C_1 C_5 L_4 s^3 + 2C_1 C_5 R_1 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 R_1 g_m s + 2C_1 s + 2C_4 C_5 L_4 s^3 + 2C_4 L_4 g_m s^2 + 2C_5 L_4 g_m s^2 + 2C_5 s + 2}$$

$$\mathbf{10.698 \quad INVALID-ORDER-698} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_1 L_4 R_5 s^5 + 2C_1 C_4 C_5 L_4 R_1 R_5 s^4 + 2C_1 C_4 L_1 L_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_4 R_1 R_5 g_m s^3 + 2C_1 C_4 L_4 R_1 s^3 + 2C_1 C_4 L_4 R_5 s^3 + 2C_1 C_5 L_1 L_4 R_5 g_m s^4 + 2C_1 C_5 L_1 R_5 s^3 + 2C_1 C_5 L_4 R_1 R_5 g_m s^3 + C_1 C_5 L_4 R_5 s^3 + 2C_1 C_5 R_1 R_5 s^2 + 2C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 L_4 R_5 s^2 + 2C_1 L_1 L_4 R_5 s + 2C_1 L_1 L_4 s}$$

$$\mathbf{10.699 \quad INVALID-ORDER-699} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_4 s^5 + 2C_1 C_4 C_5 L_4 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_4 R_1 s^4 + 2C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + 2C_1 C_4 L_4 s^3 + 2C_1 C_5 L_1 L_4 g_m s^4 + 2C_1 C_5 L_1 R_5 g_m s^3 + 2C_1 C_5 L_1 s^3 + 2C_1 C_5 L_4 R_1 g_m s^3 + C_1 C_5 L_4 s^3 + 2C_1 C_5 R_1 R_5 s^2 + 2C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 L_4 R_5 s^2 + 2C_1 L_1 L_4 R_5 s + 2C_1 L_1 L_4 s}$$

$$\mathbf{10.700 \quad INVALID-ORDER-700} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 g_m s^5 + 2C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_4 R_1 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + 2C_1 C_4 L_4 s^3 + 2C_1 C_5 L_1 L_4 g_m s^4 + 2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 s^3 + 2C_1 C_5 L_4 R_1 g_m s^3 + C_1 C_5 L_4 s^3 + 2C_1 C_5 L_5 R_1 s^2 + 2C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 L_4 R_5 s^2 + 2C_1 L_1 L_4 R_5 s + 2C_1 L_1 L_4 s}$$

$$\mathbf{10.701 \quad INVALID-ORDER-701} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2C_1 C_4 C_5 L_4 L_5 R_1 s^5 + 2C_1 C_4 L_1 L_4 L_5 g_m s^5 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_4 L_5 R_1 g_m s^4 + 2C_1 C_4 L_4 L_5 s^4 + 2C_1 C_4 L_4 R_1 s^3 + 2C_1 C_5 L_1 L_4 L_5 g_m s^5 + 2C_1 C_5 L_1 L_5 s^4 + 2C_1 C_5 L_4 L_5 R_1 g_m s^4 + C_1 C_5 L_4 L_5 s^4 + 2C_1 C_5 L_5 R_1 s^3 + 2C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 L_4 R_5 s^2 + 2C_1 L_1 L_4 R_5 s + 2C_1 L_1 L_4 s}$$

$$\mathbf{10.702 \quad INVALID-ORDER-702} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_4 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 g_m s^5 + 2C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_4 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_4 R_1 s^4 + 2C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_4 R_1 g_m s^3 + 2C_1 C_4 L_4 s^3 + 2C_1 C_5 L_1 L_4 g_m s^4 + 2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 s^3 + 2C_1 C_5 L_4 R_1 g_m s^3 + C_1 C_5 L_4 s^3 + 2C_1 C_5 L_5 R_1 s^2 + 2C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 L_4 R_5 s^2 + 2C_1 L_1 L_4 R_5 s + 2C_1 L_1 L_4 s}$$

$$\mathbf{10.703 \quad INVALID-ORDER-703} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 R_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + 2C_1 C_4 C_5 L_4 L_5 R_1 R_5 s^5 + 2C_1 C_4 L_1 L_4 L_5 R_5 g_m s^5 + 2C_1 C_4 L_1 L_4 L_5 s^5 + 2C_1 C_4 L_1 L_4 R_5 s^4 + 2C_1 C_4 L_4 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 L_4 L_5 R_1 s^4 + 2C_1 C_4 L_4 L_5 R_5 s^4 + 2C_1 C_4 L_4 R_1 R_5 s^3 + 2C_1 C_5 L_1 L_4 L_5 R_5 g_m s^5 + 2C_1 C_5 L_1 L_5 R_5 s^4 + 2C_1 C_5 L_4 L_5 R_1 R_5 g_m s^4 + C_1 C_5 L_4 L_5 s^4 + 2C_1 C_5 L_5 R_1 s^3 + 2C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 L_4 R_5 s^2 + 2C_1 L_1 L_4 R_5 s + 2C_1 L_1 L_4 s}$$

$$\mathbf{10.704 \quad INVALID-ORDER-704} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2C_1 C_4 C_5 L_4 L_5 R_1 R_5 g_m s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_5 s^5 + 2C_1 C_4 L_1 L_4 L_5 g_m s^5 + 2C_1 C_4 L_1 L_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_4 L_5 R_1 g_m s^4 + 2C_1 C_4 L_4 L_5 s^4 + 2C_1 C_5 L_1 L_4 g_m s^4 + 2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 s^3 + 2C_1 C_5 L_4 R_1 g_m s^3 + C_1 C_5 L_4 s^3 + 2C_1 C_5 L_5 R_1 s^2 + 2C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 L_4 R_5 s^2 + 2C_1 L_1 L_4 R_5 s + 2C_1 L_1 L_4 s}$$

$$\mathbf{10.705 \quad INVALID-ORDER-705} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2C_1 C_4 C_5 L_1 L_4 R_5 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 R_5 g_m s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_5 s^5 + 2C_1 C_4 C_5 L_4 R_1 R_5 s^4 + 2C_1 C_4 L_1 L_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_4 R_1 R_5 g_m s^3 + 2C_1 C_4 L_4 R_1 s^3 + 2C_1 C_4 L_4 R_5 s^2 + 2C_1 C_5 L_1 L_4 g_m s^4 + 2C_1 C_5 L_1 L_5 g_m s^4 + 2C_1 C_5 L_1 s^3 + 2C_1 C_5 L_4 R_1 g_m s^3 + C_1 C_5 L_4 s^3 + 2C_1 C_5 L_5 R_1 s^2 + 2C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 L_4 R_5 s^2 + 2C_1 L_1 L_4 R_5 s + 2C_1 L_1 L_4 s}$$

$$\mathbf{10.706 \quad INVALID-ORDER-706} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{(R_5 g_m - 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1)}{2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 R_1 R_4 g_m s^2 + 2C_1 C_4 R_1 R_5 g_m s^2 + 2C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + 2C_1 C_4 R_5 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_4 L_4 g_m s^2 + 2C_4 R_4 g_m s + 2C_4 R_5 g_m s + 2C_4 L_4 s^2 + 2C_4 R_4 s + 2C_4 R_5 s + 2C_4 L_4 s}$$

$$\mathbf{10.707 \quad INVALID-ORDER-707} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 s - g_m) (C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 R_1 R_4 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s + 2C_1 C_5 L_1 g_m s^2 + 2C_1 C_5 R_1 g_m s + C_1 C_5 s + 2C_4 C_5 L_4 g_m s^2)}$$

$$\mathbf{10.708 \quad INVALID-ORDER-708} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_5 s^4 + 2C_1 C_4 C_5 L_4 R_1 R_5 g_m s^4 + C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 C_5 R_1 R_4 R_5 g_m s^3 + 2C_1 C_4 C_5 R_1 R_5 s^3 + C_1 C_4 C_5 R_4 R_5 s^3 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_4 g_m s^3 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s}$$

$$\mathbf{10.709 \quad INVALID-ORDER-709} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 R_1 R_4 g_m s^2 + 2C_1 C_4 C_5 R_1 R_5 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 C_5 R_5 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s)}$$

$$\mathbf{10.710 \quad INVALID-ORDER-710} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 R_4 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s)}$$

$$\mathbf{10.711 \quad INVALID-ORDER-711} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_5 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 g_m s^5 + C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 L_5 g_m s^4 + 2C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_4 g_m s^3 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s}$$

$$\mathbf{10.712 \quad INVALID-ORDER-712} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_4 g_m s^4 + 2C_1 C_4 C_5 L_1 L_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 s^3 + 2C_1 C_4 C_5 L_4 R_1 g_m s^3 + C_1 C_4 C_5 L_4 s^3 + 2C_1 C_4 C_5 L_5 R_1 g_m s^3 + 2C_1 C_4 C_5 L_5 s^3 + 2C_1 C_4 C_5 R_1 R_4 g_m s^2 + 2C_1 C_4 C_5 R_1 R_5 g_m s^2 + 2C_1 C_4 C_5 R_1 s^2 + C_1 C_4 C_5 R_4 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s)}$$

$$\mathbf{10.713 \quad INVALID-ORDER-713} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_5 R_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 R_5 g_m s^5 + C_1 C_4 C_5 L_4 L_5 R_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 R_5 s^4 + C_1 C_4 C_5 L_5 R_4 R_5 s^4 + 2C_1 C_4 L_1 L_4 L_5 g_m s^5 + 2C_1 C_4 L_1 L_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_5 R_4 g_m s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_4 g_m s^3 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s}$$

$$\mathbf{10.714 \quad INVALID-ORDER-714} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_5 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_4 L_5 R_1 g_m s^5 + C_1 C_4 C_5 L_4 L_5 s^5 + 2C_1 C_4 C_5 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_5 R_1 s^4 + C_1 C_4 C_5 L_5 R_4 s^4 + 2C_1 C_4 C_5 L_5 R_5 s^4 + 2C_1 C_4 L_1 L_4 g_m s^5 + 2C_1 C_4 L_1 L_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_5 R_4 g_m s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_4 g_m s^3 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s}$$

$$\mathbf{10.715 \quad INVALID-ORDER-715} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_1 L_1 s^2 + C_1 R_1 s + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_4 L_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 s^5 + 2C_1 C_4 C_5 L_4 R_1 R_5 g_m s^4 + 2C_1 C_4 C_5 L_4 R_5 s^4 + 2C_1 C_4 C_5 L_5 R_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_5 R_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_5 R_1 s^3 + C_1 C_4 C_5 L_5 R_4 s^3 + 2C_1 C_4 L_1 L_4 g_m s^5 + 2C_1 C_4 L_1 L_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_5 R_4 g_m s^3 + 2C_1 C_4 L_1 R_5 g_m s^3 + 2C_1 C_4 L_1 s^3 + 2C_1 C_4 L_4 g_m s^3 + 2C_1 C_4 R_1 g_m s + 2C_1 C_4 s}$$

10.743 INVALID-ORDER-743 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

10.744 INVALID-ORDER-744 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{2C_1C_4C_5L_1L_4L_5R_4g_ms^6 + 2C_1C_4C_5L_1L_4L_5R_5g_ms^6 + 2C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_5R_4R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_4s^5 + 2C_1C_4C_5L_4L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_4L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_4L_5R_1s^5 + C_1C_4C_5L_4L_5R_4s^5 + 2C_1C_4C_5L_4L_5R_5s^5 + 2C_1C_4C_5L_5L_4L_5R_4R_5s^5 + 2C_1C_4C_5L_5L_4L_5R_4s^5 + 2C_1C_4C_5L_5L_4L_5R_5s^5 + 2C_1C_4C_5L_5L_4L_5s^5 + 2C_1C_4C_5L_5L_4s^5 + 2C_1C_4C_5L_5L_5s^5 + 2C_1C_4C_5L_5s^5 + 2C_1C_4C_5L_4L_5s^5 + 2C_1C_4C_5L_4s^5 + 2C_1C_4C_5L_5s^5 + 2C_1C_4C_5s^5 + 2C_1C_4C_5}{2C_1C_4C_5L_1L_4L_5R_4g_ms^6 + 2C_1C_4C_5L_1L_4L_5R_5g_ms^6 + 2C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_5R_4R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_4s^5 + 2C_1C_4C_5L_4L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_4L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_4L_5R_1s^5 + C_1C_4C_5L_4L_5R_4s^5 + 2C_1C_4C_5L_4L_5R_5s^5 + 2C_1C_4C_5L_5L_4L_5R_4R_5s^5 + 2C_1C_4C_5L_5L_4L_5R_4s^5 + 2C_1C_4C_5L_5L_4L_5R_5s^5 + 2C_1C_4C_5L_5L_4L_5s^5 + 2C_1C_4C_5L_5L_4s^5 + 2C_1C_4C_5L_5L_5s^5 + 2C_1C_4C_5L_5s^5 + 2C_1C_4C_5L_4L_5s^5 + 2C_1C_4C_5L_4s^5 + 2C_1C_4C_5L_5s^5 + 2C_1C_4C_5s^5 + 2C_1C_4C_5}$$

10.745 INVALID-ORDER-745 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{R_5(C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_1L_4L_5R_4g_ms^6 + 2C_1C_4C_5L_1L_4L_5R_5g_ms^6 + 2C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_4R_4R_5g_ms^5 + 2C_1C_4C_5L_1L_4R_5s^5 + 2C_1C_4C_5L_1L_5R_4R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_4s^5 + 2C_1C_4C_5L_1R_4R_5s^4 + 2C_1C_4C_5L_4L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_4L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_4L_5R_1R_5s^4 + 2C_1C_4C_5L_4L_5R_1R_5s^3 + 2C_1C_4C_5L_4L_5R_1R_5s^2 + 2C_1C_4C_5L_4L_5R_1R_5s + 2C_1C_4C_5L_4L_5R_1R_5}{2C_1C_4C_5L_1L_4L_5R_4g_ms^6 + 2C_1C_4C_5L_1L_4L_5R_5g_ms^6 + 2C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_4R_4R_5g_ms^5 + 2C_1C_4C_5L_1L_4R_5s^5 + 2C_1C_4C_5L_1L_5R_4R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_4s^5 + 2C_1C_4C_5L_1R_4R_5s^4 + 2C_1C_4C_5L_4L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_4L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_4L_5R_1R_5s^4 + 2C_1C_4C_5L_4L_5R_1R_5s^3 + 2C_1C_4C_5L_4L_5R_1R_5s^2 + 2C_1C_4C_5L_4L_5R_1R_5s + 2C_1C_4C_5L_4L_5R_1R_5}$$

10.746 INVALID-ORDER-746 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, R_4, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_1 R_4 s (-C_5 s + g_m)}{C_1 C_5 L_1 R_1 R_4 s^3 + 2C_1 L_1 R_1 s^2 + 2C_5 L_1 R_1 R_4 g_m s^2 + 2C_5 L_1 R_1 s^2 + C_5 L_1 R_4 s^2 + C_5 R_1 R_4 s + 2L_1 R_1 g_m s + 2L_1 s + 2R_1}$$

10.747 INVALID-ORDER-747 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, R_4, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{L_1 R_1 R_4 s (-C_5 R_5 s + R_5 g_m - 1)}{C_1 C_5 L_1 R_1 R_4 R_5 s^3 + C_1 L_1 R_1 R_4 s^2 + 2 C_1 L_1 R_1 R_5 s^2 + 2 C_5 L_1 R_1 R_4 R_5 g_m s^2 + 2 C_5 L_1 R_1 R_5 s^2 + C_5 L_1 R_4 R_5 s^2 + C_5 R_1 R_4 R_5 s + 2 L_1 R_1 R_4 g_m s + 2 L_1 R_1 R_5 g_m s + 2 L_1 R_1 s + L_1 R_4 s + 2 L_1 R_5 s + R_1 R_4 + 2 R_1 R_5}$$

10.748 INVALID-ORDER-748 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, R_4, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_1 R_4 s (C_5 R_5 g_m s - C_5 s + g_m)}{C_1 C_5 L_1 R_1 R_4 s^3 + 2C_1 C_5 L_1 R_1 R_5 s^3 + 2C_1 L_1 R_1 s^2 + 2C_5 L_1 R_1 R_4 g_m s^2 + 2C_5 L_1 R_1 R_5 g_m s^2 + 2C_5 L_1 R_1 s^2 + C_5 L_1 R_4 s^2 + 2C_5 L_1 R_5 s^2 + C_5 R_1 R_4 s + 2C_5 R_1 R_5 s + 2L_1 R_1 g_m s + 2L_1 s + 2R_1}$$

10.749 INVALID-ORDER-749 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, R_4, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_1 R_4 s (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_5 L_1 L_5 R_1 s^4 + C_1 C_5 L_1 R_1 R_4 s^3 + 2C_1 L_1 R_1 s^2 + 2C_5 L_1 L_5 R_1 g_m s^3 + 2C_5 L_1 L_5 s^3 + 2C_5 L_1 R_1 R_4 g_m s^2 + 2C_5 L_1 R_1 s^2 + C_5 L_1 R_4 s^2 + 2C_5 L_5 R_1 s^2 + C_5 R_1 R_4 s + 2L_1 R_1 g_m s + 2L_1 s + 2R_1}$$

10.750 INVALID-ORDER-750 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, R_4, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = \frac{L_1 R_1 R_4 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{C_1 C_5 L_1 L_5 R_1 R_4 s^4 + 2C_1 L_1 L_5 R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + 2C_5 L_1 L_5 R_1 R_4 g_m s^3 + 2C_5 L_1 L_5 R_1 s^3 + C_5 L_1 L_5 R_4 s^3 + C_5 L_5 R_1 R_4 s^2 + 2L_1 L_5 R_1 g_m s^2 + 2L_1 L_5 s^2 + 2L_1 R_1 R_4 g_m s + 2L_1 R_1 s + L_1 R_4 s + 2L_5 R_1 s + R_1 R_4}$$

10.751 INVALID-ORDER-751 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, R_4, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_1 R_4 s (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_5 L_1 L_5 R_1 s^4 + C_1 C_5 L_1 R_1 R_4 s^3 + 2C_1 C_5 L_1 R_1 R_5 s^3 + 2C_1 L_1 R_1 s^2 + 2C_5 L_1 L_5 R_1 g_m s^3 + 2C_5 L_1 L_5 s^3 + 2C_5 L_1 R_1 R_4 g_m s^2 + 2C_5 L_1 R_1 R_5 g_m s^2 + 2C_5 L_1 R_1 s^2 + C_5 L_1 R_4 s^2 + 2C_5 L_1 R_5 s^2 + 2C_5 L_5 R_1 s^2 + C_5 R_1 R_4 s + 2C_5 R_1 R_5 s + 2L_1 R_1 g_m s + 2L_1 s + 2R_1}$$

10.752 INVALID-ORDER-752 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, R_4, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = \frac{L_1 R_1 R_4 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R_5)}{C_1 C_5 L_1 L_5 R_1 R_4 R_5 s^4 + C_1 L_1 L_5 R_1 R_4 s^3 + 2 C_1 L_1 L_5 R_1 R_5 s^3 + C_1 L_1 R_1 R_4 R_5 s^2 + 2 C_5 L_1 L_5 R_1 R_4 R_5 g_m s^3 + 2 C_5 L_1 L_5 R_1 R_5 s^3 + C_5 L_1 L_5 R_4 R_5 s^3 + C_5 L_5 R_1 R_4 R_5 s^2 + 2 L_1 L_5 R_1 R_4 g_m s^2 + 2 L_1 L_5 R_1 R_5 g_m s^2 + 2 L_1 L_5 R_1 s^2 + L_1 L_5 R_4 s^2 + 2 L_1 L_5 R_5 s^2 + 2 L_1 R_1 R_4 R_5 g_m s}$$

10.753 INVALID-ORDER-753 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, R_4, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{L_1 R_1 R_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5 g_m - 1)}{C_1 C_5 L_1 L_5 R_1 R_4 s^4 + 2C_1 C_5 L_1 L_5 R_1 R_5 s^4 + 2C_1 L_1 L_5 R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + 2C_1 L_1 R_1 R_5 s^2 + 2C_5 L_1 L_5 R_1 R_4 g_m s^3 + 2C_5 L_1 L_5 R_1 R_5 g_m s^3 + 2C_5 L_1 L_5 R_1 s^3 + C_5 L_1 L_5 R_4 s^3 + 2C_5 L_1 L_5 R_5 s^3 + C_5 L_5 R_1 R_4 s^2 + 2C_5 L_5 R_1 R_5 s^2 + 2L_1 L_5 R_1 g_m s^2 + 2L_1 L_5 s^2 + 2L_1 R_1 R_4 g_m}$$

10.754 INVALID-ORDER-754 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, R_4, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{L_1 R_1 R_4 s (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 - C_5 R_5 s + R_5 g_m - 1)}{C_1 C_5 L_1 L_5 R_1 R_4 s^4 + 2C_1 C_5 L_1 L_5 R_1 R_5 s^4 + C_1 C_5 L_1 R_1 R_4 R_5 s^3 + C_1 L_1 R_1 R_4 s^2 + 2C_1 L_1 R_1 R_5 s^2 + 2C_5 L_1 L_5 R_1 R_4 g_m s^3 + 2C_5 L_1 L_5 R_1 R_5 g_m s^3 + 2C_5 L_1 L_5 R_1 s^3 + C_5 L_1 L_5 R_4 s^3 + 2C_5 L_1 L_5 R_5 s^3 + 2C_5 L_1 R_1 R_4 R_5 g_m s^2 + 2C_5 L_1 R_1 R_5 s^2 + C_5 L_1 R_4 R_5 s^2 + C_5 L_5 R_1 R_4 s}$$

10.755 INVALID-ORDER-755 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, \frac{1}{C_4 s}, R_5, \infty \right)$

$$H(s) = \frac{L_1 R_1 s (R_5 g_m - 1)}{2C_1 C_4 L_1 R_1 R_5 s^3 + C_1 L_1 R_1 s^2 + 2C_4 L_1 R_1 R_5 g_m s^2 + 2C_4 L_1 R_1 s^2 + 2C_4 L_1 R_5 s^2 + 2C_4 R_1 R_5 s + 2L_1 R_1 g_m s + L_1 s + R_1}$$

10.756 INVALID-ORDER-756 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, \frac{1}{C_4 s}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{L_1 R_1 s (-C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 L_1 R_1 R_5 s^3 + C_1 C_5 L_1 R_1 R_5 s^3 + C_1 L_1 R_1 s^2 + 2C_4 C_5 L_1 R_1 R_5 s^3 + 2C_4 L_1 R_1 R_5 g_m s^2 + 2C_4 L_1 R_1 s^2 + 2C_4 L_1 R_5 s^2 + 2C_4 R_1 R_5 s + 2C_5 L_1 R_1 R_5 g_m s^2 + C_5 L_1 R_5 s^2 + C_5 R_1 R_5 s + 2L_1 R_1 g_m s + L_1 s + R_1}$$

10.757 INVALID-ORDER-757 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, \frac{1}{C_4 s}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_1 (C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 R_1 R_5 s^3 + 2C_1 C_4 L_1 R_1 s^2 + C_1 C_5 L_1 R_1 s^2 + 2C_4 C_5 L_1 R_1 R_5 g_m s^2 + 2C_4 C_5 L_1 R_1 s^2 + 2C_4 C_5 L_1 R_5 s^2 + 2C_4 C_5 R_1 R_5 s + 2C_4 L_1 R_1 g_m s + 2C_4 L_1 s + 2C_4 R_1 + 2C_5 L_1 R_1 g_m s + C_5 L_1 s + C_5 R_1}$$

