# Filter Summary Report: CG,TIA,simple,Z2,Z3,Z5

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# Contents

1 Examined H(z) for CG TIA simple Z2 Z3 Z5:  $\frac{Z_2Z_3Z_5g_m-Z_2Z_3+Z_3Z_5}{2Z_2Z_3g_m+Z_2Z_5g_m+Z_2+4Z_3+Z_5}$ 

$$H(z) = \frac{Z_2 Z_3 Z_5 g_m - Z_2 Z_3 + Z_3 Z_5}{2 Z_2 Z_3 g_m + Z_2 Z_5 g_m + Z_2 + 4 Z_3 + Z_5}$$

- 2 HP
- 3 BP
- **3.1** BP-1  $Z(s) = \left(\infty, R_2, \frac{L_3s}{C_3L_3s^2+1}, \infty, R_5, \infty\right)$

$$H(s) = \frac{s \left( L_3 R_2 R_5 g_m - L_3 R_2 + L_3 R_5 \right)}{R_2 R_5 g_m + R_2 + R_5 + s^2 \left( C_3 L_3 R_2 R_5 g_m + C_3 L_3 R_2 + C_3 L_3 R_5 \right) + s \left( 2 L_3 R_2 g_m + 4 L_3 \right)}$$

# Parameters:

Q: 
$$\frac{C_3R_2R_5g_m\sqrt{\frac{1}{C_3L_3}}+C_3R_2\sqrt{\frac{1}{C_3L_3}}+C_3R_5\sqrt{\frac{1}{C_3L_3}}}{2R_2g_m+4}$$
 wo: 
$$\sqrt{\frac{1}{C_3L_3}}$$
 bandwidth: 
$$\frac{\sqrt{\frac{1}{C_3L_3}}(2R_2g_m+4)}{C_3R_2R_5g_m\sqrt{\frac{1}{C_3L_3}}+C_3R_2\sqrt{\frac{1}{C_3L_3}}+C_3R_5\sqrt{\frac{1}{C_3L_3}}}$$
 K-LP: 0 K-HP: 0 K-BP: 
$$\frac{R_2R_5g_m-R_2+R_5}{2R_2g_m+4}$$
 Qz: 0 Wz: None

**3.2** BP-2  $Z(s) = \left(\infty, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5, \infty\right)$ 

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

$$\begin{array}{l} \text{Q:} \ \, \frac{C_3R_2R_3R_5g_m\sqrt{\frac{1}{C_3L_3}}+C_3R_2R_3\sqrt{\frac{1}{C_3L_3}}+C_3R_3R_5\sqrt{\frac{1}{C_3L_3}}}{2R_2R_3g_m+R_2R_5g_m+R_2+4R_3+R_5} \\ \text{wo:} \ \, \sqrt{\frac{1}{C_3L_3}} \\ \text{bandwidth:} \ \, \frac{\sqrt{\frac{1}{C_3L_3}}(2R_2R_3g_m+R_2R_5g_m+R_2+4R_3+R_5)}{C_3R_2R_3R_5g_m\sqrt{\frac{1}{C_3L_3}}+C_3R_2R_3\sqrt{\frac{1}{C_3L_3}}+C_3R_3R_5\sqrt{\frac{1}{C_3L_3}}} \\ \text{K-LP:} \ \, 0 \\ \text{K-HP:} \ \, 0 \\ \text{K-BP:} \ \, \frac{R_2R_3R_5g_m-R_2R_3+R_3R_5}{2R_2R_3g_m+R_2R_5g_m+R_2+4R_3+R_5} \\ \text{Qz:} \ \, 0 \\ \text{Wz:} \ \, \text{None} \end{array}$$

- 4 LP
- 5 BS

**5.1** BS-1 
$$Z(s) = \left(\infty, R_2, L_3 s + \frac{1}{C_3 s}, \infty, R_5, \infty\right)$$

$$H(s) = \frac{R_2 R_5 g_m - R_2 + R_5 + s^2 \left( C_3 L_3 R_2 R_5 g_m - C_3 L_3 R_2 + C_3 L_3 R_5 \right)}{2 R_2 g_m + s^2 \left( 2 C_3 L_3 R_2 g_m + 4 C_3 L_3 \right) + s \left( C_3 R_2 R_5 g_m + C_3 R_2 + C_3 R_5 \right) + 4}$$

$$\begin{array}{l} \text{Q:} \ \frac{2L_{3}R_{2}g_{m}\sqrt{\frac{1}{C_{3}L_{3}}}+4L_{3}\sqrt{\frac{1}{C_{3}L_{3}}}}{R_{2}R_{5}g_{m}+R_{2}+R_{5}} \\ \text{wo:} \ \sqrt{\frac{1}{C_{3}L_{3}}} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{1}{C_{3}L_{3}}}(R_{2}R_{5}g_{m}+R_{2}+R_{5})}{2L_{3}R_{2}g_{m}\sqrt{\frac{1}{C_{3}L_{3}}}+4L_{3}\sqrt{\frac{1}{C_{3}L_{3}}}} \\ \text{K-LP:} \ \frac{R_{2}R_{5}g_{m}-R_{2}+R_{5}}{2R_{2}g_{m}+4} \\ \text{K-HP:} \ \frac{R_{2}R_{5}g_{m}-R_{2}+R_{5}}{2R_{2}g_{m}+4} \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \sqrt{\frac{1}{C_{3}L_{3}}} \end{array}$$

**5.2** BS-2 
$$Z(s) = \left(\infty, R_2, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5, \infty\right)$$

$$H(s) = \frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^2\left(C_3L_3R_2R_3R_5g_m - C_3L_3R_2R_3 + C_3L_3R_3R_5\right)}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^2\left(2C_3L_3R_2R_3g_m + C_3L_3R_2R_5g_m + C_3L_3R_2 + 4C_3L_3R_3 + C_3L_3R_3\right) + s\left(C_3R_2R_3R_5g_m + C_3R_2R_3 + C_3R_3R_5\right)}$$

## Parameters:

$$\begin{array}{c} \text{Q:} \quad \frac{2L_{3}R_{2}R_{3}g_{m}\sqrt{\frac{1}{C_{3}L_{3}}} + L_{3}R_{2}R_{5}g_{m}\sqrt{\frac{1}{C_{3}L_{3}}} + L_{3}R_{2}\sqrt{\frac{1}{C_{3}L_{3}}} + 4L_{3}R_{3}\sqrt{\frac{1}{C_{3}L_{3}}} + L_{3}R_{5}\sqrt{\frac{1}{C_{3}L_{3}}} \\ \text{wo:} \quad \sqrt{\frac{1}{C_{3}L_{3}}} \\ \text{bandwidth:} \quad \frac{\sqrt{\frac{1}{C_{3}L_{3}}}(R_{2}R_{3}R_{5}g_{m} + R_{2}R_{3} + R_{3}R_{5})}{2L_{3}R_{2}R_{3}g_{m}\sqrt{\frac{1}{C_{3}L_{3}}} + L_{3}R_{2}R_{5}g_{m}\sqrt{\frac{1}{C_{3}L_{3}}} + L_{3}R_{2}\sqrt{\frac{1}{C_{3}L_{3}}} + 4L_{3}R_{3}\sqrt{\frac{1}{C_{3}L_{3}}} + L_{3}R_{5}\sqrt{\frac{1}{C_{3}L_{3}}} \\ \text{K-LP:} \quad \frac{R_{2}R_{3}R_{5}g_{m} - R_{2}R_{3} + R_{3}R_{5}}{2R_{2}R_{3}g_{m} + R_{2}R_{5}g_{m} + R_{2} + 4R_{3} + R_{5}} \\ \text{K-HP:} \quad \frac{R_{2}R_{3}R_{5}g_{m} - R_{2}R_{3} + R_{3}R_{5}}{2R_{2}R_{3}g_{m} + R_{2}R_{5}g_{m} + R_{2} + 4R_{3} + R_{5}} \\ \text{K-BP:} \quad 0 \\ \text{Qz:} \quad \text{None} \\ \text{Wz:} \quad \sqrt{\frac{1}{C_{3}L_{3}}} \end{array}$$

# 6 GE

**6.1** GE-1 
$$Z(s) = \left(\infty, R_2, R_3, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{-C_5 R_2 R_3 s + R_2 R_3 g_m + R_3 + s^2 (C_5 L_5 R_2 R_3 g_m + C_5 L_5 R_3)}{R_2 g_m + s^2 (C_5 L_5 R_2 g_m + C_5 L_5) + s (2C_5 R_2 R_3 g_m + C_5 R_2 + 4C_5 R_3) + 1}$$

Q: 
$$\frac{L_5R_2g_m\sqrt{\frac{1}{C_5L_5}}+L_5\sqrt{\frac{1}{C_5L_5}}}{2R_2R_3g_m+R_2+4R_3}$$
 wo: 
$$\sqrt{\frac{1}{C_5L_5}}$$
 bandwidth: 
$$\frac{\sqrt{\frac{1}{C_5L_5}}(2R_2R_3g_m+R_2+4R_3)}{L_5R_2g_m\sqrt{\frac{1}{C_5L_5}}+L_5\sqrt{\frac{1}{C_5L_5}}}$$
 K-LP: 
$$R_3$$
 K-HP: 
$$R_3$$
 K-BP: 
$$-\frac{R_2R_3}{2R_2R_3g_m+R_2+4R_3}$$
 Qz: 
$$\frac{-L_5R_2g_m\sqrt{\frac{1}{C_5L_5}}-L_5\sqrt{\frac{1}{C_5L_5}}}{R_2}$$
 Wz: 
$$\sqrt{\frac{1}{C_5L_5}}$$

**6.2** GE-2 
$$Z(s) = \left(\infty, R_2, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{-C_5L_5R_2R_3s^2 - R_2R_3 + s\left(L_5R_2R_3g_m + L_5R_3\right)}{2R_2R_3g_m + R_2 + 4R_3 + s^2\left(2C_5L_5R_2R_3g_m + C_5L_5R_2 + 4C_5L_5R_3\right) + s\left(L_5R_2g_m + L_5\right)}$$

$$\begin{aligned} & \text{Q:} \ \frac{2C_5R_2R_3g_m\sqrt{\frac{1}{C_5L_5}} + C_5R_2\sqrt{\frac{1}{C_5L_5}} + 4C_5R_3\sqrt{\frac{1}{C_5L_5}}}{R_2g_m + 1} \\ & \text{wo:} \ \sqrt{\frac{1}{C_5L_5}} \\ & \text{bandwidth:} \ \frac{\sqrt{\frac{1}{C_5L_5}}(R_2g_m + 1)}{2C_5R_2R_3g_m\sqrt{\frac{1}{C_5L_5}} + C_5R_2\sqrt{\frac{1}{C_5L_5}} + 4C_5R_3\sqrt{\frac{1}{C_5L_5}}} \\ & \text{K-LP:} \ -\frac{R_2R_3}{2R_2R_3g_m + R_2 + 4R_3} \\ & \text{K-HP:} \ -\frac{R_2R_3}{2R_2R_3g_m + R_2 + 4R_3} \\ & \text{K-BP:} \ R_3 \\ & \text{Qz:} \ -\frac{C_5R_2\sqrt{\frac{1}{C_5L_5}}}{R_2g_m + 1} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_5L_5}} \end{aligned}$$

**6.3** GE-3 
$$Z(s) = \left(\infty, R_2, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{R_2 R_3 g_m + R_3 + s^2 \left(C_5 L_5 R_2 R_3 g_m + C_5 L_5 R_3\right) + s \left(C_5 R_2 R_3 R_5 g_m - C_5 R_2 R_3 + C_5 R_3 R_5\right)}{R_2 g_m + s^2 \left(C_5 L_5 R_2 g_m + C_5 L_5\right) + s \left(2 C_5 R_2 R_3 g_m + C_5 R_2 R_5 g_m + C_5 R_2 + 4 C_5 R_3 + C_5 R_5\right) + 1}$$

## Parameters:

Q: 
$$\frac{L_5R_2g_m\sqrt{\frac{1}{C_5L_5}} + L_5\sqrt{\frac{1}{C_5L_5}}}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5}$$
 wo: 
$$\sqrt{\frac{1}{C_5L_5}}$$
 bandwidth: 
$$\frac{\sqrt{\frac{1}{C_5L_5}}(2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5)}{L_5R_2g_m\sqrt{\frac{1}{C_5L_5}} + L_5\sqrt{\frac{1}{C_5L_5}}}$$
 K-LP: 
$$R_3$$
 K-HP: 
$$R_3$$
 K-BP: 
$$\frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5}$$
 Qz: 
$$\frac{L_5R_2g_m\sqrt{\frac{1}{C_5L_5}} + L_5\sqrt{\frac{1}{C_5L_5}}}{R_2R_5g_m - R_2 + R_5}$$
 Wz: 
$$\sqrt{\frac{1}{C_5L_5}}$$

**6.4** GE-4 
$$Z(s) = \left(\infty, R_2, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$$

$$H(s) = \frac{-C_5L_5R_2R_3R_5s^2 - R_2R_3R_5 + s\left(L_5R_2R_3R_5g_m - L_5R_2R_3 + L_5R_3R_5\right)}{2R_2R_3R_5g_m + R_2R_5 + 4R_3R_5 + s^2\left(2C_5L_5R_2R_3R_5g_m + C_5L_5R_2R_5 + 4C_5L_5R_3R_5\right) + s\left(2L_5R_2R_3g_m + L_5R_2R_5g_m + L_5R_2 + 4L_5R_3 + L_5R_5\right)}$$

$$\begin{array}{l} \text{Q:} \ \frac{2C_5R_2R_3R_5g_m\sqrt{\frac{1}{C_5L_5}} + C_5R_2R_5\sqrt{\frac{1}{C_5L_5}} + 4C_5R_3R_5\sqrt{\frac{1}{C_5L_5}}}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5} \\ \text{wo:} \ \sqrt{\frac{1}{C_5L_5}} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{1}{C_5L_5}}(2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5)}{2C_5R_2R_3R_5g_m\sqrt{\frac{1}{C_5L_5}} + C_5R_2R_5\sqrt{\frac{1}{C_5L_5}} + 4C_5R_3R_5\sqrt{\frac{1}{C_5L_5}}} \\ \text{K-LP:} \ -\frac{R_2R_3}{2R_2R_3g_m + R_2 + 4R_3} \\ \text{K-HP:} \ -\frac{R_2R_3}{2R_2R_3g_m + R_2 + 4R_3} \\ \text{K-BP:} \ \frac{R_2R_3}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5} \\ \text{Qz:} \ -\frac{C_5R_2R_5\sqrt{\frac{1}{C_5L_5}}}{R_2R_5g_m - R_2 + R_5} \\ \text{Wz:} \ \sqrt{\frac{1}{C_5L_5}} \end{array}$$

**6.5** GE-5 
$$Z(s) = \left(\infty, R_2, R_3, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5 + s^2 \left(C_5 L_5 R_2 R_3 R_5 g_m - C_5 L_5 R_2 R_3 + C_5 L_5 R_3 R_5\right) + s \left(L_5 R_2 R_3 g_m + L_5 R_3\right)}{2 R_2 R_3 g_m + R_2 R_5 g_m + R_2 + 4 R_3 + R_5 + s^2 \left(2 C_5 L_5 R_2 R_3 g_m + C_5 L_5 R_2 R_5 g_m + C_5 L_5 R_2 + 4 C_5 L_5 R_3 + C_5 L_5 R_5\right) + s \left(L_5 R_2 g_m + L_5\right)}$$

$$\begin{array}{l} \text{Q:} \ \ \frac{2C_5R_2R_3g_m\sqrt{\frac{1}{C_5L_5}} + C_5R_2R_5g_m\sqrt{\frac{1}{C_5L_5}} + C_5R_2\sqrt{\frac{1}{C_5L_5}} + 4C_5R_3\sqrt{\frac{1}{C_5L_5}} + C_5R_5\sqrt{\frac{1}{C_5L_5}}}{R_2g_m + 1} \\ \text{wo:} \ \ \sqrt{\frac{1}{C_5L_5}} \\ \text{bandwidth:} \ \ \frac{\sqrt{\frac{1}{C_5L_5}}(R_2g_m + 1)}{2C_5R_2R_3g_m\sqrt{\frac{1}{C_5L_5}} + C_5R_2R_5g_m\sqrt{\frac{1}{C_5L_5}} + C_5R_2\sqrt{\frac{1}{C_5L_5}} + 4C_5R_3\sqrt{\frac{1}{C_5L_5}} + C_5R_5\sqrt{\frac{1}{C_5L_5}}} \\ \text{K-LP:} \ \ \frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5}} \\ \text{K-HP:} \ \ \frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5}} \\ \text{K-BP:} \ \ R_3 \\ \text{Qz:} \ \ \frac{C_5R_2R_5g_m\sqrt{\frac{1}{C_5L_5}} - C_5R_2\sqrt{\frac{1}{C_5L_5}} + C_5R_5\sqrt{\frac{1}{C_5L_5}}}{R_2g_m + 1}} \\ \text{Wz:} \ \ \sqrt{\frac{1}{C_5L_5}} \end{array}$$

**6.6 GE-6** 
$$Z(s) = \left(\infty, R_2, R_3, \infty, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \infty\right)$$

$$H(s) = \frac{-C_5R_2R_3R_5s + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^2\left(C_5L_5R_2R_3R_5g_m - C_5L_5R_2R_3 + C_5L_5R_3R_5\right)}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^2\left(2C_5L_5R_2R_3g_m + C_5L_5R_2R_5g_m + C_5L_5R_2 + 4C_5L_5R_3 + C_5L_5R_5\right) + s\left(2C_5R_2R_3R_5g_m + C_5R_2R_5 + 4C_5R_3R_5\right)}$$

## Parameters:

$$\begin{array}{c} \text{Q:} \quad \frac{2L_{5}R_{2}R_{3}g_{m}\sqrt{\frac{1}{C_{5}L_{5}}} + L_{5}R_{2}R_{5}g_{m}\sqrt{\frac{1}{C_{5}L_{5}}} + L_{5}R_{2}\sqrt{\frac{1}{C_{5}L_{5}}} + 4L_{5}R_{3}\sqrt{\frac{1}{C_{5}L_{5}}} + L_{5}R_{5}\sqrt{\frac{1}{C_{5}L_{5}}} \\ \text{Wo:} \quad \sqrt{\frac{1}{C_{5}L_{5}}} \\ \text{wo:} \quad \sqrt{\frac{1}{C_{5}L_{5}}} \\ \text{bandwidth:} \quad \frac{\sqrt{\frac{1}{C_{5}L_{5}}} (2R_{2}R_{3}R_{5}g_{m} + R_{2}R_{5} + 4R_{3}R_{5})}{2L_{5}R_{2}R_{3}g_{m}\sqrt{\frac{1}{C_{5}L_{5}}} + L_{5}R_{2}R_{5}g_{m}\sqrt{\frac{1}{C_{5}L_{5}}} + L_{5}R_{2}\sqrt{\frac{1}{C_{5}L_{5}}} + L_{5}R_{2}\sqrt{\frac{1}{C_{5}L_{5}}} + L_{5}R_{2}\sqrt{\frac{1}{C_{5}L_{5}}} + L_{5}R_{3}\sqrt{\frac{1}{C_{5}L_{5}}} + L_{5}R_{3}\sqrt{\frac{1}{C_{5}L_{5}}} + L_{5}R_{5}\sqrt{\frac{1}{C_{5}L_{5}}} \\ \text{K-LP:} \quad \frac{R_{2}R_{3}R_{5}g_{m} - R_{2}R_{3} + R_{3}R_{5}}{2R_{2}R_{3}g_{m} + R_{2}R_{5}g_{m} + R_{2} + 4R_{3} + R_{5}}} \\ \text{K-HP:} \quad \frac{R_{2}R_{3}R_{5}g_{m} - R_{2}R_{3} + R_{3}R_{5}}{2R_{2}R_{3}g_{m} + R_{2}R_{5}g_{m} + R_{2} + 4R_{3} + R_{5}}} \\ \text{K-BP:} \quad -\frac{R_{2}R_{3}}{2R_{2}R_{3}g_{m} + R_{2} + 4R_{3}} \\ \text{Qz:} \quad \frac{-L_{5}R_{2}R_{5}g_{m}\sqrt{\frac{1}{C_{5}L_{5}}} + L_{5}R_{2}\sqrt{\frac{1}{C_{5}L_{5}}} - L_{5}R_{5}\sqrt{\frac{1}{C_{5}L_{5}}}} \\ \text{Wz:} \quad \sqrt{\frac{1}{C_{5}L_{5}}} \end{array}$$

**6.7** GE-7 
$$Z(s) = \left(\infty, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \infty\right)$$

$$\begin{array}{l} \text{Q:} \ \frac{2L_{3}R_{2}g_{m}\sqrt{\frac{1}{C_{3}L_{3}}}+4L_{3}\sqrt{\frac{1}{C_{3}L_{3}}}}{2R_{2}R_{3}g_{m}+R_{2}R_{5}g_{m}+R_{2}+4R_{3}+R_{5}}\\ \text{wo:} \ \sqrt{\frac{1}{C_{3}L_{3}}}\\ \text{bandwidth:} \ \frac{\sqrt{\frac{1}{C_{3}L_{3}}}(2R_{2}R_{3}g_{m}+R_{2}R_{5}g_{m}+R_{2}+4R_{3}+R_{5})}{2L_{3}R_{2}g_{m}\sqrt{\frac{1}{C_{3}L_{3}}}+4L_{3}\sqrt{\frac{1}{C_{3}L_{3}}}}\\ \text{K-LP:} \ \frac{R_{2}R_{5}g_{m}-R_{2}+R_{5}}{2R_{2}g_{m}+4}\\ \text{K-HP:} \ \frac{R_{2}R_{5}g_{m}-R_{2}+R_{5}}{2R_{2}g_{m}+4}\\ \text{K-BP:} \ \frac{R_{2}R_{3}g_{m}+R_{2}R_{5}}{2R_{2}R_{3}g_{m}+R_{2}R_{5}g_{m}+R_{2}+4R_{3}+R_{5}}\\ \text{Qz:} \ \frac{L_{3}\sqrt{\frac{1}{C_{3}L_{3}}}}{R_{3}}\\ \text{Wz:} \ \sqrt{\frac{1}{C_{3}L_{3}}} \end{array}$$

**6.8** GE-8 
$$Z(s) = \left(\infty, R_2, \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \infty, R_5, \infty\right)$$

$$H(s) = \frac{R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5 + s^2 \left(C_3 L_3 R_2 R_3 R_5 g_m - C_3 L_3 R_2 R_3 + C_3 L_3 R_3 R_5\right) + s \left(L_3 R_2 R_5 g_m - L_3 R_2 + L_3 R_5\right)}{2 R_2 R_3 g_m + R_2 R_5 g_m + R_2 + 4 R_3 + R_5 + s^2 \left(2 C_3 L_3 R_2 R_3 g_m + C_3 L_3 R_2 R_5 g_m + C_3 L_3 R_2 + 4 C_3 L_3 R_3 + C_3 L_3 R_5\right) + s \left(2 L_3 R_2 g_m + 4 L_3\right)}$$

$$Q \colon \frac{2C_3R_2R_3g_m\sqrt{\frac{1}{C_3L_3}} + C_3R_2R_5g_m\sqrt{\frac{1}{C_3L_3}} + C_3R_2\sqrt{\frac{1}{C_3L_3}} + 4C_3R_3\sqrt{\frac{1}{C_3L_3}} + C_3R_5\sqrt{\frac{1}{C_3L_3}}}{2R_2g_m + 4}$$
 wo: 
$$\sqrt{\frac{1}{C_3L_3}}$$
 bandwidth: 
$$\frac{\sqrt{\frac{1}{C_3L_3}}(2R_2g_m + 4)}{2C_3R_2R_3g_m\sqrt{\frac{1}{C_3L_3}} + C_3R_2R_5g_m\sqrt{\frac{1}{C_3L_3}} + C_3R_2\sqrt{\frac{1}{C_3L_3}} + 4C_3R_3\sqrt{\frac{1}{C_3L_3}} + C_3R_5\sqrt{\frac{1}{C_3L_3}}}$$
 K-LP: 
$$\frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5}{2R_2R_3g_m + R_2R_3 + R_3 + R_5}$$
 K-HP: 
$$\frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5}{2R_2R_3g_m + R_2R_3g_m + R_2 + 4R_3 + R_5}$$
 K-BP: 
$$\frac{R_2R_5g_m - R_2 + R_5}{2R_2g_m + 4}$$
 Qz: 
$$C_3R_3\sqrt{\frac{1}{C_3L_3}}$$
 Wz: 
$$\sqrt{\frac{1}{C_3L_3}}$$

**6.9** GE-9 
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3, \infty, R_5, \infty\right)$$

$$(s) = \frac{C_2 R_3 R_5 s + R_3 R_5 g_m - R_3 + s^2 \left( C_2 L_2 R_3 R_5 g_m - C_2 L_2 R_3 \right)}{2 R_3 g_m + R_5 g_m + s^2 \left( 2 C_2 L_2 R_3 g_m + C_2 L_2 R_5 g_m + C_2 L_2 \right) + s \left( 4 C_2 R_3 + C_2 R_5 \right) + 1}$$

### Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{2L_2R_3g_m\sqrt{\frac{1}{C_2L_2}} + L_2R_5g_m\sqrt{\frac{1}{C_2L_2}} + L_2\sqrt{\frac{1}{C_2L_2}}}{4R_3 + R_5} \\ & \text{wo:} \ \sqrt{\frac{1}{C_2L_2}} \\ & \text{bandwidth:} \ \frac{\sqrt{\frac{1}{C_2L_2}}(4R_3 + R_5)}{2L_2R_3g_m\sqrt{\frac{1}{C_2L_2}} + L_2R_5g_m\sqrt{\frac{1}{C_2L_2}} + L_2\sqrt{\frac{1}{C_2L_2}}} \\ & \text{K-LP:} \ \frac{R_3R_5g_m - R_3}{2R_3g_m + R_5g_m + 1} \\ & \text{K-HP:} \ \frac{R_3R_5g_m - R_3}{2R_3g_m + R_5g_m + 1} \\ & \text{K-BP:} \ \frac{R_3R_5}{4R_3 + R_5} \\ & \text{Qz:} \ \frac{L_2R_5g_m\sqrt{\frac{1}{C_2L_2}} - L_2\sqrt{\frac{1}{C_2L_2}}}{R_5} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_2L_2}} \end{aligned}$$

**6.10 GE-10** 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, R_5, \infty\right)$$

$$H(s) = \frac{R_3R_5g_m - R_3 + s^2\left(C_2L_2R_3R_5g_m - C_2L_2R_3\right) + s\left(C_2R_2R_3R_5g_m - C_2R_2R_3 + C_2R_3R_5\right)}{2R_3g_m + R_5g_m + s^2\left(2C_2L_2R_3g_m + C_2L_2R_5g_m + C_2L_2\right) + s\left(2C_2R_2R_3g_m + C_2R_2R_5g_m + C_2R_2 + 4C_2R_3 + C_2R_5\right) + 1}$$

$$\begin{array}{l} \text{Q:} \ \frac{2L_2R_3g_m\sqrt{\frac{1}{C_2L_2}} + L_2R_5g_m\sqrt{\frac{1}{C_2L_2}} + L_2\sqrt{\frac{1}{C_2L_2}}}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5} \\ \text{wo:} \ \sqrt{\frac{1}{C_2L_2}} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{1}{C_2L_2}}}{2L_2R_3g_m\sqrt{\frac{1}{C_2L_2}} + L_2R_5g_m + R_2 + 4R_3 + R_5}) \\ \text{bandwidth:} \ \frac{\sqrt{\frac{1}{C_2L_2}}}{2L_2R_3g_m\sqrt{\frac{1}{C_2L_2}} + L_2R_5g_m\sqrt{\frac{1}{C_2L_2}} + L_2\sqrt{\frac{1}{C_2L_2}}} \\ \text{K-LP:} \ \frac{R_3R_5g_m - R_3}{2R_3g_m + R_5g_m + 1} \\ \text{K-HP:} \ \frac{R_3R_5g_m - R_3}{2R_2R_3g_m + R_2R_3 + R_3R_5} \\ \text{K-BP:} \ \frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5} \\ \text{Qz:} \ \frac{L_2R_5g_m\sqrt{\frac{1}{C_2L_2}} - L_2\sqrt{\frac{1}{C_2L_2}}}{R_2R_5g_m - R_2 + R_5} \\ \text{Wz:} \ \sqrt{\frac{1}{C_2L_2}} \\ \end{array}$$

**6.11 GE-11** 
$$Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3, \infty, R_5, \infty\right)$$

$$H(s) = \frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^2\left(C_2L_2R_2R_3R_5g_m - C_2L_2R_2R_3 + C_2L_2R_3R_5\right) + s\left(L_2R_3R_5g_m - L_2R_3\right)}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^2\left(2C_2L_2R_2R_3g_m + C_2L_2R_2R_5g_m + C_2L_2R_2 + 4C_2L_2R_3 + C_2L_2R_5\right) + s\left(2L_2R_3g_m + L_2R_5g_m +$$

$$Q: \frac{2C_2R_2R_3g_m\sqrt{\frac{1}{C_2L_2}} + C_2R_2R_5g_m\sqrt{\frac{1}{C_2L_2}} + C_2R_2\sqrt{\frac{1}{C_2L_2}} + 4C_2R_3\sqrt{\frac{1}{C_2L_2}} + C_2R_5\sqrt{\frac{1}{C_2L_2}}}{2R_3g_m + R_5g_m + 1} \\ \text{Wo: } \sqrt{\frac{1}{C_2L_2}} \\ \text{bandwidth: } \frac{\sqrt{\frac{1}{C_2L_2}}(2R_3g_m + R_5g_m + 1)}{2C_2R_2R_3g_m\sqrt{\frac{1}{C_2L_2}} + C_2R_2R_5g_m\sqrt{\frac{1}{C_2L_2}} + C_2R_2\sqrt{\frac{1}{C_2L_2}} + 4C_2R_3\sqrt{\frac{1}{C_2L_2}} + C_2R_5\sqrt{\frac{1}{C_2L_2}}} \\ \text{K-LP: } \frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5} \\ \text{K-HP: } \frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5} \\ \text{K-BP: } \frac{R_3R_5g_m - R_3}{2R_3g_m + R_5g_m + 1} \\ \text{Qz: } \frac{C_2R_2R_5g_m\sqrt{\frac{1}{C_2L_2}} - C_2R_2\sqrt{\frac{1}{C_2L_2}} + C_2R_5\sqrt{\frac{1}{C_2L_2}}}{R_5g_m - 1} \\ \text{Wz: } \sqrt{\frac{1}{C_2L_2}} \\ \end{aligned}$$

**6.12 GE-12** 
$$Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3, \infty, R_5, \infty\right)$$

$$H(s) = \frac{C_2R_2R_3R_5s + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^2\left(C_2L_2R_2R_3R_5g_m - C_2L_2R_2R_3 + C_2L_2R_3R_5\right)}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^2\left(2C_2L_2R_2R_3g_m + C_2L_2R_2R_5g_m + C_2L_2R_2 + 4C_2L_2R_3 + C_2L_2R_5\right) + s\left(4C_2R_2R_3 + C_2R_2R_5\right)}$$

## Parameters:

$$Q\colon \frac{2L_{2}R_{2}R_{3}g_{m}\sqrt{\frac{1}{C_{2}L_{2}}} + L_{2}R_{5}g_{m}\sqrt{\frac{1}{C_{2}L_{2}}} + L_{2}R_{2}\sqrt{\frac{1}{C_{2}L_{2}}} + 4L_{2}R_{3}\sqrt{\frac{1}{C_{2}L_{2}}} + L_{2}R_{5}\sqrt{\frac{1}{C_{2}L_{2}}}}{4R_{2}R_{3} + R_{2}R_{5}}$$

$$\text{wo: }\sqrt{\frac{1}{C_{2}L_{2}}}$$

$$\text{bandwidth: }\frac{\sqrt{\frac{1}{C_{2}L_{2}}} (4R_{2}R_{3} + R_{2}R_{5})}{2L_{2}R_{2}R_{3}g_{m}\sqrt{\frac{1}{C_{2}L_{2}}} + L_{2}R_{2}R_{5}g_{m}\sqrt{\frac{1}{C_{2}L_{2}}} + L_{2}R_{2}\sqrt{\frac{1}{C_{2}L_{2}}} + 4L_{2}R_{3}\sqrt{\frac{1}{C_{2}L_{2}}} + L_{2}R_{5}\sqrt{\frac{1}{C_{2}L_{2}}}$$

$$\text{K-LP: }\frac{R_{2}R_{3}R_{5}g_{m} - R_{2}R_{3} + R_{3}R_{5}}{2R_{2}R_{3}g_{m} + R_{2}R_{5}g_{m} + R_{2} + 4R_{3} + R_{5}}}$$

$$\text{K-HP: }\frac{R_{2}R_{3}R_{5}g_{m} - R_{2}R_{3} + R_{3}R_{5}}{4R_{3}R_{5}}$$

$$\text{K-BP: }\frac{R_{3}R_{5}}{4R_{3}R_{5}}$$

$$Q_{2:}\frac{L_{2}R_{2}R_{5}g_{m}\sqrt{\frac{1}{C_{2}L_{2}}} - L_{2}R_{2}\sqrt{\frac{1}{C_{2}L_{2}}} + L_{2}R_{5}\sqrt{\frac{1}{C_{2}L_{2}}}}}{R_{2}R_{5}}$$

$$\text{Wz: }\sqrt{\frac{1}{C_{2}L_{2}}}$$

# 7 AP

# 8 INVALID-NUMER

8.1 INVALID-NUMER-1 
$$Z(s) = \left(\infty, R_2, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$$

$$H(s) = \frac{-C_5R_2R_5s + R_2R_5g_m - R_2 + R_5}{C_3C_5R_2R_5s^2 + 2R_2g_m + s\left(C_3R_2R_5g_m + C_3R_2 + C_3R_5 + 2C_5R_2R_5g_m + 4C_5R_5\right) + 4}$$

$$\begin{aligned} &\text{Q: } \frac{\sqrt{2}C_3C_5R_2R_5\sqrt{\frac{g_m}{C_3C_5R_5}+\frac{2}{C_3C_5R_2R_5}}}{C_3R_2R_5g_m+C_3R_2+C_3R_5+2C_5R_2R_5g_m+4C_5R_5}\\ &\text{wo: } \sqrt{\frac{2R_2g_m+4}{C_3C_5R_2R_5}}\\ &\text{bandwidth: } \frac{\sqrt{2}\sqrt{\frac{2R_2g_m+4}{C_3C_5R_2R_5}}(C_3R_2R_5g_m+C_3R_2+C_3R_5+2C_5R_2R_5g_m+4C_5R_5)}{2C_3C_5R_2R_5\sqrt{\frac{g_m}{C_3C_5R_2}+\frac{2}{C_3C_5R_2R_5}}}\\ &\text{K-LP: } \frac{R_2R_5g_m-R_2+R_5}{2R_2g_m+4} \end{aligned}$$

# 8.2 INVALID-NUMER-2 $Z(s) = \left(\infty, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, \infty\right)$

$$H(s) = \frac{-C_5R_2R_3s + R_2R_3g_m + R_3}{C_3C_5R_2R_3s^2 + R_2g_m + s\left(C_3R_2R_3g_m + C_3R_3 + 2C_5R_2R_3g_m + C_5R_2 + 4C_5R_3\right) + 1}$$

### Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_3C_5R_2R_3\sqrt{\frac{g_m}{C_3C_5R_3}+\frac{1}{C_3C_5R_2R_3}}}{C_3R_2R_3g_m+C_3R_3+2C_5R_2R_3g_m+C_5R_2+4C_5R_3}\\ \text{wo:} \ \sqrt{\frac{R_2g_m+1}{C_3C_5R_2R_3}}\\ \text{bandwidth:} \ \frac{\sqrt{\frac{R_2g_m+1}{C_3C_5R_2R_3}}(C_3R_2R_3g_m+C_3R_3+2C_5R_2R_3g_m+C_5R_2+4C_5R_3)}}{C_3C_5R_2R_3\sqrt{\frac{g_m}{C_3C_5R_3}+\frac{1}{C_3C_5R_2R_3}}}\\ \text{K-LP:} \ R_3\\ \text{K-HP:} \ 0\\ \text{K-BP:} \ -\frac{C_5R_2R_3}{C_3R_2R_3g_m+C_3R_3+2C_5R_2R_3g_m+C_5R_2+4C_5R_3}}\\ \text{Qz:} \ 0\\ \text{Wz:} \ \text{None} \end{array}$$