10.758 INVALID-ORDER-758 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, \frac{1}{C_4 s}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_1 (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_5 R_1 s^4 + 2C_1 C_4 L_1 R_1 s^2 + C_1 C_5 L_1 R_1 s^2 + 2C_4 C_5 L_1 L_5 R_1 g_m s^3 + 2C_4 C_5 L_1 L_5 s^3 + 2C_4 C_5 L_1 R_1 s^2 + 2C_4 C_5 L_5 R_1 s^2 + 2C_4 L_1 R_1 g_m s + 2C_4 L_1 s + 2C_4 R_1 + 2C_5 L_1 R_1 g_m s + C_5 L_1 s + C_5 R_1}$$

10.759 INVALID-ORDER-759 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = \frac{L_1 R_1 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_1 C_4 L_1 L_5 R_1 s^4 + C_1 C_5 L_1 L_5 R_1 s^4 + C_1 L_1 R_1 s^2 + 2C_4 C_5 L_1 L_5 R_1 s^4 + 2C_4 L_1 L_5 R_1 g_m s^3 + 2C_4 L_1 L_5 s^3 + 2C_4 L_1 R_1 s^2 + 2C_4 L_5 R_1 s^2 + 2C_5 L_1 L_5 R_1 g_m s^3 + C_5 L_1 L_5 s^3 + C_5 L_5 R_1 s^2 + 2L_1 R_1 g_m s + L_1 s + R_1}$$

10.760 INVALID-ORDER-760 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, \frac{1}{C_4 s}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_1 (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_5 R_1 s^4 + 2C_1 C_4 C_5 L_1 R_1 R_5 s^3 + 2C_1 C_4 L_1 R_1 s^2 + C_1 C_5 L_1 R_1 s^2 + 2C_4 C_5 L_1 L_5 R_1 g_m s^3 + 2C_4 C_5 L_1 L_5 s^3 + 2C_4 C_5 L_1 R_1 R_5 g_m s^2 + 2C_4 C_5 L_1 R_1 s^2 + 2C_4 C_5 L_1 R_5 s^2 + 2C_4 C_5 L_5 R_1 s^2 + 2C_4 C_5 R_1 R_5 s + 2C_4 L_1 R_1 g_m s + 2C_4 L_1 s + 2C_4 R_1 + 2C_5 L_1 R_1 g_m s + C_5}$$

10.770 INVALID-ORDER-770 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

10.771 INVALID-ORDER-771 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = \frac{L_1 R_1 R_4 s (-C_5 L_5 R_5 s^2 + L_5 R_5 g_m s - L_5 s - R)}{2C_1 C_4 L_1 L_5 R_1 R_4 R_5 s^4 + C_1 C_5 L_1 L_5 R_1 R_4 R_5 s^4 + C_1 L_1 L_5 R_1 R_4 s^3 + 2C_1 L_1 L_5 R_1 R_5 s^3 + C_1 L_1 R_1 R_4 R_5 s^2 + 2C_4 C_5 L_1 L_5 R_1 R_4 R_5 s^4 + 2C_4 L_1 L_5 R_1 R_4 R_5 g_m s^3 + 2C_4 L_1 L_5 R_1 R_4 s^3 + 2C_4 L_1 L_5 R_4 R_5 s^3 + 2C_4 L_1 R_1 R_4 R_5 s^2 + 2C_4 L_5 R_1 R_4 R_5 s^2 + 2C_5 L_1 L_5 R_1 R_4 R_5 g_m s^3 +}$$

10.772 INVALID-ORDER-772 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{2C_1C_4C_5L_1L_5R_1R_4R_5s^5 + 2C_1C_4L_1L_5R_1R_4s^4 + 2C_1C_4L_1R_1R_4R_5s^3 + C_1C_5L_1L_5R_1R_4s^4 + 2C_1C_5L_1L_5R_1R_5s^4 + 2C_1L_1L_5R_1s^3 + C_1L_1R_1R_4s^2 + 2C_1L_1R_1R_5s^2 + 2C_4C_5L_1L_5R_1R_4R_5g_ms^4 + 2C_4C_5L_1L_5R_1R_4s^4 + 2C_4C_5L_1L_5R_4R_5s^4 + 2C_4C_5L_5R_1R_4R_5s^3 +$$

10.773 INVALID-ORDER-773 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = \frac{1}{2C_1C_4C_5L_1L_5R_1R_4R_5s^5 + 2C_1C_4L_1R_1R_4R_5s^3 + C_1C_5L_1L_5R_1R_4s^4 + 2C_1C_5L_1L_5R_1R_5s^4 + C_1C_5L_1R_1R_4R_5s^3 + C_1L_1R_1R_4s^2 + 2C_1L_1R_1R_5s^2 + 2C_4C_5L_1L_5R_1R_4R_5g_m s^4 + 2C_4C_5L_1L_5R_1R_4s^4 + 2C_4C_5L_1L_5R_4R_5s^4 + 2C_4C_5L_1R_1R_4R_5s^3 + 2C_4C_5L_5R_1R_4R_5s^3}$$

10.774 INVALID-ORDER-774 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, R_5, \infty \right)$

$$H(s) = \frac{L_1 R_1 s (R_5 g_m - 1) (C_4 R_4 s + 1)}{C_1 C_4 L_1 R_1 R_4 s^3 + 2 C_1 C_4 L_1 R_1 R_5 s^3 + C_1 L_1 R_1 s^2 + 2 C_4 L_1 R_1 R_4 g_m s^2 + 2 C_4 L_1 R_1 R_5 g_m s^2 + 2 C_4 L_1 R_1 s^2 + C_4 L_1 R_4 s^2 + 2 C_4 L_1 R_5 s^2 + C_4 R_1 R_4 s + 2 C_4 R_1 R_5 s + 2 L_1 R_1 g_m s + L_1 s + R_1}$$

10.775 INVALID-ORDER-775 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{L_1 R_1 (C_5 s - g_m) (C_4 R_4 s + 1)}{C_1 C_4 C_5 L_1 R_1 R_4 s^3 + 2 C_1 C_4 L_1 R_1 s^2 + C_1 C_5 L_1 R_1 s^2 + 2 C_4 C_5 L_1 R_1 R_4 g_m s^2 + 2 C_4 C_5 L_1 R_1 s^2 + C_4 C_5 L_1 R_4 s^2 + C_4 C_5 R_1 R_4 s + 2 C_4 L_1 R_1 g_m s + 2 C_4 L_1 s + 2 C_4 R_1 + 2 C_5 L_1 R_1 g_m s + C_5 L_1 s + C_5 R_1}$$

10.776 INVALID-ORDER-776 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{L_1 R_1 s (C_4 R_4 s + 1) (C_5 R_5 s - R_5 g_m + 1)}{C_1 C_4 C_5 L_1 R_1 R_4 R_5 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + 2 C_1 C_4 L_1 R_1 R_5 s^3 + C_1 C_5 L_1 R_1 R_5 s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_5 L_1 R_1 R_4 R_5 g_m s^3 + 2 C_4 C_5 L_1 R_1 R_5 s^3 + C_4 C_5 L_1 R_4 R_5 s^3 + C_4 C_5 R_1 R_4 R_5 s^2 + 2 C_4 L_1 R_1 R_4 g_m s^2 + 2 C_4 L_1 R_1 R_5 g_m s^2 + 2 C_4 L_1 R_1 s^2 + C_4 L_1 R_4 s^2 + 2 C_4 L_1 R_5 s^2 + C_4 L_1 R_4 R_5 s + C_4 L_1 R_5 R_4}$$

10.777 INVALID-ORDER-777 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_1 (C_4 R_4 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{C_1 C_4 C_5 L_1 R_1 R_4 s^3 + 2 C_1 C_4 C_5 L_1 R_1 R_5 s^3 + 2 C_1 C_4 L_1 R_1 s^2 + C_1 C_5 L_1 R_1 s^2 + 2 C_4 C_5 L_1 R_1 R_4 g_m s^2 + 2 C_4 C_5 L_1 R_1 R_5 g_m s^2 + 2 C_4 C_5 L_1 R_1 s^2 + C_4 C_5 L_1 R_4 s^2 + 2 C_4 C_5 L_1 R_5 s^2 + C_4 C_5 R_1 R_4 s + 2 C_4 C_5 R_1 R_5 s + 2 C_4 L_1 R_1 g_m s + 2 C_4 L_1 s + 2 C_4 R_1 + 2 C_5 L_1 R_1 g_m s + C_5 L_1 s}$$

10.778 INVALID-ORDER-778 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_1 R_1 (C_4 R_4 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2C_1 C_4 C_5 L_1 L_5 R_1 s^4 + C_1 C_4 C_5 L_1 R_1 R_4 s^3 + 2C_1 C_4 L_1 R_1 s^2 + C_1 C_5 L_1 R_1 s^2 + 2C_4 C_5 L_1 L_5 R_1 g_m s^3 + 2C_4 C_5 L_1 L_5 s^3 + 2C_4 C_5 L_1 R_1 R_4 g_m s^2 + 2C_4 C_5 L_1 R_1 s^2 + C_4 C_5 L_1 R_4 s^2 + 2C_4 C_5 L_5 R_1 s^2 + C_4 C_5 R_1 R_4 s + 2C_4 L_1 R_1 g_m s + 2C_4 L_1 s + 2C_4 R_1 + 2C_5 L_1 R_1 g_m s + C_5 L_1 s}$$

$$\mathbf{10.788 \quad INVALID-ORDER-788} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_1 (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{C_1 C_4 C_5 L_1 L_4 R_1 s^4 + 2 C_1 C_4 C_5 L_1 L_5 R_1 s^4 + 2 C_1 C_4 L_1 R_1 s^2 + C_1 C_5 L_1 R_1 s^2 + 2 C_4 C_5 L_1 L_4 R_1 g_m s^3 + C_4 C_5 L_1 L_4 s^3 + 2 C_4 C_5 L_1 L_5 R_1 g_m s^3 + 2 C_4 C_5 L_1 L_5 s^3 + 2 C_4 C_5 L_1 R_1 s^2 + C_4 C_5 L_4 R_1 s^2 + 2 C_4 C_5 L_5 R_1 s^2 + 2 C_4 L_1 R_1 g_m s + 2 C_4 L_1 s + 2 C_4 R_1 + 2 C_5 L_1 R_1 g_m s + C_5 L_1 s + C_5 R_1}$$

$$\mathbf{10.789 \quad INVALID-ORDER-789} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 R_1 s (C_4 L_4 s^2 + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{C_1 C_4 C_5 L_1 L_4 L_5 R_1 s^6 + C_1 C_4 L_1 L_4 R_1 s^4 + 2 C_1 C_4 L_1 L_5 R_1 s^4 + C_1 C_5 L_1 L_5 R_1 s^4 + C_1 L_1 R_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 R_1 g_m s^5 + C_4 C_5 L_1 L_4 L_5 s^5 + 2 C_4 C_5 L_1 L_5 R_1 s^4 + C_4 C_5 L_4 L_5 R_1 s^4 + 2 C_4 L_1 L_4 R_1 g_m s^3 + C_4 L_1 L_4 s^3 + 2 C_4 L_1 L_5 R_1 g_m s^3 + 2 C_4 L_1 L_5 s^3 + 2 C_4 L_1 R_1 s^2 + C_4 L_1 s + C_4 R_1}$$

$$\mathbf{10.790 \quad INVALID-ORDER-790} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_1 (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{C_1 C_4 C_5 L_1 L_4 R_1 s^4 + 2 C_1 C_4 C_5 L_1 L_5 R_1 s^4 + 2 C_1 C_4 C_5 L_1 R_1 R_5 s^3 + 2 C_1 C_4 L_1 R_1 s^2 + C_1 C_5 L_1 R_1 s^2 + 2 C_4 C_5 L_1 L_4 R_1 g_m s^3 + C_4 C_5 L_1 L_4 s^3 + 2 C_4 C_5 L_1 L_5 R_1 g_m s^3 + 2 C_4 C_5 L_1 L_5 s^3 + 2 C_4 C_5 L_1 R_1 R_5 g_m s^2 + 2 C_4 C_5 L_1 R_1 s^2 + 2 C_4 C_5 L_1 R_5 s^2 + C_4 C_5 L_4 R_1 s^2 + 2 C_4 C_5 L_5 R_1 s^2 + 2 C_4 L_1 R_1 g_m s + 2 C_4 L_1 s + 2 C_4 R_1 + 2 C_5 L_1 R_1 g_m s + C_5 L_1 s + C_5 R_1}$$

$$\mathbf{10.791 \quad INVALID-ORDER-791} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 R_1 s (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 s^2 - C_5 s + R_5)}{C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_5 s^6 + C_1 C_4 L_1 L_4 L_5 R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_5 s^4 + 2 C_1 C_4 L_1 L_5 R_1 R_5 s^4 + C_1 C_5 L_1 L_5 R_1 R_5 s^4 + C_1 L_1 L_5 R_1 s^3 + C_1 L_1 R_1 R_5 s^2 + 2 C_4 C_5 L_1 L_4 L_5 R_1 R_5 g_m s^5 + C_4 C_5 L_1 L_4 L_5 R_5 s^5 + 2 C_4 C_5 L_1 L_5 R_1 R_5 s^4 + C_4 C_5 L_4 L_5 R_1 R_5 s^4 + 2 C_4 L_1 L_4 L_5 R_1 g_m s^4 + 2 C_4 L_1 L_4 L_5 R_5 s^4 + 2 C_4 L_1 L_5 R_1 R_5 s^3 + 2 C_4 L_1 L_5 s^3 + 2 C_4 L_1 R_1 R_5 s^2 + C_4 L_1 s + C_4 R_1}$$

$$\mathbf{10.792 \quad INVALID-ORDER-792} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_1 s (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 g_m s^2 - C_5 s + R_5)}{C_1 C_4 C_5 L_1 L_4 L_5 R_1 s^6 + 2 C_1 C_4 C_5 L_1 L_5 R_1 R_5 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + 2 C_1 C_4 L_1 L_5 R_1 s^4 + 2 C_1 C_4 L_1 R_1 R_5 s^3 + C_1 C_5 L_1 L_5 R_1 s^4 + C_1 L_1 R_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 R_1 g_m s^5 + C_4 C_5 L_1 L_4 L_5 s^5 + 2 C_4 C_5 L_1 L_5 R_1 R_5 g_m s^4 + 2 C_4 C_5 L_1 L_5 R_1 s^4 + 2 C_4 C_5 L_1 L_5 R_5 s^4 + C_4 C_5 L_4 L_5 R_1 s^4 + 2 C_4 C_5 L_4 L_5 R_5 s^4 + 2 C_4 L_1 L_4 L_5 R_1 g_m s^4 + 2 C_4 L_1 L_4 L_5 R_5 s^4 + 2 C_4 L_1 L_5 R_1 R_5 s^3 + 2 C_4 L_1 L_5 s^3 + 2 C_4 L_1 R_1 R_5 s^2 + C_4 L_1 s + C_4 R_1}$$

$$\mathbf{10.793 \quad INVALID-ORDER-793} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_1 R_1 s (C_4 L_4 s^2 + 1) (C_5 L_5 R_5 s^2 - C_5 s + R_5)}{C_1 C_4 C_5 L_1 L_4 L_5 R_1 s^6 + C_1 C_4 C_5 L_1 L_4 R_1 R_5 s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_1 R_5 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + 2 C_1 C_4 L_1 R_1 R_5 s^3 + C_1 C_5 L_1 L_5 R_1 s^4 + C_1 C_5 L_1 R_1 R_5 s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 R_1 g_m s^5 + C_4 C_5 L_1 L_4 L_5 s^5 + 2 C_4 C_5 L_1 L_5 R_1 R_5 g_m s^4 + 2 C_4 C_5 L_1 L_5 R_1 s^4 + 2 C_4 C_5 L_1 L_5 R_5 s^4 + C_4 C_5 L_4 L_5 R_1 s^4 + 2 C_4 C_5 L_4 L_5 R_5 s^4 + 2 C_4 L_1 L_4 L_5 R_1 g_m s^4 + 2 C_4 L_1 L_4 L_5 R_5 s^4 + 2 C_4 L_1 L_5 R_1 R_5 s^3 + 2 C_4 L_1 L_5 s^3 + 2 C_4 L_1 R_1 R_5 s^2 + C_4 L_1 s + C_4 R_1}$$

$$\mathbf{10.794 \quad INVALID-ORDER-794} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 s^2 (R_5 g_m - 1)}{2 C_1 C_4 L_1 L_4 R_1 R_5 s^4 + C_1 L_1 L_4 R_1 s^3 + 2 C_1 L_1 R_1 R_5 s^2 + 2 C_4 L_1 L_4 R_1 R_5 g_m s^3 + 2 C_4 L_1 L_4 R_1 s^3 + 2 C_4 L_1 L_4 R_5 s^3 + 2 C_4 L_4 R_1 R_5 s^2 + 2 L_1 L_4 R_1 g_m s^2 + L_1 L_4 s^2 + 2 L_1 R_1 R_5 g_m s + 2 L_1 R_1 s + 2 L_1 R_5 s + L_4 R_1 s + 2 R_1 R_5}$$

$$\mathbf{10.795 \quad INVALID-ORDER-795} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 s^2 (-C_5 s + g_m)}{2 C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_5 L_1 L_4 R_1 s^4 + 2 C_1 L_1 R_1 s^2 + 2 C_4 C_5 L_1 L_4 R_1 s^4 + 2 C_4 L_1 L_4 R_1 g_m s^3 + 2 C_4 L_1 L_4 s^3 + 2 C_4 L_4 R_1 s^2 + 2 C_5 L_1 L_4 R_1 g_m s^3 + C_5 L_1 L_4 s^3 + 2 C_5 L_1 R_1 s^2 + C_5 L_4 R_1 s^2 + 2 L_1 R_1 g_m s + 2 L_1 s + 2 R_1}$$

$$\mathbf{10.796 \quad INVALID-ORDER-796} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 s^2 (-C_5 R_5 s + R_5 g_m - 1)}{2 C_1 C_4 L_1 L_4 R_1 R_5 s^4 + C_1 C_5 L_1 L_4 R_1 R_5 s^4 + C_1 L_1 L_4 R_1 s^3 + 2 C_1 L_1 R_1 R_5 s^2 + 2 C_4 C_5 L_1 L_4 R_1 R_5 s^4 + 2 C_4 L_1 L_4 R_1 R_5 g_m s^3 + 2 C_4 L_1 L_4 R_1 s^3 + 2 C_4 L_1 L_4 R_5 s^3 + 2 C_4 L_4 R_1 R_5 s^2 + 2 C_5 L_1 L_4 R_1 R_5 g_m s^3 + C_5 L_1 L_4 R_5 s^3 + 2 C_5 L_1 R_1 R_5 s^2 + C_5 L_4 R_1 R_5 s^2 + 2 L_1 L_4 R_1 g_m s^2 + 2 L_1 L_4 R_5 s^2 + 2 L_1 L_5 R_1 R_5 s + 2 L_1 L_5 s + 2 L_1 R_1 R_5 + L_4 R_1 s + 2 R_1 R_5}$$

$$\mathbf{10.806 \quad INVALID-ORDER-806} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = - \frac{L_1 R_1 s (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 s^2 + C_5 R_5 s + 1)}{C_1 C_4 C_5 L_1 L_4 R_1 R_5 s^5 + C_1 C_4 C_5 L_1 R_1 R_4 R_5 s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + 2 C_1 C_4 L_1 R_1 R_5 s^3 + C_1 C_5 L_1 R_1 R_5 s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_5 L_1 L_4 R_1 R_5 g_m s^4 + C_4 C_5 L_1 L_4 R_5 s^4 + 2 C_4 C_5 L_1 R_1 R_4 R_5 g_m s^3 + 2 C_4 C_5 L_1 R_1 R_5 s^3 + C_4 C_5 L_1 R_4 R_5 s^3 + C_4 C_5 L_4 R_1 R_5 s^3 + C_4 C_5 L_4 R_1 R_5 s^3}$$

$$\mathbf{10.807 \quad INVALID-ORDER-807} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 R_5 g_m s - C_5 s + g_m)}{C_1 C_4 C_5 L_1 L_4 R_1 s^4 + C_1 C_4 C_5 L_1 R_1 R_4 s^3 + 2 C_1 C_4 C_5 L_1 R_1 R_5 s^3 + 2 C_1 C_4 L_1 R_1 s^2 + C_1 C_5 L_1 R_1 s^2 + 2 C_4 C_5 L_1 L_4 R_1 g_m s^3 + C_4 C_5 L_1 L_4 s^3 + 2 C_4 C_5 L_1 R_1 R_4 g_m s^2 + 2 C_4 C_5 L_1 R_1 R_5 g_m s^2 + 2 C_4 C_5 L_1 R_1 s^2 + C_4 C_5 L_1 R_4 s^2 + 2 C_4 C_5 L_1 R_5 s^2 + C_4 C_5 L_4 R_1 s^2 + C_4 C_5 R_1 R_4 s + C_4 C_5 R_1 R_5 s}$$

$$\mathbf{10.808 \quad INVALID-ORDER-808} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{C_1 C_4 C_5 L_1 L_4 R_1 s^4 + 2 C_1 C_4 C_5 L_1 L_5 R_1 s^4 + C_1 C_4 C_5 L_1 R_1 R_4 s^3 + 2 C_1 C_4 L_1 R_1 s^2 + C_1 C_5 L_1 R_1 s^2 + 2 C_4 C_5 L_1 L_4 R_1 g_m s^3 + C_4 C_5 L_1 L_4 s^3 + 2 C_4 C_5 L_1 L_5 R_1 g_m s^3 + 2 C_4 C_5 L_1 L_5 s^3 + 2 C_4 C_5 L_1 R_1 R_4 g_m s^2 + 2 C_4 C_5 L_1 R_1 s^2 + C_4 C_5 L_1 R_4 s^2 + C_4 C_5 L_4 R_1 s^2 + 2 C_4 C_5 L_5 R_1 s^2 + C_4 C_5 R_1 R_4 s + C_4 C_5 R_1 R_5 s}$$

$$\mathbf{10.809 \quad INVALID-ORDER-809} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = - \frac{L_1 R_1 s (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 s^2 + C_5 R_5 s + 1)}{C_1 C_4 C_5 L_1 L_4 L_5 R_1 s^6 + C_1 C_4 C_5 L_1 L_5 R_1 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + 2 C_1 C_4 L_1 L_5 R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_5 L_1 L_5 R_1 s^4 + C_1 L_1 R_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 R_1 g_m s^5 + C_4 C_5 L_1 L_4 L_5 s^5 + 2 C_4 C_5 L_1 L_5 R_1 R_4 g_m s^4 + 2 C_4 C_5 L_1 L_5 R_1 s^4 + C_4 C_5 L_1 L_5 R_4 s^4 + C_4 C_5 L_4 L_5 R_1 s^4 + C_4 C_5 L_4 L_5 R_1 s^4}$$

$$\mathbf{10.810 \quad INVALID-ORDER-810} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_1 (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{C_1 C_4 C_5 L_1 L_4 R_1 s^4 + 2 C_1 C_4 C_5 L_1 L_5 R_1 s^4 + C_1 C_4 C_5 L_1 R_1 R_4 s^3 + 2 C_1 C_4 C_5 L_1 R_1 R_5 s^3 + 2 C_1 C_4 L_1 R_1 s^2 + C_1 C_5 L_1 R_1 s^2 + 2 C_4 C_5 L_1 L_4 R_1 g_m s^3 + C_4 C_5 L_1 L_4 s^3 + 2 C_4 C_5 L_1 L_5 R_1 g_m s^3 + 2 C_4 C_5 L_1 L_5 s^3 + 2 C_4 C_5 L_1 R_1 R_4 g_m s^2 + 2 C_4 C_5 L_1 R_1 R_5 g_m s^2 + 2 C_4 C_5 L_1 R_1 s^2 + C_4 C_5 L_1 R_4 s^2 + C_4 C_5 L_4 R_1 s^2 + C_4 C_5 R_1 R_4 s + C_4 C_5 R_1 R_5 s}$$

$$\mathbf{10.811 \quad INVALID-ORDER-811} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = - \frac{L_1 R_1 s (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 R_5 s^2 + L_5 s + R_5)}{C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_5 s^6 + C_1 C_4 C_5 L_1 L_5 R_1 R_4 R_5 s^5 + C_1 C_4 L_1 L_4 L_5 R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_5 s^4 + C_1 C_4 L_1 L_5 R_1 R_4 s^4 + 2 C_1 C_4 L_1 L_5 R_1 R_5 s^4 + C_1 C_4 L_1 R_1 R_4 R_5 s^3 + C_1 C_5 L_1 L_5 R_1 R_5 s^4 + C_1 L_1 L_5 R_1 s^3 + C_1 L_1 R_1 R_5 s^2 + 2 C_4 C_5 L_1 L_4 L_5 R_1 R_5 g_m s^5 + C_4 C_5 L_1 L_4 L_5 R_5 s^5 + C_4 C_5 L_1 L_4 L_5 R_5 s^5}$$

$$\mathbf{10.812 \quad INVALID-ORDER-812} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_1 s (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 s^2 + C_5 R_5 s + 1)}{C_1 C_4 C_5 L_1 L_4 L_5 R_1 s^6 + C_1 C_4 C_5 L_1 L_5 R_1 R_4 s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_1 R_5 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + 2 C_1 C_4 L_1 L_5 R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + 2 C_1 C_4 L_1 R_1 R_5 s^3 + C_1 C_5 L_1 L_5 R_1 s^4 + C_1 L_1 R_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 R_1 g_m s^5 + C_4 C_5 L_1 L_4 L_5 s^5 + 2 C_4 C_5 L_1 L_5 R_1 R_4 g_m s^4 + 2 C_4 C_5 L_1 L_5 R_1 s^4 + C_4 C_5 L_1 L_5 R_4 s^4 + C_4 C_5 L_4 L_5 R_1 s^4 + C_4 C_5 R_1 R_4 s + C_4 C_5 R_1 R_5 s}$$

$$\mathbf{10.813 \quad INVALID-ORDER-813} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = - \frac{L_1 R_1 s (C_4 L_4 s^2 + C_4 R_4 s + 1) (C_5 L_5 s^2 + C_5 R_5 s + 1)}{C_1 C_4 C_5 L_1 L_4 L_5 R_1 s^6 + C_1 C_4 C_5 L_1 L_4 R_1 R_5 s^5 + C_1 C_4 C_5 L_1 L_5 R_1 R_4 s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_1 R_5 s^5 + C_1 C_4 C_5 L_1 R_1 R_4 R_5 s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + 2 C_1 C_4 L_1 R_1 R_5 s^3 + C_1 C_5 L_1 L_5 R_1 s^4 + C_1 C_5 L_1 R_1 R_5 s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 R_1 g_m s^5 + C_4 C_5 L_1 L_4 L_5 R_5 s^5 + C_4 C_5 L_1 L_4 L_5 R_5 s^5}$$

$$\mathbf{10.814 \quad INVALID-ORDER-814} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 s^2 (R_5 g_m - 1)}{2 C_1 C_4 L_1 L_4 R_1 R_4 R_5 s^4 + C_1 L_1 L_4 R_1 R_4 s^3 + 2 C_1 L_1 L_4 R_1 R_5 s^3 + 2 C_1 L_1 R_1 R_4 R_5 s^2 + 2 C_4 L_1 L_4 R_1 R_4 R_5 g_m s^3 + 2 C_4 L_1 L_4 R_1 R_4 s^3 + 2 C_4 L_1 L_4 R_4 R_5 s^3 + 2 C_4 L_4 R_1 R_4 R_5 s^2 + 2 L_1 L_4 R_1 R_4 g_m s^2 + 2 L_1 L_4 R_1 R_5 g_m s^2 + 2 L_1 L_4 R_1 s^2 + L_1 L_4 R_4 s^2 + 2 L_1 L_4 R_5 s^2 + 2 L_1 R_1 R_4 R_5 s + L_1 R_1 R_4 R_5 s + L_1 R_1 R_5 s}$$

$$\mathbf{10.815 \quad INVALID-ORDER-815} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 s^2 (-C_5 s + g_m)}{2C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_5 L_1 L_4 R_1 R_4 s^4 + 2C_1 L_1 L_4 R_1 s^3 + 2C_1 L_1 R_1 R_4 s^2 + 2C_4 C_5 L_1 L_4 R_1 R_4 s^4 + 2C_4 L_1 L_4 R_1 R_4 g_m s^3 + 2C_4 L_1 L_4 R_4 s^3 + 2C_4 L_4 R_1 R_4 s^2 + 2C_5 L_1 L_4 R_1 R_4 g_m s^3 + 2C_5 L_1 L_4 R_1 s^3 + C_5 L_1 L_4 R_4 s^3 + 2C_5 L_1 R_1 R_4 s^2 + C_5 L_4 R_1 R_4 s^2 + 2L_1 L_4 R_1 g_m s^2 +}$$

$$\mathbf{10.816 \quad INVALID-ORDER-816} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 s^2 (-C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 L_1 L_4 R_1 R_4 R_5 s^4 + C_1 C_5 L_1 L_4 R_1 R_4 R_5 s^4 + C_1 L_1 L_4 R_1 R_4 s^3 + 2C_1 L_1 L_4 R_1 R_5 s^3 + 2C_1 L_1 R_1 R_4 R_5 s^2 + 2C_4 C_5 L_1 L_4 R_1 R_4 R_5 s^4 + 2C_4 L_1 L_4 R_1 R_4 R_5 g_m s^3 + 2C_4 L_1 L_4 R_1 R_4 s^3 + 2C_4 L_4 R_1 R_4 R_5 s^3 + 2C_4 L_4 R_1 R_4 R_5 s^2 + 2C_5 L_1 L_4 R_1 R_4 R_5 g_m s^3 + 2C_5 L_1 L_4 R_1 R_5 s^3 +}$$

$$\mathbf{10.817 \quad INVALID-ORDER-817} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 s^2 (-C_5 R_5 s + R_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_4 R_1 R_4 R_5 s^5 + 2C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_5 L_1 L_4 R_1 R_4 s^4 + 2C_1 C_5 L_1 L_4 R_1 R_5 s^4 + 2C_1 C_5 L_1 R_1 R_4 R_5 s^3 + 2C_1 L_1 L_4 R_1 s^3 + 2C_1 L_1 R_1 R_4 s^2 + 2C_4 C_5 L_1 L_4 R_1 R_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_4 R_1 R_4 s^4 + 2C_4 C_5 L_1 L_4 R_4 R_5 s^4 + 2C_4 C_5 L_4 R_1 R_4 R_5 s^3 + 2C_4 L_1 L_4 R_1 R_4 s^3 +}$$

$$\mathbf{10.818 \quad INVALID-ORDER-818} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 s^2 (-C_5 L_5 s + L_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_4 s^6 + 2C_1 C_4 L_1 L_4 R_1 R_4 s^4 + 2C_1 C_5 L_1 L_4 L_5 R_1 s^5 + C_1 C_5 L_1 L_4 R_1 R_4 s^4 + 2C_1 C_5 L_1 L_5 R_1 R_4 s^4 + 2C_1 L_1 L_4 R_1 s^3 + 2C_1 L_1 R_1 R_4 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_1 R_4 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 R_4 s^5 + 2C_4 C_5 L_1 L_4 R_1 R_4 s^4 + 2C_4 C_5 L_4 L_5 R_1 R_4 s^4 + 2C_4 L_1 L_4 R_1 R_4 s^3 +}$$

$$\mathbf{10.819 \quad INVALID-ORDER-819} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 s (-C_5 L_5 s^2 + L_5 g_m s - 1)}{2C_1 C_4 L_1 L_4 L_5 R_1 R_4 s^4 + C_1 C_5 L_1 L_4 L_5 R_1 R_4 s^4 + 2C_1 L_1 L_4 L_5 R_1 s^3 + C_1 L_1 L_4 R_1 R_4 s^2 + 2C_1 L_1 L_5 R_1 R_4 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_1 R_4 s^4 + 2C_4 L_1 L_4 L_5 R_1 R_4 g_m s^3 + 2C_4 L_1 L_4 L_5 R_4 s^3 + 2C_4 L_1 L_4 R_1 R_4 s^2 + 2C_4 L_4 L_5 R_1 R_4 s^2 + 2C_5 L_1 L_4 L_5 R_1 R_4 g_m s^3 + 2C_5 L_1 L_4 L_5 R_1 s^3 +}$$

$$\mathbf{10.820 \quad INVALID-ORDER-820} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 s^2 (-C_5 L_5 s + L_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_4 s^6 + 2C_1 C_4 C_5 L_1 L_4 R_1 R_4 R_5 s^5 + 2C_1 C_4 L_1 L_4 R_1 R_4 s^4 + 2C_1 C_5 L_1 L_4 L_5 R_1 s^5 + C_1 C_5 L_1 L_4 R_1 R_4 s^4 + 2C_1 C_5 L_1 L_4 R_1 R_5 s^4 + 2C_1 C_5 L_1 L_5 R_1 R_4 s^4 + 2C_1 C_5 L_1 R_1 R_4 R_5 s^3 + 2C_1 L_1 L_4 R_1 s^3 + 2C_1 L_1 R_1 R_4 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_1 R_4 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 R_4 s^5 + 2C_4 C_5 L_1 L_4 R_1 R_4 s^4 +}$$

$$\mathbf{10.821 \quad INVALID-ORDER-821} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 s^2 (-C_5 L_5 s + L_5 g_m - 1)}{2C_1 C_4 L_1 L_4 L_5 R_1 R_4 R_5 s^4 + C_1 C_5 L_1 L_4 L_5 R_1 R_4 R_5 s^4 + C_1 L_1 L_4 L_5 R_1 R_4 s^3 + 2C_1 L_1 L_4 L_5 R_1 R_5 s^3 + C_1 L_1 L_4 R_1 R_4 R_5 s^2 + 2C_1 L_1 L_5 R_1 R_4 R_5 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_1 R_4 R_5 s^4 + 2C_4 L_1 L_4 L_5 R_1 R_4 R_5 g_m s^3 + 2C_4 L_1 L_4 L_5 R_1 R_4 s^3 + 2C_4 L_1 L_4 L_5 R_4 R_5 s^3 + 2C_4 L_1 L_4 R_1 R_4 R_5 s^2 +}$$

$$\mathbf{10.822 \quad INVALID-ORDER-822} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 s^2 (-C_5 L_5 s + L_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_4 R_5 s^6 + 2C_1 C_4 L_1 L_4 L_5 R_1 R_4 s^4 + 2C_1 C_5 L_1 L_4 L_5 R_1 R_4 s^5 + C_1 C_5 L_1 L_4 L_5 R_1 R_4 s^5 + 2C_1 C_5 L_1 L_4 L_5 R_1 R_5 s^5 + 2C_1 C_5 L_1 L_5 R_1 R_4 R_5 s^4 + 2C_1 L_1 L_4 L_5 R_1 s^4 + C_1 L_1 L_4 R_1 R_4 s^3 + 2C_1 L_1 L_4 R_1 R_5 s^3 + 2C_1 L_1 L_5 R_1 R_4 s^3 + 2C_1 L_1 R_1 R_4 R_5 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_1 R_4 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 R_4 s^5 + 2C_4 C_5 L_1 L_4 R_1 R_4 s^4 +}$$

$$\mathbf{10.823 \quad INVALID-ORDER-823} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \infty, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 s^2 (-C_5 L_5 s + L_5 g_m - 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_4 R_5 s^6 + 2C_1 C_4 L_1 L_4 R_1 R_4 R_5 s^4 + C_1 C_5 L_1 L_4 L_5 R_1 R_4 s^5 + 2C_1 C_5 L_1 L_4 L_5 R_1 R_5 s^5 + C_1 C_5 L_1 L_4 R_1 R_4 R_5 s^4 + 2C_1 C_5 L_1 L_5 R_1 R_4 R_5 s^4 + C_1 L_1 L_4 R_1 R_4 s^3 + 2C_1 L_1 L_4 R_1 R_5 s^3 + 2C_1 L_1 R_1 R_4 R_5 s^2 + 2C_4 C_5 L_1 L_4 L_5 R_1 R_4 g_m s^5 + 2C_4 C_5 L_1 L_4 L_5 R_4 s^5 + 2C_4 C_5 L_1 L_4 R_1 R_4 s^4 +}$$

$$\mathbf{10.851 \quad INVALID-ORDER-851} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 s^2 + L_5 g_m s + R_5)}{2C_1 C_5 L_1 L_5 R_1 R_4 g_m s^4 + 2C_1 C_5 L_1 L_5 R_1 R_5 g_m s^4 + 2C_1 C_5 L_1 L_5 R_1 s^4 + C_1 C_5 L_1 L_5 R_4 s^4 + 2C_1 C_5 L_1 L_5 R_5 s^4 + 2C_1 L_1 L_5 R_1 g_m s^3 + 2C_1 L_1 L_5 s^3 + 2C_1 L_1 R_1 R_4 g_m s^2 + 2C_1 L_1 R_1 R_5 g_m s^2 + 2C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + 2C_1 L_1 R_5 s^2 + 2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 L_5 R_5 g_m s^3}$$

$$\mathbf{10.852 \quad INVALID-ORDER-852} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad R_4, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_4 (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2C_1 C_5 L_1 L_5 R_1 R_4 g_m s^4 + 2C_1 C_5 L_1 L_5 R_1 R_5 g_m s^4 + 2C_1 C_5 L_1 L_5 R_1 s^4 + C_1 C_5 L_1 L_5 R_4 s^4 + 2C_1 C_5 L_1 L_5 R_5 s^4 + 2C_1 C_5 L_1 R_1 R_4 R_5 g_m s^3 + 2C_1 C_5 L_1 R_1 R_5 s^3 + C_1 C_5 L_1 R_4 R_5 s^3 + 2C_1 L_1 R_1 R_4 g_m s^2 + 2C_1 L_1 R_1 R_5 g_m s^2 + 2C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + 2C_1 L_1 R_5 s^2 + 2C_5 L_1 L_5 R_4 g_m s^3 + 2C_5 L_1 L_5 R_5 g_m s^3}$$

$$\mathbf{10.853 \quad INVALID-ORDER-853} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{(R_5 g_m - 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2C_1 C_4 L_1 R_1 R_5 g_m s^3 + 2C_1 C_4 L_1 R_1 s^3 + 2C_1 C_4 L_1 R_5 s^3 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + 2C_4 R_5 s + 2L_1 g_m s + 2R_1 g_m + 1}$$

$$\mathbf{10.854 \quad INVALID-ORDER-854} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 s - g_m) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{s (2C_1 C_4 C_5 L_1 R_1 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + 2C_1 C_4 L_1 s^2 + 2C_1 C_5 L_1 R_1 g_m s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 R_1 s + 2C_4 L_1 g_m s + 2C_4 R_1 g_m + 2C_4 + 2C_5 L_1 g_m s + 2C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.855 \quad INVALID-ORDER-855} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 R_5 s - R_5 g_m + 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2C_1 C_4 C_5 L_1 R_1 R_5 s^4 + 2C_1 C_4 L_1 R_1 R_5 g_m s^3 + 2C_1 C_4 L_1 R_1 s^3 + 2C_1 C_4 L_1 R_5 s^3 + 2C_1 C_5 L_1 R_1 R_5 g_m s^3 + C_1 C_5 L_1 R_5 s^3 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2C_4 C_5 L_1 R_5 s^3 + 2C_4 C_5 R_1 R_5 s^2 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + 2C_4 R_5 s + 2C_5 L_1 R_5 g_m s^3}$$

$$\mathbf{10.856 \quad INVALID-ORDER-856} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 R_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 R_1 s^3 + 2C_1 C_4 C_5 L_1 R_5 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + 2C_1 C_4 L_1 s^2 + 2C_1 C_5 L_1 R_1 g_m s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 R_5 g_m s^2 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 R_1 R_5 g_m s + 2C_4 C_5 R_1 s + 2C_4 C_5 R_5 s + 2C_4 L_1 g_m s + 2C_4 R_1 g_m + 2C_4 + 2C_5 L_1 g_m s + 2C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.857 \quad INVALID-ORDER-857} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_5 R_1 g_m s^4 + 2C_1 C_4 C_5 L_1 L_5 s^4 + 2C_1 C_4 C_5 L_1 R_1 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + 2C_1 C_4 L_1 s^2 + 2C_1 C_5 L_1 R_1 g_m s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 L_5 R_1 g_m s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 C_5 R_1 s + 2C_4 L_1 g_m s + 2C_4 R_1 g_m + 2C_4 + 2C_5 L_1 g_m s + 2C_5 R_1 g_m + C_5)}$$

$$\mathbf{10.858 \quad INVALID-ORDER-858} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_5 L_5 s^2 - L_5 g_m s + 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2C_1 C_4 C_5 L_1 L_5 R_1 s^5 + 2C_1 C_4 L_1 L_5 R_1 g_m s^4 + 2C_1 C_4 L_1 L_5 s^4 + 2C_1 C_4 L_1 R_1 s^3 + 2C_1 C_5 L_1 L_5 R_1 g_m s^4 + C_1 C_5 L_1 L_5 s^4 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2C_4 C_5 L_1 L_5 s^4 + 2C_4 C_5 L_5 R_1 s^3 + 2C_4 L_1 L_5 g_m s^3 + 2C_4 L_1 s^2 + 2C_4 L_5 R_1 g_m s^2 + 2C_4 L_5 s^2 + 2C_4 R_1 s + 2C_5 L_1 L_5 g_m s^3}$$

$$\mathbf{10.859 \quad INVALID-ORDER-859} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_5 R_1 g_m s^4 + 2C_1 C_4 C_5 L_1 L_5 s^4 + 2C_1 C_4 C_5 L_1 R_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 R_1 s^3 + 2C_1 C_4 C_5 L_1 R_5 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + 2C_1 C_4 L_1 s^2 + 2C_1 C_5 L_1 R_1 g_m s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 R_5 g_m s^2 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 L_5 R_1 g_m s^2 + 2C_4 C_5 L_5 s^2 + 2C_4 R_1 s + 2C_5 L_1 L_5 g_m s^3)}$$

$$\mathbf{10.860 \quad INVALID-ORDER-860} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = - \frac{(C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + R_5)}{2 C_1 C_4 C_5 L_1 L_5 R_1 R_5 s^5 + 2 C_1 C_4 L_1 L_5 R_1 R_5 g_m s^4 + 2 C_1 C_4 L_1 L_5 R_1 s^4 + 2 C_1 C_4 L_1 L_5 R_5 s^4 + 2 C_1 C_4 L_1 R_1 R_5 s^3 + 2 C_1 C_5 L_1 L_5 R_1 R_5 g_m s^4 + C_1 C_5 L_1 L_5 R_5 s^4 + 2 C_1 L_1 L_5 R_1 g_m s^3 + C_1 L_1 L_5 s^3 + 2 C_1 L_1 R_1 R_5 g_m s^2 + C_1 L_1 R_5 s^2 + 2 C_4 C_5 L_1 L_5 R_5 s^4 + 2 C_4 C_5 L_5 R_1 R_5 s^3 + 2 C_4 C_5 L_5 R_5 s^2 + 2 C_4 C_5 L_5 R_5 s + 2 C_4 C_5 R_5}$$

$$\mathbf{10.861 \quad INVALID-ORDER-861} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{(C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_5 L_5 R_5 g_m s^2 - C_5 L_5 R_5 s + R_5)}{2 C_1 C_4 C_5 L_1 L_5 R_1 R_5 g_m s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_1 s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_5 s^5 + 2 C_1 C_4 L_1 L_5 R_1 g_m s^4 + 2 C_1 C_4 L_1 L_5 s^4 + 2 C_1 C_4 L_1 R_1 R_5 g_m s^3 + 2 C_1 C_4 L_1 R_1 s^3 + 2 C_1 C_4 L_1 R_5 s^3 + 2 C_1 C_5 L_1 L_5 R_1 g_m s^4 + C_1 C_5 L_1 L_5 s^4 + 2 C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2 C_4 C_5 L_5 R_1 R_5 s^3 + 2 C_4 C_5 L_5 R_5 s^2 + 2 C_4 C_5 L_5 R_5 s + 2 C_4 C_5 R_5}$$

$$\mathbf{10.862 \quad INVALID-ORDER-862} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = - \frac{(C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + R_5)}{2 C_1 C_4 C_5 L_1 L_5 R_1 R_5 g_m s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_1 s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_5 s^5 + 2 C_1 C_4 C_5 L_1 R_1 R_5 s^4 + 2 C_1 C_4 L_1 R_1 R_5 g_m s^3 + 2 C_1 C_4 L_1 R_1 s^3 + 2 C_1 C_4 L_1 R_5 s^3 + 2 C_1 C_5 L_1 L_5 R_1 g_m s^4 + C_1 C_5 L_1 L_5 s^4 + 2 C_1 C_5 L_1 R_1 R_5 g_m s^3 + C_1 C_5 L_1 R_5 s^3 + 2 C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_5 R_5 g_m s^4 + 2 C_4 C_5 L_5 R_1 R_5 s^3 + 2 C_4 C_5 L_5 R_5 s^2 + 2 C_4 C_5 L_5 R_5 s + 2 C_4 C_5 R_5}$$

$$\mathbf{10.863 \quad INVALID-ORDER-863} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{R_4 (R_5 g_m - 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2 C_1 C_4 L_1 R_1 R_4 R_5 g_m s^3 + 2 C_1 C_4 L_1 R_1 R_4 s^3 + 2 C_1 C_4 L_1 R_4 R_5 s^3 + 2 C_1 L_1 R_1 R_4 g_m s^2 + 2 C_1 L_1 R_1 R_5 g_m s^2 + 2 C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + 2 C_1 L_1 R_5 s^2 + 2 C_4 L_1 R_4 R_5 g_m s^2 + 2 C_4 L_1 R_4 s^2 + 2 C_4 R_1 R_4 R_5 g_m s + 2 C_4 R_1 R_4 s + 2 C_4 R_4 R_5 s + 2 L_1 R_4 g_m s + 2 L_1 R_5 g_m s + 2 L_1 s + R_5}$$

$$\mathbf{10.864 \quad INVALID-ORDER-864} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = - \frac{R_4 (C_5 s - g_m) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2 C_1 C_4 C_5 L_1 R_1 R_4 s^4 + 2 C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2 C_1 C_4 L_1 R_4 s^3 + 2 C_1 C_5 L_1 R_1 R_4 g_m s^3 + 2 C_1 C_5 L_1 R_1 s^3 + C_1 C_5 L_1 R_4 s^3 + 2 C_1 L_1 R_1 g_m s^2 + 2 C_1 L_1 s^2 + 2 C_4 C_5 L_1 R_4 s^3 + 2 C_4 C_5 R_1 R_4 s^2 + 2 C_4 L_1 R_4 g_m s^2 + 2 C_4 R_1 R_4 g_m s + 2 C_4 R_4 s + 2 C_5 L_1 R_4 g_m s^2 + 2 C_5 L_1 s^2 + 2 C_5 R_1 R_4 s + 2 C_5 R_5}$$