# **8.3** INVALID-NUMER-3 $Z(s) = \left(\infty, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$

$$H(s) = \frac{-C_5R_2R_3R_5s + R_2R_3R_5g_m - R_2R_3 + R_3R_5}{C_3C_5R_2R_3R_5s^2 + 2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s\left(C_3R_2R_3R_5g_m + C_3R_2R_3 + C_3R_3R_5 + 2C_5R_2R_3R_5g_m + C_5R_2R_5 + 4C_5R_3R_5\right)}$$

#### Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_3C_5R_2R_3R_5\sqrt{\frac{2g_m}{C_3C_5R_5}} + \frac{g_m}{C_3C_5R_3} + \frac{1}{C_3C_5R_3R_5} + \frac{4}{C_3C_5R_2R_5} + \frac{1}{C_3C_5R_2R_5}}{C_3R_2R_3R_5g_m + C_3R_2R_3 + C_3R_2R_3 + C_5R_2R_3R_5g_m + C_5R_2R_5 + 4C_5R_3R_5}}\\ \text{wo:} \ \sqrt{\frac{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5}{C_3C_5R_2R_3R_5}}}\\ \text{bandwidth:} \ \frac{\sqrt{\frac{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5}{C_3C_5R_2R_3R_5}} (C_3R_2R_3R_5g_m + C_3R_2R_3 + C_3R_3R_5 + 2C_5R_2R_3R_5g_m + C_5R_2R_5 + 4C_5R_3R_5)}{C_3C_5R_2R_3R_5}}\\ \text{bandwidth:} \ \frac{\sqrt{\frac{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5}{C_3C_5R_2R_3R_5}} (C_3R_2R_3R_5g_m + C_3R_2R_3 + C_3R_3R_5 + 2C_5R_2R_3R_5g_m + C_5R_2R_5 + 4C_5R_3R_5)}{C_3C_5R_2R_3R_5}}\\ \text{bandwidth:} \ \frac{\sqrt{\frac{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5}{C_3C_5R_2R_3R_5}}} (C_3R_2R_3R_5g_m + C_3R_2R_3 + C_3R_3R_5 + 2C_5R_2R_3R_5 + \frac{4}{C_3C_5R_2R_5}} + \frac{4}{C_3C_5R_2R_5} + \frac{4}{C_3C_5R_2R_5} + \frac{4}{C_3C_5R_2R_5}} \\ \text{K-LP:} \ \frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5}} \\ \text{K-HP:} \ 0\\ \text{K-BP:} \ -\frac{C_5R_2R_3R_5}{C_3R_2R_3R_5g_m + C_3R_2R_3 + C_3R_2R_3 + C_5R_2R_3R_5}}{C_3R_2R_3R_5g_m + C_3R_2R_3 + C_3R_2R_3 + C_5R_2R_5 + 4C_5R_3R_5}} \\ \text{Qz:} \ 0\\ \text{Wz:} \ \text{None} \ \end{array}$$

# 8.4 INVALID-NUMER-4 $Z(s) = \left(\infty, R_2, \frac{R_3}{C_3R_3s+1}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)$

$$H(s) = \frac{R_2 R_3 g_m + R_3 + s \left(C_5 R_2 R_3 R_5 g_m - C_5 R_2 R_3 + C_5 R_3 R_5\right)}{R_2 g_m + s^2 \left(C_3 C_5 R_2 R_3 R_5 g_m + C_3 C_5 R_2 R_3 + C_3 C_5 R_3 R_5\right) + s \left(C_3 R_2 R_3 g_m + C_3 R_3 + 2 C_5 R_2 R_3 g_m + C_5 R_2 R_5 g_m + C_5 R_2 + 4 C_5 R_3 + C_5 R_5\right) + 1}$$

#### Parameters:

Wz: None

 $Q: \frac{C_3C_5R_2R_3R_5g_m\sqrt{\frac{R_2g_m}{C_3C_5R_2R_3R_5g_m+C_3C_5R_2R_3+C_3C_5R_3R_5} + C_3C_5R_2R_3C_5R_2R_3+C_3C_5R_3R_5}{C_3R_2R_3g_m+C_3R_3g_m+C_3C_5R_2R_3+C_3C_5R_3R_5} + C_3C_5R_2R_3C_5R_3R_5 + C_3C_5R_2R_3R_5g_m+C_3C_5R_2R_3+C_3C_5R_3R_5} + C_3C_5R_3R_5 +$ 

# 8.5 INVALID-NUMER-5 $Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3, \infty, \frac{1}{C_5 s}, \infty\right)$

$$H(s) = \frac{R_3 g_m + s (C_2 R_3 - C_5 R_3)}{4C_2 C_5 R_3 s^2 + g_m + s (C_2 + 2C_5 R_3 g_m + C_5)}$$

## Parameters:

Q: 
$$\frac{2C_2C_5R_3\sqrt{\frac{g_m}{C_2C_5R_3}}}{C_2+2C_5R_3g_m+C_5}$$
 wo: 
$$\frac{\sqrt{\frac{g_m}{C_2C_5R_3}}}{2}$$
 bandwidth: 
$$\frac{C_2+2C_5R_3g_m+C_5}{4C_2C_5R_3}$$
 K-LP:  $R_3$  K-HP: 0 K-BP: 
$$\frac{C_2R_3-C_5R_3}{C_2+2C_5R_3g_m+C_5}$$
 Qz: 0 Wz: None

# 8.6 INVALID-NUMER-6 $Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s \left(C_2 R_3 R_5 - C_5 R_3 R_5\right)}{4 C_2 C_5 R_3 R_5 s^2 + 2 R_3 g_m + R_5 g_m + s \left(4 C_2 R_3 + C_2 R_5 + 2 C_5 R_3 R_5 g_m + C_5 R_5\right) + 1}$$

## Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{2C_2C_5R_3R_5\sqrt{\frac{2g_m}{C_2C_5R_5}} + \frac{g_m}{C_2C_5R_3} + \frac{1}{C_2C_5R_3R_5}}{4C_2R_3 + C_2R_5 + 2C_5R_3R_5g_m + C_5R_5} \\ \text{wo:} \ \frac{\sqrt{\frac{2R_3g_m + R_5g_m + 1}{C_2C_5R_3R_5}}}{2} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{2R_3g_m + R_5g_m + 1}{C_2C_5R_3R_5}}}{4C_2C_5R_3R_5} (4C_2R_3 + C_2R_5 + 2C_5R_3R_5g_m + C_5R_5)} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{2R_3g_m + R_5g_m + 1}{C_2C_5R_3R_5}} (4C_2R_3 + C_2R_5 + 2C_5R_3R_5g_m + C_5R_5)}{4C_2C_5R_3} \\ \text{K-LP:} \ \frac{R_3R_5g_m - R_3}{2R_3g_m + R_5g_m + 1} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_3R_5 - C_5R_3R_5}{4C_2R_3 + C_2R_5 + 2C_5R_3R_5g_m + C_5R_5} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

# 8.7 INVALID-NUMER-7 $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, R_5, \infty\right)$

$$H(s) = \frac{C_2 R_5 s + R_5 g_m - 1}{C_2 C_3 R_5 s^2 + 2g_m + s \left(4C_2 + C_3 R_5 g_m + C_3\right)}$$

# Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{\sqrt{2}C_2C_3R_5\sqrt{\frac{g_m}{C_2C_3R_5}}}{4C_2+C_3R_5g_m+C_3}\\ \text{wo:} \ \sqrt{2}\sqrt{\frac{g_m}{C_2C_3R_5}}\\ \text{bandwidth:} \ \frac{4C_2+C_3R_5g_m+C_3}{C_2C_3R_5}\\ \text{K-LP:} \ \frac{R_5g_m-1}{2g_m}\\ \text{K-HP:} \ 0\\ \text{K-BP:} \ \frac{C_2R_5}{4C_2+C_3R_5g_m+C_3}\\ \text{Qz:} \ 0\\ \text{Wz:} \ \text{None} \end{array}$$

# 8.8 INVALID-NUMER-8 $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$

$$H(s) = \frac{R_5 g_m + s \left(C_2 R_5 - C_5 R_5\right) - 1}{2 g_m + s^2 \left(C_2 C_3 R_5 + 4 C_2 C_5 R_5 + C_3 C_5 R_5\right) + s \left(4 C_2 + C_3 R_5 g_m + C_3 + 2 C_5 R_5 g_m\right)}$$

```
Q\colon \frac{\sqrt{2}C_{2}C_{3}R_{5}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{5}+4C_{2}C_{5}R_{5}+C_{3}C_{5}R_{5}}}}{4C_{2}+C_{3}R_{5}g_{m}+C_{3}+2C_{5}R_{5}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{5}+4C_{2}C_{5}R_{5}+C_{3}C_{5}R_{5}}}}+\sqrt{2}C_{3}C_{5}R_{5}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{5}+4C_{2}C_{5}R_{5}+C_{3}C_{5}R_{5}}}}
wo: \sqrt{2}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{5}+4C_{2}C_{5}R_{5}+C_{3}C_{5}R_{5}}}}
\sqrt{2}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{5}+4C_{2}C_{5}R_{5}+C_{3}C_{5}R_{5}}}}
bandwidth: \frac{\sqrt{2}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{5}+4C_{2}C_{5}R_{5}+C_{3}C_{5}R_{5}}}}}{\sqrt{2}C_{2}C_{3}R_{5}+4C_{2}C_{5}R_{5}+C_{3}C_{5}R_{5}}}}(4C_{2}+C_{3}R_{5}g_{m}+C_{3}+2C_{5}R_{5}g_{m}})
K-LP\colon \frac{R_{5}g_{m}-1}{2g_{m}}}{K-HP\colon 0}
K-BP\colon \frac{C_{2}R_{5}-C_{5}R_{5}}{4C_{2}+C_{3}R_{5}g_{m}+C_{3}+2C_{5}R_{5}g_{m}}}
Qz\colon 0
Wz\colon None
```

# 8.9 INVALID-NUMER-9 $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, \infty\right)$

$$H(s) = \frac{C_2 R_3 R_5 s + R_3 R_5 g_m - R_3}{C_2 C_3 R_3 R_5 s^2 + 2 R_3 g_m + R_5 g_m + s \left(4 C_2 R_3 + C_2 R_5 + C_3 R_3 R_5 g_m + C_3 R_3\right) + 1}$$

### Parameters:

$$\begin{array}{l} \text{Q:} \ \, \frac{C_2C_3R_3R_5\sqrt{\frac{2g_m}{C_2C_3R_5}} + \frac{g_m}{C_2C_3R_3} + \frac{1}{C_2C_3R_3R_5}}{4C_2R_3 + C_2R_5 + C_3R_3R_5g_m + C_3R_3} \\ \text{wo:} \ \, \sqrt{\frac{2R_3g_m + R_5g_m + 1}{C_2C_3R_3R_5}} \\ \text{bandwidth:} \ \, \frac{\sqrt{\frac{2R_3g_m + R_5g_m + 1}{C_2C_3R_3R_5}} (4C_2R_3 + C_2R_5 + C_3R_3R_5g_m + C_3R_3)}{C_2C_3R_3R_5\sqrt{\frac{2g_m}{C_2C_3R_5}} + \frac{g_m}{C_2C_3R_3} + \frac{1}{C_2C_3R_3R_5}} \\ \text{K-LP:} \ \, \frac{R_3R_5g_m - R_3}{2R_3g_m + R_5g_m + 1} \\ \text{K-HP:} \ \, 0 \\ \text{K-BP:} \ \, \frac{C_2R_3R_5}{4C_2R_3 + C_2R_5 + C_3R_3R_5g_m + C_3R_3} \\ \text{Qz:} \ \, 0 \\ \text{Wz:} \ \, \text{None} \end{array}$$

# 8.10 INVALID-NUMER-10 $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, \infty\right)$

$$H(s) = \frac{R_3 g_m + s \left(C_2 R_3 - C_5 R_3\right)}{g_m + s^2 \left(C_2 C_3 R_3 + 4 C_2 C_5 R_3 + C_3 C_5 R_3\right) + s \left(C_2 + C_3 R_3 g_m + 2 C_5 R_3 g_m + C_5\right)}$$

#### Parameters:

$$\begin{array}{c} \text{Q:} & \frac{C_2C_3R_3\sqrt{\frac{g_m}{C_2C_3R_3+4C_2C_5R_3+C_3C_5R_3}} + 4C_2C_5R_3\sqrt{\frac{g_m}{C_2C_3R_3+4C_2C_5R_3+C_3C_5R_3}} + C_3C_5R_3\sqrt{\frac{g_m}{C_2C_3R_3+4C_2C_5R_3+C_3C_5R_3}} \\ \text{Wo:} & \frac{g_m}{C_2C_3R_3+4C_2C_5R_3+C_3C_5R_3} \\ \text{bandwidth:} & \frac{\sqrt{\frac{g_m}{C_2C_3R_3+4C_2C_5R_3+C_3C_5R_3}} + C_3C_5R_3g_m + C_5} \\ \text{bandwidth:} & \frac{\sqrt{\frac{g_m}{C_2C_3R_3+4C_2C_5R_3+C_3C_5R_3}} + C_3C_5R_3g_m + C_5} \\ \text{C_2C_3R_3\sqrt{\frac{g_m}{C_2C_3R_3+4C_2C_5R_3+C_3C_5R_3}} + 4C_2C_5R_3\sqrt{\frac{g_m}{C_2C_3R_3+4C_2C_5R_3+C_3C_5R_3}} + C_3C_5R_3\sqrt{\frac{g_m}{C_2C_3R_3+4C_2C_5R_3+C_3C_5R_3}} + C_3C_5R_3\sqrt{\frac{g_m}{C_2C_3R_3+4C_2C_5R_3+C_3C_5R_3}} \\ \text{K-LP:} & R_3 \\ \text{K-HP:} & 0 \\ \text{K-BP:} & \frac{C_2R_3-C_5R_3}{C_2+C_3R_3g_m+2C_5R_3g_m+C_5} \\ \text{Qz:} & 0 \\ \text{Wz:} & \text{None} \end{array}$$

# 8.11 INVALID-NUMER-11 $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s+1}, \infty, \frac{R_5}{C_5 R_5 s+1}, \infty\right)$

$$H(s) = \frac{R_3R_5g_m - R_3 + s\left(C_2R_3R_5 - C_5R_3R_5\right)}{2R_3g_m + R_5g_m + s^2\left(C_2C_3R_3R_5 + 4C_2C_5R_3R_5 + C_3C_5R_3R_5\right) + s\left(4C_2R_3 + C_2R_5 + C_3R_3R_5g_m + C_3R_3 + 2C_5R_3R_5g_m + C_5R_5\right) + 1}$$

## Parameters:

 $Q: \frac{\frac{C_2C_3R_3R_5\sqrt{\frac{2R_3gm}{C_2C_3R_3R_5+4C_2C_5R_3R_5+C_3C_5R_3R_5}}{C_2C_3R_3R_5+4C_2C_5R_3R_5+C_3C_5R_3R_5} + \frac{R_5gm}{C_2C_3R_3R_5+4C_2C_5R_3R_5+C_3C_5R_3R_5} + \frac{R_5gm}{C_2C_3R_3R_5+4C_2C_5R_3R_5} + \frac{R_5gm}{C_2C_3R_3R_5} + \frac{R_5gm}{C_2C_3R_3R_5} + \frac{R_5g$ 

K-LP: 
$$\frac{R_3R_5g_m-R_3}{2R_3g_m+R_5g_m+1}$$
  
K-HP: 0

Qz: 0 Wz: None

 $\text{K-BP:} \frac{\text{K-BP:}}{4C_2R_3\sqrt{\frac{2R_3gm}{C_2C_3R_3R_5+4C_2C_5R_3R_5+C_3C_5R_3R_5} + \frac{R_5gm}{C_2C_3R_3R_5+4C_2C_5R_3R_5+C_3C_5R_3R_5} + \frac{1}{C_2C_3R_3R_5+4C_2C_5R_3R_5+C_3C_5R_3R_5} + \frac{1}{C_2C_3R_3R_5+C_3C_5R_3R_5} + \frac{1}{C_2C_3R_3R_5+C_$ 

# **8.12** INVALID-NUMER-12 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \frac{1}{C_5 s}, \infty\right)$

$$H(s) = \frac{R_2 R_3 g_m + R_3 + s \left(C_2 R_2 R_3 - C_5 R_2 R_3\right)}{4 C_2 C_5 R_2 R_3 s^2 + R_2 g_m + s \left(C_2 R_2 + 2 C_5 R_2 R_3 g_m + C_5 R_2 + 4 C_5 R_3\right) + 1}$$

#### Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{2C_2C_5R_2R_3\sqrt{\frac{g_m}{C_2C_5R_3}} + \frac{1}{C_2C_5R_2R_3}}{C_2R_2 + 2C_5R_2R_3g_m + C_5R_2 + 4C_5R_3} \\ \text{wo:} \ \frac{\sqrt{\frac{R_2g_m + 1}{C_2C_5R_2R_3}}}{2} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{R_2g_m + 1}{C_2C_5R_2R_3}}}{4C_2C_5R_2R_3\sqrt{\frac{g_m}{C_2C_5R_3}} + \frac{1}{C_2C_5R_2R_3}} \\ \text{K-LP:} \ R_3 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_2R_3 - C_5R_2R_3}{C_2R_2 + 2C_5R_2R_3} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

# **8.13** INVALID-NUMER-13 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$

$$H(s) = \frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s\left(C_2R_2R_3R_5 - C_5R_2R_3R_5\right)}{4C_2C_5R_2R_3R_5s^2 + 2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s\left(4C_2R_2R_3 + C_2R_2R_5 + 2C_5R_2R_3R_5g_m + C_5R_2R_5 + 4C_5R_3R_5\right)}$$

# Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{2C_2C_5R_2R_3R_5\sqrt{\frac{2g_m}{C_2C_5R_5}} + \frac{g_m}{C_2C_5R_3} + \frac{1}{C_2C_5R_3R_5} + \frac{4}{C_2C_5R_2R_5} + \frac{1}{C_2C_5R_2R_5}}{4C_2R_2R_3 + C_2R_2R_5 + 2C_5R_2} R_3R_5g_m + C_5R_2R_5 + 4C_5R_3R_5} \\ \text{wo:} \ \frac{\sqrt{\frac{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5}{C_2C_5R_2R_3R_5}}}{2} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5}{C_2C_5R_2R_3R_5}}}{4C_2C_5R_2R_3R_5} (4C_2R_2R_3 + C_2R_2R_5 + 2C_5R_2R_3R_5g_m + C_5R_2R_5 + 4C_5R_3R_5)} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5}{C_2C_5R_2R_3R_5}}}{4C_2C_5R_2R_3R_5} (4C_2R_2R_3 + C_2R_2R_5 + 2C_5R_2R_3R_5g_m + C_5R_2R_5 + 4C_5R_3R_5)} \\ \text{bandwidth:} \ \frac{\sqrt{\frac{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5}{C_2C_5R_2R_3R_5}}}{4C_2C_5R_2R_3R_5} (4C_2R_2R_3 + C_2R_2R_5 + 2C_5R_2R_3R_5g_m + C_5R_2R_5 + 4C_5R_3R_5)} \\ \text{bandwidth:} \ \frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5}{4C_2C_5R_2R_3R_5g_m + R_2 + 4R_3 + R_5}} \\ \text{K-LP:} \ \frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5}} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_2R_3R_5 - C_5R_2R_3R_5}{4C_2R_2R_3 + C_2R_2R_5 + 2C_5R_2R_3R_5g_m + C_5R_2R_5 + 4C_5R_3R_5}} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

# 8.14 INVALID-NUMER-14 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, R_5, \infty\right)$

$$H(s) = \frac{C_2 R_2 R_5 s + R_2 R_5 g_m - R_2 + R_5}{C_2 C_3 R_2 R_5 s^2 + 2 R_2 g_m + s \left(4 C_2 R_2 + C_3 R_2 R_5 g_m + C_3 R_2 + C_3 R_5\right) + 4}$$

$$\begin{array}{l} \text{Q:} \ \frac{\sqrt{2}C_2C_3R_2R_5}{4C_2R_2+C_3R_2R_5g_m+C_3R_2+C_3R_2} \\ \text{wo:} \ \sqrt{\frac{2R_2g_m+4}{C_2C_3R_2R_5}} \\ \text{wo:} \ \sqrt{\frac{2R_2g_m+4}{C_2C_3R_2R_5}} \\ \text{bandwidth:} \ \frac{\sqrt{2}\sqrt{\frac{2R_2g_m+4}{C_2C_3R_2R_5}} (4C_2R_2+C_3R_2R_5g_m+C_3R_2+C_3R_5)} {2C_2C_3R_2R_5} \\ \text{K-LP:} \ \frac{R_2R_5g_m-R_2+R_5}{2R_2g_m+4} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_2R_5}{4C_2R_2+C_3R_2R_5g_m+C_3R_2+C_3R_5} \\ \text{Qz:} \ 0 \end{array}$$

# **8.15** INVALID-NUMER-15 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$

## Parameters:

 $Q: \frac{\sqrt{2}C_2C_3R_2R_5\sqrt{\frac{R_2g_m}{C_2C_3R_2R_5+4C_2C_5R_2R_5+C_3C_5R_2R_5}} + \sqrt{2}C_3C_5R_2R_5\sqrt{\frac{R_2g_m}{C_2C_3R_2R_5+4C_2C_5R_2R_5+C_3C_5R_2R_5}} + \sqrt{2}C_3C_3R_2R_5+C_3C_5R_2R_5} + \sqrt{2}C_3R_2R_5+C_3C_5R_2R_5} + \sqrt{2}C_3C_3R_2R_5+C_3C_5R_2R_5} + \sqrt{2}C_3C_3R_2R_5+C_3C_5R_2R_5} + \sqrt{2}C_3C_3R_2R_5+C_3C_5R_2R_5} + \sqrt{2}C_3C_3R_2R_5+C_3C_5R_2R_5} + \sqrt{2}C_3C_3R_2R_5 + C_3C_3R_2R_5 + C_3C_3R_2R_5 + C_3C_3R_2R_5} + \sqrt{2}C_3C_3R_2R_5 + C_3C_3R_2R_5 + C_3C_3R_$ 

 $\frac{2R_2g_m+4}{\sqrt{2C_2C_3R_2R_5+4C_2C_5R_2R_5+C_3C_5R_2R_5}}(4C_2R_2+C_3R_2R_5g_m+C_3R_2+C_3R_5+2C_5R_2R_5g_m+4C_5R_5)}{\sqrt{2C_2C_3R_2R_5+4C_2C_5R_2R_5+C_3C_5R_2R_5}+\sqrt{2C_2C_3R_2R_5+4C_2C_5R_2R_5+C_3C_5R_2R_5}}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5+C_3C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R_5+4C_2C_5R_2R_5}+\sqrt{2C_3C_3R_2R$ 

K-HP: 0

K-BP:

 $\frac{C_{2}R_{2}R_{5}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{5}+4C_{2}C_{5}R_{5}+C_{3}C_{5}R_{5}}}-C_{5}R_{2}R_{5}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{5}+4C_{2}C_{5}R_{5}+C_{3}C_{5}R_{5}}}-C_{5}R_{2}R_{5}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{5}+4C_{2}C_{5}R_{5}+C_{3}C_{5}R_{5}}}-C_{5}R_{2}R_{5}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{5}+4C_{2}C_{5}R_{5}+C_{3}C_{5}R_{5}}}+C_{2}R_{2}R_{5}+C_{2}C_{3}R_{2}R_{5}+C_{2}C_{3}R_{2}R_{5}+C_{2}C_{3}R_{2}R_{5}+C_{2}C_{3}R_{2}R_{5}+C_{2}C_{5}R_{2}R_{5}}}-C_{5}R_{2}R_{5}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{5}+4C_{2}C_{5}R_{5}+C_{3}C_{5}R_{5}}}+C_{5}R_{2}R_{5}+C_{2}C_{3}R_{2}R_{5}+C_{2}C_{5}R_{2}R_{5}+C_{2}C_{5}R_{2}R_{5}}}+C_{2}R_{2}R_{5}+C_{2}C_{3}R_{2}R_{5}+C_{2}C_{3}R_{2}R_{5}+C_{2}C_{5}R_{2}R_{5}}+C_{2}C_{3}R_{2}R_{5}+C_{2}C_{5}R_{2}R_{5}+C_{2}C_{5}R_{2}R_{5}}+C_{2}C_{3}R_{2}R_{5}+C_{2}C_{5}R_{2}R_{5}+C_{2}C_{5}R_{2}R_{5}+C_{2}C_{5}R_{2}R_{5}}+C_{2}C_{3}R_{2}R_{5}+C_{2}C_{5}R_{2}R_{5}+C_{2}C_{5}R_{2}R_{5}+C_{2}C_{5}R_{2}R_{5}}+C_{2}C_{3}R_{2}R_{5}+C_{2}C_{3}R_{2}R_{5}+C_{2}C_{5}R_{2}R_{5}+C_{2}$ 

Wz: None

# **8.16** INVALID-NUMER-16 $Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, R_5, \infty\right)$

$$H(s) = \frac{C_2R_2R_3R_5s + R_2R_3R_5g_m - R_2R_3 + R_3R_5}{C_2C_3R_2R_3R_5s^2 + 2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s\left(4C_2R_2R_3 + C_2R_2R_5 + C_3R_2R_3R_5g_m + C_3R_2R_3 + C_3R_3R_5\right)}$$

## Parameters:

Q:  $\frac{C_2C_3R_2R_3R_5\sqrt{\frac{2g_m}{C_2C_3R_5}} + \frac{g_m}{C_2C_3R_3} + \frac{1}{C_2C_3R_3R_5} + \frac{4}{C_2C_3R_2R_5} + \frac{1}{C_2C_3R_2R_3}}{4C_2R_2R_3 + C_2R_2R_5 + C_3R_2R_3R_5g_m + C_3R_2R_3 + C_3R_3R_5}$ bandwidth:  $\frac{\sqrt{\frac{2R_2R_3g_m+R_2R_5g_m+R_2+4R_3+R_5}{C_2C_3R_2R_3R_5}}(4C_2R_2R_3+C_2R_2R_5+C_3R_2R_3R_5g_m+C_3R_2R_3+C_3R_3R_5)}{C_2C_3R_2R_3R_5} + \frac{g_m}{C_2C_3R_5} + \frac{g_m}{C_2C_3R_3R_5} + \frac{1}{C_2C_3R_3R_5} + \frac{4}{C_2C_3R_2R_5} + \frac{1}{C_2C_3R_2R_3}$  K-LP:  $\frac{R_2R_3R_5g_m-R_2R_3+R_3R_5}{2R_2R_3g_m+R_2R_5g_m+R_2+4R_3+R_5}$  K-HP: 0

K-BP:  $\frac{C_2R_2R_3R_5}{4C_2R_2R_3+C_2R_2R_5+C_3R_2R_3R_5g_m+C_3R_2R_3+C_3R_3R_5}$ 

Wz: None

# **8.17** INVALID-NUMER-17 $Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \frac{1}{C_5s}, \infty\right)$

# Parameters:

 $Q: \underbrace{\frac{C_2C_3R_2R_3\sqrt{\frac{R_2g_m}{C_2C_3R_2R_3+4C_2C_5R_2R_3+C_3C_5R_2R_3} + \frac{1}{C_2C_3R_2R_3+4C_2C_5R_2R_3} + \frac{1}{C_2C_$ 

wo:  $\sqrt{\frac{R_2g_m+1}{C_2C_3R_2R_3+4C_2C_5R_2R_3+C_3C_5R_2R_3}}$ 

 $\frac{R_{2gm+1}}{C_{2}C_{3}R_{2}R_{3}+4C_{2}C_{5}R_{2}R_{3}+C_{3}C_{5}R_{2}R_{3}}(C_{2}R_{2}+C_{3}R_{2}R_{3}g_{m}+C_{5}R_{2}+4C_{5}R_{3})}{C_{2}C_{3}R_{2}R_{3}+4C_{2}C_{5}R_{2}R_{3}+C_{3}C_{5}R_{2}R_{3}}+\frac{R_{2}g_{m}}{C_{2}C_{3}R_{2}R_{3}+4C_{2}C_{5}R_{2}R_{3}+C_{3}C_{5}R_{2}R_{3}}+C_{2}C_{3}R_{2}R_{3}+4C_{2}C_{5}R_{2}R_{3}+C_{3}C_{5}R_{2}R_{3}}+C_{2}C_{3}R_{2}R_{3}+4C_{2}C_{5}R_{2}R_{3}+C_{2}C_{5}R_{2}R_{3$ 

K-LP:  $R_3$ 

K-HP: 0

 $\frac{C_{2}R_{2}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{3}+4C_{2}C_{5}R_{3}+C_{3}C_{5}R_{3}}}-C_{5}R_{2}R_{3}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{3}+4C_{2}C_{5}R_{3}+C_{3}C_{5}R_{3}}}-C_{5}R_{2}R_{3}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{3}+4C_{2}C_{5}R_{3}+C_{3}C_{5}R_{3}}}-C_{5}R_{2}R_{3}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{3}+4C_{2}C_{5}R_{3}+C_{3}C_{5}R_{3}}}-C_{5}R_{2}R_{3}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{3}+4C_{2}C_{5}R_{3}+C_{3}C_{5}R_{3}}}-C_{5}R_{2}R_{3}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{3}+4C_{2}C_{5}R_{3}+C_{3}C_{5}R_{3}}}+C_{2}R_{3}R_{3}+C_{2}R_{3}+C_{2}R_{3}R_{3}+C_{2}R_{3}+C_{2}R_{3}+C_{2}R_{3}+C_{2}$ 

Qz: 0

Wz: None

# **8.18** INVALID-NUMER-18 $Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \frac{R_5}{C_5R_5s+1}, \infty\right)$

$$H(s) = \frac{R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5 + s \left(C_2 R_2 R_3 R_5 - C_5 R_2 R_3 R_5\right)}{2 R_2 R_3 g_m + R_2 R_5 g_m + R_2 + 4 R_3 + R_5 + s^2 \left(C_2 C_3 R_2 R_3 R_5 + 4 C_2 C_5 R_2 R_3 R_5\right) + s \left(4 C_2 R_2 R_3 + C_2 R_2 R_5 + C_3 R_2 R_3 R_5 g_m + C_3 R_2 R_3 + C_3 R_3 R_5 + 2 C_5 R_2 R_3 R_5 g_m + C_5 R_2 R_3 R_5\right)}$$

#### Parameters:

 $\begin{array}{c} C_1 C_2 C_3 R_2 R_3 R_5 \sqrt{c_2 C_3 R_2 R_3 R_5 + c_2 C_5 R_$ 

# **8.19** INVALID-NUMER-19 $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, R_5, \infty\right)$

$$H(s) = \frac{R_5 g_m + s \left( C_2 R_2 R_5 g_m - C_2 R_2 + C_2 R_5 \right) - 1}{2 g_m + s^2 \left( C_2 C_3 R_2 R_5 g_m + C_2 C_3 R_2 + C_2 C_3 R_5 \right) + s \left( 2 C_2 R_2 g_m + 4 C_2 + C_3 R_5 g_m + C_3 \right)}$$

## Parameters:

 $\begin{array}{c} Q\colon \frac{\sqrt{2}C_{2}C_{3}R_{2}R_{5}g_{m}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{2}R_{5}g_{m}+C_{2}C_{3}R_{5}}}+\sqrt{2}C_{2}C_{3}R_{2}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{2}R_{5}g_{m}+C_{2}C_{3}R_{5}}}+\sqrt{2}C_{2}C_{3}R_{5}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{2}R_{5}g_{m}+C_{2}C_{3}R_{5}}}+\sqrt{2}C_{2}C_{3}R_{5}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{2}R_{5}g_{m}+C_{2}C_{3}R_{5}}}}\\ \text{wo: } \sqrt{2}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{2}R_{5}g_{m}+C_{2}C_{3}R_{2}+C_{2}C_{3}R_{5}}}\\ \text{bandwidth: } \frac{\sqrt{2}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{2}R_{5}g_{m}+C_{2}C_{3}R_{2}+C_{2}C_{3}R_{5}}}}{\sqrt{2}C_{2}C_{3}R_{2}R_{5}g_{m}+C_{2}C_{3}R_{2}+C_{2}C_{3}R_{5}}}(2C_{2}R_{2}g_{m}+4C_{2}+C_{3}R_{5}g_{m}+C_{3}})\\ \text{bandwidth: } \frac{\sqrt{2}C_{2}C_{3}R_{2}R_{5}g_{m}+C_{2}C_{3}R_{2}+C_{2}C_{3}R_{5}}(2C_{2}R_{2}g_{m}+4C_{2}+C_{3}R_{5}g_{m}+C_{3}})\\ \text{bandwidth: } \frac{g_{m}}{\sqrt{2}C_{2}C_{3}R_{2}R_{5}g_{m}+C_{2}C_{3}R_{2}+C_{2}C_{3}R_{5}}+\sqrt{2}C_{2}C_{3}R_{2}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{2}+C_{2}C_{3}R_{5}}}+\sqrt{2}C_{2}C_{3}R_{2}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{2}+C_{2}C_{3}R_{5}}}+\sqrt{2}C_{2}C_{3}R_{5}\sqrt{\frac{g_{m}}{C_{2}C_{3}R_{2}R_{5}g_{m}+C_{2}C_{3}R_{2}+C_{2}C_{3}R_{5}}}\\ \text{K-LP: } \frac{R_{5}g_{m}-1}{2g_{m}}\\ \text{K-HP: } 0\\ \text{K-BP: } \frac{C_{2}R_{2}R_{5}g_{m}-C_{2}R_{2}+C_{2}R_{5}}{2C_{2}R_{2}g_{m}+4C_{2}+C_{3}R_{5}g_{m}+C_{3}}\\ \text{Qz: } 0\\ \text{Wz: None} \end{array}$ 

# **8.20** INVALID-NUMER-20 $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, \infty\right)$

$$H(s) = \frac{R_3R_5g_m - R_3 + s\left(C_2R_2R_3R_5g_m - C_2R_2R_3 + C_2R_3R_5\right)}{2R_3g_m + R_5g_m + s^2\left(C_2C_3R_2R_3R_5g_m + C_2C_3R_2R_3 + C_2C_3R_3R_5\right) + s\left(2C_2R_2R_3g_m + C_2R_2R_5g_m + C_2R_2 + 4C_2R_3 + C_2R_5 + C_3R_3R_5g_m + C_3R_3\right) + 1}$$

#### Parameters:

 $\begin{array}{c} Q: \frac{2R_3gn}{C_2C_3R_2R_3R_5gm} \sqrt{\frac{2R_3gn}{C_2C_3R_2R_3R_5gm} + C_2C_3R_2R_3R_5gm} +$ 

# 9 INVALID-WZ

Wz: None

# **9.1** INVALID-WZ-1 $Z(s) = \left(\infty, R_2, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$

$$H(s) = \frac{-C_3C_5R_2R_3R_5s^2 + R_2R_5g_m - R_2 + R_5 + s\left(C_3R_2R_3R_5g_m - C_3R_2R_3 + C_3R_3R_5 - C_5R_2R_5\right)}{2R_2g_m + s^2\left(2C_3C_5R_2R_3R_5g_m + C_3C_5R_2R_5 + 4C_3C_5R_3R_5\right) + s\left(2C_3R_2R_3g_m + C_3R_2R_5g_m + C_3R_2 + 4C_3R_3 + C_3R_5 + 2C_5R_2R_5g_m + 4C_5R_5\right) + d}$$

### Parameters:

$$\begin{array}{c} \sqrt{2\sqrt{2}C_3C_5R_2R_3R_5gm} \sqrt{\frac{89m}{2C_3C_5R_2R_3R_5gm+C_3C_5R_2R_5} + 2C_3C_5R_2R_5}{2C_3C_5R_2R_3R_5gm+C_3C_5R_2R_5} + \sqrt{2}C_3C_5R_2R_5R_5gm+C_3C_5R_2R_5} + \sqrt{2}C_3C_5R_2R_5R_5gm+C_3C_5R_2R_5 + 2C_3C_5R_2R_3R_5gm+C_3C_5R_2R_5} + \sqrt{2}C_3C_5R_2R_3R_5gm+C_3C_5R_2R_5} + \sqrt{2}C_3C_5R_2R_5R_5} + \sqrt{2}C_3C_5R_2R_5gm+C_3C_5R_2R_5} + \sqrt{$$