$$\mathbf{10.865 \quad INVALID-ORDER-865} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = - \frac{R_4 (C_5 R_5 s - R_5 g_m + 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2 C_1 C_4 C_5 L_1 R_1 R_4 R_5 s^4 + 2 C_1 C_4 L_1 R_1 R_4 R_5 g_m s^3 + 2 C_1 C_4 L_1 R_1 R_4 s^3 + 2 C_1 C_4 L_1 R_4 R_5 s^3 + 2 C_1 C_5 L_1 R_1 R_4 R_5 g_m s^3 + 2 C_1 C_5 L_1 R_1 R_5 s^3 + C_1 C_5 L_1 R_4 R_5 s^3 + 2 C_1 L_1 R_1 R_4 g_m s^2 + 2 C_1 L_1 R_1 R_5 g_m s^2 + 2 C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + 2 C_1 L_1 R_5 s^2 + 2 C_4 C_5 L_1 R_4 R_5 s^3 + 2 C_4 C_5 L_5 R_1 R_5 s^2 + 2 C_4 C_5 L_5 R_5 s + 2 C_4 C_5 R_5}$$

$$\mathbf{10.866 \quad INVALID-ORDER-866} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_5 R_5 s - R_5 g_m + 1)}{2 C_1 C_4 C_5 L_1 R_1 R_4 R_5 g_m s^4 + 2 C_1 C_4 C_5 L_1 R_1 R_4 s^4 + 2 C_1 C_4 C_5 L_1 R_4 R_5 s^4 + 2 C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2 C_1 C_4 L_1 R_4 s^3 + 2 C_1 C_5 L_1 R_1 R_4 g_m s^3 + 2 C_1 C_5 L_1 R_1 R_5 g_m s^3 + 2 C_1 C_5 L_1 R_1 s^3 + C_1 C_5 L_1 R_4 s^3 + 2 C_1 C_5 L_1 R_5 s^3 + 2 C_1 L_1 R_1 g_m s^2 + 2 C_1 L_1 s^2 + 2 C_4 C_5 L_1 R_4 R_5 g_m s^3 + 2 C_4 C_5 L_5 R_1 R_5 s^2 + 2 C_4 C_5 L_5 R_5 s + 2 C_4 C_5 R_5}$$

$$\mathbf{10.867 \quad INVALID-ORDER-867} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_4 (C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_5 L_5 s - L_5 g_m s + 1)}{2 C_1 C_4 C_5 L_1 L_5 R_1 R_4 g_m s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2 C_1 C_4 C_5 L_1 R_1 R_4 s^4 + 2 C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2 C_1 C_4 L_1 R_4 s^3 + 2 C_1 C_5 L_1 L_5 R_1 g_m s^4 + 2 C_1 C_5 L_1 L_5 s^4 + 2 C_1 C_5 L_1 R_1 R_4 g_m s^3 + 2 C_1 C_5 L_1 R_1 s^3 + C_1 C_5 L_1 R_4 s^3 + 2 C_1 L_1 R_1 g_m s^2 + 2 C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2 C_4 C_5 L_5 R_1 R_5 s^3 + 2 C_4 C_5 L_5 R_5 s^2 + 2 C_4 C_5 L_5 R_5 s + 2 C_4 C_5 R_5}$$

$$\mathbf{10.868 \quad INVALID-ORDER-868} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = - \frac{R_4 (C_5 L_5 s^2 - L_5 g_m s + 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2 C_1 C_4 C_5 L_1 L_5 R_1 R_4 s^5 + 2 C_1 C_4 L_1 L_5 R_1 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_5 R_4 s^4 + 2 C_1 C_4 L_1 R_1 R_4 s^3 + 2 C_1 C_5 L_1 L_5 R_1 R_4 g_m s^4 + 2 C_1 C_5 L_1 L_5 R_1 s^4 + C_1 C_5 L_1 L_5 R_4 s^4 + 2 C_1 L_1 L_5 R_1 g_m s^3 + 2 C_1 L_1 L_5 s^3 + 2 C_1 L_1 R_1 R_4 g_m s^2 + 2 C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + 2 C_4 C_5 L_1 L_5 R_4 s^4 + 2 C_4 C_5 L_5 R_1 R_5 s^3 + 2 C_4 C_5 L_5 R_5 s^2 + 2 C_4 C_5 L_5 R_5 s + 2 C_4 C_5 R_5}$$

10.878 INVALID-ORDER-878 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = -\frac{(C_4 R_4 s + 1)(C_5 L_5 s^2 - L_5 g_m s + 1)\left((C_2 C_4 C_5 L_1 L_5 R_1 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_1 s^5 + C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2C_1 C_4 L_1 L_5 R_1 g_m s^4 + 2C_1 C_4 L_1 L_5 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_5 L_1 L_5 R_1 g_m s^4 + C_1 C_5 L_1 L_5 s^4 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 L_5 R_4 s^4 + 2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 L_5 R_4 s^4)\right)}{2C_1 C_4 C_5 L_1 L_5 R_1 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_1 s^5 + C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2C_1 C_4 L_1 L_5 R_1 g_m s^4 + 2C_1 C_4 L_1 L_5 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_5 L_1 L_5 R_1 g_m s^4 + C_1 C_5 L_1 L_5 s^4 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2C_4 C_5 L_1 L_5 R_4 g_m s^4 + 2C_4 C_5 L_1 L_5 R_4 s^4}$$

10.879 INVALID-ORDER-879 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{(C_4 R_4 s + 1)(C_1 L_1 R_1 s^2 + L_1 s + R_1)(C_5 L_5 g_m s^2 + C_5 R_5 g_m s - s(2C_1 C_4 C_5 L_1 L_5 R_1 g_m s^4 + 2C_1 C_4 C_5 L_1 L_5 s^4 + 2C_1 C_4 C_5 L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 R_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 R_1 s^3 + C_1 C_4 C_5 L_1 R_4 s^3 + 2C_1 C_4 C_5 L_1 R_5 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + 2C_1 C_4 L_1 s^2 + 2C_1 C_5 L_1 R_1 g_m s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 R_4 g_m s^2 +$$

10.880 INVALID-ORDER-880 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_1L_5R_1R_4R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_1R_5s^5 + C_1C_4C_5L_1L_5R_4R_5s^5 + 2C_1C_4L_1L_5R_1R_4g_ms^4 + 2C_1C_4L_1L_5R_1R_5g_ms^4 + 2C_1C_4L_1L_5R_1s^4 + C_1C_4L_1L_5R_4s^4 + 2C_1C_4L_1L_5R_5s^4 + 2C_1C_4L_1R_1R_4R_5g_ms^3 + 2C_1C_4L_1R_1R_5s^3 + C_1C_4L_1R_4R_5s^3 + 2C_1C_5}{2C_1C_4C_5L_1L_5R_1R_4R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_1R_5s^5 + C_1C_4C_5L_1L_5R_4R_5s^5 + 2C_1C_4L_1L_5R_1R_4g_ms^4 + 2C_1C_4L_1L_5R_1R_5g_ms^4 + 2C_1C_4L_1L_5R_1s^4 + C_1C_4L_1L_5R_4s^4 + 2C_1C_4L_1L_5R_5s^4 + 2C_1C_4L_1R_1R_4R_5g_ms^3 + 2C_1C_4L_1R_1R_5s^3 + C_1C_4L_1R_4R_5s^3 + 2C_1C_5}$$

10.881 INVALID-ORDER-881 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{2C_1 C_4 C_5 L_1 L_5 R_1 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_1 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_1 s^5 + C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 s^5 + 2C_1 C_4 L_1 L_5 R_1 g_m s^4 + 2C_1 C_4 L_1 L_5 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_1 R_5 g_m s^3 + 2C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_1 R_5 s^3 + 2C_1 C_4 L_1 s^3}{2C_1 C_4 C_5 L_1 L_5 R_1 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_1 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_1 s^5 + C_1 C_4 C_5 L_1 L_5 R_4 s^5 + 2C_1 C_4 C_5 L_1 L_5 R_5 s^5 + 2C_1 C_4 L_1 L_5 R_1 g_m s^4 + 2C_1 C_4 L_1 L_5 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_1 R_5 g_m s^3 + 2C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_1 R_5 s^3 + 2C_1 C_4 L_1 s^3}$$

10.882 INVALID-ORDER-882 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_1L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_1s^5 + C_1C_4C_5L_1L_5R_4s^5 + 2C_1C_4C_5L_1L_5R_5s^5 + 2C_1C_4C_5L_1R_1R_4R_5g_ms^4 + 2C_1C_4C_5L_1R_1R_5s^4 + C_1C_4C_5L_1R_4R_5s^4 + 2C_1C_4L_1R_1R_4g_ms^3 + 2C_1C_4L_1R_1R_5g_ms^3 + 2C_1C_4L_1R_1s^3 + C_1}$$

10.883 INVALID-ORDER-883 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, R_5, \infty \right)$

$$H(s) = \frac{(R_5 g_m - 1)(C_4 L_4 s^2 + 1)(C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 R_1 R_5 g_m s^3 + 2C_1 C_4 L_1 R_1 s^3 + 2C_1 C_4 L_1 R_5 s^3 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 R_1 R_5 g_m s + 2C_4 R_1 s + 2C_4 R_5 s + 2L_1 g_m s + 2R_1 g_m + 1}$$

10.884 INVALID-ORDER-884 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{(C_5 s - g_m)(C_4 L_4 s^2 + 1)(C_1 L_1 R_1 s^2 + L_1 s + R_1)}{s(2C_1 C_4 C_5 L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_5 L_1 L_4 s^4 + 2C_1 C_4 C_5 L_1 R_1 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + 2C_1 C_4 L_1 s^2 + 2C_1 C_5 L_1 R_1 g_m s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 L_4 g_m s^3 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 L_1 R_1 g_m s^2 + C_4 C_5 L_4 s^2 + 2C_4 C_5 R_1 s + 2C_4 L_1 g_m s + 2C_4 R_1 g_m + 2C_4 + 2C_5 L_1 g_m s + 2C_5 R_1)}$$

10.885 INVALID-ORDER-885 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{(C_4 L_4 s^2 + 1)(C_5 R_5 s - R_5 g_m + 1)(C_5 R_5 s + R_5 g_m + 1)}{2C_1 C_4 C_5 L_1 L_4 R_1 R_5 g_m s^5 + C_1 C_4 C_5 L_1 L_4 R_5 s^5 + 2C_1 C_4 C_5 L_1 R_1 R_5 s^4 + 2C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 R_1 R_5 g_m s^3 + 2C_1 C_4 L_1 R_1 s^3 + 2C_1 C_4 L_1 R_5 s^3 + 2C_1 C_5 L_1 R_1 R_5 g_m s^3 + C_1 C_5 L_1 R_5 s^3 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2C_4 C_5 L_1 L_4 R_5 s^4 + 2C_4 C_5 L_1 L_4 R_5 s^4 + 2C_4 C_5 L_1 L_4 R_5 s^4}.$$

10.886 INVALID-ORDER-886 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{(C_4 L_4 s^2 + 1)(C_1 L_1 R_1 s^2 + L_1 s + R_1)(C_5 R_5 g_m s - C_5 s + g_m)}{s(2C_1 C_4 C_5 L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_5 L_1 L_4 s^4 + 2C_1 C_4 C_5 L_1 R_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 R_1 s^3 + 2C_1 C_4 C_5 L_1 R_5 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + 2C_1 C_4 L_1 s^2 + 2C_1 C_5 L_1 R_1 g_m s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 L_4 g_m s^3 + 2C_4 C_5 L_1 R_5 g_m s^2 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 L_1 R_1 g_m s^2 + C_4 C_5 L_4 s^2)}$$

$$\mathbf{10.887 \quad INVALID-ORDER-887} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{(C_4 L_4 s^2 + 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2 C_1 C_4 C_5 L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_5 L_1 L_4 s^4 + 2 C_1 C_4 C_5 L_1 L_5 R_1 g_m s^4 + 2 C_1 C_4 C_5 L_1 L_5 s^4 + 2 C_1 C_4 C_5 L_1 R_1 s^3 + 2 C_1 C_4 L_1 R_1 g_m s^2 + 2 C_1 C_4 L_1 s^2 + 2 C_1 C_5 L_1 R_1 g_m s^2 + C_1 C_5 L_1 s^2 + 2 C_4 C_5 L_1 L_4 g_m s^3 + 2 C_4 C_5 L_1 L_5 g_m s^3 + 2 C_4 C_5 L_1 s^2 + 2 C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2)}$$

$$\mathbf{10.888 \quad INVALID-ORDER-888} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = -\frac{(C_4 L_4 s^2 + 1) (C_5 L_5 s^2 - L_5 g_m s + 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2 C_1 C_4 C_5 L_1 L_4 L_5 R_1 g_m s^6 + C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2 C_1 C_4 C_5 L_1 L_5 R_1 s^5 + 2 C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 L_5 R_1 g_m s^4 + 2 C_1 C_4 L_1 L_5 s^4 + 2 C_1 C_4 L_1 R_1 s^3 + 2 C_1 C_5 L_1 L_5 R_1 g_m s^4 + C_1 C_5 L_1 L_5 s^4 + 2 C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2 C_4 C_5 L_1 L_4 g_m s^3 + 2 C_4 C_5 L_1 L_5 g_m s^3 + 2 C_4 C_5 L_1 s^2 + 2 C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2}$$

$$\mathbf{10.889 \quad INVALID-ORDER-889} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{(C_4 L_4 s^2 + 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2 C_1 C_4 C_5 L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_5 L_1 L_4 s^4 + 2 C_1 C_4 C_5 L_1 L_5 R_1 g_m s^4 + 2 C_1 C_4 C_5 L_1 L_5 s^4 + 2 C_1 C_4 C_5 L_1 R_1 R_5 g_m s^3 + 2 C_1 C_4 C_5 L_1 R_1 s^3 + 2 C_1 C_4 C_5 L_1 R_5 s^3 + 2 C_1 C_4 L_1 R_1 g_m s^2 + 2 C_1 C_4 L_1 s^2 + 2 C_1 C_5 L_1 R_1 g_m s^2 + C_1 C_5 L_1 s^2 + 2 C_4 C_5 L_1 L_4 g_m s^3 + 2 C_4 C_5 L_1 L_5 g_m s^3 + 2 C_4 C_5 L_1 s^2 + 2 C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2)}$$

$$\mathbf{10.890 \quad INVALID-ORDER-890} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = -\frac{2 C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_5 g_m s^6 + C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + 2 C_1 C_4 C_5 L_1 L_5 R_1 R_5 s^5 + 2 C_1 C_4 L_1 L_4 L_5 R_1 g_m s^5 + C_1 C_4 L_1 L_4 L_5 s^5 + 2 C_1 C_4 L_1 L_4 R_1 R_5 g_m s^4 + C_1 C_4 L_1 L_4 R_5 s^4 + 2 C_1 C_4 L_1 L_5 R_1 R_5 g_m s^4 + 2 C_1 C_4 L_1 L_5 R_1 s^4 + 2 C_1 C_4 L_1 L_5 R_5 s^4 + 2 C_1 C_4 L_1 R_1 R_5 s^3 + 2 C_1 C_5 L_1 L_5 R_1 R_5 g_m s^4 + C_1 C_5 L_1 L_5 s^4 + 2 C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2 C_4 C_5 L_1 L_4 g_m s^3 + 2 C_4 C_5 L_1 L_5 g_m s^3 + 2 C_4 C_5 L_1 s^2 + 2 C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2)}$$

$$\mathbf{10.891 \quad INVALID-ORDER-891} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{2 C_1 C_4 C_5 L_1 L_4 L_5 R_1 g_m s^6 + C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2 C_1 C_4 C_5 L_1 L_5 R_1 R_5 g_m s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_1 s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_5 s^5 + 2 C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 L_5 R_1 g_m s^4 + 2 C_1 C_4 L_1 L_5 s^4 + 2 C_1 C_4 L_1 R_1 R_5 g_m s^3 + 2 C_1 C_4 L_1 R_1 s^3 + 2 C_1 C_4 L_1 R_5 s^3 + 2 C_1 C_5 L_1 L_5 R_1 R_5 g_m s^4 + C_1 C_5 L_1 L_5 s^4 + 2 C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2 C_4 C_5 L_1 L_4 g_m s^3 + 2 C_4 C_5 L_1 L_5 g_m s^3 + 2 C_4 C_5 L_1 s^2 + 2 C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2)}$$

$$\mathbf{10.892 \quad INVALID-ORDER-892} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad L_4 s + \frac{1}{C_4 s}, \quad \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{2 C_1 C_4 C_5 L_1 L_4 L_5 R_1 g_m s^6 + C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2 C_1 C_4 C_5 L_1 L_4 R_1 R_5 g_m s^5 + C_1 C_4 C_5 L_1 L_4 R_5 s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_1 R_5 g_m s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_1 s^5 + 2 C_1 C_4 C_5 L_1 L_5 R_5 s^5 + 2 C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 L_5 R_1 g_m s^4 + 2 C_1 C_4 L_1 L_5 s^4 + 2 C_1 C_4 L_1 R_1 R_5 g_m s^3 + 2 C_1 C_4 L_1 R_1 s^3 + 2 C_1 C_4 L_1 R_5 s^3 + 2 C_1 C_5 L_1 L_5 R_1 R_5 g_m s^4 + C_1 C_5 L_1 L_5 s^4 + 2 C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2 C_4 C_5 L_1 L_4 g_m s^3 + 2 C_4 C_5 L_1 L_5 g_m s^3 + 2 C_4 C_5 L_1 s^2 + 2 C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2)}$$

$$\mathbf{10.893 \quad INVALID-ORDER-893} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{L_4 s (R_5 g_m - 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2 C_1 C_4 L_1 L_4 R_1 R_5 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_1 s^4 + 2 C_1 C_4 L_1 L_4 R_5 s^4 + 2 C_1 L_1 L_4 R_1 g_m s^3 + C_1 L_1 L_4 s^3 + 2 C_1 L_1 R_1 R_5 g_m s^2 + 2 C_1 L_1 R_1 s^2 + 2 C_1 L_1 R_5 s^2 + 2 C_4 L_1 L_4 R_5 g_m s^3 + 2 C_4 L_1 L_4 s^3 + 2 C_4 L_4 R_1 R_5 g_m s^2 + 2 C_4 L_4 R_1 s^2 + 2 C_4 L_4 R_5 s^2 + 2 L_1 L_4 g_m s^2 + 2 L_1 R_5 g_m s + 2 L_1 s}$$

$$\mathbf{10.894 \quad INVALID-ORDER-894} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_5 s - g_m) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2 C_1 C_4 C_5 L_1 L_4 R_1 s^5 + 2 C_1 C_4 L_1 L_4 R_1 g_m s^4 + 2 C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_5 L_1 L_4 R_1 g_m s^4 + C_1 C_5 L_1 L_4 s^4 + 2 C_1 C_5 L_1 R_1 s^3 + 2 C_1 L_1 R_1 g_m s^2 + 2 C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 s^4 + 2 C_4 C_5 L_4 R_1 s^3 + 2 C_4 L_1 L_4 g_m s^3 + 2 C_4 L_4 R_1 g_m s^2 + 2 C_4 L_4 s^2 + 2 C_5 L_1 L_4 g_m s^3 + 2 C_5 L_1 s^2 + 2 C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2)}$$

$$\mathbf{10.895 \quad INVALID-ORDER-895} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \quad \infty, \quad \infty, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{L_4 s (C_5 R_5 s - R_5 g_m + 1) (C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2 C_1 C_4 C_5 L_1 L_4 R_1 R_5 s^5 + 2 C_1 C_4 L_1 L_4 R_1 R_5 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_1 s^4 + 2 C_1 C_4 L_1 L_4 R_5 s^4 + 2 C_1 C_5 L_1 L_4 R_1 R_5 g_m s^4 + C_1 C_5 L_1 L_4 R_5 s^4 + 2 C_1 C_5 L_1 R_1 R_5 s^3 + 2 C_1 L_1 L_4 R_1 g_m s^3 + C_1 L_1 L_4 s^3 + 2 C_1 L_1 R_1 R_5 g_m s^2 + 2 C_1 L_1 R_1 s^2 + 2 C_1 L_1 R_5 s^2 + 2 C_4 C_5 L_1 L_4 R_5 s^4 + 2 C_4 C_5 L_1 L_4 g_m s^3 + 2 C_4 C_5 L_1 L_5 g_m s^3 + 2 C_4 C_5 L_1 s^2 + 2 C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2)}$$

10.896 INVALID-ORDER-896 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_4 s (C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_5}{2 C_1 C_4 C_5 L_1 L_4 R_1 R_5 g_m s^5 + 2 C_1 C_4 C_5 L_1 L_4 R_1 s^5 + 2 C_1 C_4 C_5 L_1 L_4 R_5 s^5 + 2 C_1 C_4 L_1 L_4 R_1 g_m s^4 + 2 C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_5 L_1 L_4 R_1 g_m s^4 + C_1 C_5 L_1 L_4 s^4 + 2 C_1 C_5 L_1 R_1 R_5 g_m s^3 + 2 C_1 C_5 L_1 R_1 s^3 + 2 C_1 C_5 L_1 R_5 s^3 + 2 C_1 L_1 R_1 g_m s^2 + 2 C_1 L_1 s^2 + 2 C_4 C_5 L_1 L_4 R_5 g_m s^4 + 2 C_4$$

10.897 INVALID-ORDER-897 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{L_4 s (C_1 L_1 R_1 s^2 + L_1 s + R_1) (C_5 s^4 + C_4 s^3 + C_3 s^2 + C_2 s + C_1)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_1 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2C_1 C_4 C_5 L_1 L_4 R_1 s^5 + 2C_1 C_4 L_1 L_4 R_1 g_m s^4 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_5 L_1 L_4 R_1 g_m s^4 + C_1 C_5 L_1 L_4 s^4 + 2C_1 C_5 L_1 L_5 R_1 g_m s^4 + 2C_1 C_5 L_1 L_5 s^4 + 2C_1 C_5 L_1 R_1 s^3 + 2C_1 L_1 R_1 g_m s^2 + 2C_1 L_1 s^2 + 2C_4 C_5 L_1 L_4 L_5 g_m s^5 + 2C_4 s^5}$$

10.898 INVALID-ORDER-898 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = -\frac{L_4 s (C_5 L_5 s^2 - L_5 g_m s + 1)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_1 s^6 + 2C_1 C_4 L_1 L_4 L_5 R_1 g_m s^5 + 2C_1 C_4 L_1 L_4 L_5 s^5 + 2C_1 C_4 L_1 L_4 R_1 s^4 + 2C_1 C_5 L_1 L_4 L_5 R_1 g_m s^5 + C_1 C_5 L_1 L_4 L_5 s^5 + 2C_1 C_5 L_1 L_5 R_1 s^4 + 2C_1 L_1 L_4 R_1 g_m s^3 + C_1 L_1 L_4 s^3 + 2C_1 L_1 L_5 R_1 g_m s^3 + 2C_1 L_1 L_5 s^3 + 2C_1 L_1 R_1 s^2 + 2C_4 C_5 L_1 L_4 L_5 s^5 + 2C_4 C_5}$$

10.899 INVALID-ORDER-899 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{2C_1C_4C_5L_1L_4L_5R_1g_ms^6 + 2C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_4R_1R_5g_ms^5 + 2C_1C_4C_5L_1L_4R_1s^5 + 2C_1C_4C_5L_1L_4R_5s^5 + 2C_1C_4L_1L_4R_1g_ms^4 + 2C_1C_4L_1L_4s^4 + 2C_1C_5L_1L_4R_1g_ms^4 + C_1C_5L_1L_4s^4 + 2C_1C_5L_1L_5R_1g_ms^4 + 2C_1C_5L_1L_5s^4 + 2C_1C_5L_1R_1R_5g_ms^3 +$$

10.900 INVALID-ORDER-900 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = -2C_1C_4C_5L_1L_4L_5R_1R_5s^6 + 2C_1C_4L_1L_4L_5R_1R_5g_ms^5 + 2C_1C_4L_1L_4L_5R_1s^5 + 2C_1C_4L_1L_4L_5R_5s^5 + 2C_1C_4L_1L_4R_1R_5s^4 + 2C_1C_5L_1L_4L_5R_1R_5g_ms^5 + C_1C_5L_1L_4L_5R_5s^5 + 2C_1C_5L_1L_5R_1R_5s^4 + 2C_1L_1L_4L_5R_1g_ms^4 + C_1L_1L_4L_5s^4 + 2C_1L_1L_4R_1R_5g_ms^3 + C_1L_1$$