# **9.2** INVALID-WZ-2 $Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$

$$H(s) = \frac{C_2C_5R_3R_5s^2 + R_3g_m + s\left(C_2R_3 + C_5R_3R_5g_m - C_5R_3\right)}{g_m + s^2\left(4C_2C_5R_3 + C_2C_5R_5\right) + s\left(C_2 + 2C_5R_3g_m + C_5R_5g_m + C_5\right)}$$

#### Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{4C_2C_5R_3\sqrt{\frac{g_m}{4C_2C_5R_3+C_2C_5R_5}} + C_2C_5R_5\sqrt{\frac{g_m}{4C_2C_5R_3+C_2C_5R_5}}}{C_2+2C_5R_3g_m+C_5} \\ & \text{wo:} \ \sqrt{\frac{g_m}{4C_2C_5R_3+C_2C_5R_5}} \\ & \text{bandwidth:} \ \frac{\sqrt{\frac{g_m}{4C_2C_5R_3+C_2C_5R_5}} (C_2+2C_5R_3g_m+C_5R_5g_m+C_5)}{4C_2C_5R_3\sqrt{\frac{g_m}{4C_2C_5R_3+C_2C_5R_5}} + C_2C_5R_5\sqrt{\frac{g_m}{4C_2C_5R_3+C_2C_5R_5}}} \\ & \text{K-LP:} \ R_3 \\ & \text{K-HP:} \ \frac{R_3R_5}{4R_3+R_5} \\ & \text{K-BP:} \ \frac{C_2R_3+C_5R_3R_5g_m-C_5R_3}{C_2+2C_5R_3g_m+C_5R_5g_m+C_5} \\ & \text{Qz:} \ \frac{C_2C_5R_5\sqrt{\frac{g_m}{4C_2C_5R_3+C_2C_5R_5}}}{C_2+C_5R_5g_m-C_5} \\ & \text{Wz:} \ \sqrt{\frac{g_m}{C_2C_5R_5}} \end{aligned}$$

# **9.3** INVALID-WZ-3 $Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, R_5, \infty\right)$

$$H(s) = \frac{C_2C_3R_3R_5s^2 + R_5g_m + s\left(C_2R_5 + C_3R_3R_5g_m - C_3R_3\right) - 1}{2g_m + s^2\left(4C_2C_3R_3 + C_2C_3R_5\right) + s\left(4C_2 + 2C_3R_3g_m + C_3R_5g_m + C_3\right)}$$

$$Q \colon \frac{4\sqrt{2}C_2C_3R_3\sqrt{\frac{g_m}{4C_2C_3R_3}+C_2C_3R_5}}{4C_2+2C_3R_3g_m+C_3R_5g_m+C_3} \\ \text{wo: } \sqrt{2}\sqrt{\frac{g_m}{4C_2C_3R_3+C_2C_3R_5}} \\ \text{bandwidth: } \frac{\sqrt{2}\sqrt{\frac{g_m}{4C_2C_3R_3+C_2C_3R_5}}}{4\sqrt{2}C_2C_3R_3\sqrt{\frac{g_m}{4C_2C_3R_3}+C_2C_3R_5}} \\ \text{K-LP: } \frac{R_5g_m-1}{2g_m} \\ \text{K-HP: } \frac{R_3R_5}{4R_3+R_5} \\ \text{K-BP: } \frac{C_2R_5+C_3R_3g_m+C_3R_3}{4C_2C_3R_3g_m+C_3R_3g_m+C_3} \\ \text{Qz: } \frac{\sqrt{2}C_2C_3R_3R_5g_m-C_3R_3}{C_2R_5+C_3R_3R_5g_m-C_3R_3} \\ \text{Wz: } \sqrt{\frac{g_m}{4C_2C_3R_3R_3+C_2C_3R_5}} \\ \text{V-Single Problem of the problem of$$

# **9.4** INVALID-WZ-4 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$

$$H(s) = \frac{C_2C_5R_2R_3R_5s^2 + R_2R_3g_m + R_3 + s\left(C_2R_2R_3 + C_5R_2R_3R_5g_m - C_5R_2R_3 + C_5R_3R_5\right)}{R_2g_m + s^2\left(4C_2C_5R_2R_3 + C_2C_5R_2R_5\right) + s\left(C_2R_2 + 2C_5R_2R_3g_m + C_5R_2R_5g_m + C_5R_2 + 4C_5R_3 + C_5R_5\right) + 1}$$

#### Parameters:

 $\begin{array}{c} \text{Q:} & \frac{4c_2c_5R_2R_3\sqrt{4c_2c_5R_2R_3+c_2c_5R_2R_3+c_2c_5R_2R_3+c_2c_5R_2R_5}{4c_2c_5R_2R_3+c_2c_5R_2R_5} + Cc_5R_2R_5\sqrt{4c_2c_5R_2R_3+c_2c_5R_2R_5} \\ \text{wo:} & \frac{R_2m+1}{\sqrt{4c_2c_5R_2R_3+c_2c_5R_2R_5}} \\ \text{bandwidth:} & \frac{\sqrt{4c_2c_5R_2R_3+c_2c_5R_2R_5}}{\sqrt{4c_2c_5R_2R_3+c_2c_5R_2R_5+c_2c_5R_2R_5}} \\ \text{K-LP:} & R_3 \\ \text{K-HP:} & \frac{R_3R_6}{4R_3R_5R_5} \\ \text{K-BP:} & \frac{C_2R_2N\sqrt{4c_2c_5R_2R_5+c$ 

# **9.5** INVALID-WZ-5 $Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, R_5, \infty\right)$

$$H(s) = \frac{C_2C_3R_2R_3R_5s^2 + R_2R_5g_m - R_2 + R_5 + s\left(C_2R_2R_5 + C_3R_2R_3R_5g_m - C_3R_2R_3 + C_3R_3R_5\right)}{2R_2g_m + s^2\left(4C_2C_3R_2R_3 + C_2C_3R_2R_5\right) + s\left(4C_2R_2 + 2C_3R_2R_3g_m + C_3R_2R_5g_m + C_3R_2 + 4C_3R_3 + C_3R_5\right) + 4C_3R_3R_5g_m + C_3R_3R_5g_m + C_3R_3R_5$$

## Parameters:

 $\begin{array}{c} \text{Q:} & \frac{4\sqrt{2}C_2C_3R_2R_3\sqrt{\sqrt{c_2C_3R_2R_3^2+c_2C_3R_2R_5^2+c_2C_3R_2R_5^2+c_2C_3R_2R_5} + \sqrt{2}C_2C_3R_2R_3\sqrt{4c_2C_3R_2R_3^2+c_2C_3R_2R_5}}{4C_2R_2+2C_3R_2R_3m_+C_3R_2+4C_3R_3+C_3R_5} \\ \text{wo:} & \frac{2R_2g_m+4}{4C_2C_3R_2R_3+C_2C_3R_2R_5} \\ \text{bandwidth:} & \frac{2R_2g_m+4}{4\sqrt{2}C_2C_3R_2R_3+C_2C_3R_2R_5} \\ \text{bandwidth:} & \frac{2R_2g_m+4}{4\sqrt{2}C_2C_3R_2R_3+C_2C_3R_2R_5} \\ \text{dec} & \frac{2R_2g_m+4}{4\sqrt{2}C_2C_3R_2R_3+C_2C_3R_2R_5} \\ \text{dec} & \frac{2R_2g_m+4}{4\sqrt{2}C_2C_3R_2R_3} \\ \text{dec} & \frac{2R_2g_m+4}{4\sqrt{2$ 

# **9.6** INVALID-WZ-6 $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3, \infty, \frac{1}{C_5 s}, \infty\right)$

$$H(s) = \frac{-C_2C_5R_2R_3s^2 + R_3g_m + s\left(C_2R_2R_3g_m + C_2R_3 - C_5R_3\right)}{g_m + s^2\left(2C_2C_5R_2R_3g_m + C_2C_5R_2 + 4C_2C_5R_3\right) + s\left(C_2R_2g_m + C_2 + 2C_5R_3g_m + C_5\right)}$$

$$Q: \frac{2C_2C_5R_2R_3g_m\sqrt{\frac{g_m}{2C_2C_5R_2R_3g_m+C_2C_5R_2}} + C_2C_5R_2\sqrt{\frac{g_m}{2C_2C_5R_2R_3g_m+C_2C_5R_2}} + C_2C_5R_3\sqrt{\frac{g_m}{2C_2C_5R_2R_3g_m+C_2C_5R_2}} + 4C_2C_5R_3\sqrt{\frac{g_m}{2C_2C_5R_2R_3g_m+C_2C_5R_2}} + 4C_2C_5R_3\sqrt{\frac{g_m}{2C_2C_5R_2R_3g_m+C_2C_5R_2}} + 4C_2C_5R_3\sqrt{\frac{g_m}{2C_2C_5R_2R_3g_m+C_2C_5R_2}} + 4C_2C_5R_3} \\ wo: \sqrt{\frac{g_m}{2C_2C_5R_2R_3g_m+C_2C_5R_2}} \sqrt{\frac{g_m}{2C_2C_5R_2R_3g_m+C_2C_5R_2}} + 2C_5R_3g_m+C_5} \\ bandwidth: \frac{\sqrt{\frac{g_m}{2C_2C_5R_2R_3g_m+C_2C_5R_2}} + 2C_5R_3\sqrt{\frac{g_m}{2C_2C_5R_2R_3g_m+C_2C_5R_2}} + 4C_2C_5R_3g_m+C_5}} {C_2R_2R_3g_m\sqrt{\frac{g_m}{2C_2C_5R_2R_3g_m+C_2C_5R_2}} + 2C_5R_2\sqrt{\frac{g_m}{2C_2C_5R_2R_3g_m+C_2C_5R_2}} + 4C_2C_5R_3\sqrt{\frac{g_m}{2C_2C_5R_2R_3g_m+C_2C_5R_2}} +$$

# **9.7** INVALID-WZ-7 $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$

$$H(s) = \frac{-C_2C_5R_2R_3R_5s^2 + R_3R_5g_m - R_3 + s\left(C_2R_2R_3R_5g_m - C_2R_2R_3 + C_2R_3R_5 - C_5R_3R_5\right)}{2R_3g_m + R_5g_m + s^2\left(2C_2C_5R_2R_3R_5g_m + C_2C_5R_2R_5 + 4C_2C_5R_3R_5\right) + s\left(2C_2R_2R_3g_m + C_2R_2R_5g_m + C_2R_2 + 4C_2R_3 + C_2R_5 + 2C_5R_3R_5g_m + C_5R_5\right) + 1}$$

### Parameters:

 $\begin{array}{c} Q: \frac{2c_2c_5R_2R_3R_5gm}{\sqrt{2c_2c_5R_2R_3R_5gm} + \frac{2c_2c_5R_2R_3R_5gm}{2c_2c_5R_2R_3R_5gm} + \frac{1}{2c_2c_5R_2R_3R_5gm} + \frac{$ 

# **9.8** INVALID-WZ-8 $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$

$$H(s) = \frac{R_3 g_m + s^2 \left(C_2 C_5 R_2 R_3 R_5 g_m - C_2 C_5 R_2 R_3 + C_2 C_5 R_3 R_5\right) + s \left(C_2 R_2 R_3 g_m + C_2 R_3 + C_5 R_3 R_5 g_m - C_5 R_3\right)}{g_m + s^2 \left(2 C_2 C_5 R_2 R_3 g_m + C_2 C_5 R_2 R_5 g_m + C_2 C_5 R_2 + 4 C_2 C_5 R_3 + C_2 C_5 R_5\right) + s \left(C_2 R_2 g_m + C_2 + 2 C_5 R_3 g_m + C_5 R_5 g_m + C_5\right)}$$

#### Parameters:

```
 Q: \frac{2^{C_2C_5R_2R_3g_m} \sqrt{2c_2c_5R_2R_3g_m + c_2c_5R_2S_5g_m +
```

# **9.9** INVALID-WZ-9 $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, R_5, \infty\right)$

$$H(s) = \frac{R_5 g_m + s^2 \left(C_2 C_3 R_2 R_3 R_5 g_m - C_2 C_3 R_2 R_3 + C_2 C_3 R_3 R_5\right) + s \left(C_2 R_2 R_5 g_m - C_2 R_2 + C_2 R_5 + C_3 R_3 R_5 g_m - C_3 R_3\right) - 1}{2 g_m + s^2 \left(2 C_2 C_3 R_2 R_3 g_m + C_2 C_3 R_2 R_5 g_m + C_2 C_3 R_2 + 4 C_2 C_3 R_3 + C_2 C_3 R_5\right) + s \left(2 C_2 R_2 g_m + 4 C_2 + 2 C_3 R_3 g_m + C_3 R_5 g_m + C_3 R_5$$

#### Parameters:

Wz:  $\sqrt{\frac{g_m}{C_2C_5R_2R_5g_m-C_2C_5R_2+C_2C_5R_5}}$ 

 $\sqrt{\frac{R_5g_m - 1}{C_2C_3R_2R_3R_5g_m - C_2C_3R_2R_3 + C_2C_3R_3R_5}}$ 

```
 \begin{array}{c} Q: \frac{2\sqrt{2}C_2C_3R_2R_3g_m\sqrt{\frac{g_m}{2C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2C_3R_2R_3g_m+C_2
```

# 10 INVALID-ORDER

10.1 INVALID-ORDER-1  $Z(s) = (\infty, R_2, R_3, \infty, R_5, \infty)$ 

$$H(s) = \frac{R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5}{2R_2 R_3 q_m + R_2 R_5 q_m + R_2 + 4R_3 + R_5}$$

10.2 INVALID-ORDER-2  $Z(s) = \left(\infty, R_2, R_3, \infty, \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{-C_5 R_2 R_3 s + R_2 R_3 g_m + R_3}{R_2 g_m + s \left(2C_5 R_2 R_3 g_m + C_5 R_2 + 4C_5 R_3\right) + 1}$$

10.3 INVALID-ORDER-3  $Z(s) = \left(\infty, R_2, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$ 

$$H(s) = \frac{-C_5R_2R_3R_5s + R_2R_3R_5g_m - R_2R_3 + R_3R_5}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s\left(2C_5R_2R_3R_5g_m + C_5R_2R_5 + 4C_5R_3R_5\right)}$$

10.4 INVALID-ORDER-4  $Z(s) = \left(\infty, R_2, R_3, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{R_2 R_3 g_m + R_3 + s \left( C_5 R_2 R_3 R_5 g_m - C_5 R_2 R_3 + C_5 R_3 R_5 \right)}{R_2 g_m + s \left( 2 C_5 R_2 R_3 g_m + C_5 R_2 R_5 g_m + C_5 R_2 + 4 C_5 R_3 + C_5 R_5 \right) + 1}$$

10.5 INVALID-ORDER-5  $Z(s) = \left(\infty, R_2, \frac{1}{C_3 s}, \infty, R_5, \infty\right)$ 

$$H(s) = \frac{R_2 R_5 g_m - R_2 + R_5}{2R_2 q_m + s \left(C_3 R_2 R_5 q_m + C_3 R_2 + C_3 R_5\right) + 4}$$

10.6 INVALID-ORDER-6  $Z(s) = \left(\infty, R_2, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{-C_5 R_2 s + R_2 g_m + 1}{C_3 C_5 R_2 s^2 + s \left(C_3 R_2 q_m + C_3 + 2C_5 R_2 q_m + 4C_5\right)}$$

10.7 INVALID-ORDER-7  $Z(s) = \left(\infty, R_2, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{R_2g_m + s\left(C_5R_2R_5g_m - C_5R_2 + C_5R_5\right) + 1}{s^2\left(C_3C_5R_2R_5g_m + C_3C_5R_2 + C_3C_5R_5\right) + s\left(C_3R_2g_m + C_3 + 2C_5R_2g_m + 4C_5\right)}$$

10.8 INVALID-ORDER-8  $Z(s) = \left(\infty, R_2, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{-C_5R_2s + R_2g_m + s^2\left(C_5L_5R_2g_m + C_5L_5\right) + 1}{C_3C_5R_2s^2 + s^3\left(C_3C_5L_5R_2g_m + C_3C_5L_5\right) + s\left(C_3R_2g_m + C_3 + 2C_5R_2g_m + 4C_5\right)}$$

10.9 INVALID-ORDER-9  $Z(s) = \left(\infty, R_2, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{-C_5L_5R_2s^2 - R_2 + s\left(L_5R_2g_m + L_5\right)}{C_3C_5L_5R_2s^3 + C_3R_2s + 2R_2g_m + s^2\left(C_3L_5R_2g_m + C_3L_5 + 2C_5L_5R_2g_m + 4C_5L_5\right) + 4}$$

**10.10** INVALID-ORDER-10 
$$Z(s) = \left(\infty, R_2, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{R_2 g_m + s^2 \left( C_5 L_5 R_2 g_m + C_5 L_5 \right) + s \left( C_5 R_2 R_5 g_m - C_5 R_2 + C_5 R_5 \right) + 1}{s^3 \left( C_3 C_5 L_5 R_2 g_m + C_3 C_5 L_5 \right) + s^2 \left( C_3 C_5 R_2 R_5 g_m + C_3 C_5 R_2 + C_3 C_5 R_5 \right) + s \left( C_3 R_2 g_m + C_3 + 2 C_5 R_2 g_m + 4 C_5 \right)}$$

10.11 INVALID-ORDER-11 
$$Z(s) = \left(\infty, R_2, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$$

$$H(s) = \frac{-C_5L_5R_2R_5s^2 - R_2R_5 + s\left(L_5R_2R_5g_m - L_5R_2 + L_5R_5\right)}{C_3C_5L_5R_2R_5s^3 + 2R_2R_5g_m + 4R_5 + s^2\left(C_3L_5R_2R_5g_m + C_3L_5R_2 + C_3L_5R_5 + 2C_5L_5R_2R_5g_m + 4C_5L_5R_5\right) + s\left(C_3R_2R_5 + 2L_5R_2g_m + 4L_5\right)}$$

10.12 INVALID-ORDER-12 
$$Z(s) = \left(\infty, R_2, \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$$

10.13 INVALID-ORDER-13 
$$Z(s) = \left(\infty, R_2, \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)$$

$$H(s) = \frac{-C_5R_2R_5s + R_2R_5g_m - R_2 + R_5 + s^2\left(C_5L_5R_2R_5g_m - C_5L_5R_2 + C_5L_5R_5\right)}{2R_2g_m + s^3\left(C_3C_5L_5R_2R_5g_m + C_3C_5L_5R_2 + C_3C_5L_5R_5\right) + s^2\left(C_3C_5R_2R_5 + 2C_5L_5R_2g_m + 4C_5L_5\right) + s\left(C_3R_2R_5g_m + C_3R_2 + C_3R_5 + 2C_5R_2g_m + 4C_5R_5\right) + s\left(C_3R_2R_5g_m + C_3R_5 + 2C_5R_2g_m + 4C_5R_5\right) + s\left(C_3R_2R_5g_m + C_3R_5 + 2C_5R_5g_m + 4C_5R_5\right) + s\left(C_3R_2R_5g_m + C_3R_5 + 2C_5R_5g_m + 4C_5R_5\right) + s\left(C_3R_5R_5g_m + C_3R_5 + 2C_5R_5g_m + 4C_5R_5\right) + s\left(C_3R_5R_5g_m + C_3R_5g_m + 2C_5R_5g_m + 4C_5R_5\right) + s\left(C_3R_5g_m + 2C_5R_5g_m +$$

**10.14** INVALID-ORDER-14  $Z(s) = \left(\infty, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, \infty\right)$ 

$$H(s) = \frac{R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5}{2R_2 R_3 g_m + R_2 R_5 g_m + R_2 + 4R_3 + R_5 + s \left(C_3 R_2 R_3 R_5 g_m + C_3 R_2 R_3 + C_3 R_3 R_5\right)}$$

**10.15** INVALID-ORDER-15  $Z(s) = \left(\infty, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{-C_5R_2R_3s + R_2R_3g_m + R_3 + s^2\left(C_5L_5R_2R_3g_m + C_5L_5R_3\right)}{R_2g_m + s^3\left(C_3C_5L_5R_2R_3g_m + C_3C_5L_5R_3\right) + s^2\left(C_3C_5R_2R_3 + C_5L_5R_2g_m + C_5L_5\right) + s\left(C_3R_2R_3g_m + C_3R_3 + 2C_5R_2R_3g_m + C_5R_2 + 4C_5R_3\right) + 1}$$

**10.16** INVALID-ORDER-16  $Z(s) = \left(\infty, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{-C_5L_5R_2R_3s^2 - R_2R_3 + s\left(L_5R_2R_3g_m + L_5R_3\right)}{C_3C_5L_5R_2R_3s^3 + 2R_2R_3g_m + R_2 + 4R_3 + s^2\left(C_3L_5R_2R_3g_m + C_3L_5R_3 + 2C_5L_5R_2R_3g_m + C_5L_5R_2 + 4C_5L_5R_3\right) + s\left(C_3R_2R_3 + L_5R_2g_m + L_5\right)}$$

10.17 INVALID-ORDER-17  $Z(s) = \left(\infty, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{R_2R_3g_m + R_3 + s^2\left(C_5L_5R_2R_3g_m + C_5L_5R_3\right) + s\left(C_5R_2R_3R_5g_m - C_5R_2R_3 + C_5R_3R_5\right)}{R_2g_m + s^3\left(C_3C_5L_5R_2R_3g_m + C_3C_5L_5R_3\right) + s^2\left(C_3C_5R_2R_3R_5g_m + C_5L_5R_3R_5 + C_5L_5R_2g_m + C_5L_5\right) + s\left(C_3R_2R_3g_m + C_3R_3R_5 + C_5R_2R_3g_m + C_5R_3R_3g_m +$$

**10.18** INVALID-ORDER-18  $Z(s) = \left(\infty, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$ 

$$H(s) = \frac{-C_5L_5R_2R_3R_5s^2 - R_2R_3R_5s + s\left(L_5R_2R_3R_5g_m - L_5R_2R_3 + L_5R_3R_5\right)}{C_3C_5L_5R_2R_3R_5g_m + R_2R_5 + 4R_3R_5 + s^2\left(C_3L_5R_2R_3R_5g_m + C_3L_5R_2R_3 + C_3L_5R_3R_5 + 2C_5L_5R_2R_3R_5g_m + C_5L_5R_2R_3R_5\right) + s\left(C_3R_2R_3R_5 + 2L_5R_2R_3g_m + L_5R_2R_3g_m + L_5R_2R_3R_5\right)}$$

**10.19** INVALID-ORDER-19  $Z(s) = \left(\infty, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^2\left(C_5L_5R_2R_3R_5g_m - C_5L_5R_2R_3 + C_5L_5R_3R_5\right) + s\left(L_5R_2R_3g_m + L_5R_3\right)}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^3\left(C_3C_5L_5R_2R_3R_5g_m + C_3C_5L_5R_3R_5\right) + s^2\left(C_3L_5R_2R_3g_m + C_5L_5R_2R_3g_m + C_5L_5R_2R_3g_m + C_5L_5R_3 +$$

**10.20** INVALID-ORDER-20 
$$Z(s) = \left(\infty, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)$$

 $H(s) = \frac{-C_5R_2R_3R_5s + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^2\left(C_5L_5R_2R_3R_5g_m - C_5L_5R_2R_3 + C_5L_5R_3R_5\right)}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^3\left(C_3C_5L_5R_2R_3R_5g_m + C_3C_5L_5R_2R_3 + C_5L_5R_2R_3g_m + C_5L_5R_2R_3g_m + C_5L_5R_2R_3g_m + C_5L_5R_2R_3g_m + C_5L_5R_3R_5\right) + s\left(C_3R_2R_3R_5g_m + C_3R_2R_3 + C_3R_3R_5g_m + C_5R_2R_3R_5g_m + C_5L_5R_2R_3g_m + C_5L_5R_3R_5\right) + s\left(C_3R_2R_3R_5g_m + C_3R_3R_5g_m + C_3R_3R_5g_m + C_5R_2R_3R_5g_m + C_5R_3R_5g_m + C_5R_3R_5$ 

**10.21** INVALID-ORDER-21  $Z(s) = \left(\infty, R_2, R_3 + \frac{1}{C_3 s}, \infty, R_5, \infty\right)$ 

$$H(s) = \frac{R_2 R_5 g_m - R_2 + R_5 + s \left( C_3 R_2 R_3 R_5 g_m - C_3 R_2 R_3 + C_3 R_3 R_5 \right)}{2 R_2 g_m + s \left( 2 C_3 R_2 R_3 g_m + C_3 R_2 R_5 g_m + C_3 R_2 + 4 C_3 R_3 + C_3 R_5 \right) + 4}$$

**10.22** INVALID-ORDER-22  $Z(s) = \left(\infty, R_2, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{-C_3C_5R_2R_3s^2 + R_2g_m + s\left(C_3R_2R_3g_m + C_3R_3 - C_5R_2\right) + 1}{s^2\left(2C_3C_5R_2R_3g_m + C_3C_5R_2 + 4C_3C_5R_3\right) + s\left(C_3R_2g_m + C_3 + 2C_5R_2g_m + 4C_5\right)}$$

**10.23** INVALID-ORDER-23  $Z(s) = \left(\infty, R_2, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{R_2g_m + s^2\left(C_3C_5R_2R_3R_5g_m - C_3C_5R_2R_3 + C_3C_5R_3R_5\right) + s\left(C_3R_2R_3g_m + C_3R_3 + C_5R_2R_5g_m - C_5R_2 + C_5R_5\right) + 1}{s^2\left(2C_3C_5R_2R_3g_m + C_3C_5R_2R_5g_m + C_3C_5R_2 + 4C_3C_5R_3 + C_3C_5R_5\right) + s\left(C_3R_2g_m + C_3 + 2C_5R_2g_m + 4C_5\right)}$$

**10.24** INVALID-ORDER-24  $Z(s) = \left(\infty, R_2, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{R_2 g_m + s^3 \left( C_3 C_5 L_5 R_2 R_3 g_m + C_3 C_5 L_5 R_3 \right) + s^2 \left( -C_3 C_5 R_2 R_3 + C_5 L_5 R_2 g_m + C_5 L_5 \right) + s \left( C_3 R_2 R_3 g_m + C_3 R_3 - C_5 R_2 \right) + 1}{s^3 \left( C_3 C_5 L_5 R_2 q_m + C_3 C_5 L_5 \right) + s^2 \left( 2 C_3 C_5 R_2 R_3 q_m + C_3 C_5 R_2 + 4 C_3 C_5 R_3 \right) + s \left( C_3 R_2 q_m + C_3 + 2 C_5 R_2 q_m + 4 C_5 \right)}$$

**10.25** INVALID-ORDER-25  $Z(s) = \left(\infty, R_2, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

10.26 INVALID-ORDER-26  $Z(s) = \left(\infty, R_2, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{R_2g_m + s^3\left(C_3C_5L_5R_2R_3g_m + C_3C_5L_5R_3\right) + s^2\left(C_3C_5R_2R_3R_5g_m - C_3C_5R_2R_3 + C_3C_5R_3R_5 + C_5L_5R_2g_m + C_5L_5\right) + s\left(C_3R_2R_3g_m + C_3R_3 + C_5R_2g_m - C_5R_2 + C_5R_5\right) + 1}{s^3\left(C_3C_5L_5R_2g_m + C_3C_5L_5\right) + s^2\left(2C_3C_5R_2R_3g_m + C_3C_5R_2R_3g_m + C_3C_5R_2 + 4C_3C_5R_3 + C_3C_5R_3 + C_3C_5R_3\right) + s^2\left(C_3C_5R_2R_3g_m + C_3C_5R_2R_3g_m + C_3C_5R_3 +$$

10.27 INVALID-ORDER-27  $Z(s) = \left(\infty, R_2, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$ 

$$H(s) = \frac{-C_3C_5L_5R_2R_3R_5s^3 - R_2R_5 + s^2\left(C_3L_5R_2R_3R_5g_m - C_3L_5R_2R_3 + C_3L_5R_3R_5 - C_5L_5R_2R_5\right) + s\left(-C_3R_2R_3R_5 + L_5R_2R_5g_m - L_5R_2 + L_5R_5\right)}{2R_2R_5g_m + 4R_5 + s^3\left(2C_3C_5L_5R_2R_3R_5g_m + C_3C_5L_5R_2R_5 + 4C_3C_5L_5R_2R_5g_m + C_3L_5R_2R_5g_m + C_3L_5R_2 + 4C_3L_5R_3 + C_3L_5R_3 + C_$$

10.28 INVALID-ORDER-28  $Z(s) = \left(\infty, R_2, R_3 + \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{R_2 R_5 g_m - R_2 + R_5 + s^3 \left(C_3 C_5 L_5 R_2 R_3 R_5 g_m - C_3 C_5 L_5 R_2 R_3 + C_3 C_5 L_5 R_2 R_3 + C_3 C_5 L_5 R_3 R_5\right) + s^2 \left(C_3 L_5 R_2 R_3 g_m + C_3 L_5 R_3 + C_5 L_5 R_2 R_5 g_m - C_5 L_5 R_2 + C_5 L_5 R_5\right) + s \left(C_3 R_2 R_3 R_5 g_m - C_3 R_2 R_3 + C_3 R_3 R_5 + L_5 R_2 g_m + L_5\right)}{2 R_2 g_m + s^3 \left(2 C_3 C_5 L_5 R_2 R_3 g_m + C_3 C_5 L_5 R_2 R_5 g_m + C_3 C_5 L_5 R_3 + C_5 L_5 R_$$

10.29 INVALID-ORDER-29 
$$Z(s) = \left(\infty, R_2, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)$$

$$H(s) = \frac{R_2R_5g_m - R_2 + R_5 + s^3\left(C_3C_5L_5R_2R_3R_5g_m - C_3C_5L_5R_2R_3R_5g_m - C_3C_5L_5R_2R_3 + C_3C_5L_5R_2R_3R_5 + c_5L_5R_2R_5g_m - C_5L_5R_2 + C_5L_5R_5\right) + s\left(C_3R_2R_3R_5g_m - C_3R_2R_3 + C_3R_3R_5 - C_5R_2R_5\right)}{2R_2g_m + s^3\left(2C_3C_5L_5R_2R_3g_m + C_3C_5L_5R_2R_5g_m + C_3C_5L_5R_3 + C_3C_5L_5R_3 + C_3C_5L_5R_3 + C_3C_5L_5R_3R_5 + c_5L_5R_2R_5g_m + C_3C_5R_2R_3R_5 + c_5L_5R_2R_3g_m + C_3R_2R_3g_m + C_3R_2R$$

10.30 INVALID-ORDER-30 
$$Z(s) = \left(\infty, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{-C_3C_5L_3R_2s^3 - C_5R_2s + R_2g_m + s^2\left(C_3L_3R_2g_m + C_3L_3\right) + 1}{C_3C_5R_2s^2 + s^3\left(2C_3C_5L_3R_2g_m + 4C_3C_5L_3\right) + s\left(C_3R_2g_m + C_3 + 2C_5R_2g_m + 4C_5\right)}$$

10.31 INVALID-ORDER-31 
$$Z(s) = \left(\infty, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$$

$$H(s) = \frac{-C_3C_5L_3R_2R_5s^3 - C_5R_2R_5s + R_2R_5g_m - R_2 + R_5 + s^2\left(C_3L_3R_2R_5g_m - C_3L_3R_2 + C_3L_3R_5\right)}{2R_2g_m + s^3\left(2C_3C_5L_3R_2R_5g_m + 4C_3C_5L_3R_5\right) + s^2\left(C_3C_5R_2R_5 + 2C_3L_3R_2g_m + 4C_3L_3\right) + s\left(C_3R_2R_5g_m + C_3R_2 + C_3R_5 + 2C_5R_2R_5g_m + 4C_5R_5\right) + 4c_3R_5}$$

**10.32** INVALID-ORDER-32 
$$Z(s) = \left(\infty, R_2, L_3 s + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{R_2g_m + s^3\left(C_3C_5L_3R_2R_5g_m - C_3C_5L_3R_2 + C_3C_5L_3R_5\right) + s^2\left(C_3L_3R_2g_m + C_3L_3\right) + s\left(C_5R_2R_5g_m - C_5R_2 + C_5R_5\right) + 1}{s^3\left(2C_3C_5L_3R_2g_m + 4C_3C_5L_3\right) + s^2\left(C_3C_5R_2R_5g_m + C_3C_5R_2 + C_3C_5R_5\right) + s\left(C_3R_2g_m + C_3 + 2C_5R_2g_m + 4C_5\right)}$$

**10.33** INVALID-ORDER-33 
$$Z(s) = \left(\infty, R_2, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{-C_3C_5L_3R_2s^3 - C_5R_2s + R_2g_m + s^4\left(C_3C_5L_3L_5R_2g_m + C_3C_5L_3L_5\right) + s^2\left(C_3L_3R_2g_m + C_3L_3 + C_5L_5R_2g_m + C_5L_5\right) + 1}{C_3C_5R_2s^2 + s^3\left(2C_3C_5L_3R_2g_m + 4C_3C_5L_3 + C_3C_5L_5R_2g_m + C_3C_5L_5\right) + s\left(C_3R_2g_m + C_3 + 2C_5R_2g_m + 4C_5\right)}$$

**10.34** INVALID-ORDER-34 
$$Z(s) = \left(\infty, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{-C_3C_5L_3L_5R_2s^4 - R_2 + s^3\left(C_3L_3L_5R_2g_m + C_3L_3L_5\right) + s^2\left(-C_3L_3R_2 - C_5L_5R_2\right) + s\left(L_5R_2g_m + L_5\right)}{C_3C_5L_5R_2s^3 + C_3R_2s + 2R_2g_m + s^4\left(2C_3C_5L_3L_5R_2g_m + 4C_3L_5\right) + s^2\left(2C_3L_3R_2g_m + 4C_3L_3 + C_3L_5R_2g_m + C_3L_5 + 2C_5L_5R_2g_m + 4C_5L_5\right) + s^2\left(2C_3L_3R_2g_m + 4C_3L_3 + C_3L_5R_2g_m + C_3L_5R_2g_m + 4C_5L_5\right) + s^2\left(2C_3L_3R_2g_m + 4C_3L_3 + C_3L_5R_2g_m + C_3L_5R_2g_m + 4C_5L_5\right) + s^2\left(2C_3L_3R_2g_m + 4C_3L_3 + C_3L_5R_2g_m + 4C_5L_5\right) + s^2\left(2C_3L_3R_2g_m + 4C_3L_3R_2g_m + 4C_3L_5R_2g_m + 4C_3L_5R_2g$$

**10.35** INVALID-ORDER-35 
$$Z(s) = \left(\infty, R_2, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

10.36 INVALID-ORDER-36 
$$Z(s) = \left(\infty, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$$

$$H(s) = \frac{-C_3C_5L_3L_5R_2R_5s^4 - R_2R_5 + s^3\left(C_3L_3L_5R_2R_5g_m - C_3L_3L_5R_2 + C_3L_3L_5R_5\right) + s^2\left(-C_3L_3R_2R_5 - C_5L_5R_2R_5\right) + s\left(L_5R_2R_5g_m - L_5R_2 + L_5R_5\right)}{2R_2R_5g_m + 4R_5 + s^4\left(2C_3C_5L_3L_5R_2g_m + 4C_3C_5L_3L_5R_5\right) + s^3\left(C_3C_5L_5R_2R_5 + 2C_3L_3L_5R_2g_m + 4C_3L_3R_5\right) + s^2\left(2C_3L_3R_2R_5g_m + 4C_3L_3R_5 + C_3L_5R_2R_5g_m + C_3L_5R_5\right) + s\left(L_5R_2R_5g_m - L_5R_2 + L_5R_5\right)}$$

10.37 INVALID-ORDER-37 
$$Z(s) = \left(\infty, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$$

10.38 INVALID-ORDER-38 
$$Z(s) = \left(\infty, \ R_2, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$$

$$H(s) = \frac{-C_3C_5L_3R_2R_5s^3 - C_5R_2R_5s + R_2R_5g_m - R_2 + R_5 + s^4\left(C_3C_5L_3L_5R_2R_5g_m - C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_5\right) + s^2\left(C_3L_3R_2R_5g_m - C_3L_3R_2 + C_3L_3R_5 + C_5L_5R_2R_5g_m - C_5L_5R_2 + C_5L_5R_5\right)}{2R_2g_m + s^4\left(2C_3C_5L_3L_5R_2g_m + 4C_3C_5L_3R_5\right) + s^2\left(C_3C_5L_3R_2R_5g_m - C_3L_3R_2 + C_3L_3R_2$$

10.39 INVALID-ORDER-39 
$$Z(s) = \left(\infty, R_2, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{1}{C_5s}, \infty\right)$$

$$H(s) = \frac{-C_5L_3R_2s^2 + s\left(L_3R_2g_m + L_3\right)}{C_3C_5L_3R_2s^3 + C_5R_2s + R_2g_m + s^2\left(C_3L_3R_2g_m + C_3L_3 + 2C_5L_3R_2g_m + 4C_5L_3\right) + 1}$$

**10.40** INVALID-ORDER-40 
$$Z(s) = \left(\infty, R_2, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{R_5}{C_5R_5s+1}, \infty\right)$$

$$H(s) = \frac{-C_5L_3R_2R_5s^2 + s\left(L_3R_2R_5g_m - L_3R_2 + L_3R_5\right)}{C_3C_5L_3R_2R_5s^3 + R_2R_5g_m + R_2 + R_5 + s^2\left(C_3L_3R_2R_5g_m + C_3L_3R_2 + C_3L_3R_5 + 2C_5L_3R_2R_5g_m + 4C_5L_3R_5\right) + s\left(C_5R_2R_5 + 2L_3R_2g_m + 4L_3\right)}$$

**10.41** INVALID-ORDER-41 
$$Z(s) = \left(\infty, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{s^2 \left( C_5 L_3 R_2 R_5 g_m - C_5 L_3 R_2 + C_5 L_3 R_5 \right) + s \left( L_3 R_2 g_m + L_3 \right)}{R_2 g_m + s^3 \left( C_3 C_5 L_3 R_2 R_5 g_m + C_3 C_5 L_3 R_2 + C_3 C_5 L_3 R_5 \right) + s^2 \left( C_3 L_3 R_2 g_m + C_3 L_3 + 2 C_5 L_3 R_2 g_m + 4 C_5 L_3 \right) + s \left( C_5 R_2 R_5 g_m + C_5 R_2 + C_5 R_5 \right) + 1}$$

**10.42** INVALID-ORDER-42 
$$Z(s) = \left(\infty, R_2, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)$$

$$H(s) = \frac{-C_5L_3R_2s^2 + s^3\left(C_5L_3L_5R_2g_m + C_5L_3L_5\right) + s\left(L_3R_2g_m + L_3\right)}{C_3C_5L_3R_2s^3 + C_5R_2s + R_2g_m + s^4\left(C_3C_5L_3L_5R_2g_m + C_3C_5L_3L_5\right) + s^2\left(C_3L_3R_2g_m + C_3L_3 + 2C_5L_3R_2g_m + 4C_5L_3 + C_5L_5R_2g_m + C_5L_5\right) + 1}$$

**10.43** INVALID-ORDER-43 
$$Z(s) = \left(\infty, R_2, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{L_{5s}}{C_5L_5s^2+1}, \infty\right)$$

$$H(s) = \frac{-C_5L_3L_5R_2s^3 - L_3R_2s + s^2\left(L_3L_5R_2g_m + L_3L_5\right)}{C_3C_5L_3L_5R_2s^4 + R_2 + s^3\left(C_3L_3L_5R_2g_m + C_3L_3L_5 + 2C_5L_3L_5R_2g_m + 4C_5L_3L_5\right) + s^2\left(C_3L_3R_2 + C_5L_5R_2\right) + s\left(2L_3R_2g_m + 4L_3 + L_5R_2g_m + L_5\right)}$$

**10.44** INVALID-ORDER-44 
$$Z(s) = \left(\infty, R_2, \frac{L_3s}{C_3L_3s^2+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \infty\right)$$

$$H(s) = \frac{s^3 \left(C_5 L_3 L_5 R_2 g_m + C_5 L_3 L_5\right) + s^2 \left(C_5 L_3 R_2 R_5 g_m - C_5 L_3 R_2 + C_5 L_3 R_5\right) + s \left(L_3 R_2 g_m + L_3\right)}{R_2 g_m + s^4 \left(C_3 C_5 L_3 L_5 R_2 g_m + C_3 C_5 L_3 L_5\right) + s^3 \left(C_3 C_5 L_3 R_2 R_5 g_m + C_3 C_5 L_3 R_2\right) + s^2 \left(C_3 L_3 R_2 g_m + C_3 L_3 + 2 C_5 L_3 R_2 g_m + 4 C_5 L_3 + C_5 L_5 R_2 g_m + C_5 L_5\right) + s \left(C_5 R_2 R_5 g_m + C_5 R_5\right) + 1}$$

10.45 INVALID-ORDER-45 
$$Z(s) = \left(\infty, R_2, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \infty\right)$$

$$H(s) = \frac{-C_5L_3L_5R_2R_5s^3 - L_3R_2R_5s + s^2\left(L_3L_5R_2R_5g_m - L_3L_5R_2 + L_3L_5R_5\right)}{C_3C_5L_3L_5R_2R_5s^4 + R_2R_5 + s^3\left(C_3L_3L_5R_2R_5g_m + C_3L_3L_5R_2 + C_3L_3L_5R_2\right) + s^2\left(C_3L_3L_5R_2R_5g_m + 4L_3L_5\right) + s\left(2L_3R_2R_5g_m + 4L_3R_5 + L_5R_2g_m + 4L_3R_5 + L_5R_2g_m + 4L_3R_5\right)}$$

**10.46** INVALID-ORDER-46 
$$Z(s) = \left(\infty, R_2, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \infty\right)$$

$$H(s) = \frac{s^3 \left( C_5 L_3 L_5 R_2 R_5 g_m - C_5 L_3 L_5 R_2 + C_5 L_3 L_5 R_5 \right) + s^2 \left( L_3 L_5 R_2 g_m + L_3 L_5 \right) + s \left( L_3 R_2 R_5 g_m - L_3 R_2 + L_3 R_5 \right)}{R_2 R_5 g_m + R_2 + R_5 + s^4 \left( C_3 C_5 L_3 L_5 R_2 R_5 g_m + C_3 C_5 L_3 L_5 R_2 + C_3 L_5 R_2 g_m + C_3 L_3 L_5 R_2 g_m + C_3 L_3 L_5 R_2 g_m + C_3 L_3 R_5 + C_5 L_5 R_2 R_5 g_m + C_5 L_5 R_5 R$$

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10.47 INVALID-ORDER-47 Z(s) = \left(\infty, \ R_2, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \infty\right)
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 $H(s) = \frac{-C_5L_3R_2R_5s^2 + s^3\left(C_5L_3L_5R_2R_5g_m - C_5L_3L_5R_2 + C_5L_3L_5R_2 + C_5L_3L_5R_5\right) + s\left(L_3R_2R_5g_m - L_3R_2 + L_3R_5\right)}{R_2R_5g_m + R_2 + R_5 + s^4\left(C_3C_5L_3L_5R_2R_5g_m + C_3C_5L_3L_5R_2 + C_5L_3L_5R_2g_m + 4C_5L_3L_5\right) + s^2\left(C_3L_3R_2R_5g_m + C_3L_3R_5 + C_5L_3R_2R_5g_m + 4C_5L_3R_5 + C_5L_5R_2R_5g_m + C_5L_5R_5\right) + s\left(C_5R_2R_5 + C_5L_3L_5R_2 + C_5L_3R_5\right) + s\left(C_5R_2R_5 + C_5L_3R_5 + C_5L_3R_5 + C_5L_3R_5 + C_5L_5R_5\right) + s\left(C_5R_2R_5 + C_5L_3R_5 + C_5L_3R_5 + C_5L_5R_5\right) + s\left(C_5R_2R_5 + C_5L_3R_5 + C_5L_3R_5\right) + s\left(C_5R_2R_5 + C_5L_3R_5 + C_5L_3R_5\right) + s\left(C_5R_2R_5 + C_5L_3R_5\right) + s\left(C_5R_2R_5 + C_5L_3R_5\right) + s\left(C_5R_3R_5 + C_5R_5\right) + s\left(C_5R_5R_5 + C_5R_5\right) + s\left$ 

**10.48** INVALID-ORDER-48  $Z(s) = \left(\infty, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{-C_3C_5L_3R_2s^3 + R_2g_m + s^2\left(-C_3C_5R_2R_3 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_3R_2R_3g_m + C_3R_3 - C_5R_2\right) + 1}{s^3\left(2C_3C_5L_3R_2g_m + 4C_3C_5L_3\right) + s^2\left(2C_3C_5R_2R_3g_m + C_3C_5R_2 + 4C_3C_5R_3\right) + s\left(C_3R_2g_m + C_3 + 2C_5R_2g_m + 4C_5\right)}$$

**10.49** INVALID-ORDER-49  $Z(s) = \left(\infty, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$ 

$$H(s) = \frac{-C_3C_5L_3R_2R_5s^3 + R_2R_5g_m - R_2 + R_5 + s^2\left(-C_3C_5R_2R_3R_5 + C_3L_3R_2R_5g_m - C_3L_3R_2 + C_3L_3R_5\right) + s\left(C_3R_2R_3R_5g_m - C_3R_2R_3 + C_3R_3R_5 - C_5R_2R_5\right)}{2R_2g_m + s^3\left(2C_3C_5L_3R_2R_5g_m + 4C_3C_5L_3R_5\right) + s^2\left(2C_3C_5R_2R_3R_5g_m + C_3C_5R_2R_5 + 4C_3C_5R_3R_5 + 2C_3L_3R_2g_m + 4C_3L_3\right) + s\left(2C_3R_2R_3g_m + C_3R_2R_5g_m + C_3R_2R_$$

**10.50** INVALID-ORDER-50  $Z(s) = \left(\infty, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

**10.51** INVALID-ORDER-51  $Z(s) = \left(\infty, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{R_2 g_m + s^4 \left(C_3 C_5 L_3 L_5 R_2 g_m + C_3 C_5 L_3 L_5\right) + s^3 \left(-C_3 C_5 L_3 R_2 + C_3 C_5 L_5 R_2 g_m + C_3 C_5 L_5 R_3\right) + s^2 \left(-C_3 C_5 R_2 R_3 + C_3 L_3 R_2 g_m + C_3 L_3 + C_5 L_5 R_2 g_m + C_5 L_5\right) + s \left(C_3 R_2 R_3 g_m + C_3 R_3 - C_5 R_2\right) + 1}{s^3 \left(2C_3 C_5 L_3 R_2 g_m + 4C_3 C_5 L_3 + C_3 C_5 L_5 R_2 g_m + C_3 C_5 L_5\right) + s^2 \left(2C_3 C_5 R_2 R_3 g_m + C_3 C_5 R_2\right) + s^2 \left(2C_3 C_5 R_2 R_3 g_m + C_3 C_5 R_2\right) + s \left(C_3 R_2 g_m + C_3 R_3\right) + s \left(C_3 R_2 g_m + C_3 R_3\right) + s \left(C_3 R_2 g_m + C_3 R_3\right) + s \left(C_3 R_3 g_m + C_3 R_3\right) + s \left(C_3$$

10.52 INVALID-ORDER-52  $Z(s) = \left(\infty, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{-C_3C_5L_3L_5R_2s^4 - R_2 + s^3\left(-C_3C_5L_5R_2R_3 + C_3L_3L_5R_2g_m + C_3L_3L_5\right) + s^2\left(-C_3L_3R_2 + C_3L_5R_2R_3g_m + C_3L_5R_3 - C_5L_5R_2\right) + s\left(-C_3R_2R_3 + L_5R_2g_m + L_5\right)}{2R_2g_m + s^4\left(2C_3C_5L_3L_5R_2g_m + 4C_3C_5L_3L_5\right) + s^3\left(2C_3C_5L_5R_2R_3g_m + C_3C_5L_5R_2\right) + s\left(-C_3R_2R_3 + L_5R_2g_m + L_5\right)} \\ + s\left(-C_3R_2R_3 + L_5R_2g_m + C_3L_5R_2g_m + C_3L_5R_$$

10.53 INVALID-ORDER-53  $Z(s) = \left(\infty, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{R_2 g_m + s^4 \left(C_3 C_5 L_3 L_5 R_2 g_m + C_3 C_5 L_3 L_5\right) + s^3 \left(C_3 C_5 L_3 R_2 R_5 g_m - C_3 C_5 L_3 R_2 + C_3 C_5 L_3 R_5 + C_3 C_5 L_5 R_2 R_3 g_m + C_3 C_5 L_5 R_3\right) + s^2 \left(C_3 C_5 R_2 R_3 R_5 g_m - C_3 C_5 R_2 R_3 + C_3 C_5 R_3 R_5 + C_3 L_3 R_2 g_m + C_3 L_3 R_2 g_m + C_5 L_5\right) + s \left(C_3 R_2 R_3 g_m + C_3 R_5 R_2 R_5 g_m + C_3 C_5 R_2 R_3 g_m + C_3 C_5 R_3 R_3 g_m + C_3 C_5 R_3 g_m + C_3$$

**10.54** INVALID-ORDER-54  $Z(s) = \left(\infty, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$ 

$$H(s) = \frac{-C_3C_5L_3L_5R_2R_5s^4 - R_2R_5 + s^3\left(-C_3C_5L_5R_2R_3R_5 + C_3L_3L_5R_2 + C_3L_3L_5R_2 + C_3L_3L_5R_2 + C_3L_3L_5R_2 + C_3L_3R_5 + s^2\left(-C_3L_3R_2R_5 + C_3L_5R_2R_3 + C_3L_5R_2R_3 + C_3L_5R_2R_3 + C_3L_5R_2R_3 + C_3L_5R_2R_3 + C_3L_5R_2R_3 + s^2\left(-C_3L_3R_2R_5 + C_3L_5R_2R_3 + C_3L_5R_3R_3 +$$

10.55 INVALID-ORDER-55  $Z(s) = \left(\infty, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{R_2 R_5 g_m - R_2 + R_5 + s^4 \left(C_3 C_5 L_3 L_5 R_2 R_5 g_m - C_3 C_5 L_3 L_5 R_2 + C_3 C_5 L_3 L_5 R_2 + C_3 C_5 L_5 R_2 R_3 R_5 g_m - C_3 C_5 L_5 R_2 R_3 R_5 g_m - C_3 C_5 L_5 R_2 R_3 R_5 + C_3 L_3 L_5 R_2 g_m + C_3 L_5 R_2 R_3 g_m + C_3 L_5 R_3 R_3 g_m + C_3 L_5$$

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10.56 INVALID-ORDER-56 Z(s) = \left(\infty, R_2, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \infty\right)
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 $H(s) = \frac{R_2R_5g_m - R_2 + R_5 + s^4\left(C_3C_5L_3L_5R_2R_5g_m - C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3R_2R_5 + C_3C_5L_5R_2R_3R_5g_m - C_3C_5L_5R_2R_3R_5 + C_3C_5L_5R_2R_3R_5 + C_3L_3R_2R_5g_m - C_3L_3R_2 + C_3L_3R_5 + C_5L_5R_2R_5g_m - C_3C_5L_5R_2R_3R_5 + C_3C_5L_5R_3R_5 + C_3C_5L_5R_5 + C_3C_5L_5R_$ 

**10.57** INVALID-ORDER-57  $Z(s) = \left(\infty, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{-C_5L_3R_2R_3s^2 + s\left(L_3R_2R_3g_m + L_3R_3\right)}{C_3C_5L_3R_2R_3s^3 + R_2R_3g_m + R_3 + s^2\left(C_3L_3R_2R_3g_m + C_3L_3R_3 + 2C_5L_3R_2R_3g_m + C_5L_3R_2 + 4C_5L_3R_3\right) + s\left(C_5R_2R_3 + L_3R_2g_m + L_3\right)}$$

**10.58** INVALID-ORDER-58  $Z(s) = \left(\infty, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$ 

$$H(s) = \frac{-C_5L_3R_2R_3R_5s^2 + s\left(L_3R_2R_3R_5g_m - L_3R_2R_3 + L_3R_3R_5\right)}{C_3C_5L_3R_2R_3R_5s^3 + R_2R_3R_5g_m + R_2R_3 + R_3R_5 + s^2\left(C_3L_3R_2R_3R_5g_m + C_3L_3R_2R_3 + C_3L_3R_2R_3R_5g_m + C_5L_3R_2R_3R_5\right) + s\left(C_5R_2R_3R_5 + 2L_3R_2R_3g_m + L_3R_2R_5g_m + L_3R_2 + 4L_3R_3 + L_3R_5\right)}$$

**10.59** INVALID-ORDER-59  $Z(s) = \left(\infty, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{s^2 \left( C_5 L_3 R_2 R_3 R_5 g_m - C_5 L_3 R_2 R_3 + C_5 L_3 R_3 R_5 \right) + s \left( L_3 R_2 R_3 g_m + L_3 R_3 \right)}{R_2 R_3 g_m + R_3 + s^3 \left( C_3 C_5 L_3 R_2 R_3 R_5 g_m + C_3 C_5 L_3 R_2 R_3 + C_5 L_3 R_2 R_3 g_m + C_5 L_3 R_3 R_5 g_m + C_5 L_3 R_3 R_5 g_m + C_5 R_5 R_5 g_m + C_5$$

10.60 INVALID-ORDER-60  $Z(s) = \left(\infty, R_2, \frac{L_3 R_{3s}}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{-C_5L_3R_2R_3s^2 + s^3\left(C_5L_3L_5R_2R_3g_m + C_5L_3L_5R_3\right) + s\left(L_3R_2R_3g_m + L_3R_3\right)}{R_2R_3g_m + R_3 + s^4\left(C_3C_5L_3L_5R_2g_m + C_3C_5L_3L_5R_3\right) + s^3\left(C_3C_5L_3R_2R_3 + C_5L_3L_5R_3\right) + s^2\left(C_3L_3R_2R_3g_m + C_5L_3R_3 + 2C_5L_3R_2R_3g_m + C_5L_3R_3 + 2C_5L_3R_3 + 2C_5L_3$$

**10.61** INVALID-ORDER-61  $Z(s) = \left(\infty, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{-C_5L_3L_5R_2R_3s^3 - L_3R_2R_3s + s^2\left(L_3L_5R_2R_3g_m + L_3L_5R_3\right)}{C_3C_5L_3L_5R_2R_3s^4 + R_2R_3 + s^3\left(C_3L_3L_5R_2R_3g_m + C_3L_3L_5R_3 + 2C_5L_3L_5R_2R_3g_m + C_5L_3L_5R_2 + 4C_5L_3L_5R_3\right) + s^2\left(C_3L_3R_2R_3s + C_5L_5R_2R_3 + L_3L_5R_2g_m + L_3L_5\right) + s\left(2L_3R_2R_3g_m + L_3R_2 + 4L_3R_3 + L_5R_2R_3g_m + L_5R_3\right)}$$

10.62 INVALID-ORDER-62  $Z(s) = \left(\infty, \ R_2, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \infty\right)$ 

10.63 INVALID-ORDER-63  $Z(s) = \left(\infty, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$ 

$$H(s) = \frac{-C_5L_3L_5R_2R_3R_5s^3 - L_3R_2R_3R_5s + s^2\left(L_3L_5R_2R_3R_5g_m - L_3L_5R_2R_3 + L_3L_5R_3R_5\right)}{C_3C_5L_3L_5R_2R_3R_5s^4 + R_2R_3R_5 + s^3\left(C_3L_3L_5R_2R_3R_5g_m + C_3L_3L_5R_2R_3R_5g_m + C_5L_3L_5R_2R_3R_5\right) + s^2\left(C_3L_3R_2R_3R_5s^4 + R_2R_3R_5 + s^3\left(C_3L_3L_5R_2R_3R_5g_m + C_3L_3L_5R_2R_3R_5 + s^2\left(L_3L_5R_2R_3R_5g_m - L_3L_5R_2R_3R_5 + s^2\left(L_3L_5R_2R_3R_5g_m - L_3L_5R_2R_3R_5\right) + s^2\left(C_3L_3R_2R_3R_5s^4 + R_2R_3R_5 + s^3\left(C_3L_3L_5R_2R_3R_5g_m + C_3L_3L_5R_2R_3R_5 + s^2\left(L_3L_5R_2R_3R_5s^4 + R_2R_3R_5 + s^2\left(L_3L_5R_2R_3R_5g_m - L_3L_5R_2R_3R_5\right) + s^2\left(C_3L_3R_2R_3R_5s^4 + R_2R_3R_5 + s^2\left(L_3L_5R_2R_3R_5g_m + L_3L_5R_2R_3R_5 + s^2\left(L_3L_5R_2R_3R_5g_m + L_3L_5R_2R_3R_5\right) + s^2\left(C_3L_3R_2R_3R_5s^4 + R_2R_3R_5s^4 + R_2R_3R_5s^4$$

**10.64** INVALID-ORDER-64 
$$Z(s) = \left(\infty, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{s^3 \left( C_5 L_3 L_5 R_2 R_3 R_5 g_m - C_5 L_3 L_5 R_2 R_3 + C_5 L_3 L_5 R_3 R_5 \right) + s^2 \left( L_3 L_5 R_2 R_3 g_m + L_3 L_5 R_3 \right) + s \left( L_3 R_2 R_3 R_5 g_m - L_3 R_2 R_3 R_5 g_m - L_3 R_2 R_3 R_5 g_m + C_5 L_3 L_5 R_5 R_5 g_m + C_5 L_5 L_5 R_5 g_m + C_5 L_5 L_5 R_5 g_m + C_5 L_5 R_5 g_m + C_$$

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10.65 INVALID-ORDER-65 Z(s) = \left(\infty, \ R_2, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)
```

 $H(s) = \frac{-C_5L_3R_2R_3R_5s^2 + s^3\left(C_5L_3L_5R_2R_3R_5g_m - C_5L_3L_5R_2R_3 + C_5L_3L_5R_3R_5\right) + s\left(L_3R_2R_3R_5g_m - L_3R_2R_3 + C_5L_3L_5R_2R_3R_5g_m - C_5L_3L_5R_3R_5g_m - C_5L_3L_5R_5g_m - C_5L_5L_5R_5g_m - C_5L_5L_5R_5g_$ 

**10.66** INVALID-ORDER-66  $Z(s) = \left(\infty, R_2, \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \infty, \frac{1}{C_5s}, \infty\right)$ 

 $H(s) = \frac{-C_3C_5L_3R_2R_3s^3 + R_2R_3g_m + R_3 + s^2\left(C_3L_3R_2R_3g_m + C_3L_3R_3 - C_5L_3R_2\right) + s\left(-C_5R_2R_3 + L_3R_2g_m + L_3\right)}{R_2g_m + s^3\left(2C_3C_5L_3R_2R_3g_m + C_3C_5L_3R_2 + 4C_3C_5L_3R_3\right) + s^2\left(C_3L_3R_2g_m + C_3L_3 + 2C_5L_3R_2g_m + 4C_5L_3\right) + s\left(2C_5R_2R_3g_m + C_5R_2 + 4C_5R_3\right) + 1}$ 

10.67 INVALID-ORDER-67  $Z(s) = \left(\infty, R_2, \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \infty, \frac{R_5}{C_5R_5s + 1}, \infty\right)$ 

 $H(s) = \frac{-C_3C_5L_3R_2R_3R_5s^3 + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^2\left(C_3L_3R_2R_3R_5g_m - C_3L_3R_2R_3 + C_3L_3R_3R_5 - C_5L_3R_2R_5\right) + s\left(-C_5R_2R_3R_5 + L_3R_2R_5g_m - L_3R_2 + L_3R_5\right)}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^3\left(2C_3C_5L_3R_2R_3R_5g_m + C_3C_5L_3R_2R_5g_m + C_3L_3R_2R_5g_m + C_3L_3R_2 + 4C_3L_3R_5 + 2C_5L_3R_2R_5g_m + C_5L_3R_5\right) + s\left(-C_5R_2R_3R_5 + L_3R_2R_5g_m - L_3R_2 + L_3R_5\right)}$ 

**10.68** INVALID-ORDER-68  $Z(s) = \left(\infty, R_2, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^3 \left(C_3 C_5 L_3 R_2 R_3 R_5 g_m - C_3 C_5 L_3 R_2 R_3 + C_3 C_5 L_3 R_2 R_3 + C_3 C_5 L_3 R_3 R_5\right) + s^2 \left(C_3 L_3 R_2 R_3 g_m + C_3 L_3 R_3 + C_5 L_3 R_2 R_5 g_m - C_5 L_3 R_2 + C_5 L_3 R_5\right) + s \left(C_5 R_2 R_3 R_5 g_m - C_5 R_2 R_3 + C_5 R_3 R_5 + L_3 R_2 g_m + L_3\right)}{R_2 g_m + s^3 \left(2 C_3 C_5 L_3 R_2 R_3 g_m + C_3 C_5 L_3 R_2 R_5 g_m + C_5 C_5 L_3 R_2 + 4 C_5 L_3 R_5\right) + s^2 \left(C_3 L_3 R_2 g_m + C_3 L_3 R_2 g_m + C_5 L_3 R_2 g_m + C_5 R_2 R_3 g_m + C_5 R_3 R_5 + L_3 R_2 g_m + C_5 R_3 R_5 + L_3 R_2 g_m + C_5 R_3 R_5 g_m + C_5 R_5 g_m + C_5 R_5 g_m + C_5 R_5 g_m + C_5 R_5 R_5 g_m + C_5 R_5 R_5 g_m + C_5 R_5 R_5 g_m + C_$ 

**10.69** INVALID-ORDER-69  $Z(s) = \left(\infty, R_2, \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)$ 

10.70 INVALID-ORDER-70  $Z(s) = \left(\infty, \ R_2, \ \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \ \infty, \ \frac{L_5s}{C_5L_5s^2 + 1}, \ \infty\right)$ 

 $H(s) = \frac{-C_3C_5L_3L_5R_2R_3s^4 - R_2R_3 + s^3\left(C_3L_3L_5R_2R_3g_m + C_3L_3L_5R_3 - C_5L_3L_5R_2\right) + s^2\left(-C_3L_3R_2R_3 - C_5L_5R_2g_m + L_3L_5\right) + s\left(-L_3R_2 + L_5R_2g_m + L_5R_3\right)}{2R_2R_3g_m + R_2 + 4R_3 + s^4\left(2C_3C_5L_3L_5R_2g_m + C_3C_5L_3L_5R_2\right) + s^3\left(C_3L_3L_5R_2g_m + C_3L_3L_5R_2g_m + 4C_5L_3L_5\right) + s^2\left(2C_3L_3R_2R_3g_m + C_3L_3R_2 + 4C_5L_3R_3g_m + C_5L_5R_2\right) + s^2\left(2C_3L_3R_2R_3g_m + C_3L_3R_2 + 4C_5L_3R_3g_m + C_5L_5R_2\right) + s^2\left(2C_3L_3R_2R_3g_m + C_3L_3R_3 + 4C_5L_3R_3g_m + C_5L_5R_3g_m + C_5L_5R_3\right) + s^2\left(2C_3L_3R_2R_3g_m + C_3L_3R_3g_m + C_5L_5R_2\right) + s^2\left(2C_3L_3R_2R_3g_m + C_3L_3R_3g_m + C_5L_5R_3g_m + C_$ 

10.71 INVALID-ORDER-71  $Z(s) = \left(\infty, R_2, \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^4 \left(C_3 C_5 L_3 L_5 R_2 R_3 g_m + C_3 C_5 L_3 L_5 R_2 R_3 g_m + C_3 C_5 L_3 R_2 R_3 g_m + C_3 C_5 L_3 R_2 R_3 + C_3 C_5 L_3 R_2 R_3 + C_5 L_3 R_2 R_3 g_m + C_5 L_3 R_3 R_3 g_m + C$ 

10.72 INVALID-ORDER-72  $Z(s) = \left(\infty, R_2, \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \infty\right)$ 

 $H(s) = \frac{-C_3C_5L_3L_5R_2R_3R_5s^4 - R_2R_3R_5s^4 - R_2R_3R_5s^4$ 

10.73 INVALID-ORDER-73  $Z(s) = \left(\infty, R_2, \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \infty, \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5 + s^4 \left(C_3 C_5 L_3 L_5 R_2 R_3 R_5 g_m - C_3 C_5 L_3 L_5 R_2 R_3 R_5 g_m - C_3 C_5 L_3 L_5 R_2 R_3 R_5 g_m - C_3 L_5 L_5 R_2 R_3 R_5 g_m - C_5 L_3 L_5 R_2 R_3 R_5 g_m - C_5 L_3 L_5 R_2 R_3 R_5 g_m - C_3 L_3 R_3 R_5 R_5 g_m - C_3 L_3 R_5$ 

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10.74 INVALID-ORDER-74 Z(s) = \left(\infty, \ R_2, \ \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \ \infty\right)
```

 $H(s) = \frac{R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5 + s^4 \left(C_3 C_5 L_3 L_5 R_2 R_3 R_5 g_m - C_3 C_5 L_3 L_5 R_2 R_3 R_5 g_m - C_5 L_3 L_5 R_2 R_5 g_m - C_5 L_3 L_5 R_5 g_m - C_5 L_5 L_5 R_5 g_m - C$ 

10.75 INVALID-ORDER-75 
$$Z(s) = \left(\infty, \ R_2, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{1}{C_5s}, \ \infty\right)$$

$$H(s) = \frac{-C_3C_5L_3R_2R_3s^3 - C_5R_2R_3s + R_2R_3g_m + R_3 + s^2\left(C_3L_3R_2R_3g_m + C_3L_3R_3\right)}{R_2g_m + s^3\left(2C_3C_5L_3R_2R_3g_m + C_3C_5L_3R_2 + 4C_3C_5L_3R_3\right) + s^2\left(C_3C_5R_2R_3 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_3R_2R_3g_m + C_3R_3 + 2C_5R_2R_3g_m + C_5R_2 + 4C_5R_3\right) + 1}$$

10.76 INVALID-ORDER-76  $Z(s) = \left(\infty, R_2, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5}{C_5R_5s+1}, \infty\right)$ 

 $\frac{-C_3C_5L_3R_2R_3R_5s^3-C_5R_2R_3R_5s+R_2R_3R_5g_m-R_2R_3+R_3R_5+s^2\left(C_3L_3R_2R_3R_5g_m-C_3L_3R_2R_3+C_3L_3R_3R_5\right)}{2R_2R_3g_m+R_2R_5g_m+R_2+4R_3+R_5+s^3\left(2C_3C_5L_3R_2R_3R_5g_m+C_3C_5L_3R_2R_3+C_3L_3R_3R_5\right)+s^2\left(C_3C_5R_2R_3R_5g_m+C_3L_3R_2R_3g_m+C_3L_3R_2R_3+C_3L_3R_3$ 

10.77 INVALID-ORDER-77  $Z(s) = \left(\infty, R_2, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)$ 

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

10.78 INVALID-ORDER-78  $Z(s) = \left(\infty, \ R_2, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ L_5s+\frac{1}{C_5s}, \ \infty\right)$ 

 $H(s) = \frac{-C_3C_5L_3R_2R_3s^3 - C_5R_2R_3s + R_2R_3g_m + R_3 + s^4\left(C_3C_5L_3L_5R_2g_m + C_3C_5L_3L_5R_3\right) + s^2\left(C_3L_3R_2R_3g_m + C_3L_3R_3 + C_5L_5R_2g_m + C_5L_5R_3\right)}{R_2g_m + s^4\left(C_3C_5L_3L_5R_2g_m + C_3C_5L_3R_2\right) + s^3\left(2C_3C_5L_3R_2R_3g_m + C_3C_5L_3R_2 + 4C_3C_5L_3R_3 + C_3C_5L_3R_3 + C_3C_5L_3R_3 + C_3L_3R_2g_m + C_3L_3R_3 + C_5L_5R_2g_m + C_5L_5\right) + s\left(C_3R_2R_3g_m + C_3R_3g_m + C_3R_3$ 

10.79 INVALID-ORDER-79  $Z(s) = \left(\infty, R_2, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \infty\right)$ 

 $-C_3C_5L_3L_5R_2R_3s^4 - R_2R_3 + s^3\left(C_3L_3L_5R_2R_3g_m + C_3L_3L_5R_3\right) + s^2\left(-C_3L_3R_2R_3 - C_5L_5R_2R_3\right) + s\left(L_5R_2R_3g_m + L_5R_3\right) \\ -2R_2R_3g_m + R_2 + 4R_3 + s^4\left(2C_3C_5L_3L_5R_2R_3g_m + C_3C_5L_3L_5R_2 + 4C_3C_5L_3L_5R_3\right) + s^3\left(C_3C_5L_5R_2R_3 + C_3L_5R_2g_m + C_3L_3R_3 + C_3L_5R_2R_3g_m + C_3L_5R_3\right) + s\left(L_5R_2R_3g_m + L_5R_3\right) \\ -2R_2R_3g_m + R_2 + 4R_3 + s^4\left(2C_3C_5L_3L_5R_2R_3g_m + C_3C_5L_3L_5R_2 + 4C_3C_5L_3L_5R_3\right) + s^2\left(2C_3L_3R_2R_3g_m + C_3L_3R_3 + C_3L_5R_3g_m + C_3L_5R_3\right) \\ -2R_2R_3g_m + R_2 + 4R_3 + s^4\left(2C_3C_5L_3L_5R_2R_3g_m + C_3C_5L_3L_5R_2 + 4C_3C_5L_3L_5R_3\right) + s^2\left(2C_3L_3R_2R_3g_m + C_3L_3R_3 + C_3L_5R_3g_m + C_3L_5R_3\right) \\ -2R_2R_3g_m + R_2 + 4R_3 + s^4\left(2C_3C_5L_3L_5R_2R_3g_m + C_3C_5L_3L_5R_3\right) + s^2\left(2C_3L_3R_2R_3g_m + C_3L_3R_3 + C_3L_5R_3g_m + C_3L_5R_3g_m$ 

10.80 INVALID-ORDER-80  $Z(s) = \left(\infty, R_2, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s+R_5+\frac{1}{C_5s}, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^4 \left(C_3 C_5 L_3 L_5 R_2 R_3 g_m + C_3 C_5 L_3 R_2 R_3 g_m + C_3 C_5 L_3 R_2 R_3 g_m + C_3 L_5 R_3 g_m + C_3 L_5 R_3 g_m + C_5 L_5 R_3 g_m + C$ 

10.81 INVALID-ORDER-81  $Z(s) = \left(\infty, \ R_2, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \ \infty\right)$ 

 $-C_3C_5L_3L_5R_2R_3R_5s^2 - R_2R_3R_5s^2 - R_2R_3R_5s^2 - R_2R_3R_5g_m - C_3L_3L_5R_2R_3 + C_3L_3L_5R_2R_3 + C_3L_3L_5R_2R_3R_5 - C_5L_5R_2R_3R_5 - C_5L_5$ 