10.901 INVALID-ORDER-901 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{2C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_1 s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + 2C_1 C_4 L_1 L_4 L_5 R_1 g_m s^5 + 2C_1 C_4 L_1 L_4 L_5 s^5 + 2C_1 C_4 L_1 L_4 R_1 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 R_1 s^4 + 2C_1 C_4 L_1 L_4 R_5 s^4 + 2C_1 C_5 L_1 L_4 L_5 R_1 g_m s^5 + C_1 C_5 L_1 L_4 L_5 s^5 + 2C_1 C_5 L_1 L_5 R_1 R_5 g_m s^4 + 2C_1 C_5 L_1 L_5 R_1 s^4 + 2C_1 C_5 L_1 L_5 R_5 s^4 + 2C_1 C_5 L_1 L_5 s^4}{(s^7 + C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_5 g_m s^6 + \dots)}$$

10.902 INVALID-ORDER-902 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{2C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_1 s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + 2C_1 C_4 C_5 L_1 L_4 R_1 R_5 s^5 + 2C_1 C_4 L_1 L_4 R_1 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 R_1 s^4 + 2C_1 C_4 L_1 L_4 R_5 s^4 + 2C_1 C_5 L_1 L_4 L_5 R_1 g_m s^5 + C_1 C_5 L_1 L_4 L_5 s^5 + 2C_1 C_5 L_1 L_4 R_1 R_5 g_m s^4 + C_1 C_5 L_1 L_4 R_5 s^4 + 2C_1 C_5 L_1 L_4 R_1 R_5 s^4}{2C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_1 s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + 2C_1 C_4 C_5 L_1 L_4 R_1 R_5 s^5 + 2C_1 C_4 L_1 L_4 R_1 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 R_1 s^4 + 2C_1 C_4 L_1 L_4 R_5 s^4 + 2C_1 C_5 L_1 L_4 L_5 R_1 g_m s^5 + C_1 C_5 L_1 L_4 L_5 s^5 + 2C_1 C_5 L_1 L_4 R_1 R_5 g_m s^4 + C_1 C_5 L_1 L_4 R_5 s^4 + 2C_1 C_5 L_1 L_4 R_1 R_5 s^4}$$

10.903 INVALID-ORDER-903 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, R_5, \infty \right)$

$$H(s) = \frac{(R_5 g_m - 1)(C_4 L_4 s^2 + C_4 R_4 s + 1)(C_1 L_1 R_1 s^2 + L_1 s + R_1)}{2C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_1 R_5 g_m s^3 + 2C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_1 R_5 s^3 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2C_4 L_1 L_4 g_m s^3 + 2C_4 L_1 R_4 g_m s^2 + 2C_4 L_1 R_5 g_m s^2 + 2C_4 L_1 s^2 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 R_1 R_4 g_m s^2 + C_4 R_1 s^2 + C_4 R_4 s + 1}$$

10.904 INVALID-ORDER-904 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{(C_5s - g_m)(C_4L_4s^2 + C_4R_4s + 1)(C_1L_1R_1s^2 + L_1s + R_1)}{s(2C_1C_4C_5L_1L_4R_1g_ms^4 + C_1C_4C_5L_1L_4s^4 + 2C_1C_4C_5L_1R_1R_4g_ms^3 + 2C_1C_4C_5L_1R_1s^3 + C_1C_4C_5L_1R_4s^3 + 2C_1C_4L_1R_1g_ms^2 + 2C_1C_4L_1s^2 + 2C_1C_5L_1R_1g_ms^2 + C_1C_5L_1s^2 + 2C_4C_5L_1L_4g_ms^3 + 2C_4C_5L_1R_4g_ms^2 + 2C_4C_5L_1s^2 + 2C_4C_5L_4R_1g_ms^2 + C_4C_5L_4s^2)}$$

10.905 INVALID-ORDER-905 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{2C_1 C_4 C_5 L_1 L_4 R_1 R_5 g_m s^5 + C_1 C_4 C_5 L_1 L_4 R_5 s^5 + 2C_1 C_4 C_5 L_1 R_1 R_4 R_5 g_m s^4 + 2C_1 C_4 C_5 L_1 R_1 R_5 s^4 + C_1 C_4 C_5 L_1 R_4 R_5 s^4 + 2C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_1 R_5 g_m s^3 + 2C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_1 R_5 s^3 + 2C_1 C_4 L_1 R_5 s^3 + 2C_1 C_4 L_1 R_5 s^3 + 2C_1 C_4 L_1 R_5 s^3}{(s^6 + \dots)}$$

10.906 INVALID-ORDER-906 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{(C_4 L_4 s^2 + C_4 R_4 s + 1)(C_1 L_1 R_1 s^2 + L_1 s + R_1)(C_5 R_5 g_m s - C_5)}{s(2C_1 C_4 C_5 L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_5 L_1 L_4 s^4 + 2C_1 C_4 C_5 L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 R_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 R_1 s^3 + C_1 C_4 C_5 L_1 R_4 s^3 + 2C_1 C_4 C_5 L_1 R_5 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + 2C_1 C_4 L_1 s^2 + 2C_1 C_5 L_1 R_1 g_m s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 L_4 g_m s^3 + 2C_4 C_5 L_1 R_4 g_m s^2 +$$

10.907 INVALID-ORDER-907 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{(C_4 L_4 s^2 + C_4 R_4 s + 1)(C_1 L_1 R_1 s^2 + L_1 s + R_1)(C_5 L_5 g_m s^2 - C_5 R_5)}{s(2C_1 C_4 C_5 L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_5 L_1 L_4 s^4 + 2C_1 C_4 C_5 L_1 L_5 R_1 g_m s^4 + 2C_1 C_4 C_5 L_1 L_5 s^4 + 2C_1 C_4 C_5 L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 R_1 s^3 + C_1 C_4 C_5 L_1 R_4 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + 2C_1 C_4 L_1 s^2 + 2C_1 C_5 L_1 R_1 g_m s^2 + C_1 C_5 L_1 s^2 + 2C_4 C_5 L_1 L_4 g_m s^3 + 2C_4 C_5 L_1 L_5 g_m s^3 + 2C_4 C_5 L_1 R_1 s^2 + 2C_4 C_5 L_1 R_4 s^2 + 2C_4 C_5 L_1 s^2 + 2C_4 C_5 R_1 s^2 + 2C_4 C_5 R_4 s^2 + 2C_4 C_5 s^2)}$$

10.908 INVALID-ORDER-908 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = -\frac{2C_1 C_4 C_5 L_1 L_4 L_5 R_{1g_m} s^6 + C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2C_1 C_4 C_5 L_1 L_5 R_{1g_m} s^5 + 2C_1 C_4 C_5 L_1 L_5 R_{1g_m} s^5 + C_1 C_4 C_5 L_1 L_5 R_{1g_m} s^5 + C_1 C_4 C_5 L_1 L_5 R_{1g_m} s^5 + 2C_1 C_4 L_1 L_4 R_{1g_m} s^4 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 L_5 R_{1g_m} s^4 + 2C_1 C_4 L_1 L_5 s^4 + 2C_1 C_4 L_1 R_{1g_m} s^3 + 2C_1 C_4 L_1 R_{1g_m} s^3 + C_1 C_4 L_1 R_{1g_m} s^3 + C_1 C_4 L_1 R_{1g_m} s^3 + 2C_1 C_5$$

10.909 INVALID-ORDER-909 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{(C_4 L_4 s^2 + C_4 R_4 s + 1)}{s(2C_1 C_4 C_5 L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_5 L_1 L_4 s^4 + 2C_1 C_4 C_5 L_1 L_5 R_1 g_m s^4 + 2C_1 C_4 C_5 L_1 L_5 s^4 + 2C_1 C_4 C_5 L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 C_5 L_1 R_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 R_1 s^3 + C_1 C_4 C_5 L_1 R_4 s^3 + 2C_1 C_4 C_5 L_1 R_5 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + 2C_1 C_4 L_1 s^2 + 2C_1 C_5 L_1 R_1 g_m s^2 + C_1 C_5 L_1$$

10.910 INVALID-ORDER-910 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_1L_4L_5R_1R_5g_ms^6 + C_1C_4C_5L_1L_4L_5R_5s^6 + 2C_1C_4C_5L_1L_5R_1R_4R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_1R_5s^5 + C_1C_4C_5L_1L_5R_4R_5s^5 + 2C_1C_4L_1L_4L_5R_1g_ms^5 + C_1C_4L_1L_4L_5s^5 + 2C_1C_4L_1L_4R_1R_5g_ms^4 + C_1C_4L_1L_4R_5s^4 + 2C_1C_4L_1L_5R_1R_4g_ms^4 + 2C_1C_4L_1L_5R_1R_4s^4 + 2C_1C_4L_1L_5R_1R_5g_ms^3 + 2C_1C_4L_1L_5R_1R_5s^3 + C_1C_4L_1L_5R_4R_5g_ms^3 + C_1C_4L_1L_5R_4R_5s^3 + 2C_1C_4L_1L_5R_5s^3 + C_1C_4L_1L_5R_5g_ms^2 + C_1C_4L_1L_5R_5s^2 + C_1C_4L_1L_5R_5g_ms + C_1C_4L_1L_5R_5s + C_1C_4L_1L_5R_5}{2C_1C_4C_5L_1L_4L_5R_1R_5g_ms^6 + C_1C_4C_5L_1L_4L_5R_5s^6 + 2C_1C_4C_5L_1L_5R_1R_4R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_1R_5s^5 + C_1C_4C_5L_1L_5R_4R_5s^5 + 2C_1C_4L_1L_4L_5R_1g_ms^5 + C_1C_4L_1L_4L_5s^5 + 2C_1C_4L_1L_4R_1R_5g_ms^4 + C_1C_4L_1L_4R_5s^4 + 2C_1C_4L_1L_5R_1R_4g_ms^4 + 2C_1C_4L_1L_5R_1R_4s^4 + 2C_1C_4L_1L_5R_1R_5g_ms^3 + 2C_1C_4L_1L_5R_1R_5s^3 + C_1C_4L_1L_5R_4R_5g_ms^3 + C_1C_4L_1L_5R_4R_5s^3 + 2C_1C_4L_1L_5R_5s^3 + C_1C_4L_1L_5R_5g_ms^2 + C_1C_4L_1L_5R_5s^2 + C_1C_4L_1L_5R_5g_ms + C_1C_4L_1L_5R_5s + C_1C_4L_1L_5R_5}.$$

10.911 INVALID-ORDER-911 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{2C_1C_4C_5L_1L_4L_5R_1g_ms^6 + C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_1s^5 + C_1C_4C_5L_1L_5R_4s^5 + 2C_1C_4C_5L_1L_5R_5s^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_1L_5R_1g_ms^4 + 2C_1C_4L_1L_5s^4 + 2C_1C_4L_1R_1F}{2C_1C_4C_5L_1L_4L_5R_1g_ms^6 + C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_1s^5 + C_1C_4C_5L_1L_5R_4s^5 + 2C_1C_4C_5L_1L_5R_5s^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_1L_5R_1g_ms^4 + 2C_1C_4L_1L_5s^4 + 2C_1C_4L_1R_1F}$$

10.912 INVALID-ORDER-912 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_1L_4L_5R_1g_ms^6 + C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_4R_1R_5g_ms^5 + C_1C_4C_5L_1L_4R_5s^5 + 2C_1C_4C_5L_1L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_5R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_1s^5 + C_1C_4C_5L_1L_5R_4s^5 + 2C_1C_4C_5L_1L_5R_5s^5 + 2C_1C_4C_5L_1R_1R_4R_5g_ms^4 + 2C_1C_4C_5L_1R_1R_4R_5s^4 + 2C_1C_4C_5L_1R_1R_5g_ms^3 + 2C_1C_4C_5L_1R_1R_5s^3 + 2C_1C_4C_5L_1R_4R_5g_ms^3 + 2C_1C_4C_5L_1R_4R_5s^3 + 2C_1C_4C_5L_1R_5g_ms^3 + 2C_1C_4C_5L_1R_5s^3 + 2C_1C_4C_5L_4R_1R_5g_ms^2 + 2C_1C_4C_5L_4R_1R_5s^2 + 2C_1C_4C_5L_4R_4R_5g_ms^2 + 2C_1C_4C_5L_4R_4R_5s^2 + 2C_1C_4C_5L_4R_5g_ms^2 + 2C_1C_4C_5L_4R_5s^2 + 2C_1C_4C_5L_5R_1R_4g_ms^2 + 2C_1C_4C_5L_5R_1R_4s^2 + 2C_1C_4C_5L_5R_4R_5g_ms^2 + 2C_1C_4C_5L_5R_4R_5s^2 + 2C_1C_4C_5L_5R_5g_ms^2 + 2C_1C_4C_5L_5R_5s^2 + 2C_1C_4C_5L_1R_1R_4g_ms + 2C_1C_4C_5L_1R_1R_4s + 2C_1C_4C_5L_1R_1R_5g_ms + 2C_1C_4C_5L_1R_1R_5s + 2C_1C_4C_5L_1R_4R_5g_ms + 2C_1C_4C_5L_1R_4R_5s + 2C_1C_4C_5L_1R_5g_ms + 2C_1C_4C_5L_1R_5s + 2C_1C_4C_5L_4R_1g_ms + 2C_1C_4C_5L_4R_1s + 2C_1C_4C_5L_4R_4g_ms + 2C_1C_4C_5L_4R_4s + 2C_1C_4C_5L_4R_5g_ms + 2C_1C_4C_5L_4R_5s + 2C_1C_4C_5L_5R_1g_ms + 2C_1C_4C_5L_5R_1s + 2C_1C_4C_5L_5R_4g_ms + 2C_1C_4C_5L_5R_4s + 2C_1C_4C_5L_5R_5g_ms + 2C_1C_4C_5L_5R_5s + 2C_1C_4C_5L_1R_1g_m + 2C_1C_4C_5L_1R_1s + 2C_1C_4C_5L_1R_4g_m + 2C_1C_4C_5L_1R_4s + 2C_1C_4C_5L_1R_5g_m + 2C_1C_4C_5L_1R_5s + 2C_1C_4C_5L_4R_1g_m + 2C_1C_4C_5L_4R_1s + 2C_1C_4C_5L_4R_4g_m + 2C_1C_4C_5L_4R_4s + 2C_1C_4C_5L_4R_5g_m + 2C_1C_4C_5L_4R_5s + 2C_1C_4C_5L_5R_1g_m + 2C_1C_4C_5L_5R_1s + 2C_1C_4C_5L_5R_4g_m + 2C_1C_4C_5L_5R_4s + 2C_1C_4C_5L_5R_5g_m + 2C_1C_4C_5L_5R_5s + 2C_1C_4C_5L_1R_1 + 2C_1C_4C_5L_1R_4 + 2C_1C_4C_5L_1R_5 + 2C_1C_4C_5L_4R_1 + 2C_1C_4C_5L_4R_4 + 2C_1C_4C_5L_4R_5 + 2C_1C_4C_5L_5R_1 + 2C_1C_4C_5L_5R_4 + 2C_1C_4C_5L_5R_5 + 2C_1C_4C_5L_1 + 2C_1C_4C_5L_4 + 2C_1C_4C_5L_5 + 2C_1C_4C_5 + 2C_1C_4C_5L_1L_4 + 2C_1C_4C_5L_1L_5 + 2C_1C_4C_5L_4L_5 + 2C_1C_4C_5L_1L_4L_5 + 2C_1C_4C_5L_1L_4L_5R_1 + 2C_1C_4C_5L_1L_4L_5R_5 + 2C_1C_4C_5L_1L_5R_1 + 2C_1C_4C_5L_1L_5R_5 + 2C_1C_4C_5L_4L_5R_1 + 2C_1C_4C_5L_4L_5R_5 + 2C_1C_4C_5L_5R_1 + 2C_1C_4C_5L_5R_5 + 2C_1C_4C_5L_1R_1 + 2C_1C_4C_5L_1R_4 + 2C_1C_4C_5L_1R_5 + 2C_1C_4C_5L_4R_1 + 2C_1C_4C_5L_4R_4 + 2C_1C_4C_5L_4R_5 + 2C_1C_4C_5L_5R_1 + 2C_1C_4C_5L_5R_4 + 2C_1C_4C_5L_5R_5 + 2C_1C_4C_5L_1R_1R_4 + 2C_1C_4C_5L_1R_1R_5 + 2C_1C_4C_5L_1R_4R_5 + 2C_1C_4C_5L_1R_5R_4 + 2C_1C_4C_5L_4R_1R_5 + 2C_1C_4C_5L_4R_4R_5 + 2C_1C_4C_5L_4R_5R_4 + 2C_1C_4C_5L_5R_1R_4 + 2C_1C_4C_5L_5R_4R_5 + 2C_1C_4C_5L_5R_5R_4 + 2C_1C_4C_5L_1R_1R_4R_5 + 2C_1C_4C_5L_1R_1R_5R_4 + 2C_1C_4C_5L_1R_4R_5R_4 + 2C_1C_4C_5L_1R_5R_4R_4 + 2C_1C_4C_5L_4R_1R_5R_4 + 2C_1C_4C_5L_4R_4R_5R_4 + 2C_1C_4C_5L_4R_5R_4R_4 + 2C_1C_4C_5L_5R_1R_4R_5 + 2C_1C_4C_5L_5R_4R_5R_4 + 2C_1C_4C_5L_5R_5R_4R_4 + 2C_1C_4C_5L_1R_1R_4R_5R_4 + 2C_1C_4C_5L_1R_1R_5R_4R_4 + 2C_1C_4C_5L_1R_4R_5R_4R_4 + 2C_1C_4C_5L_1R_5R_4R_4R_4 + 2C_1C_4C_5L_4R_1R_5R_4R_4 + 2C_1C_4C_5L_4R_4R_5R_4R_4 + 2C_1C_4C_5L_4R_5R_4R_4R_4 + 2C_1C_4C_5L_5R_1R_4R_5R_4 + 2C_1C_4C_5L_5R_4R_5R_4R_4 + 2C_1C_4C_5L_5R_5R_4R_4R_4 + 2C_1C_4C_5L_1R_1R_4R_5R_4R_4 + 2C_1C_4C_5L_1R_1R_5R_4R_4R_4 + 2C_1C_4C_5L_1R_4R_5R_4R_4R_4 + 2C_1C_4C_5L_1R_5R_4R_4R_4R_4 + 2C_1C_4C_5L_4R_1R_5R_4R_4R_4 + 2C_1C_4C_5L_4R_4R_5R_4R_4R_4 + 2C_1C_4C_5L_4R_5R_4R_4R_4R_4 + 2C_1C_4C_5L_5R_1R_4R_5R_4R_4 + 2C_1C_4C_5L_5R_4R_5R_4R_4R_4 + 2C_1C_4C_5L_5R_5R_4R_4R_4R_4 + 2C_1C_4C_5L_1R_1R_4R_5R_4R_4R_4 + 2C_1C_4C_5L_1R_1R_5R_4R_4R_4R_4 + 2C_1C_4C_5L_1R_4R_5R_4R_4R_4R_4 + 2C_1C_4C_5L_1R_5R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_4R_1R_5R_4R_4R_4R_4 + 2C_1C_4C_5L_4R_4R_5R_4R_4R_4R_4 + 2C_1C_4C_5L_4R_5R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_5R_1R_4R_5R_4R_4R_4 + 2C_1C_4C_5L_5R_4R_5R_4R_4R_4R_4 + 2C_1C_4C_5L_5R_5R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_1R_1R_4R_5R_4R_4R_4R_4 + 2C_1C_4C_5L_1R_1R_5R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_1R_4R_5R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_1R_5R_4R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_4R_1R_5R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_4R_4R_5R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_4R_5R_4R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_5R_1R_4R_5R_4R_4R_4R_4 + 2C_1C_4C_5L_5R_4R_5R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_5R_5R_4R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_1R_1R_4R_5R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_1R_1R_5R_4R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_1R_4R_5R_4R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_1R_5R_4R_4R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_4R_1R_5R_4R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_4R_4R_5R_4R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_4R_5R_4R_4R_4R_4R_4R_4R_4 + 2C_1C_4C_5L_5R_$$

10.913 INVALID-ORDER-913 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, R_5, \infty \right)$

$$H(s) = \frac{L_4 R_4 s (R_5 g_m - 1) (C_1 L_1 R_1 s^2 + L_1 s + 2C_1 C_4 L_1 L_4 R_1 R_4 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 R_1 R_4 s^4 + 2C_1 C_4 L_1 L_4 R_4 R_5 s^4 + 2C_1 L_1 L_4 R_1 R_4 g_m s^3 + 2C_1 L_1 L_4 R_1 R_5 g_m s^3 + 2C_1 L_1 L_4 R_1 s^3 + C_1 L_1 L_4 R_4 s^3 + 2C_1 L_1 L_4 R_5 s^3 + 2C_1 L_1 R_1 R_4 R_5 g_m s^2 + 2C_1 L_1 R_1 R_4 s^2 + 2C_1 L_1 R_4 R_5 s^2 + 2C_4 L_1 L_4 R_4 R_5 g_m s^3 + 2C_4 L_1 L_4 R_4 s^3)}{}$$

10.932 INVALID-ORDER-932 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{2C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_4 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_1 s^6 + C_1 C_4 C_5 L_1 L_4 L_5 R_4 s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + 2C_1 C_4 C_5 L_1 L_4 R_1 R_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_4 R_1 R_5 s^5 + C_1 C_4 C_5 L_1 L_4 R_4 R_5 s^5 + 2C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 L_1 L_4 R_1 R_5 g_m s^4}{(s^7 + C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_4 R_5 g_m s^6 + \dots)}$$

10.933 **INVALID-ORDER-933** $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, R_5, \infty \right)$

$$H(s) = \frac{R_4 (R_5 g_m - 1)}{2C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 L_1 L_4 R_1 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + 2C_1 C_4 L_1 L_4 R_5 s^4 + 2C_1 C_4 L_1 R_1 R_4 R_5 g_m s^3 + 2C_1 C_4 L_1 R_1 R_4 s^3 + 2C_1 C_4 L_1 R_4 R_5 s^3 + 2C_1 L_1 R_1 R_4 g_m s^2 + 2C_1 L_1 R_1 R_5 g_m s^2 + 2C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + 2C_1 L_1 R_5 s^2 + 2C_4 L_1 R_4 s^2 + 2C_4 L_1 R_5 s^2 + 2C_4 L_1 s^2 + 2C_4 R_1 R_4 s^2 + 2C_4 R_1 R_5 s^2 + 2C_4 R_1 s^2 + 2C_4 R_4 s^2 + 2C_4 R_5 s^2 + 2C_4 s^2 + R_4 (R_5 g_m - 1)}$$

10.934 INVALID-ORDER-934 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{R_4(s)}{2C_1C_4C_5L_1L_4R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_4R_1s^5 + C_1C_4C_5L_1L_4R_4s^5 + 2C_1C_4C_5L_1R_1R_4s^4 + 2C_1C_4C_5L_1L_4R_1g_ms^4 + 2C_1C_4C_5L_1L_4s^4 + 2C_1C_4L_1R_1R_4g_ms^3 + 2C_1C_4L_1R_4s^3 + 2C_1C_5L_1R_1R_4g_ms^3 + 2C_1C_5L_1R_1s^3 + C_1C_5L_1R_4s^3 + 2C_1L_1R_1g_ms^2 + 2C_1L_1s^2 + 2C_1R_1}.$$