10.82 INVALID-ORDER-82  $Z(s) = \left(\infty, R_2, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \infty\right)$ 

 $R_{2}R_{3}R_{5}g_{m}-R_{2}R_{3}+R_{3}R_{5}+s^{4}\left(C_{3}C_{5}L_{3}L_{5}R_{2}R_{3}R_{5}g_{m}-C_{3}C_{5}L_{3}L_{5}R_{2}R_{3}+C_{3}C_{5}L_{3}L_{5}R_{3}R_{5}\right)+s^{3}\left(C_{3}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{3}L_{3}L_{5}R_{3}\right)+s^{2}\left(C_{3}L_{3}R_{2}R_{3}R_{5}g_{m}-C_{3}L_{5}R_{3}R_{5}-C_{3}L_{5}R_{3}R_{5}\right)+s^{2}\left(C_{3}L_{3}L_{5}R_{3}R_{5}+C_{3}L_{5}R_{3}R_{5}+C_{3}L_{5}R_{3}R_{5}\right)+s^{2}\left(C_{3}L_{3}L_{5}R_{3}R_{5}+C_{3}L_{5}R_{3}R_{5}+C_{3}L_{5}R_{3}R_{5}\right)+s^{2}\left(C_{3}L_{3}L_{5}R_{3}R_{5}+C_{3}L_{5}R_{3}R_{5}+C_{3}L_{5}R_{3}R_{5}\right)+s^{2}\left(C_{3}L_{3}L_{5}R_{3}R_{5}+C_{3}L_{5}R_{3}R_{5}+C_{3}L_{5}R_{3}R_{5}\right)+s^{2}\left(C_{3}L_{3}L_{5}R_{3}R_{5}+C_{3}L_{5}R_{3}R_{5}+C_{3}L_{5}R_{3}R_{5}\right)+s^{2}\left(C_{3}L_{3}L_{5}R_{3}R_{5}+C_{3}L_{5}R_{5}R_{5}+C_{3}L_{5}R_{5}R_{5}\right)+s^{2}\left(C_{3}L_{3}R_{5}R_{5}+C_{3}L_{5}R_{5}R_{5}+C_{3}L_{5}R_{5}R_{5}\right)+s^{2}\left(C_{3}L_{3}R_{5}R_{5}+C_{3}L_{5}R_{5}R_{5}+C_{3}L_{5}R_{5}R_{5}+C_{3}L_{5}R_{5}R_{5}\right)+s^{2}\left(C_{3}L_{3}R_{5}R_{5}+C_{3}L_{5}R_{5}R_{5}+C_{3}L_{5}R_{5}R_{5}+C_{3}L_{5}R_{5}R_{5}+C_{3}L_{5}R_{5}R_{5}+C_{3}L_{5}R_{5}R_{5}+C_{3}L_{5}R_{5}R_{5}+C_{3}L_{5}R_{5}+C_{3}L_{5}R_{5}+C_{3}L_{5}R_{5}+C_{3}L_{5}R_{5}+C_{3}L_{5}R_{5}+C_{3}L_{5}R_{5}+C_{3}L_{5}R_{5}+C_{3}L_{5}R_{5}+C_{3}L_{5}R_{5}+C_{3}L_{5}R_{5}+C_{3}L_{5}R_{5}+C_{3}L_{5}R_{5}+C_{3}L_{5}R_{5}+C_{3}L_{5}R_{5}+C_{3}L_{5}R_{5}+C_{3}L_{5}+C_{3}+C_{3}L_{5}+C_{3}+C_{3}+C_{3}+C_{3}+C_{3}+C_{3}+C_{3}+C_{3}+C_{3}+C_{3}+C_{3}+C_{3$  $\frac{162163169m}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^4 (2C_3C_5L_3L_5R_2R_3g_m + C_3C_5L_3L_5R_2 + 4C_3C_5L_3L_5R_3 + C_3C_5L_3L_5R_3 + C_3C_5L_5R_3 +$ 

10.83 INVALID-ORDER-83 
$$Z(s) = \left(\infty, \ R_2, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \infty\right)$$

 $H(s) = \frac{-C_3C_5L_3R_2R_3R_5s^3 - C_5R_2R_3R_5s + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^4\left(C_3C_5L_3L_5R_2R_3R_5g_m - C_3C_5L_3L_5R_2R_3 + C_3C_5L_3L_5R_2R_3R_5g_m - C_3C_5L_3L_5R_2R_3R_5g_m - C_3C_5L_3L_5R_2R_3R_5g_m + C_3C_5L_3R_3R_5g_m + C_3C_5L_3R_5g_m + C_3C_5L_3R_5g_m + C_3C_5L_3R_5g_m + C_3C_5L_3R_5g_m + C_3C_5L_3R_5g_m + C_3C_5L_3R_5g_m + C_3C_5L_3R_5$ 

10.84 INVALID-ORDER-84  $Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3, \infty, R_5, \infty\right)$ 

$$H(s) = \frac{C_2 R_3 R_5 s + R_3 R_5 g_m - R_3}{2R_3 g_m + R_5 g_m + s \left(4C_2 R_3 + C_2 R_5\right) + 1}$$

**10.85** INVALID-ORDER-85  $Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_5R_3s^3 + C_5L_5R_3g_ms^2 + R_3g_m + s\left(C_2R_3 - C_5R_3\right)}{C_2C_5L_5s^3 + g_m + s^2\left(4C_2C_5R_3 + C_5L_5g_m\right) + s\left(C_2 + 2C_5R_3g_m + C_5\right)}$$

**10.86** INVALID-ORDER-86  $Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{L_5 R_3 g_m s - R_3 + s^2 \left(C_2 L_5 R_3 - C_5 L_5 R_3\right)}{4 C_2 C_5 L_5 R_3 s^3 + 2 R_3 g_m + s^2 \left(C_2 L_5 + 2 C_5 L_5 R_3 g_m + C_5 L_5\right) + s \left(4 C_2 R_3 + L_5 g_m\right) + 1}$$

**10.87** INVALID-ORDER-87  $Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_5R_3s^3 + R_3g_m + s^2\left(C_2C_5R_3R_5 + C_5L_5R_3g_m\right) + s\left(C_2R_3 + C_5R_3R_5g_m - C_5R_3\right)}{C_2C_5L_5s^3 + g_m + s^2\left(4C_2C_5R_3 + C_2C_5R_5 + C_5L_5g_m\right) + s\left(C_2 + 2C_5R_3g_m + C_5R_3g_m + C_5R_5g_m + C_5R_5g_m\right)}$$

10.88 INVALID-ORDER-88  $Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$ 

$$H(s) = \frac{-R_3R_5 + s^2\left(C_2L_5R_3R_5 - C_5L_5R_3R_5\right) + s\left(L_5R_3R_5g_m - L_5R_3\right)}{4C_2C_5L_5R_3R_5s^3 + 2R_3R_5g_m + R_5 + s^2\left(4C_2L_5R_3 + C_2L_5R_5 + 2C_5L_5R_3R_5g_m + C_5L_5R_5\right) + s\left(4C_2R_3R_5 + 2L_5R_3g_m + L_5R_5g_m + L_5\right)}$$

**10.89** INVALID-ORDER-89  $Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_5R_3R_5s^3 + R_3R_5g_m - R_3 + s^2\left(C_2L_5R_3 + C_5L_5R_3R_5g_m - C_5L_5R_3\right) + s\left(C_2R_3R_5 + L_5R_3g_m\right)}{2R_3g_m + R_5g_m + s^3\left(4C_2C_5L_5R_3 + C_2C_5L_5R_5\right) + s^2\left(C_2L_5 + 2C_5L_5R_3g_m + C_5L_5R_5g_m + C_5L_5\right) + s\left(4C_2R_3 + C_2R_5 + L_5g_m\right) + 1}$$

10.90 INVALID-ORDER-90  $Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_5R_3R_5s^3 + R_3R_5g_m - R_3 + s^2\left(C_5L_5R_3R_5g_m - C_5L_5R_3\right) + s\left(C_2R_3R_5 - C_5R_3R_5\right)}{2R_3g_m + R_5g_m + s^3\left(4C_2C_5L_5R_3 + C_2C_5L_5R_5\right) + s^2\left(4C_2C_5R_3R_5 + 2C_5L_5R_3g_m + C_5L_5R_3g_m + C_5L_5\right) + s\left(4C_2R_3 + C_2R_5 + 2C_5R_3R_5g_m + C_5R_5\right) + 1}$$

10.91 INVALID-ORDER-91  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{g_m + s(C_2 - C_5)}{s^2(C_2C_3 + 4C_2C_5 + C_3C_5) + s(C_3g_m + 2C_5g_m)}$$

**10.92** INVALID-ORDER-92  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_5R_5s^2 + g_m + s\left(C_2 + C_5R_5g_m - C_5\right)}{C_2C_3C_5R_5s^3 + s^2\left(C_2C_3 + 4C_2C_5 + C_3C_5R_5g_m + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$$

10.93 INVALID-ORDER-93  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_5s^3 + C_5L_5g_ms^2 + g_m + s\left(C_2 - C_5\right)}{C_2C_3C_5L_5s^4 + C_3C_5L_5g_ms^3 + s^2\left(C_2C_3 + 4C_2C_5 + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$$

**10.94** INVALID-ORDER-94  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{L_5 g_m s + s^2 \left(C_2 L_5 - C_5 L_5\right) - 1}{2g_m + s^3 \left(C_2 C_3 L_5 + 4C_2 C_5 L_5 + C_3 C_5 L_5\right) + s^2 \left(C_3 L_5 g_m + 2C_5 L_5 g_m\right) + s \left(4C_2 + C_3\right)}$$

**10.95** INVALID-ORDER-95  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_5s^3 + g_m + s^2\left(C_2C_5R_5 + C_5L_5g_m\right) + s\left(C_2 + C_5R_5g_m - C_5\right)}{C_2C_3C_5L_5s^4 + s^3\left(C_2C_3C_5R_5 + C_3C_5L_5g_m\right) + s^2\left(C_2C_3 + 4C_2C_5 + C_3C_5R_5g_m + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$$

10.96 INVALID-ORDER-96  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$ 

$$H(s) = \frac{-R_5 + s^2 \left( C_2 L_5 R_5 - C_5 L_5 R_5 \right) + s \left( L_5 R_5 g_m - L_5 \right)}{2 R_5 g_m + s^3 \left( C_2 C_3 L_5 R_5 + 4 C_2 C_5 L_5 R_5 + C_3 C_5 L_5 R_5 \right) + s^2 \left( 4 C_2 L_5 + C_3 L_5 R_5 g_m + C_3 L_5 + 2 C_5 L_5 R_5 g_m \right) + s \left( 4 C_2 R_5 + C_3 R_5 + 2 L_5 g_m \right)}$$

10.97 INVALID-ORDER-97  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_5R_5s^3 + R_5g_m + s^2\left(C_2L_5 + C_5L_5R_5g_m - C_5L_5\right) + s\left(C_2R_5 + L_5g_m\right) - 1}{C_2C_3C_5L_5R_5s^4 + 2g_m + s^3\left(C_2C_3L_5 + 4C_2C_5L_5 + C_3C_5L_5R_5g_m + C_3C_5L_5\right) + s^2\left(C_2C_3R_5 + C_3L_5g_m + 2C_5L_5g_m\right) + s\left(4C_2 + C_3R_5g_m + C_3C_5L_5\right) + s^2\left(C_2C_3R_5 + C_3L_5g_m + 2C_5L_5g_m\right) + s\left(4C_2 + C_3R_5g_m + C_3C_5L_5\right) + s^2\left(C_2C_3R_5 + C_3L_5g_m\right) + s^2\left(C_2C_3R_5 + C_3R_5g_m\right) + s^2\left(C_2C_3R_5 + C_3R_5g_m\right) + s^2\left(C_2C_3R_5 + C_3R_5g_m\right) + s^2\left(C_2C_3R_5 + C$$

10.98 INVALID-ORDER-98  $Z(s) = \left(\infty, \ \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$ 

$$H(s) = \frac{C_2C_5L_5R_5s^3 + R_5g_m + s^2\left(C_5L_5R_5g_m - C_5L_5\right) + s\left(C_2R_5 - C_5R_5\right) - 1}{C_2C_3C_5L_5R_5s^4 + 2g_m + s^3\left(4C_2C_5L_5 + C_3C_5L_5R_5g_m + C_3C_5L_5\right) + s^2\left(C_2C_3R_5 + 4C_2C_5R_5 + C_3C_5R_5 + 2C_5L_5g_m\right) + s\left(4C_2 + C_3R_5g_m + C_3 + 2C_5R_5g_m\right)}$$

**10.99** INVALID-ORDER-99  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_5R_3R_5s^2 + R_3g_m + s\left(C_2R_3 + C_5R_3R_5g_m - C_5R_3\right)}{C_2C_3C_5R_3R_5s^3 + g_m + s^2\left(C_2C_3R_3 + 4C_2C_5R_3 + C_2C_5R_5 + C_3C_5R_3R_5g_m + C_3C_5R_3\right) + s\left(C_2 + C_3R_3g_m + 2C_5R_3g_m + C_5R_5g_m + C_5\right)}$$

**10.100** INVALID-ORDER-100  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_5R_3s^3 + C_5L_5R_3g_ms^2 + R_3g_m + s\left(C_2R_3 - C_5R_3\right)}{C_2C_3C_5L_5R_3s^4 + g_m + s^3\left(C_2C_5L_5 + C_3C_5L_5R_3g_m\right) + s^2\left(C_2C_3R_3 + 4C_2C_5R_3 + C_5L_5g_m\right) + s\left(C_2 + C_3R_3g_m + 2C_5R_3g_m + C_5\right)}$$

**10.101** INVALID-ORDER-101 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{L_5 R_3 g_m s - R_3 + s^2 \left(C_2 L_5 R_3 - C_5 L_5 R_3\right)}{2 R_3 g_m + s^3 \left(C_2 C_3 L_5 R_3 + 4 C_2 C_5 L_5 R_3 + C_3 C_5 L_5 R_3\right) + s^2 \left(C_2 L_5 + C_3 L_5 R_3 g_m + 2 C_5 L_5 R_3 g_m + C_5 L_5\right) + s \left(4 C_2 R_3 + C_3 R_3 + L_5 g_m\right) + 1}$$

10.102 INVALID-ORDER-102  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_5R_3s^3 + R_3g_m + s^2\left(C_2C_5R_3R_5 + C_5L_5R_3g_m\right) + s\left(C_2R_3 + C_5R_3R_5g_m - C_5R_3\right)}{C_2C_3C_5L_5R_3s^4 + g_m + s^3\left(C_2C_3C_5R_3R_5 + C_2C_5L_5 + C_3C_5L_5R_3g_m\right) + s^2\left(C_2C_3R_3 + 4C_2C_5R_3 + C_2C_5R_5 + C_3C_5R_3R_5g_m + C_3C_5R_3 + C_5L_5g_m\right) + s\left(C_2 + C_3R_3g_m + 2C_5R_3g_m + C_5R_3g_m + C_5R_3g_m + C_5R_3g_m\right)}$$

**10.103** INVALID-ORDER-103  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$ 

$$H(s) = \frac{-R_3R_5 + s^2\left(C_2L_5R_3R_5 - C_5L_5R_3R_5\right) + s\left(L_5R_3R_5g_m - L_5R_3\right)}{2R_3R_5g_m + R_5 + s^3\left(C_2C_3L_5R_3R_5 + 4C_2C_5L_5R_3R_5 + C_3C_5L_5R_3R_5\right) + s^2\left(4C_2L_5R_3 + C_2L_5R_3 + C_3L_5R_3R_5g_m + C_3L_5R_3 + 2C_5L_5R_3R_5g_m + C_5L_5R_5\right) + s\left(4C_2R_3R_5 + C_3R_3R_5 + 2L_5R_3g_m + L_5R_5g_m + L_5\right)}$$

**10.104** INVALID-ORDER-104  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_5R_3R_5s^3 + R_3R_5g_m - R_3 + s^2\left(C_2L_5R_3 + C_5L_5R_3R_5g_m - C_5L_5R_3\right) + s\left(C_2R_3R_5 + L_5R_3g_m\right)}{C_2C_3C_5L_5R_3R_5s^4 + 2R_3g_m + R_5g_m + s^3\left(C_2C_3L_5R_3 + 4C_2C_5L_5R_3 + C_2C_5L_5R_3 + C_3C_5L_5R_3\right) + s^2\left(C_2C_3R_3R_5 + C_2L_5 + C_3L_5R_3g_m + C_5L_5R_3g_m + C_5L_5\right) + s\left(4C_2R_3 + C_2R_5 + C_3R_3R_5g_m + C_3R_3 + L_5g_m\right) + 1}$$

10.105 INVALID-ORDER-105  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_5R_3R_5s^3 + R_3R_5g_m - R_3 + s^2\left(C_5L_5R_3R_5g_m - C_5L_5R_3\right) + s\left(C_2R_3R_5 - C_5R_3R_5\right)}{C_2C_3C_5L_5R_3R_5s^4 + 2R_3g_m + R_5g_m + s^3\left(4C_2C_5L_5R_3 + C_2C_5L_5R_3 + C_3C_5L_5R_3\right) + s^2\left(C_2C_3R_3R_5 + 4C_2C_5R_3R_5 + C_3C_5R_3R_5 + 4C_2C_5R_3R_5 + C_3C_5R_3R_5 + C_5R_3R_5\right) + s\left(4C_2R_3 + C_2R_5 + C_3R_3R_5g_m + C_5R_5\right) + s\left(4C_2R_3 + C_2R_5 + C_3R_3R_5g_m + C_3R_5\right) + s\left(4C_2R_3 + C_2R_5\right) + s\left(4C_2R_3 + C_2R_5\right) + s\left(4C_2R_3 + C_2R_5\right) + s\left(4C_2R_3 + C_3R_5\right) + s\left(4C_2R_3$$

**10.106** INVALID-ORDER-106  $Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{g_m + s^2 (C_2 C_3 R_3 - C_3 C_5 R_3) + s (C_2 + C_3 R_3 g_m - C_5)}{4C_2 C_3 C_5 R_3 s^3 + s^2 (C_2 C_3 + 4C_2 C_5 + 2C_3 C_5 R_3 g_m + C_3 C_5) + s (C_3 g_m + 2C_5 g_m)}$$

10.107 INVALID-ORDER-107  $Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$ 

$$H(s) = \frac{R_5g_m + s^2\left(C_2C_3R_3R_5 - C_3C_5R_3R_5\right) + s\left(C_2R_5 + C_3R_3R_5g_m - C_3R_3 - C_5R_5\right) - 1}{4C_2C_3C_5R_3R_5s^3 + 2g_m + s^2\left(4C_2C_3R_3 + C_2C_3R_5 + 4C_2C_5R_5 + 2C_3C_5R_3R_5g_m + C_3C_5R_5\right) + s\left(4C_2 + 2C_3R_3g_m + C_3R_5g_m + C_3 + 2C_5R_5g_m\right)}$$

**10.108** INVALID-ORDER-108  $Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_3C_5R_3R_5s^3 + g_m + s^2\left(C_2C_3R_3 + C_2C_5R_5 + C_3C_5R_3R_5g_m - C_3C_5R_3\right) + s\left(C_2 + C_3R_3g_m + C_5R_5g_m - C_5\right)}{s^3\left(4C_2C_3C_5R_3 + C_2C_3C_5R_5\right) + s^2\left(C_2C_3 + 4C_2C_5 + 2C_3C_5R_3g_m + C_3C_5R_5g_m + C_3C_5\right) + s\left(C_3R_3g_m + 2C_5g_m\right)}$$

**10.109** INVALID-ORDER-109  $Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_3C_5L_5R_3s^4 + g_m + s^3\left(C_2C_5L_5 + C_3C_5L_5R_3g_m\right) + s^2\left(C_2C_3R_3 - C_3C_5R_3 + C_5L_5g_m\right) + s\left(C_2 + C_3R_3g_m - C_5\right)}{C_2C_3C_5L_5s^4 + s^3\left(4C_2C_3C_5R_3 + C_3C_5L_5g_m\right) + s^2\left(C_2C_3 + 4C_2C_5 + 2C_3C_5R_3g_m + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$$

**10.110** INVALID-ORDER-110 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$$

**10.111** INVALID-ORDER-111 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_5R_3s^4 + g_m + s^3\left(C_2C_3C_5R_3R_5 + C_2C_5L_5 + C_3C_5L_5R_3g_m\right) + s^2\left(C_2C_3R_3 + C_2C_5R_5 + C_3C_5R_3R_5g_m - C_3C_5R_3 + C_5L_5g_m\right) + s\left(C_2 + C_3R_3g_m + C_5R_5g_m - C_5\right)}{C_2C_3C_5L_5s^4 + s^3\left(4C_2C_3C_5R_3 + C_2C_3C_5R_5 + C_3C_5L_5g_m\right) + s^2\left(C_2C_3 + 4C_2C_5 + 2C_3C_5R_3g_m + C_3C_5R_3g_m + C_3C_5R_3g_m + C_3C_5R_3g_m + C_3C_5R_3g_m + C_3C_5R_3g_m + C_3C_5R_3g_m + C_3C_5g_m\right)}$$

**10.112** INVALID-ORDER-112 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$$

$$H(s) = \frac{-R_5 + s^3 \left(C_2 C_3 L_5 R_3 R_5 - C_3 C_5 L_5 R_3 R_5\right) + s^2 \left(C_2 L_5 R_5 + C_3 L_5 R_3 R_5 g_m - C_3 L_5 R_3 - C_5 L_5 R_5\right) + s \left(-C_3 R_3 R_5 + L_5 R_5 g_m - L_5\right)}{4 C_2 C_3 C_5 L_5 R_3 R_5 s^4 + 2 R_5 g_m + s^3 \left(4 C_2 C_3 L_5 R_5 + 4 C_2 C_5 L_5 R_5 + 2 C_3 C_5 L_5 R_3 R_5 g_m + C_3 C_5 L_5 R_5\right) + s^2 \left(4 C_2 C_3 R_3 R_5 + 4 C_2 L_5 + 2 C_3 L_5 R_3 g_m + C_3 L_5 R_5 g_m + C_3 L_5 R_5$$

**10.113** INVALID-ORDER-113 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_5R_3R_5s^4 + R_5g_m + s^3\left(C_2C_3L_5R_3 + C_2C_5L_5R_5 + C_3C_5L_5R_3R_5g_m - C_3C_5L_5R_3\right) + s^2\left(C_2C_3R_3R_5 + C_2L_5 + C_3L_5R_3g_m + C_5L_5R_3g_m - C_5L_5\right) + s\left(C_2R_5 + C_3R_3R_5g_m - C_3R_3 + L_5g_m\right) - 1}{2g_m + s^4\left(4C_2C_3C_5L_5R_3 + C_2C_3C_5L_5R_3\right) + s^3\left(C_2C_3L_5 + 4C_2C_5L_5 + 2C_3C_5L_5R_3g_m + C_3C_5L_5\right) + s^2\left(4C_2C_3R_3 + C_2C_3R_5 + C_3L_5g_m + 2C_5L_5g_m\right) + s\left(4C_2 + 2C_3R_3g_m + C_3R_5g_m + C_3C_5L_5\right) + s^2\left(4C_2C_3R_3 + C_2C_3R_5 + C_3L_5g_m + 2C_5L_5g_m\right) + s\left(4C_2 + 2C_3R_3g_m + C_3R_5g_m + C_3C_5L_5\right) + s^2\left(4C_2C_3R_3 + C_2C_3R_5 + C_3L_5g_m + 2C_5L_5g_m\right) + s\left(4C_2 + 2C_3R_3g_m + C_3R_5g_m + C_3R_5g_m + 2C_5L_5g_m\right) + s^2\left(4C_2C_3R_3 + C_2C_3R_5 + C_3R_5g_m + 2C_5L_5g_m\right) + s^2\left(4C_2C_3R_3 + C_2C_3R_5 + C_3R_5g_m + 2C_5L_5g_m\right) + s^2\left(4C_2C_3R_3 + C_2C_3R_5 + C_3R_5g_m + 2C_5R_5g_m\right) + s^2\left(4C_2C_3R_3 + C_2C_3R_5 + C_3R_5g_m + 2C_5R_5g_m\right) + s^2\left(4C_2C_3R_5 + 2C_3R_5g_m + 2C_5R_5g_m\right) + s^2\left(4C_2C_3R_5g_m + 2C_5R_5g_m\right) + s^2\left(4C_2C_3R_5g_m\right) + s^2\left(4C_2C_3R_5g_m\right) + s^2\left(4$$

10.114 INVALID-ORDER-114 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_5R_3R_5s^4 + R_5g_m + s^3\left(C_2C_5L_5R_5 + C_3C_5L_5R_3R_5g_m - C_3C_5L_5R_3\right) + s^2\left(C_2C_3R_3R_5 - C_3C_5R_3R_5 + C_5L_5R_5g_m - C_5L_5\right) + s\left(C_2R_5 + C_3R_3R_5g_m - C_3R_3 - C_5R_5\right) - 1}{2g_m + s^4\left(4C_2C_3C_5L_5R_3 + C_2C_3C_5L_5R_3 + C_2C_3C_5L_5R_3\right) + s^2\left(4C_2C_3R_3 + C_2C_3R_5 + 4C_2C_5R_5 + 2C_3C_5R_3R_5 - C_3C_5R_3R_5 - C_3C_5R_3R_5 + C_5L_5R_5g_m + C_3C_5R_5\right) + s^2\left(4C_2C_3R_3 + C_2C_3R_5 + 4C_2C_5R_5 + 2C_3C_5R_3R_5 + C_5L_5g_m\right) + s\left(4C_2 + 2C_3R_3g_m + C_3R_5g_m + C_3C_5R_5g_m\right) + s\left(4C_2C_3R_3 + C_3C_5R_5g_m + C_3C_5R_5g_m\right) + s\left(4C_2C_3R_3 + C_3C_5R_5g_m + C_3C_5R_5g_m\right) + s\left(4C_2C_3R_3R_5 + 4C_2C_5R_5 + 2C_3C_5R_5g_m\right) + s\left(4C_2C_3R_3R_5 + 4C_2C_5R_5 + 2C_3C_5R_5g_m\right) + s\left(4C_2C_3R_3R_5 + 4C_2C_5R_5g_m\right) + s\left(4C_2C_3R_3R_5g_m\right) + s\left(4C_2C_3R_3R_5g$$

**10.115** INVALID-ORDER-115 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, R_5, \infty\right)$$

$$H(s) = \frac{C_2C_3L_3R_5s^3 + C_2R_5s + R_5g_m + s^2(C_3L_3R_5g_m - C_3L_3) - 1}{4C_2C_3L_3s^3 + 2q_m + s^2(C_2C_3R_5 + 2C_3L_3q_m) + s(4C_2 + C_3R_5q_m + C_3)}$$

**10.116** INVALID-ORDER-116 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_3 L_3 g_m s^2 + g_m + s^3 \left( C_2 C_3 L_3 - C_3 C_5 L_3 \right) + s \left( C_2 - C_5 \right)}{4 C_2 C_3 C_5 L_3 s^4 + 2 C_3 C_5 L_3 g_m s^3 + s^2 \left( C_2 C_3 + 4 C_2 C_5 + C_3 C_5 \right) + s \left( C_3 g_m + 2 C_5 g_m \right)}$$

10.117 INVALID-ORDER-117 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$$

$$H(s) = \frac{R_5g_m + s^3\left(C_2C_3L_3R_5 - C_3C_5L_3R_5\right) + s^2\left(C_3L_3R_5g_m - C_3L_3\right) + s\left(C_2R_5 - C_5R_5\right) - 1}{4C_2C_3C_5L_3R_5s^4 + 2g_m + s^3\left(4C_2C_3L_3 + 2C_3C_5L_3R_5g_m\right) + s^2\left(C_2C_3R_5 + 4C_2C_5R_5 + C_3C_5R_5 + 2C_3L_3g_m\right) + s\left(4C_2 + C_3R_5g_m + C_3 + 2C_5R_5g_m\right)}$$

**10.118** INVALID-ORDER-118 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_3R_5s^4 + g_m + s^3\left(C_2C_3L_3 + C_3C_5L_3R_5g_m - C_3C_5L_3\right) + s^2\left(C_2C_5R_5 + C_3L_3g_m\right) + s\left(C_2 + C_5R_5g_m - C_5\right)}{4C_2C_3C_5L_3s^4 + s^3\left(C_2C_3C_5R_5 + 2C_3C_5L_3g_m\right) + s^2\left(C_2C_3 + 4C_2C_5 + C_3C_5R_5g_m + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$$

**10.119** INVALID-ORDER-119 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_3L_5s^5 + C_3C_5L_3L_5g_ms^4 + g_m + s^3\left(C_2C_3L_3 + C_2C_5L_5 - C_3C_5L_3\right) + s^2\left(C_3L_3g_m + C_5L_5g_m\right) + s\left(C_2 - C_5\right)}{s^4\left(4C_2C_3C_5L_3 + C_2C_3C_5L_5\right) + s^3\left(2C_3C_5L_3g_m + C_3C_5L_5g_m\right) + s^2\left(C_2C_3 + 4C_2C_5 + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$$

**10.120** INVALID-ORDER-120 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{C_3L_3L_5g_ms^3 + L_5g_ms + s^4\left(C_2C_3L_3L_5 - C_3C_5L_3L_5\right) + s^2\left(C_2L_5 - C_3L_3 - C_5L_5\right) - 1}{4C_2C_3C_5L_3L_5s^5 + 2C_3C_5L_3L_5g_ms^4 + 2g_m + s^3\left(4C_2C_3L_3 + C_2C_3L_5 + 4C_2C_5L_5 + C_3C_5L_5\right) + s^2\left(2C_3L_3g_m + C_3L_5g_m + 2C_5L_5g_m\right) + s\left(4C_2 + C_3\right)}$$

10.121 INVALID-ORDER-121 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_3L_5s^5 + g_m + s^4\left(C_2C_3C_5L_3R_5 + C_3C_5L_3L_5g_m\right) + s^3\left(C_2C_3L_3 + C_2C_5L_5 + C_3C_5L_3R_5g_m - C_3C_5L_3\right) + s^2\left(C_2C_5R_5 + C_3L_3g_m + C_5L_5g_m\right) + s\left(C_2 + C_5R_5g_m - C_5C_5R_5g_m\right)}{s^4\left(4C_2C_3C_5L_3 + C_2C_3C_5L_5\right) + s^3\left(C_2C_3C_5R_5 + 2C_3C_5L_3g_m + C_3C_5L_5g_m\right) + s^2\left(C_2C_3 + 4C_2C_5 + C_3C_5R_5g_m + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$$

10.122 INVALID-ORDER-122 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$$

$$H(s) = \frac{-R_5 + s^4 \left(C_2 C_3 L_3 L_5 R_5 - C_3 C_5 L_3 L_5 R_5\right) + s^3 \left(C_3 L_3 L_5 R_5 g_m - C_3 L_3 L_5\right) + s^2 \left(C_2 L_5 R_5 - C_3 L_3 R_5 - C_5 L_5 R_5\right) + s \left(L_5 R_5 g_m - L_5\right)}{4 C_2 C_3 C_5 L_3 L_5 R_5 s^5 + 2 R_5 g_m + s^4 \left(4 C_2 C_3 L_3 L_5 + 2 C_3 C_5 L_3 L_5 R_5 g_m\right) + s^3 \left(4 C_2 C_3 L_3 R_5 + 4 C_2 C_5 L_5 R_5 + 4 C_2 C_5 L_5 R_5 + 2 C_3 L_3 L_5 g_m\right) + s^2 \left(4 C_2 L_5 + 2 C_3 L_3 R_5 g_m + C_3 L_5 R_5 g_m + C_3 L_5 R_5 g_m\right) + s \left(4 C_2 R_5 + C_3 R_5 R_5 + 2 C_3 L_5 R_5 g_m\right) + s \left(4 C_2 R_5 + 2 C_3 L_5 R_5 g_m\right) + s \left(4 C_2 R_5 + 2 C_3 L_5 R_5 g_m\right) + s \left(4 C_2 R_5 + 2 C_3 L_5 R_5 g_m\right) + s \left(4 C_2 R_5 R_5 g_m\right) + s \left(4 R_5 R_5 g$$

10.123 INVALID-ORDER-123 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_3L_5R_5s^5 + R_5g_m + s^4\left(C_2C_3L_3L_5 + C_3C_5L_3L_5R_5g_m - C_3C_5L_3L_5\right) + s^3\left(C_2C_3L_3R_5 + C_2C_5L_5R_5 + C_3L_3L_5g_m\right) + s^2\left(C_2L_5 + C_3L_3R_5g_m - C_3L_3 + C_5L_5R_5g_m - C_5L_5\right) + s\left(C_2R_5 + L_5g_m\right) - 1}{4C_2C_3C_5L_3L_5s^5 + 2g_m + s^4\left(C_2C_3C_5L_5R_5 + 2C_3C_5L_3L_5g_m\right) + s^3\left(4C_2C_3L_3 + C_2C_3L_5 + 4C_2C_5L_5 + C_3C_5L_5R_5g_m + C_3C_5L_5\right) + s^2\left(C_2C_3R_5 + 2C_3L_3g_m + C_3L_5g_m\right) + s\left(4C_2C_3L_3R_5 + C_2C_3L_5 + 4C_2C_5L_5 + C_3C_5L_5R_5g_m + C_3C_5L_5\right) + s^2\left(C_2C_3R_5 + 2C_3L_3g_m + C_3L_5g_m\right) + s^2\left(C_2C_3R_5 + 2C_3L_5g_m\right) + s^2\left(C_2C_3R_5 + 2$$

10.124 INVALID-ORDER-124 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_3L_5R_5s^5 + R_5g_m + s^4\left(C_3C_5L_3L_5R_5g_m - C_3C_5L_3L_5\right) + s^3\left(C_2C_3L_3R_5 + C_2C_5L_5R_5 - C_3C_5L_3R_5\right) + s^2\left(C_3L_3R_5g_m - C_3L_3 + C_5L_5R_5g_m - C_5L_5\right) + s\left(C_2R_5 - C_5R_5\right) - 1}{4C_2C_3C_5L_3L_5s^5 + 2g_m + s^4\left(4C_2C_3C_5L_3R_5 + 2C_3C_5L_3R_5g_m + C_3C_5L_5R_5g_m + C_3C_5L_5\right) + s^2\left(C_2C_3R_5 + 4C_2C_5R_5 + 2C_3C_5L_3g_m + C_3C_5L_5g_m\right) + s\left(4C_2 + C_3R_5g_m + C_3C_5L_5g_m + C_3C_5L_5g_m + C_3C_5L_5g_m + C_3C_5L_5g_m\right) + s^2\left(C_3C_3C_5L_3R_5 + 2C_3C_5L_3R_5 + 2C_3C_5L_3R_5 + 2C_3C_5L_3R_5g_m + C_3C_5L_5g_m\right) + s^2\left(C_3C_3R_5 + 2C_3C_5L_3R_5 + 2C_3C_5L_3R_5 + 2C_3C_5L_3R_5g_m + C_3C_5L_5g_m\right) + s^2\left(C_3C_3C_5L_3R_5 + 2C_3C_5L_3R_5g_m + C_3C_5L_5g_m\right) + s^2\left(C_3C_3C_5L_3R_5g_m + C_3C_5L_5g_m\right) + s^2\left(C_3C_3C_5L_3R_5g_m + C_3C_5L_5g_m\right) + s^2\left(C_3C_3C_5L_3R_5g_m + C_3C_5L_5g_m\right) + s^2\left(C_3C_3R_5 + 2C_3C_5L_5g_m\right) + s^2\left(C_3C_5L_5g_m\right) + s^2\left(C_3C_5L_5g_m\right) + s^2\left(C_3C_5L_5g_m\right) + s^2\left(C_3$$

**10.125** INVALID-ORDER-125  $Z(s) = \left(\infty, \frac{1}{C_{2}s}, \frac{L_{3}s}{C_{3}L_{3}s^{2}+1}, \infty, R_{5}, \infty\right)$ 

$$H(s) = \frac{C_2 L_3 R_5 s^2 + s \left(L_3 R_5 g_m - L_3\right)}{C_2 C_3 L_3 R_5 s^3 + R_5 g_m + s^2 \left(4 C_2 L_3 + C_3 L_3 R_5 g_m + C_3 L_3\right) + s \left(C_2 R_5 + 2 L_3 g_m\right) + 1}$$

**10.126** INVALID-ORDER-126  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{L_3 g_m s + s^2 (C_2 L_3 - C_5 L_3)}{g_m + s^3 (C_2 C_3 L_3 + 4C_2 C_5 L_3 + C_3 C_5 L_3) + s^2 (C_3 L_3 g_m + 2C_5 L_3 g_m) + s (C_2 + C_5)}$$

10.127 INVALID-ORDER-127  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$ 

$$H(s) = \frac{s^2 \left( C_2 L_3 R_5 - C_5 L_3 R_5 \right) + s \left( L_3 R_5 g_m - L_3 \right)}{R_5 g_m + s^3 \left( C_2 C_3 L_3 R_5 + 4 C_2 C_5 L_3 R_5 + C_3 C_5 L_3 R_5 \right) + s^2 \left( 4 C_2 L_3 + C_3 L_3 R_5 g_m + C_3 L_3 + 2 C_5 L_3 R_5 g_m \right) + s \left( C_2 R_5 + C_5 R_5 + 2 L_3 g_m \right) + 1}$$

**10.128** INVALID-ORDER-128 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_5L_3R_5s^3 + L_3g_ms + s^2\left(C_2L_3 + C_5L_3R_5g_m - C_5L_3\right)}{C_2C_3C_5L_3R_5s^4 + g_m + s^3\left(C_2C_3L_3 + 4C_2C_5L_3 + C_3C_5L_3R_5g_m + C_3C_5L_3\right) + s^2\left(C_2C_5R_5 + C_3L_3g_m + 2C_5L_3g_m\right) + s\left(C_2 + C_5R_5g_m + C_5\right)}$$