10.935 INVALID-ORDER-935 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_1L_4R_1R_4R_5g_ms^5 + 2C_1C_4C_5L_1L_4R_1R_5s^5 + C_1C_4C_5L_1L_4R_4R_5s^5 + 2C_1C_4C_5L_1R_1R_4R_5s^4 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1R_5g_ms^4 + 2C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_4s^4 + 2C_1C_4L_1L_4R_5s^4 + 2C_1C_4L_1R_1R_4R_5g_ms^3 + 2C_1C_4L_1R_1R_4s^3 +$$

10.936 **INVALID-ORDER-936** $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{2C_1C_4C_5L_1L_4R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_4R_1R_5g_ms^5 + 2C_1C_4C_5L_1L_4R_1s^5 + C_1C_4C_5L_1L_4R_4s^5 + 2C_1C_4C_5L_1L_4R_5s^5 + 2C_1C_4C_5L_1R_1R_4R_5g_ms^4 + 2C_1C_4C_5L_1R_1R_4s^4 + 2C_1C_4C_5L_1R_4R_5s^4 + 2C_1C_4L_1L_4R_1g_ms^4 + 2C_1C_4L_1L_4s^4 + 2C_1C_4L_1R_1R_4g_ms^3 + 2C_1$$

10.937 **INVALID-ORDER-937** $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

[illegible]

10.938 INVALID-ORDER-938 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = -2C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_4 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_1 s^6 + C_1 C_4 C_5 L_1 L_4 L_5 R_4 s^6 + 2C_1 C_4 C_5 L_1 L_5 R_1 R_4 s^5 + 2C_1 C_4 L_1 L_4 L_5 R_1 g_m s^5 + 2C_1 C_4 L_1 L_4 L_5 s^5 + 2C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + 2C_1 C_4 L_1 L_5 R_1 R_4 g_m s^4 + 2C_1 C_4 L_1 L_5 R_4 s^4 + 2$$

10.939 INVALID-ORDER-939 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{1}{2C_1C_4C_5L_1L_4L_5R_1g_ms^6 + 2C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_4R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_4R_1R_5g_ms^5 + 2C_1C_4C_5L_1L_4R_1s^5 + C_1C_4C_5L_1L_4R_4s^5 + 2C_1C_4C_5L_1L_4R_5s^5 + 2C_1C_4C_5L_1L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_5R_4s^5 + 2C_1C_4C_5L_1R_1R_4R_5g_ms^4 + 2C_1C_4C_5L_1R_1R_4R_5s^4 + 2C_1C_4C_5L_1R_1R_4s^4 + 2C_1C_4C_5L_1R_1R_5s^4 + 2C_1C_4C_5L_1R_1s^4 + 2C_1C_4C_5L_1R_4s^4 + 2C_1C_4C_5L_1R_5s^4 + 2C_1C_4C_5L_1s^4 + 2C_1C_4C_5L_4L_5R_1g_ms^5 + 2C_1C_4C_5L_4L_5R_1s^5 + 2C_1C_4C_5L_4L_5s^5 + 2C_1C_4C_5L_4R_1R_4g_ms^4 + 2C_1C_4C_5L_4R_1R_4s^4 + 2C_1C_4C_5L_4R_1R_5s^4 + 2C_1C_4C_5L_4R_1s^4 + 2C_1C_4C_5L_4R_4s^4 + 2C_1C_4C_5L_4R_5s^4 + 2C_1C_4C_5L_4s^4 + 2C_1C_4C_5L_5R_1R_4g_ms^4 + 2C_1C_4C_5L_5R_1R_4s^4 + 2C_1C_4C_5L_5R_1R_5s^4 + 2C_1C_4C_5L_5R_1s^4 + 2C_1C_4C_5L_5R_4s^4 + 2C_1C_4C_5L_5R_5s^4 + 2C_1C_4C_5L_5s^4 + 2C_1C_4C_5L_4L_5R_1s^5 + 2C_1C_4C_5L_4L_5s^5 + 2C_1C_4C_5L_4R_1R_4s^5 + 2C_1C_4C_5L_4R_1R_5s^5 + 2C_1C_4C_5L_4R_1s^5 + C_1C_4C_5L_4R_4s^5 + 2C_1C_4C_5L_4R_5s^5 + 2C_1C_4C_5L_4s^5 + 2C_1C_4C_5L_5R_1R_4s^5 + 2C_1C_4C_5L_5R_1s^5 + 2C_1C_4C_5L_5R_4s^5 + 2C_1C_4C_5L_5R_5s^5 + 2C_1C_4C_5L_5s^5 + 2C_1C_4C_5L_4L_5s^6 + 2C_1C_4C_5L_4R_1R_4s^6 + 2C_1C_4C_5L_4R_1R_5s^6 + 2C_1C_4C_5L_4R_1s^6 + C_1C_4C_5L_4R_4s^6 + 2C_1C_4C_5L_4R_5s^6 + 2C_1C_4C_5L_4s^6 + 2C_1C_4C_5L_5R_1R_4s^6 + 2C_1C_4C_5L_5R_1s^6 + 2C_1C_4C_5L_5R_4s^6 + 2C_1C_4C_5L_5R_5s^6 + 2C_1C_4C_5L_5s^6 + 2C_1C_4C_5L_4L_5s^7 + 2C_1C_4C_5L_4R_1R_4s^7 + 2C_1C_4C_5L_4R_1R_5s^7 + 2C_1C_4C_5L_4R_1s^7 + C_1C_4C_5L_4R_4s^7 + 2C_1C_4C_5L_4R_5s^7 + 2C_1C_4C_5L_4s^7 + 2C_1C_4C_5L_5R_1R_4s^7 + 2C_1C_4C_5L_5R_1s^7 + 2C_1C_4C_5L_5R_4s^7 + 2C_1C_4C_5L_5R_5s^7 + 2C_1C_4C_5L_5s^7 + 2C_1C_4C_5L_4L_5s^8 + 2C_1C_4C_5L_4R_1R_4s^8 + 2C_1C_4C_5L_4R_1R_5s^8 + 2C_1C_4C_5L_4R_1s^8 + C_1C_4C_5L_4R_4s^8 + 2C_1C_4C_5L_4R_5s^8 + 2C_1C_4C_5L_4s^8 + 2C_1C_4C_5L_5R_1R_4s^8 + 2C_1C_4C_5L_5R_1s^8 + 2C_1C_4C_5L_5R_4s^8 + 2C_1C_4C_5L_5R_5s^8 + 2C_1C_4C_5L_5s^8 + 2C_1C_4C_5L_4L_5s^9 + 2C_1C_4C_5L_4R_1R_4s^9 + 2C_1C_4C_5L_4R_1R_5s^9 + 2C_1C_4C_5L_4R_1s^9 + C_1C_4C_5L_4R_4s^9 + 2C_1C_4C_5L_4R_5s^9 + 2C_1C_4C_5L_4s^9 + 2C_1C_4C_5L_5R_1R_4s^9 + 2C_1C_4C_5L_5R_1s^9 + 2C_1C_4C_5L_5R_4s^9 + 2C_1C_4C_5L_5R_5s^9 + 2C_1C_4C_5L_5s^9 + 2C_1C_4C_5L_4L_5s^{10} + 2C_1C_4C_5L_4R_1R_4s^{10} + 2C_1C_4C_5L_4R_1R_5s^{10} + 2C_1C_4C_5L_4R_1s^{10} + C_1C_4C_5L_4R_4s^{10} + 2C_1C_4C_5L_4R_5s^{10} + 2C_1C_4C_5L_4s^{10} + 2C_1C_4C_5L_5R_1R_4s^{10} + 2C_1C_4C_5L_5R_1s^{10} + 2C_1C_4C_5L_5R_4s^{10} + 2C_1C_4C_5L_5R_5s^{10} + 2C_1C_4C_5L_5s^{10} + 2C_1C_4C_5L_4L_5s^{11} + 2C_1C_4C_5L_4R_1R_4s^{11} + 2C_1C_4C_5L_4R_1R_5s^{11} + 2C_1C_4C_5L_4R_1s^{11} + C_1C_4C_5L_4R_4s^{11} + 2C_1C_4C_5L_4R_5s^{11} + 2C_1C_4C_5L_4s^{11} + 2C_1C_4C_5L_5R_1R_4s^{11} + 2C_1C_4C_5L_5R_1s^{11} + 2C_1C_4C_5L_5R_4s^{11} + 2C_1C_4C_5L_5R_5s^{11} + 2C_1C_4C_5L_5s^{11} + 2C_1C_4C_5L_4L_5s^{12} + 2C_1C_4C_5L_4R_1R_4s^{12} + 2C_1C_4C_5L_4R_1R_5s^{12} + 2C_1C_4C_5L_4R_1s^{12} + C_1C_4C_5L_4R_4s^{12} + 2C_1C_4C_5L_4R_5s^{12} + 2C_1C_4C_5L_4s^{12} + 2C_1C_4C_5L_5R_1R_4s^{12} + 2C_1C_4C_5L_5R_1s^{12} + 2C_1C_4C_5L_5R_4s^{12} + 2C_1C_4C_5L_5R_5s^{12} + 2C_1C_4C_5L_5s^{12} + 2C_1C_4C_5L_4L_5s^{13} + 2C_1C_4C_5L_4R_1R_4s^{13} + 2C_1C_4C_5L_4R_1R_5s^{13} + 2C_1C_4C_5L_4R_1s^{13} + C_1C_4C_5L_4R_4s^{13} + 2C_1C_4C_5L_4R_5s^{13} + 2C_1C_4C_5L_4s^{13} + 2C_1C_4C_5L_5R_1R_4s^{13} + 2C_1C_4C_5L_5R_1s^{13} + 2C_1C_4C_5L_5R_4s^{13} + 2C_1C_4C_5L_5R_5s^{13} + 2C_1C_4C_5L_5s^{13} + 2C_1C_4C_5L_4L_5s^{14} + 2C_1C_4C_5L_4R_1R_4s^{14} + 2C_1C_4C_5L_4R_1R_5s^{14} + 2C_1C_4C_5L_4R_1s^{14} + C_1C_4C_5L_4R_4s^{14} + 2C_1C_4C_5L_4R_5s^{14} + 2C_1C_4C_5L_4s^{14} + 2C_1C_4C_5L_5R_1R_4s^{14} + 2C_1C_4C_5L_5R_1s^{14} + 2C_1C_4C_5L_5R_4s^{14} + 2C_1C_4C_5L_5R_5s^{14} + 2C_1C_4C_5L_5s^{14} + 2C_1C_4C_5L_4L_5s^{15} + 2C_1C_4C_5L_4R_1R_4s^{15} + 2C_1C_4C_5L_4R_1R_5s^{15} + 2C_1C_4C_5L_4R_1s^{15} + C_1C_4C_5L_4R_4s^{15} + 2C_1C_4C_5L_4R_5s^{15} + 2C_1C_4C_5L_4s^{15} + 2C_1C_4C_5L_5R_1R_4s^{15} + 2C_1C_4C_5L_5R_1s^{15} + 2C_1C_4C_5L_5R_4s^{15} + 2C_1C_4C_5L_5R_5s^{15} + 2C_1C_4C_5L_5s^{15} + 2C_1C_4C_5L_4L_5s^{16} + 2C_1C_4C_5L_4R_1R_4s^{16} + 2C_1C_4C_5L_4R_1R_5s^{16} + 2C_1C_4C_5L_4R_1s^{16} + C_1C_4C_5L_4R_4s^{16} + 2C_1C_4C_5L_4R_5s^{16} + 2C_1C_4C_5L_4s^{16} + 2C_1C_4C_5L_5R_1R_4s^{16} + 2C_1C_4C_5L_5R_1s^{16} + 2C_1C_4C_5L_5R_4s^{16} + 2C_1C_4C_5L_5R_5s^{16} + 2C_1C_4C_5L_5s^{16} + 2C_1C_4C_5L_4L_5s^{17} + 2C_1C_4C_5L_4R_1R_4s^{17} + 2C_1C_4C_5L_$$

10.940 INVALID-ORDER-940 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_1L_4L_5R_1R_4R_5g_ms^6 + 2C_1C_4C_5L_1L_4L_5R_1R_5s^6 + C_1C_4C_5L_1L_4L_5R_4R_5s^6 + 2C_1C_4C_5L_1L_5R_1R_4R_5s^5 + 2C_1C_4L_1L_4L_5R_1R_4g_ms^5 + 2C_1C_4L_1L_4L_5R_1R_5g_ms^5 + 2C_1C_4L_1L_4L_5R_1s^5 + C_1C_4L_1L_4L_5R_4s^5 + 2C_1C_4L_1L_4L_5R_5s^5 + 2C_1C_4L_1L_4R_1R_4R_5g_r}{2C_1C_4C_5L_1L_4L_5R_1R_4R_5g_ms^6 + 2C_1C_4C_5L_1L_4L_5R_1R_5s^6 + C_1C_4C_5L_1L_4L_5R_4R_5s^6 + 2C_1C_4C_5L_1L_5R_1R_4R_5s^5 + 2C_1C_4L_1L_4L_5R_1R_4g_ms^5 + 2C_1C_4L_1L_4L_5R_1R_5g_ms^5 + 2C_1C_4L_1L_4L_5R_1s^5 + C_1C_4L_1L_4L_5R_4s^5 + 2C_1C_4L_1L_4L_5R_5s^5 + 2C_1C_4L_1L_4R_1R_4R_5g_r}$$

$$10.941 \quad \text{INVALID-ORDER-941} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$$

$$H(s) = \frac{2C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_4 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_1 s^6 + C_1 C_4 C_5 L_1 L_4 L_5 R_4 s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + 2C_1 C_4 C_5 L_1 L_5 R_1 R_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_1 R_4 s^5 + 2C_1 C_4 C_5 L_1 L_5 R_4 R_5 s^5 + 2C_1 C_4 L_1 L_4 L_5 R_1 g_m s^5 + 2C_1 C_4 L_1 L_4 L_5 s^5 +$$

10.942 INVALID-ORDER-942 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{R_5 (C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{2C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_4 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_5 g_m s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_1 s^6 + C_1 C_4 C_5 L_1 L_4 L_5 R_4 s^6 + 2C_1 C_4 C_5 L_1 L_4 L_5 R_5 s^6 + 2C_1 C_4 C_5 L_1 L_4 R_1 R_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_4 R_1 R_5 s^5 + C_1 C_4 C_5 L_1 L_4 R_4 R_5 s^5 + 2C_1 C_4 C_5 L_1 L_5 R_1 R_4 R_5 g_m s^5 + 2C_1 C_4 C_5 L_1 L_5 R_1 R_4 R_5 s^5 + 2C_1 C_4 C_5 L_1 L_5 R_1 R_5 s^5}{(s^7 + C_1 C_4 C_5 L_1 L_4 L_5 R_1 R_4 R_5 g_m s^6 + \dots)}$$

$$\mathbf{10.943} \quad \text{INVALID-ORDER-943} \quad Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 R_4 (C_5 s - g_m) (C_1 L_1 s^2 + 1)}{2 C_1 C_5 L_1 R_1 R_4 g_m s^3 + 2 C_1 C_5 L_1 R_1 s^3 + C_1 C_5 L_1 R_4 s^3 + C_1 C_5 R_1 R_4 s^2 + 2 C_1 L_1 R_1 g_m s^2 + 2 C_1 L_1 s^2 + 2 C_1 R_1 s + 2 C_5 R_1 R_4 g_m s + 2 C_5 R_1 s + C_5 R_4 s + 2 R_1 g_m + 2}$$

$$\mathbf{10.944} \quad \text{INVALID-ORDER-944} \quad Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{R_5}{C_5 R_5 s + 1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 R_4 (C_1 L_1 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{2 C_1 C_5 L_1 R_1 R_4 R_5 g_m s^3 + 2 C_1 C_5 L_1 R_1 R_5 s^3 + C_1 C_5 L_1 R_4 R_5 s^3 + C_1 C_5 R_1 R_4 R_5 s^2 + 2 C_1 L_1 R_1 R_4 g_m s^2 + 2 C_1 L_1 R_1 R_5 g_m s^2 + 2 C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + 2 C_1 L_1 R_5 s^2 + C_1 R_1 R_4 s + 2 C_1 R_1 R_5 s + 2 C_5 R_1 R_4 R_5 g_m s + 2 C_5 R_1 R_5 s + C_5 R_4 R_5 s + 2 R_1 R_4 g_m + 2 R_1 R_5 g_m + 1}$$

$$\textbf{10.945} \quad \textbf{INVALID-ORDER-945} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad R_4, \quad R_5 + \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = \frac{R_1R_4(C_1L_1s^2+1)(C_5R_5g_ms - C_5s + g_m)}{2C_1C_5L_1R_1R_4g_ms^3 + 2C_1C_5L_1R_1R_5g_ms^3 + 2C_1C_5L_1R_1s^3 + C_1C_5L_1R_4s^3 + 2C_1C_5L_1R_5s^3 + C_1C_5R_1R_4s^2 + 2C_1C_5R_1R_5s^2 + 2C_1L_1R_1g_ms^2 + 2C_1L_1s^2 + 2C_1R_1s + 2C_5R_1R_4g_ms + 2C_5R_1R_5g_ms + 2C_5R_1s + C_5R_4s + 2C_5R_5s + 2R_1g_m + 2}$$

$$\mathbf{10.946} \quad \text{INVALID-ORDER-946} \quad Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4, \quad L_5 s + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (C_1 L_1 s^2 + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{2 C_1 C_5 L_1 L_5 R_1 g_m s^4 + 2 C_1 C_5 L_1 L_5 s^4 + 2 C_1 C_5 L_1 R_1 R_4 g_m s^3 + 2 C_1 C_5 L_1 R_1 s^3 + C_1 C_5 L_1 R_4 s^3 + 2 C_1 C_5 L_5 R_1 s^3 + C_1 C_5 R_1 R_4 s^2 + 2 C_1 L_1 R_1 g_m s^2 + 2 C_1 L_1 s^2 + 2 C_1 R_1 s + 2 C_5 L_5 R_1 g_m s^2 + 2 C_5 L_5 s^2 + 2 C_5 R_1 R_4 g_m s + 2 C_5 R_1 s + C_5 R_4 s + 2 R_1 g_m + 2}$$

$$\mathbf{10.947} \quad \text{INVALID-ORDER-947} \quad Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5 s}{C_5 L_5 s^2 + 1}, \quad \infty \right)$$

$$H(s) = - \frac{R_1 R_4 (C_1 L_1 s^2 + 1) (C_5 L_5 s^2 - L_5 g_m s + 1)}{2 C_1 C_5 L_1 L_5 R_1 R_4 g_m s^4 + 2 C_1 C_5 L_1 L_5 R_1 s^4 + C_1 C_5 L_1 L_5 R_4 s^4 + C_1 C_5 L_5 R_1 R_4 s^3 + 2 C_1 L_1 L_5 R_1 g_m s^3 + 2 C_1 L_1 L_5 s^3 + 2 C_1 L_1 R_1 R_4 g_m s^2 + 2 C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + 2 C_1 L_5 R_1 s^2 + C_1 R_1 R_4 s + 2 C_5 L_5 R_1 R_4 g_m s^2 + 2 C_5 L_5 R_1 s^2 + C_5 L_5 R_4 s^2 + 2 L_5 R_1 g_m s + 2 L_5 s + 2}$$

$$\mathbf{10.948} \quad \text{INVALID-ORDER-948} \quad Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4, \quad L_5 s + R_5 + \frac{1}{C_5 s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_4 (C_1 L_1 s^2 + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{2 C_1 C_5 L_1 L_5 R_1 g_m s^4 + 2 C_1 C_5 L_1 L_5 s^4 + 2 C_1 C_5 L_1 R_1 R_4 g_m s^3 + 2 C_1 C_5 L_1 R_1 R_5 g_m s^3 + 2 C_1 C_5 L_1 R_1 s^3 + C_1 C_5 L_1 R_4 s^3 + 2 C_1 C_5 L_1 R_5 s^3 + 2 C_1 C_5 L_5 R_1 s^3 + C_1 C_5 R_1 R_4 s^2 + 2 C_1 C_5 R_1 R_5 s^2 + 2 C_1 L_1 R_1 g_m s^2 + 2 C_1 L_1 s^2 + 2 C_1 R_1 s + 2 C_5 L_5 R_1 g_m s^2 + 2 C_5 L_5 s^2 + 2 C_5 R_1 R_4 s + 2 C_5 R_1 s + g_m}$$

$$\mathbf{10.949} \quad \text{INVALID-ORDER-949} \quad Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \quad \infty \right)$$

$$H(s) = - \frac{R_1 R_4 (C_1 L_1 s^2 + 1) (C_5 L_5 R_5 s^2 - L_5 R_5 g_m s + L_5 s + R_5)}{2 C_1 C_5 L_1 L_5 R_1 R_4 R_5 g_m s^4 + 2 C_1 C_5 L_1 L_5 R_1 R_5 s^4 + C_1 C_5 L_1 L_5 R_4 R_5 s^4 + C_1 C_5 L_5 R_1 R_4 R_5 s^3 + 2 C_1 L_1 L_5 R_1 R_4 g_m s^3 + 2 C_1 L_1 L_5 R_1 R_5 g_m s^3 + 2 C_1 L_1 L_5 R_1 s^3 + C_1 L_1 L_5 R_4 s^3 + 2 C_1 L_1 L_5 R_5 s^3 + 2 C_1 L_1 R_1 R_4 R_5 g_m s^2 + 2 C_1 L_1 R_1 R_5 s^2 + C_1 L_1 R_4 R_5 s^2 + C_1 L_5 R_1 R_4 s^2 +$$

$$\mathbf{10.950 \quad INVALID-ORDER-950} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{L_5s}{C_5L_5s^2+1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1R_4 \left(C_1L_1s^2 + 1 \right) \left(C_5L_5R_5g_ms^2 - C_5L_5s^2 + L_5g_ms + R_5g_m - 1 \right)}{2C_1C_5L_1L_5R_1R_4g_ms^4 + 2C_1C_5L_1L_5R_1R_5g_ms^4 + 2C_1C_5L_1L_5R_1s^4 + C_1C_5L_1L_5R_4s^4 + 2C_1C_5L_1L_5R_5s^4 + C_1C_5L_5R_1R_4s^3 + 2C_1C_5L_5R_1R_5s^3 + 2C_1L_1L_5R_1g_ms^3 + 2C_1L_1L_5s^3 + 2C_1L_1R_1R_4g_ms^2 + 2C_1L_1R_1R_5g_ms^2 + 2C_1L_1R_1s^2 + C_1L_1R_4s^2 + 2C_1L_1R_5s^2 + C_1L_1R_4s + C_1L_1R_5s + C_1R_1s + C_4R_1R_4g_ms + C_4R_1R_5g_ms + C_4R_1s + C_4R_5s + 2R_1g_m + 1}$$

$$\mathbf{10.951 \quad INVALID-ORDER-951} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad R_4, \quad \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1R_4 \left(C_1L_1s^2 + 1 \right) \left(-C_5L_5R_5g_ms^2 + C_5L_5s^2 - L_5g_ms + R_5g_m - 1 \right)}{2C_1C_5L_1L_5R_1R_4g_ms^4 + 2C_1C_5L_1L_5R_1R_5g_ms^4 + 2C_1C_5L_1L_5R_1s^4 + C_1C_5L_1L_5R_4s^4 + 2C_1C_5L_1L_5R_5s^4 + 2C_1C_5L_1R_1R_4R_5g_ms^3 + 2C_1C_5L_1R_1R_5s^3 + C_1C_5L_1R_4R_5s^3 + C_1C_5L_5R_1R_4s^3 + 2C_1C_5L_5R_1R_5s^3 + C_1C_5R_1R_4R_5s^2 + 2C_1L_1R_1R_4g_ms^2 + 2C_1L_1R_1R_5g_ms^2 + 2C_1L_1R_1s^2 + C_1L_1R_4s^2 + 2C_1L_1R_5s^2 + C_1L_1R_4s + C_1L_1R_5s + C_1R_1s + C_4R_1R_4g_ms + C_4R_1R_5g_ms + C_4R_1s + C_4R_5s + 2R_1g_m + 1}$$