**10.129** INVALID-ORDER-129 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_5L_3L_5s^4 + C_5L_3L_5g_ms^3 + L_3g_ms + s^2\left(C_2L_3 - C_5L_3\right)}{C_2C_3C_5L_3L_5s^5 + C_3C_5L_3L_5g_ms^4 + g_m + s^3\left(C_2C_3L_3 + 4C_2C_5L_3 + C_2C_5L_5 + C_3C_5L_3\right) + s^2\left(C_3L_3g_m + 2C_5L_3g_m + C_5L_5g_m\right) + s\left(C_2 + C_5\right)}$$

**10.130** INVALID-ORDER-130 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{L_3L_5g_ms^2 - L_3s + s^3\left(C_2L_3L_5 - C_5L_3L_5\right)}{s^4\left(C_2C_3L_3L_5 + 4C_2C_5L_3L_5 + C_3C_5L_3L_5\right) + s^3\left(C_3L_3L_5g_m + 2C_5L_3L_5g_m\right) + s^2\left(4C_2L_3 + C_2L_5 + C_3L_3 + C_5L_5\right) + s\left(2L_3g_m + L_5g_m\right) + 1}$$

10.131 INVALID-ORDER-131 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_5L_3L_5s^4 + L_3g_ms + s^3\left(C_2C_5L_3R_5 + C_5L_3L_5g_m\right) + s^2\left(C_2L_3 + C_5L_3R_5g_m - C_5L_3\right)}{C_2C_3C_5L_3L_5s^5 + g_m + s^4\left(C_2C_3C_5L_3R_5 + C_3C_5L_3L_5g_m\right) + s^3\left(C_2C_3L_3 + 4C_2C_5L_3 + C_2C_5L_5 + C_3C_5L_3R_5g_m + C_3C_5L_3\right) + s^2\left(C_2C_5R_5 + C_3L_3g_m + 2C_5L_3g_m + C_5L_5g_m\right) + s\left(C_2C_5R_5 + C_3C_5L_3R_5g_m + C_5L_3g_m\right) + s\left(C_2C_5R_5 + C_3C_5L_3R_5g_m\right) + s\left(C_2C_5R_5 + C_3C_5R_5g_m\right) + s\left(C_2C_5R_5R_5g_m\right) + s\left(C_2C_5R_5g_m\right) + s\left(C_2$$

10.132 INVALID-ORDER-132  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$ 

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

10.133 INVALID-ORDER-133  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_3L_5R_5s^4 + s^3\left(C_2L_3L_5 + C_5L_3L_5R_5g_m - C_5L_3L_5\right) + s^2\left(C_2L_3R_5 + L_3L_5g_m\right) + s\left(L_3R_5g_m - L_3\right)}{C_2C_3C_5L_3L_5R_5s^5 + R_5g_m + s^4\left(C_2C_3L_3L_5 + C_3C_5L_3L_5R_5g_m + C_3C_5L_3L_5\right) + s^3\left(C_2C_3L_3R_5 + C_2C_5L_5R_5 + C_3L_3L_5g_m\right) + s^2\left(4C_2L_3 + C_2L_5 + C_3L_3R_5g_m + C_5L_5\right) + s\left(C_2R_5 + 2L_3g_m + L_5g_m\right) + 1}$$

10.134 INVALID-ORDER-134 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)$$

$$H(s) = \frac{C_2C_5L_3L_5R_5s^4 + s^3\left(C_5L_3L_5R_5g_m - C_5L_3L_5\right) + s^2\left(C_2L_3R_5 - C_5L_3R_5\right) + s\left(L_3R_5g_m - L_3\right)}{C_2C_3C_5L_3L_5R_5s^5 + R_5g_m + s^4\left(4C_2C_5L_3L_5 + C_3C_5L_3L_5R_5g_m + C_3C_5L_3R_5 + 4C_2C_5L_3R_5 + C_2C_5L_3R_5 + C_2C_5L_3R_5 + C_2C_5L_3R_5 + C_3C_5L_3R_5g_m + C_3L_3 + 2C_5L_3R_5g_m + C_5L_5R_5g_m + C_5L_5\right) + s\left(C_2R_5 + C_5R_5 + C_3C_5L_3R_5 + C_5C_5L_3R_5 + C_5$$

**10.135** INVALID-ORDER-135  $Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_3R_5s^3 + R_5g_m + s^2\left(C_2C_3R_3R_5 + C_3L_3R_5g_m - C_3L_3\right) + s\left(C_2R_5 + C_3R_3R_5g_m - C_3R_3\right) - 1}{4C_2C_3L_3s^3 + 2g_m + s^2\left(4C_2C_3R_3 + C_2C_3R_5 + 2C_3L_3g_m\right) + s\left(4C_2 + 2C_3R_3g_m + C_3R_5g_m + C_3R_5g_m\right)}$$

**10.136** INVALID-ORDER-136  $Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{g_m + s^3 \left(C_2 C_3 L_3 - C_3 C_5 L_3\right) + s^2 \left(C_2 C_3 R_3 - C_3 C_5 R_3 + C_3 L_3 g_m\right) + s \left(C_2 + C_3 R_3 g_m - C_5\right)}{4 C_2 C_3 C_5 L_3 s^4 + s^3 \left(4 C_2 C_3 C_5 R_3 + 2 C_3 C_5 L_3 g_m\right) + s^2 \left(C_2 C_3 + 4 C_2 C_5 + 2 C_3 C_5 R_3 g_m + C_3 C_5\right) + s \left(C_3 g_m + 2 C_5 g_m\right)}$$

**10.137** INVALID-ORDER-137 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$$

$$H(s) = \frac{R_5g_m + s^3\left(C_2C_3L_3R_5 - C_3C_5L_3R_5\right) + s^2\left(C_2C_3R_3R_5 - C_3C_5R_3R_5 + C_3L_3R_5g_m - C_3L_3\right) + s\left(C_2R_5 + C_3R_3R_5g_m - C_3R_3 - C_5R_5\right) - 1}{4C_2C_3C_5L_3R_5s^4 + 2g_m + s^3\left(4C_2C_3C_5R_3R_5 + 4C_2C_3L_3 + 2C_3C_5L_3R_5g_m\right) + s^2\left(4C_2C_3R_3 + C_2C_3R_5 + 4C_2C_5R_5 + 2C_3C_5R_3R_5g_m + C_3C_5R_3R_5g_m + C_3C_5R_3g_m\right) + s\left(4C_2 + 2C_3R_3g_m + C_3R_5g_m + C_3R_5g_m\right) + s\left(4C_2 + 2C_3R_3g_m + C_3R_5g_m + C_3R_5g_m\right) + s\left(4C_2 + 2C_3R_3g_m + C_3R_5g_m + C_3R_5g_m\right) + s\left(4C_2 + 2C_3R_3g_m + C_3R_5g_m\right) + s\left(4C_2 + 2C_3R_3g_m\right) +$$

10.138 INVALID-ORDER-138 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_3R_5s^4 + g_m + s^3\left(C_2C_3C_5R_3R_5 + C_2C_3L_3 + C_3C_5L_3R_5g_m - C_3C_5L_3\right) + s^2\left(C_2C_3R_3 + C_2C_5R_5 + C_3C_5R_3R_5g_m - C_3C_5R_3 + C_3L_3g_m\right) + s\left(C_2 + C_3R_3g_m + C_5R_5g_m - C_5\right)}{4C_2C_3C_5L_3s^4 + s^3\left(4C_2C_3C_5R_3 + C_2C_3C_5R_5 + 2C_3C_5L_3g_m\right) + s^2\left(C_2C_3 + 4C_2C_5 + 2C_3C_5R_3g_m + C_3C_5R_3g_m + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$$

**10.139** INVALID-ORDER-139 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_3L_5s^5 + g_m + s^4\left(C_2C_3C_5L_5R_3 + C_3C_5L_3L_5g_m\right) + s^3\left(C_2C_3L_3 + C_2C_5L_5 - C_3C_5L_3 + C_3C_5L_5R_3g_m\right) + s^2\left(C_2C_3R_3 - C_3C_5R_3 + C_3L_3g_m + C_5L_5g_m\right) + s\left(C_2 + C_3R_3g_m - C_5\right)}{s^4\left(4C_2C_3C_5L_3 + C_2C_3C_5L_5\right) + s^3\left(4C_2C_3C_5R_3 + 2C_3C_5L_3g_m + C_3C_5L_5g_m\right) + s^2\left(C_2C_3 + 4C_2C_5 + 2C_3C_5R_3g_m + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$$

**10.140** INVALID-ORDER-140 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$$

**10.141** INVALID-ORDER-141 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_3L_5s^5 + g_m + s^4\left(C_2C_3C_5L_3R_5 + C_2C_3C_5L_3R_5 + C_2C_3C_5L_3R_5 + C_2C_3L_3 + C_2C_5L_5 + C_3C_5L_3R_5g_m - C_3C_5L_3 + C_2C_5R_5 + C_3C_5R_3R_5g_m - C_3C_5R_3 + C_2C_5R_5 + C_3C_5R_3R_5g_m - C_3C_5R_3 + C_2C_3R_3 + C_2C_5R_5 + C_3C_5R_3R_5g_m - C_3C_5R_3 + C_3C_5R_3 + C_3C_5R_3R_5g_m - C_3C_5R_3 + C_3C_5R_3 +$$

10.142 INVALID-ORDER-142 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$$

**10.143** INVALID-ORDER-143 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_3L_5R_5s^5 + R_5g_m + s^4\left(C_2C_3C_5L_5R_3R_5 + C_2C_3L_3L_5 + C_3C_5L_3L_5R_5g_m - C_3C_5L_3L_5 + C_2C_3L_3R_5 + C_2C_3L_3R_5 + C_2C_3L_3R_5 + C_2C_3L_3R_5 + C_2C_3L_3R_5 + C_2C_3L_5R_3 + C_3C_5L_5R_3 + C_3C_$$

10.144 INVALID-ORDER-144 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_3L_5R_5s^5 + R_5g_m + s^4\left(C_2C_3C_5L_5R_3R_5 + C_3C_5L_3L_5R_5g_m - C_3C_5L_3R_5 + C_2C_5L_5R_5 - C_3C_5L_3R_5 + C_3C_5L_5R_3R_5 + C_3C_5L_5R_3 + C_3C_5L_5R_3 + C_3C_5L_5R_3 + C_3C_5L_5R_3 + C_3C_5L_5R_3 + C_3C_5L_5R_3 + C_3C_5L_5R_5 - C_3C_5L_3R_5 + C_3C_5L_5R_3 + C_$$

**10.145** INVALID-ORDER-145 
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5, \infty\right)$$

$$H(s) = \frac{C_2L_3R_3R_5s^2 + s\left(L_3R_3R_5g_m - L_3R_3\right)}{C_2C_3L_3R_3R_5s^3 + R_3R_5g_m + R_3 + s^2\left(4C_2L_3R_3 + C_2L_3R_5 + C_3L_3R_3R_5g_m + C_3L_3R_3\right) + s\left(C_2R_3R_5 + 2L_3R_3g_m + L_3R_5g_m +$$

**10.146** INVALID-ORDER-146  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, \infty\right)$  $H(s) = \frac{L_3 R_3 g_m s + s^2 \left(C_2 L_3 R_3 - C_5 L_3 R_3\right)}{R_3 g_m + s^3 \left(C_2 C_3 L_3 R_3 + 4 C_2 C_5 L_3 R_3 + C_3 C_5 L_3 R_3\right) + s^2 \left(C_2 L_3 + C_3 L_3 R_3 g_m + 2 C_5 L_3 R_3 g_m + C_5 L_3\right) + s \left(C_2 R_3 + C_5 R_3 + L_3 g_m\right)}$ 10.147 INVALID-ORDER-147  $Z(s) = \left(\infty, \ \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \infty\right)$ **10.148** INVALID-ORDER-148  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$  $H(s) = \frac{C_2C_5L_3R_3R_5s^3 + L_3R_3g_ms + s^2\left(C_2L_3R_3 + C_5L_3R_3R_5g_m - C_5L_3R_3\right)}{C_2C_3C_5L_3R_3R_5s^4 + R_3g_m + s^3\left(C_2C_3L_3R_3 + 4C_2C_5L_3R_3 + C_2C_5L_3R_5 + C_3C_5L_3R_3\right) + s^2\left(C_2C_5R_3R_5 + C_2L_3 + C_3L_3R_3g_m + 2C_5L_3R_3g_m + C_5L_3R_5g_m + C_5L_3\right) + s\left(C_2R_3 + C_5R_3R_5g_m + C_5R_5R_5g_m +$ **10.149** INVALID-ORDER-149  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 10.150 INVALID-ORDER-150  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$  $H(s) = \frac{L_3L_5R_3g_ms^2 - L_3R_3s + s^3\left(C_2L_3L_5R_3 - C_5L_3L_5R_3\right)}{R_3 + s^4\left(C_2C_3L_3L_5R_3 + 4C_2C_5L_3L_5R_3 + C_3C_5L_3L_5R_3\right) + s^3\left(C_2L_3L_5 + C_3L_3L_5R_3g_m + 2C_5L_3L_5R_3g_m + C_5L_3L_5\right) + s^2\left(4C_2L_3R_3 + C_2L_5R_3 + C_3L_3R_3 + C_5L_5R_3 + L_3L_5g_m\right) + s\left(2L_3R_3g_m + L_3 + L_5R_3g_m\right) + s\left(2L_3R_3g_m + L_3R_3g_m\right) + s\left($ **10.151** INVALID-ORDER-151  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 R_{3s}}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$  $H(s) = \frac{C_2C_5L_3L_5R_3s^4 + L_3R_3g_ms + s^3\left(C_2C_5L_3R_3R_5 + C_5L_3L_5R_3g_m\right) + s^2\left(C_2L_3R_3 + C_5L_3R_3R_5g_m - C_5L_3R_3\right)}{C_2C_3C_5L_3L_5R_3s^5 + R_3g_m + s^4\left(C_2C_3C_5L_3R_3 + C_2C_5L_3L_5 + C_3C_5L_3R_3 + C_2C_5L_3R_3 + C_2C_5L_3R_3 + C_2C_5L_3R_3 + C_3C_5L_3R_3 + C_3C_5L_3$ 10.152 INVALID-ORDER-152  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$ 

 $\frac{-L_3R_3R_5s + s^3\left(C_2L_3L_5R_3R_5 - C_5L_3L_5R_3R_5 + s^2\left(L_3L_5R_3R_5g_m - L_3L_5R_3\right) + s^2\left(L_3L_5R_3R_5g_m - L_3L_5R_3\right)}{R_3R_5 + s^4\left(C_2C_3L_3L_5R_3R_5 + 4C_2C_5L_3L_5R_3R_5 + C_3L_3L_5R_3R_5 + C_3L_3L_5R_3R_5g_m + C_3L_3L_5R_3R_5g_m + C_3L_3L_5R_3R_5 + C_3L_3L_5R_5 + C_3L_3L_$ 

**10.153** INVALID-ORDER-153  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$ 

 $H(s) = \frac{C_2C_5L_3L_5R_3R_5s^4 + s^3\left(C_2L_3L_5R_3 + C_5L_3L_5R_3R_5g_m - C_5L_3L_5R_3\right) + s^2\left(C_2L_3R_3R_5 + L_3L_5R_3g_m\right) + s\left(L_3R_3R_5g_m - L_3R_5R_5g_m - L_3R_5g_m\right) + s\left(L_3R_3R_5g_m - L_3R_5g_m\right) + s\left(L_3R_5g_m$ 

10.154 INVALID-ORDER-154  $Z(s) = \left(\infty, \ \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$ 

 $H(s) = \frac{C_2C_5L_3L_5R_3R_5s^4 + s^3\left(C_5L_3L_5R_3R_5g_m - C_5L_3L_5R_3\right) + s^2\left(C_2L_3R_3R_5 - C_5L_3R_3R_5\right) + s\left(L_3R_3R_5g_m - L_3R_3\right)}{C_2C_3C_5L_3L_5R_3R_5s^5 + R_3R_5g_m + R_3 + s^4\left(4C_2C_5L_3L_5R_3 + C_2C_5L_3L_5R_3\right) + s^3\left(C_2C_3L_3R_3R_5 + 4C_2C_5L_3R_3R_5 + C_2C_5L_3R_3R_5 + C_2C_5L_3R_5 + C_$ 

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10.155 INVALID-ORDER-155 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, R_5, \infty\right)
                                                                                                                                                                                                                                                            H(s) = \frac{C_2C_3L_3R_3R_5s^3 + R_3R_5g_m - R_3 + s^2\left(C_2L_3R_5 + C_3L_3R_3R_5g_m - C_3L_3R_3\right) + s\left(C_2R_3R_5 + L_3R_5g_m - L_3\right)}{2R_3g_m + R_5g_m + s^3\left(4C_2C_3L_3R_3 + C_2C_3L_3R_5\right) + s^2\left(4C_2L_3 + 2C_3L_3R_3g_m + C_3L_3R_5g_m + C_3L_3\right) + s\left(4C_2R_3 + C_2R_5 + 2L_3g_m\right) + 1}
10.156 INVALID-ORDER-156 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \frac{1}{C_5 s}, \infty\right)
                                                                                                                                                                                                                                    H(s) = \frac{R_3 g_m + s^3 \left(C_2 C_3 L_3 R_3 - C_3 C_5 L_3 R_3\right) + s^2 \left(C_2 L_3 + C_3 L_3 R_3 g_m - C_5 L_3\right) + s \left(C_2 R_3 - C_5 R_3 + L_3 g_m\right)}{4 C_2 C_3 C_5 L_3 R_3 s^4 + g_m + s^3 \left(C_2 C_3 L_3 + 4 C_2 C_5 L_3 + 2 C_3 C_5 L_3 R_3 g_m + C_3 C_5 L_3\right) + s^2 \left(4 C_2 C_5 R_3 + C_3 L_3 g_m + 2 C_5 L_3 g_m\right) + s \left(C_2 + 2 C_5 R_3 g_m + C_5 C_5 R_3 g_m\right)}
10.157 INVALID-ORDER-157 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
H(s) = \frac{R_3R_5g_m - R_3 + s^3\left(C_2C_3L_3R_3R_5 - C_3C_5L_3R_3R_5\right) + s^2\left(C_2L_3R_5 + C_3L_3R_3R_5g_m - C_3L_3R_3 - C_5L_3R_5\right) + s\left(C_2R_3R_5 - C_5R_3R_5 + L_3R_5g_m - L_3\right)}{4C_2C_3C_5L_3R_3R_5s^4 + 2R_3g_m + R_5g_m + s^3\left(4C_2C_3L_3R_3 + 4C_2C_5L_3R_5 + 4C_2C_5L_3R_5\right) + s^2\left(4C_2C_5R_3R_5 + 4C_2L_3 + 2C_3L_3R_3g_m + C_3L_3R_5g_m + C_3L_3R_5g_
10.158 INVALID-ORDER-158 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)
                                                                                                          H(s) = \frac{C_2C_3C_5L_3R_3R_5s^4 + R_3g_m + s^3\left(C_2C_3L_3R_3 + C_2C_5L_3R_5 + C_3C_5L_3R_3R_5g_m - C_3C_5L_3R_3\right) + s^2\left(C_2C_5R_3R_5 + C_2L_3 + C_3L_3R_3g_m + C_5L_3R_5g_m - C_5L_3\right) + s\left(C_2R_3 + C_5R_3R_5g_m - C_5R_3 + L_3g_m\right)}{g_m + s^4\left(4C_2C_3C_5L_3R_3 + C_2C_3C_5L_3R_5\right) + s^3\left(C_2C_3L_3 + 4C_2C_5L_3 + 2C_3C_5L_3R_3g_m + C_3C_5L_3R_5g_m + C_3C_5L_3\right) + s^2\left(4C_2C_5R_3 + C_2C_5R_5 + C_3L_3g_m\right) + s\left(C_2R_3 + C_5R_3R_5g_m - C_5R_3 + L_3g_m\right)}{g_m + s^4\left(4C_2C_3C_5L_3R_3 + C_2C_3C_5L_3R_5\right) + s^3\left(C_2C_3L_3R_3 + C_2C_5L_3R_3 + C_2C_5L_3R_3g_m + C_3C_5L_3R_3g_m + C_3C_5L_3\right) + s^2\left(4C_2C_5R_3 + C_2C_5R_3 + C_2C_5R_3g_m + C_5R_3g_m + C_5R_3g_m + C_5R_3g_m\right)}
10.159 INVALID-ORDER-159 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)
                                                                                                        H(s) = \frac{C_2C_3C_5L_3L_5R_3s^5 + R_3g_m + s^4\left(C_2C_5L_3L_5 + C_3C_5L_3L_5R_3g_m\right) + s^3\left(C_2C_3L_3R_3 + C_2C_5L_5R_3 - C_3C_5L_3R_3 + C_5L_3L_5g_m\right) + s^2\left(C_2L_3 + C_3L_3R_3g_m - C_5L_3 + C_5L_5R_3g_m\right) + s\left(C_2R_3 - C_5R_3 + L_3g_m\right)}{C_2C_3C_5L_3L_5s^5 + g_m + s^4\left(4C_2C_3C_5L_3R_3 + C_3C_5L_3L_5g_m\right) + s^3\left(C_2C_3L_3 + 4C_2C_5L_3 + C_2C_5L_5 + 2C_3C_5L_3R_3g_m + C_3C_5L_3\right) + s^2\left(4C_2C_5R_3 + C_3L_3g_m + C_5L_3g_m\right) + s\left(C_2R_3 - C_5R_3 + L_3g_m\right)}{c_2C_3C_5L_3L_5s^5 + g_m + s^4\left(4C_2C_3C_5L_3R_3 + C_3C_5L_3L_5g_m\right) + s^2\left(C_2L_3 + C_3L_3R_3g_m - C_5L_3 + C_5L_3g_m\right) + s\left(C_2R_3 - C_5R_3 + L_3g_m\right)}{c_2C_3C_5L_3L_5s^5 + g_m + s^4\left(4C_2C_3C_5L_3R_3 + C_3C_5L_3L_5g_m\right) + s^2\left(C_2L_3 + C_3L_3R_3g_m - C_5L_3 + C_5L_3g_m\right) + s\left(C_2R_3 - C_5R_3 + L_3g_m\right)}{c_2C_3C_5L_3L_5s^5 + g_m + s^4\left(4C_2C_3C_5L_3R_3 + C_3C_5L_3L_5g_m\right) + s^2\left(C_2C_3L_3 + C_3C_5L_3R_3 + C_3C
10.160 INVALID-ORDER-160 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
                                    10.161 INVALID-ORDER-161 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{C_2C_3C_5L_3L_5R_3s^5 + R_3g_m + s^4\left(C_2C_3C_5L_3R_3R_5 + C_2C_5L_3L_5 + C_3C_5L_3R_3 + C_2C_5L_3R_5 + C_2C_5L_3R_5 + C_2C_5L_3R_5 + C_2C_5L_3R_5 + C_2C_5L_3R_5 + C_2C_5L_3R_3 + C_5L_3R_3g_m + C_5L_3R_3g_
10.162 INVALID-ORDER-162 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \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_3R_5 + s^4 \left(C_2C_3L_3L_5R_3R_5 - C_3C_5L_3L_5R_3R_5 + C_3L_3L_5R_3 + C_5L_3L_5R_3 - C_5L_5R_3R_5 - C_5L_5R_5R_5 - C_5L_5R_5R_5
10.163 INVALID-ORDER-163 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)
H(s) = \frac{C_2C_3C_5L_3L_5R_3R_5s^5 + R_3R_5g_m - R_3 + s^4\left(C_2C_3L_3L_5R_3 + C_2C_5L_3L_5R_3 + C_2C_5L_3L_5R_3 + C_2C_5L_3L_5R_3 + C_2C_5L_3L_5R_3 + C_2C_5L_3L_5R_3 + C_2C_5L_3L_5R_3 + C_2C_5L_5R_3R_5 + C_2L_3L_5 + C_3L_3L_5R_3g_m + C_5L_3L_5R_3g_m + C_5L_3L_5 + s^2\left(C_2L_3R_5 + C_2L_3R_5 + 
10.164 INVALID-ORDER-164 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)
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 $\frac{C_2C_3C_5L_3L_5R_3R_5s^5 + R_3R_5g_m - R_3 + s^4\left(C_2C_5L_3L_5R_5 + C_3C_5L_3L_5R_3R_5g_m - C_3C_5L_3L_5R_3\right) + s^3\left(C_2C_3L_3R_3R_5 + C_2C_5L_5R_3R_5 - C_3C_5L_3R_3R_5 + C_5L_3L_5R_5g_m - C_5L_3L_5\right) + s^2\left(C_2C_3L_3R_3R_5 + C_2C_5L_5R_3R_5 - C_3C_5L_3R_3R_5 + C_5L_3L_5R_5g_m - C_5L_3L_5\right) + s^2\left(C_2C_3L_3R_3R_5 + C_2C_5L_5R_3 + C_2C_5L_5R_3 + C_2C_5L_5R_3 + C_2C_5L_5R_5\right) + s^2\left(C_2C_3L_3R_3R_5 + C_2C_5L_3R_5 + C_2C_5L_3R_5 + C_2C_5L_5R_5 + C_2C_5L_5R_5\right) + s^2\left(C_2C_3L_3R_3R_5 + C_2C_5L_3R_5 + C_2C_5L_5R_5 + C_2C_5L_5R_5\right) + s^2\left(C_2C_3L_3R_3R_5 + C_2C_5L_3R_5 + C_2C_5L_5R_5 + C_2C_5L_5R_5\right) + s^2\left(C_2C_3L_3R_3R_5 + C_2C_5L_3R_5 + C_2C_5L_5R_5\right) + s^2\left(C_2C_3L_3R_3R_5 + C_2C_5L_3R_5 + C_2C_5L_3R_5\right) + s^2\left(C_2C_3L_3R_3R_5 + C_2C_5L_3R_5\right) + s^2\left(C_2C_3L_3R_5 + C_2C_5L_3R_5\right) + s^2\left(C_2C_3L_3R_5\right) + s$ 

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10.165 INVALID-ORDER-165 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, R_5, \infty\right)
                                                                                                                                                                                                              H(s) = \frac{C_2C_3L_3R_3R_5s^3 + C_2R_3R_5s + R_3R_5g_m - R_3 + s^2\left(C_3L_3R_3R_5g_m - C_3L_3R_3\right)}{2R_3g_m + R_5g_m + s^3\left(4C_2C_3L_3R_3 + C_2C_3L_3R_5\right) + s^2\left(C_2C_3R_3R_5 + 2C_3L_3R_3g_m + C_3L_3R_5g_m + C_3L_3\right) + s\left(4C_2R_3 + C_2R_5 + C_3R_3R_5g_m + C_3R_3\right) + 1}
10.166 INVALID-ORDER-166 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, \infty\right)
                                                                                                                                                                                                          H(s) = \frac{C_3L_3R_3g_ms^2 + R_3g_m + s^3\left(C_2C_3L_3R_3 - C_3C_5L_3R_3\right) + s\left(C_2R_3 - C_5R_3\right)}{4C_2C_3C_5L_3R_3s^4 + g_m + s^3\left(C_2C_3L_3 + 2C_3C_5L_3R_3g_m + C_3C_5L_3\right) + s^2\left(C_2C_3R_3 + 4C_2C_5R_3 + C_3C_5R_3 + C_3L_3g_m\right) + s\left(C_2 + C_3R_3g_m + 2C_5R_3g_m + C_5\right)}
10.167 INVALID-ORDER-167 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
10.168 INVALID-ORDER-168 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)
               H(s) = \frac{C_2C_3C_5L_3R_3R_5s^4 + R_3g_m + s^3\left(C_2C_3L_3R_3 + C_3C_5L_3R_3R_5g_m - C_3C_5L_3R_3\right) + s^2\left(C_2C_5R_3R_5 + C_3L_3R_3g_m\right) + s\left(C_2R_3 + C_5R_3R_5g_m - C_5R_3\right)}{g_m + s^4\left(4C_2C_3C_5L_3R_3 + C_2C_3C_5L_3R_5\right) + s^3\left(C_2C_3C_5R_3R_5 + C_2C_3L_3 + 2C_3C_5L_3R_3g_m + C_3C_5L_3R_3g_m + C_3C_5L_3R_3 + 4C_2C_5R_3 + 4C_2C_5R_3 + C_3C_5R_3R_5g_m + C_3C_5R_3R_5g_m + C_3C_5R_3g_m + C_3C_5
10.169 INVALID-ORDER-169 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)
             H(s) = \frac{C_2C_3C_5L_3L_5R_3s^5 + C_3C_5L_3L_5R_3g_ms^4 + R_3g_m + s^3\left(C_2C_3L_3R_3 + C_2C_5L_5R_3 - C_3C_5L_3R_3\right) + s^2\left(C_3L_3R_3g_m + C_5L_5R_3g_m\right) + s\left(C_2R_3 - C_5R_3\right)}{C_2C_3C_5L_3L_5s^5 + g_m + s^4\left(4C_2C_3C_5L_3R_3 + C_2C_3C_5L_3R_3 + C_2C_5L_5 + 2C_3C_5L_3R_3g_m + C_3C_5L_3 + C_3C_5L_3R_3g_m\right) + s^2\left(C_2C_3R_3 + 4C_2C_5R_3 + C_3C_5R_3 + C
10.170 INVALID-ORDER-170 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3\left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
H(s) = \frac{C_3L_3L_5R_3g_ms^3 + L_5R_3g_ms - R_3 + s^4\left(C_2C_3L_3L_5R_3 - C_3C_5L_3L_5R_3\right) + s^2\left(C_2L_5R_3 - C_3L_3R_3 - C_5L_5R_3\right)}{4C_2C_3C_5L_3L_5R_3s^5 + 2R_3g_m + s^4\left(C_2C_3L_3L_5 + 2C_3C_5L_3L_5R_3g_m + C_3C_5L_3L_5\right) + s^3\left(4C_2C_3L_3R_3 + 4C_2C_5L_5R_3 + 4C_2C_5L_5R_3 + C_3C_5L_5R_3 + C_3L_5R_3g_m + C_3L_5R_3g_m + C_5L_5\right) + s\left(4C_2R_3 + C_3R_3 + C_5R_3g_m + C_5R_
10.171 INVALID-ORDER-171 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{C_2C_3C_5L_3L_5R_3s^5 + R_3g_m + s^4\left(C_2C_3C_5L_3R_3R_5 + C_3C_5L_3R_3R_5 + C_3C_5L_3R_3R_5 + C_3C_5L_3R_3R_5 + C_3C_5L_3R_3 + C_2C_5L_5R_3 + C_3C_5L_3R_3 + C_
10.172 INVALID-ORDER-172 Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)
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10.173 INVALID-ORDER-173  $Z(s) = \left(\infty, \frac{1}{C_2 s}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$ 

 $-R_{3}R_{5} + s^{4} \left(C_{2}C_{3}L_{3}L_{5}R_{3}R_{5} - C_{3}C_{5}L_{3}L_{5}R_{3}R_{5} - C_{3}L_{5}L_{3}R_{5}R_{5} - C_{3}L_{3}L_{5}R_{3}\right) + s^{2} \left(C_{2}L_{5}R_{3}R_{5} - C_{3}L_{3}R_{3}R_{5} - C_{5}L_{5}R_{3}R_{5}\right) + s \left(4C_{2}C_{3}L_{5}L_{5}R_{3}R_{5} + 2C_{3}L_{5}L_{5}R_{3}R_{5} + 2C_{3}L_{5}R_{3}R_{5} + 2C_{3}L_{5}R_{5}R_{5} + 2C_{3$ 

 $\frac{C_2C_3C_5L_3L_5R_3R_5s^5 + R_3R_5g_m - R_3 + s^4\left(C_2C_3L_3L_5R_3 + C_3C_5L_3L_5R_3 + C_3C_5L_3L_5R_3\right) + s^3\left(C_2C_3L_3R_3R_5 + C_2C_5L_5R_3R_5 + C_3L_3L_5R_3g_m\right) + s^2\left(C_2L_5R_3R_5 + C_3C_5L_3L_5R_3 + C_3C_5L_3L_5R_3 + C_3C_5L_3L_5R_3\right) + s^3\left(C_2C_3L_3R_3R_5 + C_2C_5L_5R_3R_5 + C_3L_3L_5R_3g_m\right) + s^2\left(C_2L_5R_3R_5 + C_3C_5L_3L_5R_3 + C_3C_5L_3L_5R_3 + C_3C_5L_3L_5R_3\right) + s^3\left(C_2C_3L_3R_3R_5 + C_2C_5L_5R_3R_5 + C_3L_3L_5R_3g_m\right) + s^2\left(C_2L_5R_3R_5 + C_3C_5L_3L_5R_3 + C_3C_5L_3L_5R_3\right) + s^3\left(C_2C_3L_3R_3R_5 + C_2C_5L_5R_3R_5 + C_3L_3L_5R_3g_m\right) + s^2\left(C_2L_5R_3R_5 + C_3C_5L_3L_5R_3 + C_3C_5L_3L_5R_3\right) + s^3\left(C_2C_3L_3R_3R_5 + C_2C_5L_5R_3R_5 + C_3L_3L_5R_3g_m\right) + s^2\left(C_2L_5R_3R_5 + C_3C_5L_3L_5R_3 + C_3C_5L_3L_5R_3\right) + s^3\left(C_2C_3L_3R_3R_5 + C_2C_5L_5R_3R_5 + C_3C_5L_5R_3R_5 + C_3C_5L_5R_3R_5\right) + s^3\left(C_2C_3L_3R_3R_5 + C_2C_3L_5R_3R_5 + C_3C_5L_5R_3R_5\right) + s^3\left(C_2C_3L_3R_3R_5 + C_2C_3L_5R_3R_5 + C_3C_5L_5R_3R_5\right) + s^3\left(C_2C_3L_5R_3R_5 + C_3C_5L_5R_3R_5 + C_3C_5L_5R_3R_5\right) + s^3\left(C_2C_3L_5R_3R_5 + C_3C_5L_5R_3R_5\right) + s^3\left(C_2C_3L_5R_3R_5 + C_3C_5L_5R_3R_5\right) + s^3\left(C_2C_3L_5R_3R_5 + C_3C_5L_5R_3R_5\right) + s^3\left(C_2C_3L_5R_3R_5 + C_2C_5L_5R_3R_5\right) + s^3\left(C_2C_3L_5R_3R_5 + C_2C_5L_5R_3 + C_2C_5L_5R_3\right) + s^3\left(C_2C_3L_5R_3R_5 + C_2C_5L_5R_3 + C_2C_5L_5R_3\right) + s^3\left(C_2C_3L_5R_3R_5 + C_2C_5L_5R_3\right) + s^3\left(C_2C_3L_5R_5R_5 + C_2C_5L_5R_5\right) + s^3\left(C_2C_3L_5R_5 + C_2C_5L_5R_5\right) + s^3\left(C_2C_3L_5R_5\right) + s^3$ 

10.174 INVALID-ORDER-174 
$$Z(s) = \left(\infty, \ \frac{1}{C_2 s}, \ \frac{R_3\left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \frac{R_5\left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_3L_5R_3R_5s^5 + R_3R_5g_m - R_3 + s^4\left(C_3C_5L_3L_5R_3R_5g_m - C_3C_5L_3L_5R_3\right) + s^3\left(C_2C_3L_3R_3R_5 + C_2C_5L_5R_3R_5 - C_3C_5L_3R_3R_5 + C_2C_5L_5R_3R_5 - C_3C_5L_3R_3R_5 + C_2C_5L_5R_3R_5 - C_3C_5L_3R_3R_5 + C_3C_5L_3R_5 + C_3C_5L_3R$$

**10.175** INVALID-ORDER-175  $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, R_5, \infty\right)$ 

$$H(s) = \frac{C_2 R_2 R_3 R_5 s + R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5}{2 R_2 R_3 g_m + R_2 R_5 g_m + R_2 + 4 R_3 + R_5 + s \left(4 C_2 R_2 R_3 + C_2 R_2 R_5\right)}$$

**10.176** INVALID-ORDER-176 
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_5L_5R_2R_3s^3 + R_2R_3g_m + R_3 + s^2\left(C_5L_5R_2R_3g_m + C_5L_5R_3\right) + s\left(C_2R_2R_3 - C_5R_2R_3\right)}{C_2C_5L_5R_2s^3 + R_2g_m + s^2\left(4C_2C_5R_2R_3 + C_5L_5R_2g_m + C_5L_5\right) + s\left(C_2R_2 + 2C_5R_2R_3g_m + C_5R_2 + 4C_5R_3\right) + 1}$$