$$\mathbf{10.952 \quad INVALID-ORDER-952} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4s}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1 \left(R_5g_m - 1 \right) \left(C_1L_1s^2 + 1 \right)}{2C_1C_4L_1R_1R_5g_ms^3 + 2C_1C_4L_1R_1s^3 + 2C_1C_4L_1R_5s^3 + 2C_1C_4R_1R_5s^2 + 2C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + 2C_4R_1R_5g_ms + 2C_4R_1s + 2C_4R_5s + 2R_1g_m + 1}$$

$$\mathbf{10.953 \quad INVALID-ORDER-953} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4s}, \quad \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 \left(C_5s - g_m \right) \left(C_1L_1s^2 + 1 \right)}{s \left(2C_1C_4C_5L_1R_1s^3 + 2C_1C_4L_1R_1g_ms^2 + 2C_1C_4L_1s^2 + 2C_1C_4R_1s + 2C_1C_5L_1R_1g_ms^2 + C_1C_5L_1s^2 + C_1C_5R_1s + 2C_4C_5R_1s + 2C_4R_1g_m + 2C_4 + 2C_5R_1g_m + C_5 \right)}$$

$$\mathbf{10.954 \quad INVALID-ORDER-954} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4s}, \quad \frac{R_5}{C_5R_5s+1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 \left(C_1L_1s^2 + 1 \right) \left(C_5R_5s - R_5g_m + 1 \right)}{2C_1C_4C_5L_1R_1R_5s^4 + 2C_1C_4L_1R_1R_5g_ms^3 + 2C_1C_4L_1R_1s^3 + 2C_1C_4L_1R_5s^3 + 2C_1C_4R_1R_5s^2 + 2C_1C_5L_1R_1R_5g_ms^3 + C_1C_5L_1R_5s^3 + C_1C_5R_1R_5s^2 + 2C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + 2C_4C_5R_1R_5s^2 + 2C_4R_1R_5g_ms + 2C_4R_1s + 2C_4R_5s + 2C_5R_1R_5g_ms + C_5R_1s + C_5R_5s + C_5R_1g_m + C_5 + 1}$$

$$\mathbf{10.955 \quad INVALID-ORDER-955} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4s}, \quad R_5 + \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 \left(C_1L_1s^2 + 1 \right) \left(C_5R_5g_ms - C_5s + g_m \right)}{s \left(2C_1C_4C_5L_1R_1R_5g_ms^3 + 2C_1C_4C_5L_1R_1s^3 + 2C_1C_4C_5L_1R_5s^3 + 2C_1C_4C_5R_1R_5s^2 + 2C_1C_4L_1R_1g_ms^2 + 2C_1C_4L_1s^2 + 2C_1C_4R_1s + 2C_1C_5L_1R_1g_ms^2 + C_1C_5L_1s^2 + C_1C_5R_1s + 2C_4C_5R_1R_5g_ms + 2C_4C_5R_1s + 2C_4C_5R_5s + 2C_4R_1g_m + 2C_4 + 2C_5R_1g_m + C_5 \right)}$$

$$\mathbf{10.956 \quad INVALID-ORDER-956} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4s}, \quad L_5s + \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 \left(C_1L_1s^2 + 1 \right) \left(C_5L_5g_ms^2 - C_5s + g_m \right)}{s \left(2C_1C_4C_5L_1L_5R_1g_ms^4 + 2C_1C_4C_5L_1L_5s^4 + 2C_1C_4C_5L_1R_1s^3 + 2C_1C_4C_5L_5R_1s^3 + 2C_1C_4L_1R_1g_ms^2 + 2C_1C_4L_1s^2 + 2C_1C_4R_1s + 2C_1C_5L_1R_1g_ms^2 + C_1C_5L_1s^2 + C_1C_5R_1s + 2C_4C_5L_5R_1g_ms^2 + 2C_4C_5L_5s^2 + 2C_4C_5R_1s + 2C_4R_1g_m + 2C_4 + 2C_5R_1g_m + C_5 \right)}$$

$$\mathbf{10.957 \quad INVALID-ORDER-957} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4s}, \quad \frac{L_5s}{C_5L_5s^2+1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 \left(C_1L_1s^2 + 1 \right) \left(C_5L_5s^2 - L_5g_ms + 1 \right)}{2C_1C_4C_5L_1L_5R_1s^5 + 2C_1C_4L_1L_5R_1g_ms^4 + 2C_1C_4L_1L_5s^4 + 2C_1C_4L_1R_1s^3 + 2C_1C_4L_5R_1s^3 + 2C_1C_5L_1L_5R_1g_ms^4 + C_1C_5L_1L_5s^4 + C_1C_5L_5R_1s^3 + 2C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + 2C_4C_5L_5R_1s^3 + 2C_4L_5R_1g_ms^2 + 2C_4L_5s^2 + 2C_4R_1s + 2C_5L_5R_1g_ms^2 + C_5R_1s + C_5L_5s + C_5R_1g_m + C_5 + 1}$$

$$\mathbf{10.958 \quad INVALID-ORDER-958} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4s}, \quad L_5s + R_5 + \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = \frac{R_1 \left(C_1L_1s^2 + 1 \right) \left(C_5L_5g_ms^2 + C_5R_5g_ms - C_5s + g_m \right)}{s \left(2C_1C_4C_5L_1L_5R_1g_ms^4 + 2C_1C_4C_5L_1L_5s^4 + 2C_1C_4C_5L_1R_1R_5g_ms^3 + 2C_1C_4C_5L_1R_1s^3 + 2C_1C_4C_5L_1R_5s^3 + 2C_1C_4C_5R_1R_5s^2 + 2C_1C_4L_1R_1g_ms^2 + 2C_1C_4L_1s^2 + 2C_1C_4R_1s + 2C_1C_5L_1R_1g_ms^2 + C_1C_5L_1s^2 + C_1C_5R_1s + 2C_4C_5L_5R_1g_ms^2 + 2C_4C_5L_5s^2 + 2C_4C_5R_1s + 2C_4R_1g_m + 2C_4 + 2C_5R_1g_m + C_5 \right)}$$

$$\mathbf{10.959 \quad INVALID-ORDER-959} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4s}, \quad \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 \left(C_1L_1s^2 + 1 \right) \left(C_5L_5R_5s^2 - L_5R_5g_ms + L_5s + R_5 \right)}{2C_1C_4C_5L_1L_5R_1R_5s^5 + 2C_1C_4L_1L_5R_1R_5g_ms^4 + 2C_1C_4L_1L_5R_1s^4 + 2C_1C_4L_1L_5R_5s^4 + 2C_1C_4L_1R_1R_5s^3 + 2C_1C_4L_5R_1R_5s^3 + 2C_1C_5L_1L_5R_1R_5g_ms^4 + C_1C_5L_1L_5R_5s^4 + C_1C_5L_5R_1R_5s^3 + 2C_1L_1L_5R_1g_ms^3 + C_1L_1L_5s^3 + 2C_1L_1R_1R_5g_ms^2 + C_1L_1R_5s^2 + C_1L_1R_5s + R_5}$$

$$\mathbf{10.960 \quad INVALID-ORDER-960} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4s}, \quad \frac{L_5s}{C_5L_5s^2+1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1 \left(C_1L_1s^2 + 1 \right) \left(C_5L_5R_5g_ms^2 - C_5L_5s^2 + L_5g_ms + R_5 \right)}{2C_1C_4C_5L_1L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_1s^5 + 2C_1C_4C_5L_1L_5R_5s^5 + 2C_1C_4C_5L_1R_1R_5s^4 + 2C_1C_4L_1L_5R_1g_ms^4 + 2C_1C_4L_1L_5s^4 + 2C_1C_4L_1R_1R_5g_ms^3 + 2C_1C_4L_1R_1s^3 + 2C_1C_4L_1R_5s^3 + 2C_1C_4L_5R_1s^3 + 2C_1C_4R_1R_5s^2 + 2C_1C_5L_1L_5R_1g_ms^4 + C_1C_5L_1L_5s^4 + C_1C_5L_5R_1R_5s^3 + C_1C_5L_1L_5s^2 + C_1C_5L_1R_1R_5s + R_5}$$

$$\mathbf{10.961 \quad INVALID-ORDER-961} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{1}{C_4s}, \quad \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1 \left(C_1L_1s^2 + 1 \right) \left(-C_5L_5R_5g_ms^2 + C_5L_5s^2 + L_5g_ms + R_5 \right)}{2C_1C_4C_5L_1L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_1s^5 + 2C_1C_4C_5L_1L_5R_5s^5 + 2C_1C_4C_5L_1R_1R_5s^4 + 2C_1C_4C_5L_5R_1R_5s^4 + 2C_1C_4L_1R_1R_5g_ms^3 + 2C_1C_4L_1R_1s^3 + 2C_1C_4L_1R_5s^3 + 2C_1C_4L_5R_1s^3 + 2C_1C_4R_1R_5s^2 + 2C_1C_5L_1L_5R_1g_ms^4 + C_1C_5L_1L_5s^4 + 2C_1C_5L_1R_1R_5g_ms^3 + C_1C_5L_1R_1s^2 + C_1C_5L_1R_5s + R_5}$$

$$\mathbf{10.962 \quad INVALID-ORDER-962} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4R_4s+1}, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1R_4 \left(R_5g_m - 1 \right) \left(C_1L_1s^2 + 1 \right)}{2C_1C_4L_1R_1R_4R_5g_ms^3 + 2C_1C_4L_1R_1R_4s^3 + 2C_1C_4L_1R_4R_5s^3 + 2C_1C_4R_1R_4R_5s^2 + 2C_1L_1R_1R_4g_ms^2 + 2C_1L_1R_1R_5g_ms^2 + 2C_1L_1R_1s^2 + C_1L_1R_4s^2 + 2C_1L_1R_5s^2 + C_1R_1R_4s + 2C_1R_1R_5s + 2C_4R_1R_4R_5g_ms + 2C_4R_1R_4s + 2C_4R_4R_5s + 2R_1R_4g_m + 2R_1R_5g_m + R_5}$$

$$\mathbf{10.963 \quad INVALID-ORDER-963} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4R_4s+1}, \quad \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = -\frac{R_1R_4 \left(C_5s - g_m \right) \left(C_1L_1s^2 + 1 \right)}{2C_1C_4C_5L_1R_1R_4s^4 + 2C_1C_4L_1R_1R_4g_ms^3 + 2C_1C_4L_1R_4s^3 + 2C_1C_4R_1R_4s^2 + 2C_1C_5L_1R_1R_4g_ms^3 + 2C_1C_5L_1R_1s^3 + C_1C_5L_1R_4s^3 + C_1C_5R_1R_4s^2 + 2C_1L_1R_1g_ms^2 + 2C_1L_1s^2 + 2C_1R_1s + 2C_4C_5R_1R_4s^2 + 2C_4R_1R_4g_ms + 2C_4R_4s + 2C_5R_1R_4g_ms + 2C_5R_1s^2 + C_5R_1s + R_5}$$

$$\mathbf{10.964 \quad INVALID-ORDER-964} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4R_4s+1}, \quad \frac{R_5}{C_5R_5s+1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1R_4 \left(C_1L_1s^2 + 1 \right) \left(C_5R_5s - R_5g_m + 1 \right)}{2C_1C_4C_5L_1R_1R_4R_5s^4 + 2C_1C_4L_1R_1R_4R_5g_ms^3 + 2C_1C_4L_1R_1R_4s^3 + 2C_1C_4L_1R_4R_5s^3 + 2C_1C_4R_1R_4R_5s^2 + 2C_1C_5L_1R_1R_4R_5g_ms^3 + 2C_1C_5L_1R_1R_5s^3 + C_1C_5L_1R_4R_5s^3 + C_1C_5R_1R_4R_5s^2 + 2C_1L_1R_1R_4g_ms^2 + 2C_1L_1R_1R_5g_ms^2 + 2C_1L_1R_1s^2 + C_1L_1R_4s^2 + C_1L_1R_5s^2 + C_1R_1R_4s + 2C_1R_1R_5s + 2C_4R_1R_4R_5g_ms + 2C_4R_1R_4s + 2C_4R_4R_5s + 2R_1R_4g_m + 2R_1R_5g_m + R_5}$$

$$\mathbf{10.965 \quad INVALID-ORDER-965} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4R_4s+1}, \quad R_5 + \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = \frac{R_1R_4 \left(C_1L_1s^2 + 1 \right) \left(C_5R_5g_ms - C_5s + g_m \right)}{2C_1C_4C_5L_1R_1R_4R_5g_ms^4 + 2C_1C_4C_5L_1R_1R_4s^4 + 2C_1C_4C_5L_1R_4R_5s^4 + 2C_1C_4C_5R_1R_4R_5s^3 + 2C_1C_4L_1R_1R_4g_ms^3 + 2C_1C_4L_1R_4s^3 + 2C_1C_4R_1R_4s^2 + 2C_1C_5L_1R_1R_4g_ms^3 + 2C_1C_5L_1R_1R_5g_ms^3 + 2C_1C_5L_1R_1s^3 + C_1C_5L_1R_4s^3 + 2C_1C_5L_1R_5s^3 + C_1C_5R_1R_4s^2 + 2C_1L_1R_1R_4g_ms^2 + 2C_1L_1R_1R_5g_ms^2 + 2C_1L_1R_1s^2 + C_1L_1R_4s^2 + C_1L_1R_5s^2 + C_1R_1R_4s + 2C_1R_1R_5s + 2C_4R_1R_4R_5g_ms + 2C_4R_1R_4s + 2C_4R_4R_5s + 2R_1R_4g_m + 2R_1R_5g_m + R_5}$$

$$\mathbf{10.966 \quad INVALID-ORDER-966} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4R_4s+1}, \quad L_5s + \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = \frac{R_1R_4 \left(C_1L_1s^2 + 1 \right) \left(C_5L_5g_ms^2 - C_5s + g_m \right)}{2C_1C_4C_5L_1L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_5R_4s^5 + 2C_1C_4C_5L_1R_1R_4s^4 + 2C_1C_4C_5L_5R_1R_4s^4 + 2C_1C_4L_1R_1R_4g_ms^3 + 2C_1C_4L_1R_4s^3 + 2C_1C_4R_1R_4s^2 + 2C_1C_5L_1L_5R_1g_ms^4 + 2C_1C_5L_1L_5s^4 + 2C_1C_5L_1R_1R_4g_ms^3 + 2C_1C_5L_1R_1s^3 + C_1C_5L_1R_4s^3 + 2C_1C_5L_1R_5s^3 + C_1C_5R_1R_4s^2 + 2C_1L_1L_5R_1g_ms^2 + 2C_1L_1L_5s^2 + 2C_1L_1R_1R_4g_ms + 2C_1L_1R_1s + 2C_1L_1R_4s + 2C_1L_1R_5s + 2C_4L_1L_5R_1g_ms + 2C_4L_1L_5s + 2C_4L_5R_1R_4s + 2R_1L_5R_1g_m + 2R_1L_5s + R_5}$$

$$\mathbf{10.967 \quad INVALID-ORDER-967} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{R_4}{C_4R_4s+1}, \quad \frac{L_5s}{C_5L_5s^2+1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1R_4 \left(C_1L_1s^2 + 1 \right) \left(C_5L_5s^2 - L_5g_ms + 1 \right)}{2C_1C_4C_5L_1L_5R_1R_4s^5 + 2C_1C_4L_1L_5R_1R_4g_ms^4 + 2C_1C_4L_1L_5R_4s^4 + 2C_1C_4L_1R_1R_4s^3 + 2C_1C_4L_5R_1R_4s^3 + 2C_1C_5L_1L_5R_1R_4g_ms^4 + 2C_1C_5L_1L_5R_1s^4 + C_1C_5L_1L_5R_4s^4 + C_1C_5L_5R_1R_4s^3 + 2C_1L_1L_5R_1g_ms^3 + 2C_1L_1L_5s^3 + 2C_1L_1R_1R_4g_ms^2 + 2C_1L_1R_1s^2 + C_1L_1R_4s^2 + C_1L_1R_5s^2 + C_1R_1R_4s + 2C_1R_1R_5s + 2C_4L_1L_5R_1g_ms + 2C_4L_1L_5s + 2C_4L_5R_1R_4s + 2R_1L_5R_1g_m + 2R_1L_5s + R_5}$$

10.986 INVALID-ORDER-986 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \infty, \infty, L_4s + \frac{1}{C_4s}, L_5s + \frac{1}{C_5s}, \infty \right)$

$$H(s) = \frac{R_1 (C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_5 L_1 L_4 s^4 + 2C_1 C_4 C_5 L_1 L_5 R_1 g_m s^4 + 2C_1 C_4 C_5 L_1 L_5 s^4 + 2C_1 C_4 C_5 L_1 R_1 s^3 + C_1 C_4 C_5 L_4 R_1 s^3 + 2C_1 C_4 C_5 L_5 R_1 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 + 2C_1 C_4 L_1 s^2 + 2C_1 C_4 R_1 s + 2C_1 C_5 L_1 R_1 g_m s^2 + C_1 C_5 L_1 s^2 + C_1 C_5 R_1 s + 2C_4 C_5 L_4 R_1 g_m s^2 + C_4 C_5 L_4 s^2 + C_4 C_5 R_1 s + g_m)}$$

10.987 INVALID-ORDER-987 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = -\frac{R_1 (C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + 1) (C_5 L_5 s^2 - L_5 g_m s + L_5)}{2C_1 C_4 C_5 L_1 L_4 L_5 R_1 g_m s^6 + C_1 C_4 C_5 L_1 L_4 L_5 s^6 + 2C_1 C_4 C_5 L_1 L_5 R_1 s^5 + C_1 C_4 C_5 L_4 L_5 R_1 s^5 + 2C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 L_5 R_1 g_m s^4 + 2C_1 C_4 L_1 L_5 s^4 + 2C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_4 R_1 s^3 + 2C_1 C_4 L_5 R_1 s^3 + 2C_1 C_5 L_1 L_5 R_1 g_m s^4 + C_1 C_5 L_1 L_5 s^4 + C_5}$$

10.988 INVALID-ORDER-988 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \infty, \infty, L_4s + \frac{1}{C_4s}, L_5s + R_5 + \frac{1}{C_5s}, \infty \right)$

$$H(s) = \frac{R_1 (C_1 L_1 s^2 + 1) (C_4 L_4 s^2 + 1) (C_5 L_5 g_m s^2 + C_5 R_5 g_m s - C_5 s + g_m)}{s (2C_1 C_4 C_5 L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_5 L_1 L_4 s^4 + 2C_1 C_4 C_5 L_1 L_5 R_1 g_m s^4 + 2C_1 C_4 C_5 L_1 L_5 s^4 + 2C_1 C_4 C_5 L_1 R_1 R_5 g_m s^3 + 2C_1 C_4 C_5 L_1 R_1 s^3 + 2C_1 C_4 C_5 L_1 R_5 s^3 + C_1 C_4 C_5 L_4 R_1 s^3 + 2C_1 C_4 C_5 L_5 R_1 s^3 + 2C_1 C_4 C_5 R_1 R_5 s^2 + 2C_1 C_4 L_1 R_1 g_m s^2 + 2C_1 C_4 L_1 s^2 + 2C_1 C_4 R_1 s + g_m)}$$

10.989 INVALID-ORDER-989 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

10.990 INVALID-ORDER-990 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

$$H(s) = \frac{2C_1C_4C_5L_1L_4L_5R_1g_ms^6 + C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_1s^5 + 2C_1C_4C_5L_1L_5R_5s^5 + C_1C_4C_5L_4L_5R_1s^5 + 2C_1C_4C_5L_5R_1R_5s^4 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_1L_5R_1g_ms^4 + 2C_1C_4L_1L_5s^4 + 2C_1C_4L_1R_1R_5g_ms^4}{2C_1C_4C_5L_1L_4L_5R_1g_ms^6 + C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_1s^5 + 2C_1C_4C_5L_1L_5R_5s^5 + C_1C_4C_5L_4L_5R_1s^5 + 2C_1C_4C_5L_5R_1R_5s^4 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_1L_5R_1g_ms^4 + 2C_1C_4L_1L_5s^4 + 2C_1C_4L_1R_1R_5g_ms^4}$$

10.991 INVALID-ORDER-991 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{R_5(C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_1L_4L_5R_1g_ms^6 + C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_4R_1R_5g_ms^5 + C_1C_4C_5L_1L_4R_5s^5 + 2C_1C_4C_5L_1L_5R_1R_5g_ms^5 + 2C_1C_4C_5L_1L_5R_1s^5 + 2C_1C_4C_5L_1L_5R_5s^5 + 2C_1C_4C_5L_1R_1R_5s^4 + C_1C_4C_5L_4L_5R_1s^5 + C_1C_4C_5L_4R_1R_5s^4 + 2C_1C_4C_5L_5R_1R_5s^4 + 2}$$

10.992 INVALID-ORDER-992 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, R_5, \infty \right)$

$$H(s) = \frac{L_4 R_1 s (R_5 g_m - 1) (C_1 L_1 s^2 + 1)}{2C_1 C_4 L_1 L_4 R_1 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 R_1 s^4 + 2C_1 C_4 L_1 L_4 R_5 s^4 + 2C_1 C_4 L_4 R_1 R_5 s^3 + 2C_1 L_1 L_4 R_1 g_m s^3 + C_1 L_1 L_4 s^3 + 2C_1 L_1 R_1 R_5 g_m s^2 + 2C_1 L_1 R_1 s^2 + 2C_1 L_1 R_5 s^2 + C_1 L_4 R_1 s^2 + 2C_1 R_1 R_5 s + 2C_4 L_4 R_1 R_5 g_m s^2 + 2C_4 L_4 R_1 s^2 + 2C_4 L_4 R_5 s^2 + 2L_4 R_1 g_m s + L_4 s + 1}$$

10.993 INVALID-ORDER-993 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{L_4 R_1 s (C_5 s - g_m) (C_1 L_1 s^2 + 1)}{2C_1 C_4 C_5 L_1 L_4 R_1 s^5 + 2C_1 C_4 L_1 L_4 R_1 g_m s^4 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_4 R_1 s^3 + 2C_1 C_5 L_1 L_4 R_1 g_m s^4 + C_1 C_5 L_1 L_4 s^4 + 2C_1 C_5 L_1 R_1 s^3 + C_1 C_5 L_4 R_1 s^3 + 2C_1 L_1 R_1 g_m s^2 + 2C_1 L_1 s^2 + 2C_1 R_1 s + 2C_4 C_5 L_4 R_1 s^3 + 2C_4 L_4 R_1 g_m s^2 + 2C_4 L_4 s^2 + 2C_5 L_4 R_1 g_m s^2 + C_5 L_4 s^2}$$

10.994 INVALID-ORDER-994 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \frac{R_5}{C_5R_5s+1}, \infty \right)$

$$H(s) = -\frac{L_4 R_1 s (C_1 L_1 s^2 + 1) (C_5 R_5 s - R_5 g_m + 1)}{2C_1 C_4 C_5 L_1 L_4 R_1 R_5 s^5 + 2C_1 C_4 L_1 L_4 R_1 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 R_1 s^4 + 2C_1 C_4 L_1 L_4 R_5 s^4 + 2C_1 C_4 L_4 R_1 R_5 s^3 + 2C_1 C_5 L_1 L_4 R_1 R_5 g_m s^4 + C_1 C_5 L_1 L_4 R_5 s^4 + 2C_1 C_5 L_1 R_1 R_5 s^3 + C_1 C_5 L_4 R_1 R_5 s^3 + 2C_1 L_1 L_4 R_1 g_m s^3 + C_1 L_1 L_4 s^3 + 2C_1 L_1 R_1 R_5 g_m s^2 + 2C_1 L_1 R_1 s^2 + 2}$$