10.177 INVALID-ORDER-177 
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{-R_2R_3 + s^2\left(C_2L_5R_2R_3 - C_5L_5R_2R_3\right) + s\left(L_5R_2R_3g_m + L_5R_3\right)}{4C_2C_5L_5R_2R_3s^3 + 2R_2R_3g_m + R_2 + 4R_3 + s^2\left(C_2L_5R_2 + 2C_5L_5R_2R_3g_m + C_5L_5R_2 + 4C_5L_5R_3\right) + s\left(4C_2R_2R_3 + L_5R_2g_m + L_5\right)}$$

10.178 INVALID-ORDER-178 
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_5L_5R_2R_3s^3 + R_2R_3g_m + R_3 + s^2\left(C_2C_5R_2R_3R_5 + C_5L_5R_2R_3g_m + C_5L_5R_3\right) + s\left(C_2R_2R_3 + C_5R_2R_3R_5g_m - C_5R_2R_3 + C_5R_3R_5\right)}{C_2C_5L_5R_2s^3 + R_2g_m + s^2\left(4C_2C_5R_2R_3 + C_2C_5R_2R_5 + C_5L_5R_2g_m + C_5L_5\right) + s\left(C_2R_2 + 2C_5R_2R_3g_m + C_5R_2R_5g_m + C_5R_2R_3 + C_5R_3R_5\right) + s\left(C_2R_2R_3 + C_5R_2R_3R_5g_m - C_5R_2R_3 + C_5R_3R_5\right)}$$

10.179 INVALID-ORDER-179 
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$$

$$H(s) = \frac{-R_2R_3R_5 + s^2\left(C_2L_5R_2R_3R_5 - C_5L_5R_2R_3R_5\right) + s\left(L_5R_2R_3R_5g_m - L_5R_2R_3 + L_5R_3R_5\right)}{4C_2C_5L_5R_2R_3R_5s^3 + 2R_2R_3R_5g_m + R_2R_5 + 4R_3R_5 + s^2\left(4C_2L_5R_2R_3 + C_2L_5R_2R_3 + C_5L_5R_2R_3R_5g_m + C_5L_5R_2R_3 + 4C_5L_5R_3R_5\right) + s\left(4C_2R_2R_3R_5 + 2L_5R_2R_3R_5 + 4C_5L_5R_3R_5\right) + s\left(4C_2R_2R_3R_5 + 4R_3R_5 + 4$$

**10.180** INVALID-ORDER-180 
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{C_2C_5L_5R_2R_3R_5s^3 + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^2\left(C_2L_5R_2R_3 + C_5L_5R_2R_3R_5g_m - C_5L_5R_2R_3 + C_5L_5R_3R_5\right) + s\left(C_2R_2R_3R_5 + L_5R_2R_3g_m + L_5R_3\right)}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^3\left(4C_2C_5L_5R_2R_3 + C_2C_5L_5R_2R_5\right) + s^2\left(C_2L_5R_2 + 2C_5L_5R_2R_3g_m + C_5L_5R_2R_5g_m + C_5L_5R_2 + 4C_5L_5R_3 + C_5L_5R_3 + C_5$$

10.181 INVALID-ORDER-181 
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)$$

$$H(s) = \frac{C_2C_5L_5R_2R_3R_5s^3 + R_2R_3R_5g_m - R_2R_3 + R_3R_5g_m - C_5L_5R_2R_3R_5g_m - C_5L_5R_2R_3 + C_5L_5R_3R_5) + s\left(C_2R_2R_3R_5 - C_5R_2R_3R_5\right) - s\left(C_2R_2R_3R_5 - C_5R_2R_3R_5\right) + s\left(C_2R_2R_3R_5\right) + s\left(C_2R_2R_3R_5\right)$$

**10.182** INVALID-ORDER-182 
$$Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{1}{C_3s}, \infty, \frac{1}{C_5s}, \infty\right)$$

$$H(s) = \frac{R_2 g_m + s \left(C_2 R_2 - C_5 R_2\right) + 1}{s^2 \left(C_2 C_3 R_2 + 4 C_2 C_5 R_2 + C_3 C_5 R_2\right) + s \left(C_3 R_2 g_m + C_3 + 2 C_5 R_2 g_m + 4 C_5\right)}$$

**10.183** INVALID-ORDER-183 
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_5R_2R_5s^2 + R_2g_m + s\left(C_2R_2 + C_5R_2R_5g_m - C_5R_2 + C_5R_5\right) + 1}{C_2C_3C_5R_2R_5s^3 + s^2\left(C_2C_3R_2 + 4C_2C_5R_2 + C_3C_5R_2R_5g_m + C_3C_5R_2 + C_3C_5R_5\right) + s\left(C_3R_2g_m + C_3 + 2C_5R_2g_m + 4C_5\right)}$$

**10.184** INVALID-ORDER-184 
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_5L_5R_2s^3 + R_2g_m + s^2\left(C_5L_5R_2g_m + C_5L_5\right) + s\left(C_2R_2 - C_5R_2\right) + 1}{C_2C_3C_5L_5R_2s^4 + s^3\left(C_3C_5L_5R_2g_m + C_3C_5L_5\right) + s^2\left(C_2C_3R_2 + 4C_2C_5R_2 + C_3C_5R_2\right) + s\left(C_3R_2g_m + C_3 + 2C_5R_2g_m + 4C_5\right)}$$

10.185 INVALID-ORDER-185 
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{-R_2 + s^2 \left(C_2 L_5 R_2 - C_5 L_5 R_2\right) + s \left(L_5 R_2 g_m + L_5\right)}{2R_2 g_m + s^3 \left(C_2 C_3 L_5 R_2 + 4 C_2 C_5 L_5 R_2 + C_3 C_5 L_5 R_2\right) + s^2 \left(C_3 L_5 R_2 g_m + C_3 L_5 + 2 C_5 L_5 R_2 g_m + 4 C_5 L_5\right) + s \left(4 C_2 R_2 + C_3 R_2\right) + 4 C_5 L_5 R_2 g_m + 4 C_5 L_5\right)}$$

**10.186** INVALID-ORDER-186 
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_5L_5R_2s^3 + R_2g_m + s^2\left(C_2C_5R_2R_5 + C_5L_5R_2g_m + C_5L_5\right) + s\left(C_2R_2 + C_5R_2R_5g_m - C_5R_2 + C_5R_5\right) + 1}{C_2C_3C_5L_5R_2s^4 + s^3\left(C_2C_3C_5R_2R_5 + C_3C_5L_5R_2g_m + C_3C_5L_5\right) + s^2\left(C_2C_3R_2 + 4C_2C_5R_2 + C_3C_5R_2R_5g_m + C_3C_5R_2 + C_3C_5R_5\right) + s\left(C_3R_2g_m + C_3 + C_5R_2g_m + C$$

10.187 INVALID-ORDER-187 
$$Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{1}{C_3s}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \infty\right)$$

$$H(s) = \frac{-R_2R_5 + s^2\left(C_2L_5R_2R_5 - C_5L_5R_2R_5\right) + s\left(L_5R_2R_5g_m - L_5R_2 + L_5R_5\right)}{2R_2R_5g_m + 4R_5 + s^3\left(C_2C_3L_5R_2R_5 + 4C_2C_5L_5R_2R_5 + C_3C_5L_5R_2R_5\right) + s^2\left(4C_2L_5R_2 + C_3L_5R_2R_5g_m + C_3L_5R_2 + C_3L_5R_5 + 2C_5L_5R_2R_5g_m + 4C_5L_5R_5\right) + s\left(4C_2R_2R_5 + C_3R_2R_5 + 2L_5R_2g_m + 4L_5\right)}$$

**10.188** INVALID-ORDER-188 
$$Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{1}{C_3s}, \infty, \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \infty\right)$$

$$H(s) = \frac{C_2C_5L_5R_2R_5s^3 + R_2R_5g_m - R_2 + R_5 + s^2\left(C_2L_5R_2 + C_5L_5R_2R_5g_m - C_5L_5R_2 + C_5L_5R_5\right) + s\left(C_2R_2R_5 + L_5R_2g_m + L_5\right)}{C_2C_3C_5L_5R_2R_5s^4 + 2R_2g_m + s^3\left(C_2C_3L_5R_2 + 4C_2C_5L_5R_2 + C_3C_5L_5R_2R_5g_m + C_3C_5L_5R_2 + C_3C_5L_5R_2\right) + s^2\left(C_2C_3R_2R_5 + C_3L_5R_2g_m + C_3L_5 + 2C_5L_5R_2g_m + 4C_5L_5\right) + s\left(4C_2R_2 + C_3R_2R_5g_m + C_3R_2R$$

10.189 INVALID-ORDER-189 
$$Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{1}{C_3s}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \infty\right)$$

$$H(s) = \frac{C_2C_5L_5R_2R_5s^3 + R_2R_5g_m - R_2 + R_5 + s^2\left(C_5L_5R_2R_5g_m - C_5L_5R_2 + C_5L_5R_5\right) + s\left(C_2R_2R_5 - C_5R_2R_5\right)}{C_2C_3C_5L_5R_2R_5s^4 + 2R_2g_m + s^3\left(4C_2C_5L_5R_2 + C_3C_5L_5R_2 + C_3C_5L_5R_2 + C_3C_5L_5R_5\right) + s^2\left(C_2C_3R_2R_5 + 4C_2C_5R_2R_5 + 4C_2C_5R_2R_5 + 2C_5L_5R_2g_m + 4C_5L_5\right) + s\left(4C_2R_2 + C_3R_2R_5g_m + C_3R_2 + C_3R_5 + 2C_5R_2R_5g_m + 4C_5R_5\right) + s^2\left(C_3C_3R_2R_5 + 4C_3C_5R_2R_5 + 4C_3C_5R_2R_5 + 4C_3C_5R_2R_5 + 4C_3C_5R_2R_5\right) + s^2\left(C_3C_3R_2R_5 + 4C_3C_5R_2R_5 + 4C_3C_5R_2R_5 + 4C_3C_5R_2R_5\right) + s^2\left(C_3C_3R_2R_5 + 4C_3C_5R_2R_5 + 4C_3C_5R_2R_5 + 4C_3C_5R_2R_5\right) + s^2\left(C_3C_3R_2R_5 + 4C_3C_5R_3R_5\right) + s^2\left(C_3C_3R_3R_5\right) + s$$

**10.190** INVALID-ORDER-190  $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_5R_2R_3R_5s^2 + R_2R_3g_m + R_3 + s\left(C_2R_2R_3 + C_5R_2R_3R_5g_m - C_5R_2R_3 + C_5R_3R_5\right)}{C_2C_3C_5R_2R_3R_5s^3 + R_2g_m + s^2\left(C_2C_3R_2R_3 + 4C_2C_5R_2R_3 + C_2C_5R_2R_3 + C_3C_5R_2R_3 + C_3C_5R_3R_3 + C_3C_5R_3 + C_3C_5R_3 +$$

**10.191** INVALID-ORDER-191 
$$Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)$$

$$H(s) = \frac{C_2C_5L_5R_2R_3s^3 + R_2R_3g_m + R_3 + s^2\left(C_5L_5R_2R_3g_m + C_5L_5R_3\right) + s\left(C_2R_2R_3 - C_5R_2R_3\right)}{C_2C_3C_5L_5R_2R_3s^4 + R_2g_m + s^3\left(C_2C_5L_5R_2 + C_3C_5L_5R_2R_3g_m + C_3C_5L_5R_3\right) + s^2\left(C_2C_3R_2R_3 + 4C_2C_5R_2R_3 + C_5L_5R_2g_m + C_5L_5\right) + s\left(C_2R_2 + C_3R_2R_3g_m + C_3R_3 + 2C_5R_2R_3g_m + C_5R_2 + 4C_5R_3\right) + 1}$$

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10.192 INVALID-ORDER-192 Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
                                                                                                                             H(s) = \frac{-R_2R_3 + s^2\left(C_2L_5R_2R_3 - C_5L_5R_2R_3\right) + s\left(L_5R_2R_3g_m + L_5R_3\right)}{2R_2R_3g_m + R_2 + 4R_3 + s^3\left(C_2C_3L_5R_2R_3 + 4C_2C_5L_5R_2R_3 + C_3C_5L_5R_2R_3\right) + s^2\left(C_2L_5R_2 + C_3L_5R_2R_3g_m + C_3L_5R_3 + 4C_5L_5R_2 + 4C_5L_5R_3\right) + s\left(4C_2R_2R_3 + C_3R_2R_3 + L_5R_2g_m + L_5\right)}
10.193 INVALID-ORDER-193 Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{C_2C_5L_5R_2R_3s^3 + R_2R_3g_m + R_3 + s^2\left(C_2C_5R_2R_3R_5 + C_5L_5R_2R_3g_m + C_5L_5R_3\right) + s\left(C_2R_2R_3 + C_5R_2R_3R_5g_m - C_5R_2R_3 + C_5R_3R_5\right)}{C_2C_3C_5L_5R_2R_3s^4 + R_2g_m + s^3\left(C_2C_3C_5R_2R_3R_5 + C_2C_5L_5R_2 + C_3C_5L_5R_2R_3 + C_2C_5R_2R_3 + C_2C_5R_2R_3 + C_3C_5R_2R_3 + C_3C_5R_2R_3 + C_5L_5R_2g_m + C_5L_5\right) + s\left(C_2R_2R_3 + C_5R_2R_3R_5 + C_5R_3R_5 + C_5R_3R
10.194 INVALID-ORDER-194 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \infty\right)
H(s) = \frac{-R_2R_3R_5 + s^2\left(C_2L_5R_2R_3R_5 - C_5L_5R_2R_3R_5\right) + s\left(L_5R_2R_3R_5g_m - L_5R_2R_3 + L_5R_3R_5\right)}{2R_2R_3R_5g_m + R_2R_5 + 4R_3R_5 + s^3\left(C_2C_3L_5R_2R_3R_5 + C_3C_5L_5R_2R_3R_5\right) + s^2\left(4C_2L_5R_2R_3 + C_2L_5R_2R_3 + C_3L_5R_2R_3 + C_3L_5R_3R_5 + C_3L_5R_2R_3 + C_3L_5R_3R_5 + C_3L_5R_5R_5 
10.195 INVALID-ORDER-195 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \infty\right)
H(s) = \frac{C_2C_5L_5R_2R_3R_5s^3 + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^2\left(C_2L_5R_2R_3 + C_5L_5R_2R_3 + C_5L_5R_3R_5 + C_5L_5R_
10.196 INVALID-ORDER-196 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \infty\right)
                                            \frac{C_{2}C_{5}L_{5}R_{2}R_{3}R_{5}s^{3}+R_{2}R_{3}R_{5}g_{m}-R_{2}R_{3}+R_{3}R_{5}g_{m}-C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{3}R_{5})+s\left(C_{2}R_{2}R_{3}R_{5}-C_{5}R_{2}R_{3}R_{5}-C_{5}R_{2}R_{3}R_{5}-C_{5}R_{2}R_{3}R_{5}-C_{5}R_{2}R_{3}R_{5}+C_{5}L_{5}R_{2}R_{3}R_{5}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_
10.197 INVALID-ORDER-197 Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)
                                                                                                                                                                                                                                                                                                                                             H(s) = \frac{R_2 g_m + s^2 \left( C_2 C_3 R_2 R_3 - C_3 C_5 R_2 R_3 \right) + s \left( C_2 R_2 + C_3 R_2 R_3 g_m + C_3 R_3 - C_5 R_2 \right) + 1}{4 C_2 C_3 C_5 R_2 R_3 s^3 + s^2 \left( C_2 C_3 R_2 + 4 C_2 C_5 R_2 + 2 C_3 C_5 R_2 R_3 g_m + C_3 C_5 R_2 + 4 C_3 C_5 R_3 \right) + s \left( C_3 R_2 g_m + C_3 + 2 C_5 R_2 g_m + 4 C_5 \right)}
10.198 INVALID-ORDER-198 Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
                                                                          H(s) = \frac{R_2R_5g_m - R_2 + R_5 + s^2\left(C_2C_3R_2R_3R_5 - C_3C_5R_2R_3R_5\right) + s\left(C_2R_2R_5 + C_3R_2R_3R_5g_m - C_3R_2R_3 + C_3R_3R_5 - C_5R_2R_5\right)}{4C_2C_3C_5R_2R_3R_5s^3 + 2R_2g_m + s^2\left(4C_2C_3R_2R_3 + C_2C_3R_2R_5 + 4C_2C_5R_2R_5 + 2C_3C_5R_2R_3R_5g_m + C_3C_5R_2R_5 + 4C_3C_5R_3R_5\right) + s\left(4C_2R_2 + 2C_3R_2R_3g_m + C_3R_2R_5g_m + C_
10.199 INVALID-ORDER-199 Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)
                                                                                                                                                                                                         H(s) = \frac{C_2C_3C_5R_2R_3R_5s^3 + R_2g_m + s^2\left(C_2C_3R_2R_3 + C_2C_5R_2R_5 + C_3C_5R_2R_3R_5g_m - C_3C_5R_2R_3 + C_3C_5R_3R_5\right) + s\left(C_2R_2 + C_3R_2R_3g_m + C_3R_3 + C_5R_2R_5g_m - C_5R_2 + C_5R_5\right) + 1}{s^3\left(4C_2C_3C_5R_2R_3 + C_2C_3C_5R_2R_5\right) + s^2\left(C_2C_3R_2 + 4C_2C_5R_2 + 2C_3C_5R_2R_3g_m + C_3C_5R_2R_5g_m + C_3C_5R_2 + 4C_3C_5R_3 + C_3C_5R_3 +
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 $H(s) = \frac{C_2C_3C_5L_5R_2R_3s^4 + R_2g_m + s^3\left(C_2C_5L_5R_2 + C_3C_5L_5R_2R_3g_m + C_3C_5L_5R_3\right) + s^2\left(C_2C_3R_2R_3 - C_3C_5R_2R_3 + C_5L_5R_2g_m + C_5L_5\right) + s\left(C_2R_2 + C_3R_2R_3g_m + C_3R_3 - C_5R_2\right) + 1}{C_2C_3C_5L_5R_2s^4 + s^3\left(4C_2C_3C_5R_2R_3 + C_3C_5L_5R_2g_m + C_3C_5L_5\right) + s^2\left(C_2C_3R_2 + 4C_2C_5R_2 + 2C_3C_5R_2R_3g_m + C_3C_5R_2\right) + s\left(C_3R_2R_3 + C_5L_5R_2g_m + C_3C_5R_2\right) + s\left(C_3R_2R_3 + C_3C_5R_2R_3 + C_3C_5R_2R_3\right) + s\left(C_3R_2R_3 + C_3C_5R_2R_3 + C_3C_5R_2\right) + s\left(C_3R_2R_3 + C_3C_5R_3\right) + s\left(C_3R_3R_3 + C_3R$ 

10.200 INVALID-ORDER-200  $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

10.201 INVALID-ORDER-201  $Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \infty\right)$ **10.202** INVALID-ORDER-202  $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$  $H(s) = \frac{C_2C_3C_5L_5R_2R_3s^4 + R_2g_m + s^3\left(C_2C_3C_5R_2R_3R_5 + C_2C_5L_5R_2 + C_3C_5L_5R_2 + C_3C_5L_5R_2 + C_3C_5L_5R_3 + C_2C_5R_2R_3 + C_3C_5R_2R_3 + C_3C_5R_3R_3 + C_3C_5R_3R_$ 10.203 INVALID-ORDER-203  $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$  $H(s) = \frac{-R_2R_5 + s^3\left(C_2C_3L_5R_2R_3R_5 - C_3C_5L_5R_2R_3R_5 - C_3L_5R_2R_3R_5 - C_3L_5R_2R_3 + C_3L_5R_2R_3 + C_3L_5R_2R_3 + C_5L_5R_2R_5 + s^2\left(C_2L_5R_2R_3 + C_3L_5R_2R_3 + C_3L_5R_2R_3 + C_5L_5R_2R_5 + s^2\left(C_2L_5R_2R_3 + C_3L_5R_2R_3 + C_3L_5R_2R_3 + C_5L_5R_2R_5 + s^2\left(C_2L_5R_2R_3 + C_3L_5R_2R_3 + C_5L_5R_2R_3 + C_5L_5R_3R_3 + C_5L_5R_3R$ 10.204 INVALID-ORDER-204  $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$  $H(s) = \frac{C_2C_3C_5L_5R_2R_3R_5s^4 + R_2R_5g_m - R_2 + R_5 + s^3\left(C_2C_3L_5R_2R_3 + C_2C_5L_5R_2R_3 + C_3C_5L_5R_2R_3 + C_3C_5L_5R_2 + C_3C_5L_5R_2R_3 + C_3C_5L_5R_3 + C_3C_5L_5R_$ 10.205 INVALID-ORDER-205  $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)$  $\frac{C_2C_3C_5L_5R_2R_3R_5s^4 + R_2R_5g_m - R_2 + R_5 + s^3\left(C_2C_5L_5R_2R_3 + C_3C_5L_5R_2R_3 + C_3C_5L_5R_2R_3 + C_3C_5L_5R_2R_3 + C_3C_5L_5R_2R_3 + C_5L_5R_2R_3 + C_5L_5R_2R_3 + C_5L_5R_2R_3R_5 + C_5L_5R_3R_5 + C_5L_5R_5 + C_5L_5R_5$ **10.206** INVALID-ORDER-206  $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, R_5, \infty\right)$ 10.207 INVALID-ORDER-207  $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$  $H(s) = \frac{R_2 g_m + s^3 \left(C_2 C_3 L_3 R_2 - C_3 C_5 L_3 R_2\right) + s^2 \left(C_3 L_3 R_2 g_m + C_3 L_3\right) + s \left(C_2 R_2 - C_5 R_2\right) + 1}{4 C_2 C_3 C_5 L_3 R_2 s^4 + s^3 \left(2 C_3 C_5 L_3 R_2 g_m + 4 C_3 C_5 L_3\right) + s^2 \left(C_2 C_3 R_2 + 4 C_2 C_5 R_2 + C_3 C_5 R_2\right) + s \left(C_3 R_2 g_m + C_3 + 2 C_5 R_2 g_m + 4 C_5\right)}$ 10.208 INVALID-ORDER-208  $Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, L_3s + \frac{1}{C_3s}, \infty, \frac{R_5}{C_5R_5s+1}, \infty\right)$  $H(s) = \frac{R_2R_5g_m - R_2 + R_5 + s^3\left(C_2C_3L_3R_2R_5 - C_3C_5L_3R_2R_5\right) + s^2\left(C_3L_3R_2R_5g_m - C_3L_3R_2 + C_3L_3R_5\right) + s\left(C_2R_2R_5 - C_5R_2R_5\right)}{4C_2C_3C_5L_3R_2R_5s^4 + 2R_2g_m + s^3\left(4C_2C_3L_3R_2 + 2C_3C_5L_3R_2R_5g_m + 4C_3C_5L_3R_5\right) + s^2\left(C_2C_3R_2R_5 + 4C_2C_5R_2R_5 + 2C_3L_3R_2g_m + 4C_3L_3\right) + s\left(4C_2R_2 + C_3R_2R_5g_m + C_3R_2 + C_3R_5g_m + 4C_5R_5\right) + 4C_3C_5R_3R_5 + C_3C_5R_3R_5 + C_3C_5R_5R_5 + C_3C$ 

10.210 INVALID-ORDER-210  $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

 $H(s) = \frac{C_2C_3C_5L_3L_5R_2s^5 + R_2g_m + s^4\left(C_3C_5L_3L_5R_2g_m + C_3C_5L_3L_5\right) + s^3\left(C_2C_3L_3R_2 + C_2C_5L_5R_2 - C_3C_5L_3R_2\right) + s^2\left(C_3L_3R_2g_m + C_3L_3 + C_5L_5R_2g_m + C_5L_5\right) + s\left(C_2R_2 - C_5R_2\right) + 1}{s^4\left(4C_2C_3C_5L_3R_2 + C_2C_3C_5L_5R_2\right) + s^3\left(2C_3C_5L_3R_2g_m + 4C_3C_5L_3 + C_3C_5L_5\right) + s^2\left(C_2C_3R_2 + 4C_2C_5R_2 + C_3C_5R_2\right) + s\left(C_3R_2g_m + C_3 + C_3R_2g_m + C_3R_2g_m$ 

10.211 INVALID-ORDER-211  $Z(s) = \left(\infty, \ \frac{R_2}{C_2 R_2 s + 1}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ \infty\right)$ 

10.212 INVALID-ORDER-212  $Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, L_3s + \frac{1}{C_3s}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \infty\right)$ 

 $H(s) = \frac{C_2C_3C_5L_3L_5R_2s^5 + R_2g_m + s^4\left(C_2C_3C_5L_3R_2R_5 + C_3C_5L_3L_5R_2g_m + C_3C_5L_3L_5\right) + s^3\left(C_2C_3L_3R_2 + C_2C_5L_5R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_2\right) + s^2\left(C_2C_5R_2R_5 + C_3L_3R_2g_m + C_3L_3R_2g_m + C_5L_5\right) + s\left(C_2R_2 + C_5R_2R_5g_m - C_5R_2 + C_5R_2R_5g_m + C_5R_2R_5\right) + s^2\left(C_2C_3R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_2\right) + s^2\left(C_2C_3R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_2\right) + s^2\left(C_2C_3R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_2\right) + s^2\left(C_2C_3R_2 + C_3C_5R_2\right) + s^2\left($ 

10.213 INVALID-ORDER-213  $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$ 

 $H(s) = \frac{-R_2R_5 + s^4\left(C_2C_3L_3L_5R_2R_5 - C_3C_5L_3L_5R_2R_5 + s^3\left(C_3L_3L_5R_2R_5 - C_3L_3L_5R_2 + C_3L_3L_5R_5\right) + s^2\left(C_2L_5R_2R_5 - C_3L_3R_2R_5 - C_5L_5R_2R_5\right) + s\left(L_5R_2R_5g_m - L_5R_2R_5 - L_5R_2R_5\right) + s\left(L_5R_2R_5g_m - L_5R_2R_5 + L_5R_2R_5 + L_5R_2R_5\right) + s^2\left(C_2L_5R_2R_5 - C_3L_3R_2R_5 - C_5L_5R_2R_5\right) + s^2\left(C_2L_5R_2R_5 - C_3L_3R_2R_5\right) + s^2\left(C_2L_5R_2R_5\right) + s^2\left(C_2L_5R_2R_5\right) + s^2\left(C_2L_5R$ 

10.214 INVALID-ORDER-214  $Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, L_3s + \frac{1}{C_3s}, \infty, \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \infty\right)$ 

 $H(s) = \frac{C_2C_3C_5L_3L_5R_2R_5s^5 + R_2R_5g_m - R_2 + R_5 + s^4\left(C_2C_3L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3R_2R_5 +$ 

10.215 INVALID-ORDER-215  $Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, L_3s + \frac{1}{C_3s}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \infty\right)$ 

 $H(s) = \frac{C_2C_3C_5L_3L_5R_2S^5 + R_2R_5g_m - R_2 + R_5 + s^4\left(C_3C_5L_3L_5R_2S_5 + R_2R_5g_m - C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3R_2R_5 + C_2C_5L_5R_2R_5 - C_3C_5L_3R_2R_5 \right) + s^2\left(C_3L_3R_2R_5g_m - C_3L_3R_2 + C_3L_3R_2R_5 + C_3C_5L_3R_2R_5 + C_3C_5$ 

**10.216** INVALID-ORDER-216  $Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, R_5, \infty\right)$ 

$$H(s) = \frac{C_2L_3R_2R_5s^2 + s\left(L_3R_2R_5g_m - L_3R_2 + L_3R_5\right)}{C_2C_3L_3R_2R_5s^3 + R_2R_5g_m + R_2 + R_5 + s^2\left(4C_2L_3R_2 + C_3L_3R_2R_5g_m + C_3L_3R_2 + C_3L_3R_5\right) + s\left(C_2R_2R_5 + 2L_3R_2g_m + 4L_3\right)}$$

10.217 INVALID-ORDER-217  $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{s^2 \left(C_2 L_3 R_2 - C_5 L_3 R_2\right) + s \left(L_3 R_2 g_m + L_3\right)}{R_2 g_m + s^3 \left(C_2 C_3 L_3 R_2 + 4 C_2 C_5 L_3 R_2 + C_3 C_5 L_3 R_2\right) + s^2 \left(C_3 L_3 R_2 g_m + C_3 L_3 + 2 C_5 L_3 R_2 g_m + 4 C_5 L_3\right) + s \left(C_2 R_2 + C_5 R_2\right) + 1}$$

10.218 INVALID-ORDER-218  $Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{R_5}{C_5R_5s+1}, \infty\right)$ 

$$H(s) = \frac{s^2 \left(C_2 L_3 R_2 R_5 - C_5 L_3 R_2 R_5\right) + s \left(L_3 R_2 R_5 g_m - L_3 R_2 + L_3 R_5\right)}{R_2 R_5 g_m + R_2 + R_5 + s^3 \left(C_2 C_3 L_3 R_2 R_5 + 4 C_2 C_5 L_3 R_2 R_5 + C_3 C_5 L_3 R_2 R_5\right) + s^2 \left(4 C_2 L_3 R_2 + C_3 L_3 R_2 + C_3 L_3 R_2 + C_3 L_3 R_5 + 2 C_5 L_3 R_2 R_5 g_m + 4 C_5 L_3 R_5\right) + s \left(C_2 R_2 R_5 + C_5 R_2 R_5 + 2 L_3 R_2 g_m + 4 L_3\right)}$$

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10.219 INVALID-ORDER-219 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)
                                                                                  H(s) = \frac{C_2C_5L_3R_2R_5s^3 + s^2\left(C_2L_3R_2 + C_5L_3R_2R_5g_m - C_5L_3R_2 + C_5L_3R_5\right) + s\left(L_3R_2g_m + L_3\right)}{C_2C_3C_5L_3R_2R_5s^4 + R_2g_m + s^3\left(C_2C_3L_3R_2 + 4C_2C_5L_3R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_5\right) + s^2\left(C_2C_5R_2R_5 + C_3L_3R_2g_m + C_3L_3 + 2C_5L_3R_2g_m + 4C_5L_3\right) + s\left(C_2R_2 + C_5R_2R_5g_m + C_5R_2 + C_5R_5\right) + 1}
10.220 INVALID-ORDER-220 Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)
                                                                           H(s) = \frac{C_2C_5L_3L_5R_2s^4 + s^3\left(C_5L_3L_5R_2g_m + C_5L_3L_5\right) + s^2\left(C_2L_3R_2 - C_5L_3R_2\right) + s\left(L_3R_2g_m + L_3\right)}{C_2C_3C_5L_3L_5R_2s^5 + R_2g_m + s^4\left(C_3C_5L_3L_5R_2g_m + C_3C_5L_3L_5\right) + s^3\left(C_2C_3L_3R_2 + 4C_2C_5L_3R_2 + C_2C_5L_3R_2\right) + s^2\left(C_3L_3R_2g_m + C_3L_3 + 2C_5L_3R_2g_m + 4C_5L_3 + C_5L_5R_2g_m + C_5L_5\right) + s\left(C_2R_2 + C_5R_2\right) + 1}
10.221 INVALID-ORDER-221 Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
                                                                                                             H(s) = \frac{-L_3R_2s + s^3\left(C_2L_3L_5R_2 - C_5L_3L_5R_2\right) + s^2\left(L_3L_5R_2g_m + L_3L_5\right)}{R_2 + s^4\left(C_2C_3L_3L_5R_2 + 4C_2C_5L_3L_5R_2 + C_3C_5L_3L_5R_2\right) + s^3\left(C_3L_3L_5R_2g_m + 4C_5L_3L_5\right) + s^2\left(4C_2L_3R_2 + C_2L_5R_2 + C_3L_3R_2 + C_5L_5R_2\right) + s\left(2L_3R_2g_m + 4L_3 + L_5R_2g_m + L_5\right)}
10.222 INVALID-ORDER-222 Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{C_2C_5L_3L_5R_2s^4 + s^3\left(C_2C_5L_3R_2R_5 + C_5L_3L_5R_2g_m + C_5L_3L_5\right) + s^2\left(C_2L_3R_2 + C_5L_3R_2 
10.223 INVALID-ORDER-223 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \infty\right)
H(s) = \frac{-L_3R_2R_5s + s^3\left(C_2L_3L_5R_2R_5 - C_5L_3L_5R_2R_5\right) + s^2\left(L_3L_5R_2R_5g_m - L_3L_5R_2 + L_3L_5R_5\right)}{R_2R_5 + s^4\left(C_2C_3L_3L_5R_2R_5 + 4C_2C_5L_3L_5R_2R_5 + C_3L_3L_5R_2R_5\right) + s^3\left(4C_2L_3L_5R_2 + C_3L_3L_5R_2 + C_3L_3L_5R_2\right) + s^2\left(4C_2L_3R_2R_5 + 4C_2L_3R_2R_5 + C_3L_3R_2R_5 + C_5L_5R_2R_5 + C_5L_5R_5R_5 + C_5L_5R_
10.224 INVALID-ORDER-224 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \infty\right)
H(s) = \frac{C_2C_5L_3L_5R_2R_5s^4 + s^3\left(C_2L_3L_5R_2 + C_5L_3L_5R_2 + C_5L_5L_5R_2 + C_5L_5L_5R_
10.225 INVALID-ORDER-225 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C_{2}C_{5}L_{3}L_{5}R_{2}R_{5}s^{4} + s^{3}\left(C_{5}L_{3}L_{5}R_{2}R_{5}g_{m} - C_{5}L_{3}L_{5}R_{2} + C_{5}L_{3}L_{5}R_{5}\right) + s^{2}\left(C_{2}L_{3}R_{2}R_{5} - C_{5}L_{3}R_{2}R_{5}\right) + s\left(L_{3}R_{2}R_{5}g_{m} - L_{3}R_{2} + L_{3}R_{5}R_{5}\right) + s^{2}\left(C_{2}L_{3}R_{2}R_{5} - C_{5}L_{3}R_{2}R_{5}\right) + s\left(L_{3}R_{2}R_{5}g_{m} - L_{3}R_{2} + L_{3}R_{5}R_{5}\right) + s\left(L_{3}R_{2}R_{5}g_{m} - L_{3}R_{5}R_{5}\right) + s\left(L_{3}R_{5}R_{5}g_{m} - L_{3}R_{5}R_{5}\right) + s\left(L_{3}R
H(s) = \frac{C_2C_3L_3L_5R_2R_5s^5 + R_2R_5g_m + C_3C_5L_3L_5R_2 + C
```

$$H(s) = \frac{C_2C_3L_3R_2R_5s^3 + R_2R_5g_m - R_2 + R_5 + s^2\left(C_2C_3R_2R_3R_5 + C_3L_3R_2R_5g_m - C_3L_3R_2 + C_3L_3R_5\right) + s\left(C_2R_2R_5 + C_3R_2R_3R_5g_m - C_3R_2R_3 + C_3R_3R_5\right)}{4C_2C_3L_3R_2s^3 + 2R_2g_m + s^2\left(4C_2C_3R_2R_3 + C_2C_3R_2R_5 + 2C_3L_3R_2g_m + 4C_3L_3\right) + s\left(4C_2R_2 + 2C_3R_2R_3g_m + C_3R_2R_5g_m + C_3R_2R_5g_m + C_3R_2 + 4C_3R_3 + C_3R_5\right) + 4}$$

$$\mathbf{10.227} \quad \mathbf{INVALID\text{-}ORDER\text{-}227} \ Z(s) = \left(\infty, \ \frac{R_2}{C_2R_2s+1}, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{1}{C_5s}, \ \infty\right)$$

$$H(s) = \frac{R_2g_m + s^3\left(C_2C_3L_3R_2 - C_3C_5L_3R_2\right) + s^2\left(C_2C_3R_2R_3 - C_3C_5R_2R_3 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_2R_2 + C_3R_2R_3g_m + C_3R_3 - C_5R_2\right) + 1}{4C_2C_3C_5L_3R_2s^4 + s^3\left(4C_2C_3C_5R_2R_3 + 2C_3C_5L_3R_2g_m + 4C_3C_5L_3\right) + s^2\left(C_2C_3R_2 + 4C_2C_5R_2 + 2C_3C_5R_2R_3g_m + C_3C_5R_2 + 4C_3C_5R_3\right) + s\left(C_3R_2g_m + C_3 + 2C_5R_2g_m + 4C_5\right)}$$

**10.226** INVALID-ORDER-226  $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \infty\right)$ 