10.1013 INVALID-ORDER-1013 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{L_4 R_1 R_4 s (C_5 s - g_m) (C_1 L_1 s^2 + 1)}{2C_1 C_4 C_5 L_1 L_4 R_1 R_4 s^5 + 2C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 L_1 L_4 R_4 s^4 + 2C_1 C_4 L_4 R_1 R_4 s^3 + 2C_1 C_5 L_1 L_4 R_1 R_4 g_m s^4 + 2C_1 C_5 L_1 L_4 R_1 s^4 + C_1 C_5 L_1 L_4 R_4 s^4 + 2C_1 C_5 L_1 R_1 R_4 s^3 + C_1 C_5 L_4 R_1 R_4 s^3 + 2C_1 L_1 L_4 R_1 g_m s^3 + 2C_1 L_1 L_4 s^3 + 2C_1 L_1 R_1 R_4 g_m s^2 + 2C_1 L_1 R_4 s^2 +}$$

10.1014 INVALID-ORDER-1014 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \frac{R_5}{C_5 R_5 s + 1}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_1L_4R_1R_4R_5s^5 + 2C_1C_4L_1L_4R_1R_4R_5g_ms^4 + 2C_1C_4L_1L_4R_1R_4s^4 + 2C_1C_4L_1L_4R_4R_5s^4 + 2C_1C_4L_4R_1R_4R_5s^3 + 2C_1C_5L_1L_4R_1R_4R_5g_ms^4 + 2C_1C_5L_1L_4R_1R_5s^4 + C_1C_5L_1L_4R_4R_5s^4 + 2C_1C_5L_1R_1R_4R_5s^3 + C_1C_5L_4R_1R_4R_5s^3 + 2C_1L_1L_4R_1R_4g_ms^3}{\dots}$$

10.1015 INVALID-ORDER-1015 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, R_5 + \frac{1}{C_5 s}, \infty \right)$

10.1016 INVALID-ORDER-1016 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \infty, \infty, \frac{L_4R_4s}{C_4L_4R_4s^2+L_4s+R_4}, L_5s + \frac{1}{C_5s}, \infty \right)$

10.1017 INVALID-ORDER-1017 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_1L_4L_5R_1R_4s^6 + 2C_1C_4L_1L_4L_5R_1R_4g_ms^5 + 2C_1C_4L_1L_4L_5R_4s^5 + 2C_1C_4L_1L_4R_1R_4s^4 + 2C_1C_4L_4L_5R_1R_4s^4 + 2C_1C_5L_1L_4L_5R_1R_4g_ms^5 + 2C_1C_5L_1L_4L_5R_1s^5 + C_1C_5L_1L_4L_5R_4s^5 + 2C_1C_5L_1L_5R_1R_4s^4 + C_1C_5L_4L_5R_1R_4s^4 + 2C_1L_1L_4L_5R_1g_ms^4 +$$

10.1018 INVALID-ORDER-1018 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

10.1019 INVALID-ORDER-1019 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_1L_4L_5R_1R_4R_5s^6 + 2C_1C_4L_1L_4L_5R_1R_4R_5g_ms^5 + 2C_1C_4L_1L_4L_5R_1R_4s^5 + 2C_1C_4L_1L_4L_5R_4R_5s^5 + 2C_1C_4L_1L_4R_1R_4R_5s^4 + 2C_1C_4L_4L_5R_1R_4R_5s^4 + 2C_1C_5L_1L_4L_5R_1R_4R_5g_ms^5 + 2C_1C_5L_1L_4L_5R_1R_5s^5 + C_1C_5L_1L_4L_5R_4R_5s^5 + 2C_1C_5L_1L_5R_1R_4}{}$$

10.1020 INVALID-ORDER-1020 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \frac{L_5 s}{C_5 L_5 s^2 + 1} + R_5, \infty \right)$

10.1021 INVALID-ORDER-1021 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \infty, \infty, \frac{L_4R_4s}{C_4L_4R_4s^2+L_4s+R_4}, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \infty \right)$

$$\mathbf{10.1022 \quad INVALID-ORDER-1022} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{L_4s}{C_4L_4s^2+1} + R_4, \quad R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1(R_5g_m - 1)(C_1L_1s^2 + 1)(C_4L_4R_4s^2 + L_4s + R_4)}{2C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1R_5g_ms^4 + 2C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_4s^4 + 2C_1C_4L_1L_4R_5s^4 + C_1C_4L_4R_1R_4s^3 + 2C_1C_4L_4R_1R_5s^3 + 2C_1L_1L_4R_1g_ms^3 + C_1L_1L_4s^3 + 2C_1L_1R_1R_4g_ms^2 + 2C_1L_1R_1R_5g_ms^2 + 2C_1L_1R_1s^2 + C_1L_1R_4s^2 + 2C_1L_1R_5s^2 + 2C_1L_1R_4s + 2C_1L_1R_5s + R_1}$$

$$\mathbf{10.1023 \quad INVALID-ORDER-1023} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{L_4s}{C_4L_4s^2+1} + R_4, \quad \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = -\frac{R_1(C_5s - g_m)(C_1L_1s^2 + 1)(C_4L_4R_4s^2 + L_4s + R_4)}{2C_1C_4C_5L_1L_4R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_4R_1R_5s^5 + C_1C_4C_5L_1L_4R_4s^5 + C_1C_4C_5L_4R_1R_4s^4 + 2C_1C_4L_1L_4R_1g_ms^4 + 2C_1C_4L_1L_4s^4 + 2C_1C_4L_4R_1s^3 + 2C_1C_5L_1L_4R_1g_ms^4 + C_1C_5L_1L_4s^4 + 2C_1C_5L_1R_1R_4g_ms^3 + 2C_1C_5L_1R_1s^3 + C_1C_5L_1R_4s^3 + C_1C_5L_4R_1s^3 + C_1C_5L_4R_1s^2 + C_1C_5L_4R_1s + C_1C_5L_4 + R_1}$$

$$\mathbf{10.1024 \quad INVALID-ORDER-1024} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{L_4s}{C_4L_4s^2+1} + R_4, \quad \frac{R_5}{C_5R_5s+1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1(C_5R_5s - g_m)(C_1L_1s^2 + 1)(C_4L_4R_4s^2 + L_4s + R_4)}{2C_1C_4C_5L_1L_4R_1R_4R_5g_ms^5 + 2C_1C_4C_5L_1L_4R_1R_5s^5 + C_1C_4C_5L_1L_4R_4R_5s^5 + C_1C_4C_5L_4R_1R_4R_5s^4 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1R_5g_ms^4 + 2C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_4s^4 + 2C_1C_4L_1L_4R_5s^4 + C_1C_4L_4R_1R_4s^3 + 2C_1C_4L_4R_1R_5s^3 + 2C_1C_5L_1L_4R_1g_ms^4 + C_1C_5L_1L_4s^4 + 2C_1C_5L_1R_1R_4g_ms^3 + 2C_1C_5L_1R_1s^3 + C_1C_5L_1R_4s^3 + C_1C_5L_4R_1s^3 + C_1C_5L_4R_1s^2 + C_1C_5L_4R_1s + C_1C_5L_4 + R_1}$$

$$\mathbf{10.1025 \quad INVALID-ORDER-1025} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{L_4s}{C_4L_4s^2+1} + R_4, \quad R_5 + \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = \frac{R_1(C_5R_5s - g_m)(C_1L_1s^2 + 1)(C_4L_4R_4s^2 + L_4s + R_4)}{2C_1C_4C_5L_1L_4R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_4R_1R_5g_ms^5 + 2C_1C_4C_5L_1L_4R_1s^5 + C_1C_4C_5L_1L_4R_4s^5 + 2C_1C_4C_5L_1L_4R_5s^5 + C_1C_4C_5L_4R_1R_4s^4 + 2C_1C_4C_5L_4R_1R_5s^4 + 2C_1C_4L_1L_4R_1g_ms^4 + 2C_1C_4L_1L_4s^4 + 2C_1C_4L_4R_1s^3 + 2C_1C_5L_1L_4R_1g_ms^4 + C_1C_5L_1L_4s^4 + 2C_1C_5L_1R_1R_4g_ms^3 + 2C_1C_5L_1R_1s^3 + C_1C_5L_1R_4s^3 + C_1C_5L_4R_1s^3 + C_1C_5L_4R_1s^2 + C_1C_5L_4R_1s + C_1C_5L_4 + R_1}$$

$$\mathbf{10.1026 \quad INVALID-ORDER-1026} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{L_4s}{C_4L_4s^2+1} + R_4, \quad L_5s + \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = \frac{R_1(C_5L_5s - g_m)(C_1L_1s^2 + 1)(C_4L_4R_4s^2 + L_4s + R_4)}{2C_1C_4C_5L_1L_4L_5R_1g_ms^6 + 2C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_4R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_4R_1s^5 + C_1C_4C_5L_1L_4R_4s^5 + 2C_1C_4C_5L_4L_5R_1s^5 + C_1C_4C_5L_4R_1R_4s^4 + 2C_1C_4L_1L_4R_1g_ms^4 + 2C_1C_4L_1L_4s^4 + 2C_1C_4L_4R_1s^3 + 2C_1C_5L_1L_4R_1g_ms^4 + C_1C_5L_1L_4s^4 + 2C_1C_5L_1R_1R_4g_ms^3 + 2C_1C_5L_1R_1s^3 + C_1C_5L_1R_4s^3 + C_1C_5L_4R_1s^3 + C_1C_5L_4R_1s^2 + C_1C_5L_4R_1s + C_1C_5L_4 + R_1}$$

$$\mathbf{10.1027 \quad INVALID-ORDER-1027} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{L_4s}{C_4L_4s^2+1} + R_4, \quad \frac{L_5s}{C_5L_5s^2+1}, \quad \infty \right)$$

$$H(s) = -\frac{R_1(C_5L_5s - g_m)(C_1L_1s^2 + 1)(C_4L_4R_4s^2 + L_4s + R_4)}{2C_1C_4C_5L_1L_4L_5R_1R_4g_ms^6 + 2C_1C_4C_5L_1L_4L_5R_1s^6 + C_1C_4C_5L_1L_4L_5R_4s^6 + C_1C_4C_5L_4L_5R_1R_4s^5 + 2C_1C_4L_1L_4L_5R_1g_ms^5 + 2C_1C_4L_1L_4L_5s^5 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_4s^4 + 2C_1C_4L_4L_5R_1s^4 + C_1C_4L_4R_1R_4s^3 + 2C_1C_5L_1L_4R_1g_ms^4 + C_1C_5L_1L_4s^4 + 2C_1C_5L_1R_1R_4g_ms^3 + 2C_1C_5L_1R_1s^3 + C_1C_5L_1R_4s^3 + C_1C_5L_4R_1s^3 + C_1C_5L_4R_1s^2 + C_1C_5L_4R_1s + C_1C_5L_4 + R_1}$$

$$\mathbf{10.1028 \quad INVALID-ORDER-1028} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{L_4s}{C_4L_4s^2+1} + R_4, \quad L_5s + R_5 + \frac{1}{C_5s}, \quad \infty \right)$$

$$H(s) = \frac{R_1(C_5L_5s - g_m)(C_1L_1s^2 + 1)(C_4L_4R_4s^2 + L_4s + R_4)}{2C_1C_4C_5L_1L_4L_5R_1g_ms^6 + 2C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_4R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_4R_1R_5g_ms^5 + 2C_1C_4C_5L_1L_4R_1s^5 + C_1C_4C_5L_1L_4R_4s^5 + 2C_1C_4C_5L_1L_4R_5s^5 + 2C_1C_4C_5L_4L_5R_1s^5 + C_1C_4C_5L_4R_1R_4s^4 + 2C_1C_4C_5L_4R_1R_5s^4 + 2C_1C_4L_1L_4R_1g_ms^4 + 2C_1C_4L_1L_4s^4 + 2C_1C_4L_4R_1s^3 + 2C_1C_5L_1L_4R_1g_ms^4 + C_1C_5L_1L_4s^4 + 2C_1C_5L_1R_1R_4g_ms^3 + 2C_1C_5L_1R_1s^3 + C_1C_5L_1R_4s^3 + C_1C_5L_4R_1s^3 + C_1C_5L_4R_1s^2 + C_1C_5L_4R_1s + C_1C_5L_4 + R_1}$$

$$\mathbf{10.1029 \quad INVALID-ORDER-1029} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{L_4s}{C_4L_4s^2+1} + R_4, \quad \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \quad \infty \right)$$

$$H(s) = -\frac{R_1(C_5L_5R_5s - g_m)(C_1L_1s^2 + 1)(C_4L_4R_4s^2 + L_4s + R_4)}{2C_1C_4C_5L_1L_4L_5R_1R_4R_5g_ms^6 + 2C_1C_4C_5L_1L_4L_5R_1R_5s^6 + C_1C_4C_5L_1L_4L_5R_4R_5s^6 + C_1C_4C_5L_4L_5R_1R_4R_5s^5 + 2C_1C_4L_1L_4L_5R_1R_4g_ms^5 + 2C_1C_4L_1L_4L_5R_1R_5g_ms^5 + 2C_1C_4L_1L_4L_5R_1s^5 + C_1C_4L_1L_4L_5R_4s^5 + 2C_1C_4L_1L_4L_5R_5s^5 + 2C_1C_4L_1L_4R_1R_4R_5g_ms^4 + 2C_1C_4L_1L_4R_1R_5g_ms^4 + 2C_1C_5L_1L_4R_1g_ms^4 + C_1C_5L_1L_4s^4 + 2C_1C_5L_1R_1R_4g_ms^3 + 2C_1C_5L_1R_1s^3 + C_1C_5L_1R_4s^3 + C_1C_5L_4R_1s^3 + C_1C_5L_4R_1s^2 + C_1C_5L_4R_1s + C_1C_5L_4 + R_1}$$

$$\mathbf{10.1030 \quad INVALID-ORDER-1030} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \infty, \quad \frac{L_4s}{C_4L_4s^2+1} + R_4, \quad \frac{L_5s}{C_5L_5s^2+1} + R_5, \quad \infty \right)$$

$$H(s) = \frac{R_1(C_5L_5s - g_m)(C_1L_1s^2 + 1)(C_4L_4R_4s^2 + L_4s + R_4)}{2C_1C_4C_5L_1L_4L_5R_1R_4g_ms^6 + 2C_1C_4C_5L_1L_4L_5R_1R_5g_ms^6 + 2C_1C_4C_5L_1L_4L_5R_1s^6 + C_1C_4C_5L_1L_4L_5R_4s^6 + 2C_1C_4C_5L_1L_4L_5R_5s^6 + C_1C_4C_5L_4L_5R_1R_4s^5 + 2C_1C_4C_5L_4L_5R_1R_5s^5 + 2C_1C_4L_1L_4L_5R_1g_ms^5 + 2C_1C_4L_1L_4L_5s^5 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1R_5g_ms^4 + 2C_1C_5L_1L_4R_1g_ms^4 + C_1C_5L_1L_4s^4 + 2C_1C_5L_1R_1R_4g_ms^3 + 2C_1C_5L_1R_1s^3 + C_1C_5L_1R_4s^3 + C_1C_5L_4R_1s^3 + C_1C_5L_4R_1s^2 + C_1C_5L_4R_1s + C_1C_5L_4 + R_1}$$

$$\text{10.1031 INVALID-ORDER-1031 } Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{R_5(C_5 L_5 s^2 + 1)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty \right)$$

10.1032 INVALID-ORDER-1032 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, R_5, \infty \right)$

$$H(s) = \frac{R_1 R_4 (R_5 g_m - 1) (C_1 L_1 s^2 + 1)}{2C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + 2C_1 C_4 L_1 L_4 R_1 R_5 g_m s^4 + 2C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + 2C_1 C_4 L_1 L_4 R_5 s^4 + 2C_1 C_4 L_1 R_1 R_4 R_5 g_m s^3 + 2C_1 C_4 L_1 R_1 R_4 s^3 + 2C_1 C_4 L_1 R_4 R_5 s^3 + C_1 C_4 L_4 R_1 R_4 s^3 + 2C_1 C_4 L_4 R_1 R_5 s^3 + 2C_1 C_4 R_1 R_4 R_5 s^2 + 2C_1 L_1 R_1 R_4 g_m s^2 + 2C_1 L_1 R_1}$$

10.1033 INVALID-ORDER-1033 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{1}{C_5 s}, \infty \right)$

$$H(s) = -\frac{R_1 R_4 (C_5 s - g_m) (C_1 L_1 s^5 + C_2 L_1 s^4 + C_3 L_1 s^3 + C_4 L_1 s^2 + C_5 L_1 s + C_6)}{2C_1 C_4 C_5 L_1 L_4 R_1 R_4 g_m s^5 + 2C_1 C_4 C_5 L_1 L_4 R_1 s^5 + C_1 C_4 C_5 L_1 L_4 R_4 s^5 + 2C_1 C_4 C_5 L_1 R_1 R_4 s^4 + C_1 C_4 C_5 L_4 R_1 R_4 s^4 + 2C_1 C_4 L_1 L_4 R_1 g_m s^4 + 2C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_4 s^3 + 2C_1 C_4 L_4 R_1 s^3 + 2C_1 C_4 R_1 R_4 s^2 + 2C_1 C_5 L_1 R_1 R_4 g_m s^3 + 2C_1 C_5 L_1 R_1 R_4 s^2 + 2C_1 C_5 L_1 R_1 R_4 s + 2C_1 C_5 L_1 R_1 g_m s + 2C_1 C_5 L_1 R_1 + 2C_1 C_5 L_1 g_m + 2C_1 C_5 L_1}.$$

10.1034 INVALID-ORDER-1034 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \infty, \infty, \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, \frac{R_5}{C_5R_5s+1}, \infty \right)$

$$H(s) = -\frac{2C_1C_4C_5L_1L_4R_1R_4R_5g_ms^5 + 2C_1C_4C_5L_1L_4R_1R_5s^5 + C_1C_4C_5L_1L_4R_4R_5s^5 + 2C_1C_4C_5L_1R_1R_4R_5s^4 + C_1C_4C_5L_4R_1R_4R_5s^4 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1R_5g_ms^4 + 2C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_4s^4 + 2C_1C_4L_1L_4R_5s^4 + 2C_1C_4L_1R_1R_4R_5g_ms^4}{2C_1C_4C_5L_1L_4R_1R_4R_5g_ms^5 + 2C_1C_4C_5L_1L_4R_1R_5s^5 + C_1C_4C_5L_1L_4R_4R_5s^5 + 2C_1C_4C_5L_1R_1R_4R_5s^4 + C_1C_4C_5L_4R_1R_4R_5s^4 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1R_5g_ms^4 + 2C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_4s^4 + 2C_1C_4L_1L_4R_5s^4 + 2C_1C_4L_1R_1R_4R_5g_ms^4}$$

10.1035 INVALID-ORDER-1035 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, R_5 + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{2C_1C_4C_5L_1L_4R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_4R_1R_5g_ms^5 + 2C_1C_4C_5L_1L_4R_1s^5 + C_1C_4C_5L_1L_4R_4s^5 + 2C_1C_4C_5L_1L_4R_5s^5 + 2C_1C_4C_5L_1R_1R_4R_5g_ms^4 + 2C_1C_4C_5L_1R_1R_4s^4 + 2C_1C_4C_5L_1R_4R_5s^4 + C_1C_4C_5L_4R_1R_4s^4 + 2C_1C_4C_5L_4R_1R_5s^4 + 2C_1C_4C_5R_1R_4R_5s^3 +$$

10.1036 INVALID-ORDER-1036 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, L_5 s + \frac{1}{C_5 s}, \infty \right)$

$$H(s) = \frac{2C_1C_4C_5L_1L_4L_5R_1g_ms^6 + 2C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_4R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_4R_1s^5 + C_1C_4C_5L_1L_4R_4s^5 + 2C_1C_4C_5L_1L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_5R_4s^5 + 2C_1C_4C_5L_1R_1R_4s^4 + 2C_1C_4C_5L_4L_5R_1s^5 + C_1C_4C_5L_4R_1R_4s^4 + 2C_1C_4C_5L_5R_1R_4s^4 + 2C_1C_4C_5L_4L_5R_1s^5 + 2C_1C_4C_5L_4L_5R_4s^5 + 2C_1C_4C_5L_4L_5s^5 + 2C_1C_4C_5L_4L_5R_1s^4 + 2C_1C_4C_5L_4L_5R_4s^4 + 2C_1C_4C_5L_4L_5s^4 + 2C_1C_4C_5L_4L_5R_1s^3 + 2C_1C_4C_5L_4L_5R_4s^3 + 2C_1C_4C_5L_4L_5s^3 + 2C_1C_4C_5L_4L_5R_1s^2 + 2C_1C_4C_5L_4L_5R_4s^2 + 2C_1C_4C_5L_4L_5s^2 + 2C_1C_4C_5L_4L_5R_1s + 2C_1C_4C_5L_4L_5R_4s + 2C_1C_4C_5L_4L_5s + 2C_1C_4C_5L_4L_5R_1 + 2C_1C_4C_5L_4L_5R_4 + 2C_1C_4C_5L_4L_5}{2C_1C_4C_5L_1L_4L_5R_1g_ms^6 + 2C_1C_4C_5L_1L_4L_5s^6 + 2C_1C_4C_5L_1L_4R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_4R_1s^5 + C_1C_4C_5L_1L_4R_4s^5 + 2C_1C_4C_5L_1L_5R_1R_4g_ms^5 + 2C_1C_4C_5L_1L_5R_4s^5 + 2C_1C_4C_5L_1R_1R_4s^4 + 2C_1C_4C_5L_4L_5R_1s^5 + C_1C_4C_5L_4R_1R_4s^4 + 2C_1C_4C_5L_5R_1R_4s^4 + 2C_1C_4C_5L_4L_5R_1s^5 + 2C_1C_4C_5L_4L_5R_4s^5 + 2C_1C_4C_5L_4L_5s^5 + 2C_1C_4C_5L_4L_5R_1s^4 + 2C_1C_4C_5L_4L_5R_4s^4 + 2C_1C_4C_5L_4L_5s^4 + 2C_1C_4C_5L_4L_5R_1s^3 + 2C_1C_4C_5L_4L_5R_4s^3 + 2C_1C_4C_5L_4L_5s^3 + 2C_1C_4C_5L_4L_5R_1s^2 + 2C_1C_4C_5L_4L_5R_4s^2 + 2C_1C_4C_5L_4L_5s^2 + 2C_1C_4C_5L_4L_5R_1s + 2C_1C_4C_5L_4L_5R_4s + 2C_1C_4C_5L_4L_5s + 2C_1C_4C_5L_4L_5R_1 + 2C_1C_4C_5L_4L_5R_4 + 2C_1C_4C_5L_4L_5}$$

10.1037 INVALID-ORDER-1037 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty \right)$

$$H(s) = -2C_1C_4C_5L_1L_4L_5R_1R_4g_ms^6 + 2C_1C_4C_5L_1L_4L_5R_1s^6 + C_1C_4C_5L_1L_4L_5R_4s^6 + 2C_1C_4C_5L_1L_5R_1R_4s^5 + C_1C_4C_5L_4L_5R_1R_4s^5 + 2C_1C_4L_1L_4L_5R_1g_ms^5 + 2C_1C_4L_1L_4L_5s^5 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_4s^4 + 2C_1C_4L_1L_5R_1R_4g_ms^4$$

10.1038 INVALID-ORDER-1038 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, L_5 s + R_5 + \frac{1}{C_5 s}, \infty \right)$

10.1039 INVALID-ORDER-1039 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \infty, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty \right)$