```
10.228 INVALID-ORDER-228 Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
```

 $H(s) = \frac{R_2R_5g_m - R_2 + R_5 + s^3\left(C_2C_3L_3R_2R_5 - C_3C_5L_3R_2R_5\right) + s^2\left(C_2C_3R_2R_3R_5 - C_3C_5R_2R_3R_5 + C_3L_3R_2R_5g_m - C_3L_3R_2 + C_3L_3R_5\right) + s\left(C_2R_2R_5 + C_3R_2R_3R_5g_m - C_3R_2R_3 + C_3R_3R_5 - C_5R_2R_5\right)}{4C_2C_3C_5L_3R_2R_5s^4 + 2R_2g_m + s^3\left(4C_2C_3C_5R_2R_3R_5 + 4C_2C_3L_3R_2 + 2C_3C_5L_3R_2R_5 + 4C_2C_3R_2R_3 + 4C_3C_5R_2R_5 + 4C_3C_5R_3R_5 + 4C_3$ 

10.229 INVALID-ORDER-229 
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$$

 $H(s) = \frac{C_2C_3C_5L_3R_2R_5s^4 + R_2g_m + s^3\left(C_2C_3C_5R_2R_3R_5 + C_2C_3L_3R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_2 + C_3C_5L_3R_2 + C_3C_5R_2R_3 + C_3C_5R_3R_3 + C_3C_5R_3R_$ 

10.230 INVALID-ORDER-230 
$$Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)$$

 $H(s) = \frac{C_2C_3C_5L_3L_5R_2s^5 + R_2g_m + s^4\left(C_2C_3C_5L_5R_2R_3 + C_3C_5L_3L_5R_2g_m + C_3C_5L_3R_2 + C_2C_5L_5R_2 - C_3C_5L_3R_2 + C_3C_5L_5R_3g_m + C_3C_5L_5R_3\right) + s^2\left(C_2C_3R_2R_3 - C_3C_5R_2R_3 + C_3L_3R_2g_m + C_3L_3 + C_5L_5R_2g_m + C_5L_5\right) + s\left(C_2R_2 + C_3R_2R_3g_m + C_3C_5L_5R_2g_m + C_3C_5L_5R_3\right) + s^2\left(C_2C_3R_2R_3 - C_3C_5R_2R_3 + C_3L_3R_2g_m + C_3L_3 + C_5L_5R_2g_m + C_5L_5\right) + s\left(C_2R_2 + C_3R_2R_3g_m + C_3C_5L_3R_2g_m + C_3C_5R_2g_m + C_3C_5R_$ 

10.231 INVALID-ORDER-231 
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$$

 $H(s) = \frac{-R_2 + s^4 \left(C_2 C_3 L_3 L_5 R_2 - C_3 C_5 L_3 L_5 R_2 \right) + s^3 \left(C_2 C_3 L_5 R_2 R_3 - C_3 C_5 L_5 R_2 R_3 + C_3 L_3 L_5 R_2 g_m + C_3 L_3 L_5 \right) + s^2 \left(C_2 L_5 R_2 - C_3 L_3 R_2 + C_3 L_5 R_2 R_3 g_m + C_3 L_5 R_3 - C_5 L_5 R_2 \right) + s \left(-C_3 R_2 R_3 + L_5 R_2 g_m + C_3 L_5 R_2 R_3 + C_3 L_5 R_3 R_3 R_3 R_3 R_3 R_3 R_3 R_$ 

**10.232** INVALID-ORDER-232 
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

 $H(s) = \frac{C_2C_3C_5L_3L_5R_2s^5 + R_2g_m + s^4\left(C_2C_3C_5L_3R_2R_5 + C_2C_3C_5L_3R_2R_5 + C_2C_3C_5L_3R_2 + C_3C_5L_3R_2 + C_$ 

10.233 INVALID-ORDER-233 
$$Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \infty\right)$$

 $H(s) = \frac{-R_2R_5 + s^4 \left(C_2C_3L_3L_5R_2R_5 - C_3C_5L_3L_5R_2R_3 - C_3C_5L_5R_2R_3R_5 - C_3C_5L_5R_2R_3R_5 + C_3L_3L_5R_2R_5g_m - C_3L_3L_5R_2 + C_3L_3L_5$ 

10.234 INVALID-ORDER-234 
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$$

 $H(s) = \frac{C_2C_3C_5L_3L_5R_2R_5s^5 + R_2R_5g_m - R_2 + R_5 + s^4\left(C_2C_3C_5L_5R_2R_3R_5 + C_2C_3L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_5R_2R_3 + C_2C_3L_5R_2R_3 + C_3C_5L_5R_2R_3 + C_3C_5L_5R_3R_3 + C_3C_5L_5R_$ 

10.235 INVALID-ORDER-235 
$$Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \infty\right)$$

 $H(s) = \frac{C_2C_3C_5L_3L_5R_2R_5s^5 + R_2R_5g_m - R_2 + R_5 + s^4\left(C_2C_3C_5L_5R_2R_3R_5 + C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3R_2R_5 + C_2C_5L_5R_2R_5 - C_3C_5L_3R_2R_5 + C_3C_5L_3R_$ 

10.236 INVALID-ORDER-236 
$$Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, R_5, \infty\right)$$

 $H(s) = \frac{C_2L_3R_2R_3R_5s^2 + s\left(L_3R_2R_3R_5g_m - L_3R_2R_3 + L_3R_3R_5\right)}{C_2C_3L_3R_2R_3R_5s^3 + R_2R_3R_5g_m + R_2R_3 + R_3R_5 + s^2\left(4C_2L_3R_2R_3 + C_2L_3R_2R_5 + C_3L_3R_2R_3R_5g_m + C_3L_3R_2R_3 + C_3L_3R_3R_3 + C_3L_3R_3$ 

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H(s) = \frac{s^2 \left(C_2 L_3 R_2 R_3 - C_5 L_3 R_2 R_3\right) + s \left(L_3 R_2 R_3 g_m + L_3 R_3\right)}{R_2 R_3 g_m + R_3 + s^3 \left(C_2 C_3 L_3 R_2 R_3 + 4 C_2 C_5 L_3 R_2 R_3 + C_3 C_5 L_3 R_2 R_3\right) + s^2 \left(C_2 L_3 R_2 + C_3 L_3 R_2 R_3 g_m + C_3 L_3 R_2 R_3 g_m + C_5 L_3 R_2 + 4 C_5 L_3 R_3\right) + s \left(C_2 R_2 R_3 + C_5 R_2 R_3 + L_3 R_2 g_m + L_3\right)}
10.238 INVALID-ORDER-238 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \frac{R_5}{C_5R_5s+1}, \infty\right)
H(s) = \frac{s^2 \left( C_2 L_3 R_2 R_3 R_5 - C_5 L_3 R_2 R_3 R_5 \right) + s \left( L_3 R_2 R_3 R_5 g_m - L_3 R_2 R_3 + L_3 R_3 R_5 \right)}{R_2 R_3 R_5 g_m + R_2 R_3 + R_3 R_5 + s^3 \left( C_2 C_3 L_3 R_2 R_3 R_5 + 4 C_2 C_5 L_3 R_2 R_3 R_5 \right) + s^2 \left( 4 C_2 L_3 R_2 R_3 + C_2 L_3 R_2 R_3 + C_3 L_3 R_2 R_3 R_5 g_m + C_3 L_3 R_2 R_3 R_5 g_m + C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 + 4 C_5 L_3 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 \right) + s \left( C_2 R_2 R_3 R_5 \right) + s \left( C
10.239 INVALID-ORDER-239 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)
H(s) = \frac{C_2C_5L_3R_2R_3R_5s^3 + s^2\left(C_2L_3R_2R_3 + C_5L_3R_2R_3R_5g_m - C_5L_3R_2R_3 + C_5L_3R_2R_3R_5 + C_5L_3R_2R_5 + C_5L_3R_2R_
10.240 INVALID-ORDER-240 Z(s) = \left(\infty, \ \frac{R_2}{C_2R_2s+1}, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ L_5s+\frac{1}{C_5s}, \ \infty\right)
H(s) = \frac{C_2C_5L_3L_5R_2R_3s^4 + s^3\left(C_5L_3L_5R_2R_3g_m + C_5L_3L_5R_3\right) + s^2\left(C_2L_3R_2R_3 - C_5L_3R_2R_3\right) + s\left(L_3R_2R_3g_m + L_3R_3\right)}{C_2C_3C_5L_3L_5R_2R_3s^5 + R_2R_3g_m + R_3 + s^4\left(C_2C_5L_3L_5R_2 + C_3C_5L_3L_5R_2\right) + s^3\left(C_2C_3L_3R_2R_3 + C_2C_5L_3R_2R_3 + C_2C_5L_3R_2R_3 + C_5L_3L_5R_2g_m + C_5L_3L_5\right) + s^2\left(C_2L_3R_2R_3 - C_5L_3R_2R_3 + C_5L_3R_3R_3 + C_5L_3R_3
10.241 INVALID-ORDER-241 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \infty\right)
H(s) = \frac{-L_3R_2R_3s + s^3\left(C_2L_3L_5R_2R_3 - C_5L_3L_5R_2R_3 + s^2\left(L_3L_5R_2R_3g_m + L_3L_5R_3\right)\right.}{R_2R_3 + s^4\left(C_2C_3L_3L_5R_2R_3 + 4C_2C_5L_3L_5R_2R_3 + C_3C_5L_3L_5R_2R_3 + C_3L_3L_5R_2R_3 + C_5L_3L_5R_2R_3 + C_5L_5R_2R_3 + C_5L_5R_3R_3 + C
10.242 INVALID-ORDER-242 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, L_5s+R_5+\frac{1}{C_5s}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     H(s) = \frac{C_2C_5L_3L_5R_2R_3s^5 + s^5\left(C_2C_5L_3R_2R_3R_5 + C_5L_3L_5R_2R_3g_m + C_5L_3L_5R_3g_m + C_
10.243 INVALID-ORDER-243 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -L_3R_2R_3R_5 + s \cdot (C_2L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5) + s \cdot (L_3L_5R_2R_3R_5) + s \cdot (L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5) + s \cdot (L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5) + s \cdot (L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5) + s \cdot (L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5) + s \cdot (L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5) + s \cdot (L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5) + s \cdot (L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5) + s \cdot (L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5) + s \cdot (L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5) + s \cdot (L_3L_5R_2R_3R_5 + C_5L_3L_5R_2R_3R_5) + s \cdot (L_3L_5R_3R_5 + C_5L_3L_5R_3R_5) + s \cdot (L_3L_5R_3R_5 + C_5L_3L_5R_5R_5) + s \cdot (L_3L_5R_3R_5 + C_5L_3L_5R_5R_5) + s \cdot (L_3L_5R_3R_5 + C_5L_3L_5R_5R_5) + s \cdot (L_3L_5R_3R_5 + C_5L_5R_5R_5) + 
10.244 INVALID-ORDER-244 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C_2C_5L_3L_5R_2R_3R_5s^4 + s^3(C_2L_3L_5R_2R_3 + C_5L_3R_3)
H(s) = \frac{C_2C_5L_3L_5R_2R_3R_5s^5 + s^5 (C_2L_3L_5R_2R_3 + C_5L_3L_5R_2R_3 + C_5L_3L_5R_3R_3 + C_5L_
10.245 INVALID-ORDER-245 Z(s) = \left(\infty, \ \frac{R_2}{C_2R_2s+1}, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C_2C_5L_3L_5R_2R_3R_5s^4 + s^3(C_5L_3L_5R_2R_3R_5g_m
H(s) = \frac{C_2C_3C_3L_3L_5R_2R_3R_5s^5 + R_2R_3R_5g_m + R_2R_3 + R_3R_5 + s^4(4C_2C_5L_3L_5R_2R_3 + C_3C_5L_3L_5R_2R_3 + C_3C_5L_3L_5R_3 + C_3C_
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10.237 INVALID-ORDER-237  $Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \frac{1}{C_5s}, \infty\right)$ 

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10.246 INVALID-ORDER-246 Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, R_5, \infty\right)
                                                                                                                                      H(s) = \frac{C_2C_3L_3R_2R_3R_5s^3 + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^2\left(C_2L_3R_2R_5 + C_3L_3R_2R_3F_{5g_m} - C_3L_3R_2R_3 + C_3L_3R_3R_5\right) + s\left(C_2R_2R_3R_5 + L_3R_2R_5g_m - L_3R_2 + L_3R_5\right)}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^3\left(4C_2C_3L_3R_2R_3 + C_2C_3L_3R_2R_5\right) + s^2\left(4C_2L_3R_2 + 2C_3L_3R_2R_3g_m + C_3L_3R_2F_{5g_m} + C_3L_3R_2 + 4C_3L_3R_3 + C_3L_3R_5\right) + s\left(4C_2R_2R_3 + C_2R_2R_3 + C_2R_2R_3 + C_3L_3R_2R_3 + C_3L_3R_2R_3 + C_3L_3R_3 + C_3L_3R_3 + C_3L_3R_3 + C_3L_3R_3\right) + s\left(4C_2R_2R_3 + C_3L_3R_2R_3 + C_3L_3R_2R_3 + C_3L_3R_2R_3 + C_3L_3R_3 + C_3L_3R_3\right) + s\left(4C_2R_2R_3 + C_3L_3R_2R_3 + C_3L_3R_2R_3 + C_3L_3R_2R_3 + C_3L_3R_3 + C_3L_3R
 10.247 INVALID-ORDER-247 Z(s) = \left(\infty, \ \frac{R_2}{C_2R_2s+1}, \ \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \ \infty, \ \frac{1}{C_5s}, \ \infty\right)
                                                                                        H(s) = \frac{R_2 R_3 g_m + R_3 + s^3 \left(C_2 C_3 L_3 R_2 R_3 - C_3 C_5 L_3 R_2 R_3\right) + s^2 \left(C_2 L_3 R_2 + C_3 L_3 R_2 R_3 g_m + C_3 L_3 R_3 - C_5 L_3 R_2\right) + s \left(C_2 R_2 R_3 - C_5 R_2 R_3 + L_3 R_2 g_m + L_3\right)}{4 C_2 C_3 C_5 L_3 R_2 R_3 s^4 + R_2 g_m + s^3 \left(C_2 C_3 L_3 R_2 + 2 C_3 C_5 L_3 R_2 R_3 g_m + C_3 C_5 L_3 R_2\right) + s \left(C_2 R_2 R_3 - C_5 R_2 R_3 + L_3 R_2 g_m + L_3\right)} \\ + \frac{1}{4 C_2 C_3 C_5 L_3 R_2 R_3 s^4 + R_2 g_m + s^3 \left(C_2 C_3 L_3 R_2 + 2 C_5 L_3 R_2 R_3 g_m + C_3 L_3 R_2 R_3 g_m + C_3 L_3 R_2 g_m + C_
 10.248 INVALID-ORDER-248 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \infty, \frac{R_5}{C_5R_5s+1}, \infty\right)
 H(s) = \frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^3\left(C_2C_3L_3R_2R_3R_5 - C_3C_5L_3R_2R_3R_5\right) + s^2\left(C_2L_3R_2R_5 + C_3L_3R_2R_3 + C_3L_3R_2R_3 + C_3L_3R_2R_3 + C_5L_3R_2R_5\right) + s\left(C_2R_2R_3R_5 - C_3C_5L_3R_2R_3R_5\right) + s\left(C_2R_2R_3R_5 - C_3C_5L_3R_2R_5\right) + s\left(C_2R_2R_3R_5\right) + s
10.249 INVALID-ORDER-249 Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)
                                                     \frac{C_{2}C_{3}C_{5}L_{3}R_{2}R_{3}R_{5}s^{4} + R_{2}R_{3}g_{m} + R_{3} + s^{3}\left(C_{2}C_{3}L_{3}R_{2}R_{3} + C_{2}C_{5}L_{3}R_{2}R_{5}g_{m} - C_{3}C_{5}L_{3}R_{2}R_{3} + C_{3}C_{5}L_{3}R_{2}R_{3} + C_{3}C_{5}L_{3}R_{2}R_{3} + C_{2}C_{5}L_{3}R_{2}R_{3} + C_{2}C_{5}L_{3}R_{2}R_{5}g_{m} - C_{5}L_{3}R_{2}R_{5}g_{m} - C_{5}L_{3}R_{2}R_{5}g_{m} - C_{5}L_{3}R_{2} + C_{5}L_{3}R_{5}\right) + s^{2}\left(C_{2}C_{5}R_{2}R_{3}R_{5} + C_{2}L_{3}R_{2} + C_{5}L_{3}R_{2} + C_{5}L_{3}R
 10.250 INVALID-ORDER-250 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \infty, L_5s+\frac{1}{C_5s}, \infty\right)
 H(s) = \frac{C_2C_3C_5L_3L_5R_2R_3s^5 + R_2R_3g_m + R_3 + s^4\left(C_2C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2\right) + s^3\left(C_2C_3L_3R_2R_3 + C_2C_5L_5R_2R_3 - C_3C_5L_3R_2R_3 + C_5L_3L_5\right) + s^2\left(C_2L_3R_2 + C_3L_3R_2R_3g_m + C_3L_3R_3 - C_5L_3R_2 + C_5L_5R_2R_3g_m + C_5L_5R_2R_3\right) + s^2\left(C_2L_3R_2 + C_3L_3R_2R_3 + C_5L_3R_2R_3 + C_5L_3R_2R_3 + C_5L_3R_2R_3 + C_5L_3R_2R_3\right) + s^2\left(C_2L_3R_2 + C_3L_3R_2R_3 + C_5L_3R_2R_3 + C_5L_3R_2R_3 + C_5L_3R_2R_3\right) + s^2\left(C_2L_3R_2 + C_3L_3R_2R_3 + C_5L_3R_2R_3 + C_5L_3R_2R_3 + C_5L_3R_2R_3\right) + s^2\left(C_2L_3R_2 + C_3L_3R_2R_3 + C_5L_3R_2R_3 + C_5L_3R_2R_3 + C_5L_3R_2R_3\right) + s^2\left(C_2L_3R_2 + C_3L_3R_2R_3 + C_5L_3R_2R_3 + C_5L_3R_2R_3 + C_5L_3R_2R_3\right) + s^2\left(C_2L_3R_2 + C_3L_3R_2R_3 + C_5L_3R_2R_3\right) + s^2\left(C_2L_3R_2 + C_3L_3R_2R_3 + C_3L_3R_2R_3\right) + s^2\left(C_2L_3R_2 + C_3L_3R_2R_3 + C_3L_3R_2R_3 + C_3L_3R_2R_3\right) + s^2\left(C_2L_3R_2 + C_3L_3R_2R_3 + C_3L_3R_3\right) + s^2\left(C_2L_3R_2 + C_3L_3R_3R_3 + C_3L_3R_3\right) + s^2\left(C_2L_3R_2 + C_3L_3R_3R_3 + C_3L_3R_3R_3\right) + s^2\left(C_2L_3R_3R_3 + C_3L_3R_3R_3 + C_3L_3R_3R_3\right) + s^2\left(C_2L_3R_3R_3 + C_3L_3R_3R_3 + C_3L_3R_3R_3\right) + s^2\left(C_2L_3R_3R_3 + C_3L_3R_3R_3 + C_3L_3R_3R_3\right) + s^2\left(C_3L_3R_3R_3 + C_3L_3R_3R_3 +
 10.251 INVALID-ORDER-251 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \infty\right)
                                                    -R_2R_3 + s^4 \left(C_2C_3L_3L_5R_2R_3 - C_3C_5L_3L_5R_2R_3 - C_3L_3L_5R_2R_3 - C_5L_3L_5R_2 + C_3L_3L_5R_2 - C_5L_3L_5R_2 + C_3L_3L_5R_2 - C_5L_3L_5R_2 + C_3L_3L_5R_2 - C_5L_3L_5R_2 - C_5L_5L_5R_2 - C_5
 10.252 INVALID-ORDER-252 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \infty, L_5s+R_5+\frac{1}{C_5s}, \infty\right)
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 $H(s) = \frac{C_2C_3C_5L_3L_5R_2R_3s^5 + R_2R_3g_m + R_3 + s^4\left(C_2C_3C_5L_3R_2R_3R_5 + C_2C_5L_3L_5R_2 + C_3C_5L_3L_5R_2 + C_3C_5L_3L_5R_2\right) + s^3\left(C_2C_3L_3R_2R_3 + C_2C_5L_3R_2R_3 + C_3C_5L_3R_2R_3 + C_3C_5L_3R$ 

10.253 INVALID-ORDER-253  $Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \infty\right)$ 

 $H(s) = \frac{12L_3L_3 + 6 \cdot (2L_3L_3L_5R_2R_3R_5s^5 + 2R_2R_3R_5g_m + R_2R_5 + 4R_3R_5 + 4C_2C_3L_3L_5R_2R_3 + 4C_2C_3L_3L_5R_3 + 4C_2C_3L_3L_5R_$ 

10.254 INVALID-ORDER-254  $Z(s) = \left(\infty, \ \frac{R_2}{C_2R_2s+1}, \ \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \ \infty, \ \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \ \infty\right)$ 

 $H(s) = \frac{C_2C_3C_5L_3L_5R_2R_3R_5s^5 + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^4\left(C_2C_3L_3L_5R_2R_3 + C_2C_5L_3L_5R_2R_3 + C_3C_5L_3L_5R_2R_3 + C_3C_5L_3L_5R_2 +$ 

10.255 INVALID-ORDER-255  $Z(s) = \left(\infty, \ \frac{R_2}{C_2 R_2 s + 1}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$ 

 $\frac{C_2C_3C_5L_3L_5R_2R_3G_5}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^5\left(4C_2C_3C_5L_3L_5R_2R_3 + C_2C_3C_5L_3L_5R_2R_3 + C_2C_5L_3L_5R_2 + 2C_3C_5L_3L_5R_2 + 2C_3C_5L_3L_5R_2 + 2C_3C_5L_3L_5R_2 + 2C_3C_5L_3L_5R_2 + 4C_3C_5L_3L_5R_2 + 4C_3C_5L_3L_5R_3 +$ 

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10.256 INVALID-ORDER-256 Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, R_5, \infty\right)
                                          H(s) = \frac{C_2C_3L_3R_2R_3R_5s^3 + C_2R_2R_3R_5s + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^2\left(C_3L_3R_2R_3R_5g_m - C_3L_3R_2R_3 + C_3L_3R_3R_5\right)}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^3\left(4C_2C_3L_3R_2R_3 + C_2C_3L_3R_2R_5\right) + s^2\left(C_2C_3R_2R_3R_5 + 2C_3L_3R_2R_3g_m + C_3L_3R_2R_5g_m + C_3L_3R_2 + 4C_3L_3R_3 + C_3L_3R_5\right) + s\left(4C_2R_2R_3 + C_2R_2R_5 + C_3R_2R_3R_5g_m + C_3R_3R_5\right)}
10.257 INVALID-ORDER-257 Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, \infty\right)
                                     H(s) = \frac{R_2R_3g_m + R_3 + s^3\left(C_2C_3L_3R_2R_3 - C_3C_5L_3R_2R_3\right) + s^2\left(C_3L_3R_2R_3g_m + C_3L_3R_3\right) + s\left(C_2R_2R_3 - C_5R_2R_3\right)}{4C_2C_3C_5L_3R_2R_3s^4 + R_2g_m + s^3\left(C_2C_3L_3R_2 + 2C_3C_5L_3R_2R_3g_m + C_3C_5L_3R_2\right) + s^2\left(C_2C_3R_2R_3 + 4C_2C_5R_2R_3 + C_3C_5R_2R_3 + C_3C_5R_2R_3 + C_3C_5R_2R_3\right) + s\left(C_2R_2R_3 - C_5R_2R_3\right)}
10.258 INVALID-ORDER-258 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{R_5}{C_5R_5s+1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^3\left(C_2C_3L_3R_2R_3R_5 - C_3C_5L_3R_2R_3R_5\right) + s^2\left(C_3L_3R_2R_3R_5g_m - C_3L_3R_2R_3 + C_3L_3R_3R_5\right) + s\left(C_2R_2R_3R_5 - C_3C_5L_3R_2R_3R_5\right) + s^2\left(C_3L_3R_2R_3R_5g_m - C_3L_3R_2R_3 + C_3L_3R_3R_5\right) + s^2\left(C_3L_3R_2R_3R_5g_m - C_3L_3R_3R_5\right) + s^2\left(C_3L_3R_2R_3R_5g_m - C_3L_3R_3R_5\right) + s^2\left(C_3L_3R_3R_5g_m - C_3L_3R_5g_m - C_3L_3R_5g_m\right) + s^2\left(C_3L_3R_5g_m - C_3L_3R_5g_m - C_3L_3R
H(s) = \frac{R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^3\left(C_2C_3L_3R_2R_3R_5 - C_3C_5L_3R_2R_3R_5\right) + s^2\left(C_3L_3R_2R_3R_5g_m - C_3L_3R_2R_3 + C_3L_3R_3R_5\right) + s\left(C_2R_2R_3R_5 - C_3C_5L_3R_2R_3R_5\right) + s^2\left(C_3L_3R_2R_3R_5 + 2C_3L_3R_2R_3R_5\right) + s^2\left(C_3L_3R_2R_3R_5\right) + s^2\left(C_3L_3R_3R_5\right) 
10.259 INVALID-ORDER-259 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)
                                    \frac{C_{2}C_{3}C_{5}L_{3}R_{2}R_{3}F_{5}^{4}+R_{2}R_{3}g_{m}+R_{3}+s^{3}\left(C_{2}C_{3}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{2}R_{3}+C_{3}C_{5}L_{3}R_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_{3}C_{5}L_{3}R_{3}+C_
10.260 INVALID-ORDER-260 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s+\frac{1}{C_5s}, \infty\right)
H(s) = \frac{C_2C_3C_5L_3L_5R_2R_3s^5 + R_2R_3g_m + R_3 + s^4\left(C_3C_5L_3L_5R_2R_3g_m + C_3C_5L_3L_5R_3\right) + s^3\left(C_2C_3L_3R_2R_3 + C_2C_5L_5R_2R_3 - C_3C_5L_3R_2R_3\right) + s^2\left(C_3L_3R_2R_3g_m + C_3L_3R_3R_3 + C_5L_5R_2R_3g_m + C_3L_5R_2R_3\right) + s^2\left(C_3L_3R_2R_3g_m + C_3L_5R_2R_3g_m + C_3L_5R_3g_m + C_3L_
10.261 INVALID-ORDER-261 Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \infty\right)
10.262 INVALID-ORDER-262 Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)
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 $H(s) = \frac{C_2C_3C_5L_3L_5R_2R_3s^5 + R_2R_3g_m + R_3 + s^4\left(C_2C_3C_5L_3R_2R_3R_5 + C_3C_5L_3L_5R_3g_m + C_3C_5L_3L_5R_3\right) + s^3\left(C_2C_3L_3R_2R_3 + C_2C_5L_5R_2R_3 + C_3C_5L_3R_2R_3R_5g_m - C_3C_5L_3R_2R_3R_5 + C_3C_5L_3R_3R_5 + C_3C_5L$ 

10.263 INVALID-ORDER-263  $Z(s) = \left(\infty, \ \frac{R_2}{C_2R_2s+1}, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \ \infty\right)$ 

 $H(s) = \frac{-R_2R_3R_5 + s^4\left(C_2C_3L_3L_5R_2R_3R_5 - C_3C_5L_3L_5R_2R_3R_5 - C_3C_5L_3L_5R_2R_3R_5\right) + s^3\left(C_3R_3R_5 + s^4\left(C_2C_3L_3L_5R_2R_3R_5 + s^4c_3C_5L_3L_5R_2R_3R_5 + s^4c_3C_3L_5R_2R_3R_5 + s^4c_3C_3L_5R_2R_3R_5 + s^4c_3C_3L_5R_2R_3R_5 + s^4c_3C_3L_5R_2R_3R_5 + s^4c_3C_3L_5R_2R_3R_5 + s^4c_3C_3L_5R_3R_5 + s^4c_3C_3L_3L_5R_3R_5 + s^4c_3C_3L_3$ 

10.264 INVALID-ORDER-264  $Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \infty\right)$ 

 $H(s) = \frac{C_2C_3C_5L_3L_5R_2R_3R_5s^5 + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^4\left(C_2C_3L_3L_5R_2R_3 + C_3C_5L_3L_5R_2R_3 + C_3C_5L_3L_5R_2 + C_3C_5L_5L_5R_2 + C_3C_5L_5L_5R_2 + C_3C_5L_5L_5R_2 + C_3C_5L_5L_5R_2 + C_3C_5L_5L_5R_2 + C_3C_5L_5L_5R_2 + C_3C_5L_$ 

10.265 INVALID-ORDER-265 
$$Z(s) = \left(\infty, \ \frac{R_2}{C_2R_2s+1}, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \infty\right)$$

 $C_2C_3C_5L_3L_5R_2R_3R_5s^5 + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s$ 

 $H(s) = \frac{1}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^5\left(4C_2C_3C_5L_3L_5R_2R_3 + C_2C_3C_5L_3L_5R_2R_3R_5 + C_2C_3C_5L_3L_5R_2R_3R_5 + C_2C_3C_5L_3L_5R_2R_3R_5 + C_2C_3C_5L_3L_5R_2R_3R_5 + C_3C_5L_3L_5R_2R_3R_5 + C_3C_5L_3L_5R_3R_5 + C_3C_5L_3L_5R_5 + C_3C_5L_5L_5R_5 + C_$ 

**10.266** INVALID-ORDER-266  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3, \infty, R_5, \infty\right)$ 

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s \left(C_2 R_2 R_3 R_5 g_m - C_2 R_2 R_3 + C_2 R_3 R_5\right)}{2 R_3 g_m + R_5 g_m + s \left(2 C_2 R_2 R_3 g_m + C_2 R_2 R_5 g_m + C_2 R_2 + 4 C_2 R_3 + C_2 R_5\right) + 1}$$

**10.267** INVALID-ORDER-267  $Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ R_3, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \infty\right)$ 

$$H(s) = \frac{R_3 g_m + s^3 \left(C_2 C_5 L_5 R_2 R_3 g_m + C_2 C_5 L_5 R_3\right) + s^2 \left(-C_2 C_5 R_2 R_3 + C_5 L_5 R_3 g_m\right) + s \left(C_2 R_2 R_3 g_m + C_2 R_3 - C_5 R_3\right)}{g_m + s^3 \left(C_2 C_5 L_5 R_2 g_m + C_2 C_5 L_5\right) + s^2 \left(2C_2 C_5 R_2 R_3 g_m + C_2 C_5 R_2 + 4C_2 C_5 R_3 + C_5 L_5 g_m\right) + s \left(C_2 R_2 g_m + C_2 + 2C_5 R_3 g_m + C_5\right)}$$

10.268 INVALID-ORDER-268  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_5R_2R_3s^3 - R_3 + s^2\left(C_2L_5R_2R_3g_m + C_2L_5R_3 - C_5L_5R_3\right) + s\left(-C_2R_2R_3 + L_5R_3g_m\right)}{2R_3g_m + s^3\left(2C_2C_5L_5R_2R_3g_m + C_2C_5L_5R_2 + 4C_2C_5L_5R_3\right) + s^2\left(C_2L_5R_2g_m + C_2L_5 + 2C_5L_5R_3g_m + C_5L_5\right) + s\left(2C_2R_2R_3g_m + C_2R_2 + 4C_2R_3 + L_5g_m\right) + 1}$$

**10.269** INVALID-ORDER-269  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{R_3 g_m + s^3 \left(C_2 C_5 L_5 R_2 R_3 g_m + C_2 C_5 L_5 R_3\right) + s^2 \left(C_2 C_5 R_2 R_3 R_5 g_m - C_2 C_5 R_2 R_3 + C_2 C_5 R_3 R_5 + C_5 L_5 R_3 g_m\right) + s \left(C_2 R_2 R_3 g_m + C_2 R_3 + C_5 R_3 R_5 g_m - C_5 R_3\right)}{g_m + s^3 \left(C_2 C_5 L_5 R_2 g_m + C_2 C_5 L_5\right) + s^2 \left(2 C_2 C_5 R_2 R_3 g_m + C_2 C_5 R_2 R_5 g_m + C_2 C_5 R_2 + 4 C_2 C_5 R_3 + C_2 C_5 R_5 + C_5 L_5 g_m\right) + s \left(C_2 R_2 g_m + C_2 + 2 C_5 R_3 g_m + C_5 R_3 g_m + C_5 R_5 g_m + C_5 R_5 g_m\right)}$$

10.270 INVALID-ORDER-270  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_5R_2R_3R_5s^3 - R_3R_5 + s^2\left(C_2L_5R_2R_3R_5g_m - C_2L_5R_2R_3 + C_2L_5R_3R_5 - C_5L_5R_3R_5\right) + s\left(-C_2R_2R_3R_5 + L_5R_3R_5g_m - L_5R_3\right)}{2R_3R_5g_m + R_5 + s^3\left(2C_2C_5L_5R_2R_3R_5g_m + C_2C_5L_5R_2R_5 + 4C_2C_5L_5R_3R_5\right) + s\left(2C_2L_5R_2R_3R_5g_m + C_2L_5R_2R_3g_m + C_2L_5R_3R_5g_m + C_2L_5R_5g_m + C_2L_5R_5g_m$$

10.271 INVALID-ORDER-271  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{R_3R_5g_m - R_3 + s^3\left(C_2C_5L_5R_2R_3R_5g_m - C_2C_5L_5R_2R_3 + C_2C_5L_5R_3R_5\right) + s^2\left(C_2L_5R_2R_3g_m + C_2L_5R_3 + C_5L_5R_3R_5g_m - C_5L_5R_3\right) + s\left(C_2R_2R_3R_5g_m - C_2R_2R_3 + C_2R_3R_5 + L_5R_3g_m\right)}{2R_3g_m + R_5g_m + s^3\left(2C_2C_5L_5R_2R_3g_m + C_2C_5L_5R_2R_5g_m + C_2C_5L_5R_3 + C_2C_5L_5R_3\right) + s^2\left(C_2L_5R_2g_m + C_2L_5R_3g_m + C_5L_5R_3g_m + C_5L_5R_3g_$$

10.272 INVALID-ORDER-272  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)$ 

$$H(s) = \frac{R_3R_5g_m - R_3 + s^3\left(C_2C_5L_5R_2R_3R_5g_m - C_2C_5L_5R_2R_3 + C_2C_5L_5R_3R_5\right) + s^2\left(-C_2C_5R_2R_3R_5 + C_5L_5R_3R_5g_m - C_5L_5R_3\right) + s\left(C_2R_2R_3R_5g_m - C_2R_2R_3 + C_2R_3R_5 - C_5R_3R_5\right)}{2R_3g_m + R_5g_m + s^3\left(2C_2C_5L_5R_2R_3g_m + C_2C_5L_5R_2 + 4C_2C_5L_5R_3 + C_2C_5L_5R_3\right) + s\left(2C_2C_5R_2R_3R_5g_m - C_5L_5R_3\right) + s\left(2C_2R_2R_3R_5g_m - C_2R_2R_3 + C_2R_3R_5 - C_5R_3R_5\right)}$$

10.273 INVALID-ORDER-273  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{-C_2C_5R_2s^2 + g_m + s\left(C_2R_2g_m + C_2 - C_5\right)}{C_2C_3C_5R_2s^3 + s^2\left(C_2C_3R_2g_m + C_2C_3 + 2C_2C_5R_2g_m + 4C_2C_5 + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$$

**10.274** INVALID-ORDER-274 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$$

$$H(s) = \frac{-C_2C_5R_2R_5s^2 + R_5g_m + s\left(C_2R_2R_5g_m - C_2R_2 + C_2R_5 - C_5R_5\right) - 1}{C_2C_3C_5R_2R_5s^3 + 2g_m + s^2\left(C_2C_3R_2R_5g_m + C_2C_3R_2 + C_2C_5R_2R_5g_m + 4C_2C_5R_5 + C_3C_5R_5\right) + s\left(2C_2R_2g_m + 4C_2 + C_3R_5g_m + C_3 + 2C_5R_5g_m\right)}$$

10.275 INVALID-ORDER-275 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{g_m + s^2 \left( C_2 C_5 R_2 R_5 g_m - C_2 C_5 R_2 + C_2 C_5 R_5 \right) + s \left( C_2 R_2 g_m + C_2 + C_5 R_5 g_m - C_5 \right)}{s^3 \left( C_2 C_3 C_5 R_2 R_5 g_m + C_2 C_3 C_5 R_5 \right) + s^2 \left( C_2 C_3 R_2 g_m + C_2 C_3 + 2 C_2 C_5 R_2 g_m + 4 C_2 C_5 + C_3 C_5 R_5 g_m + C_3 C_5 \right) + s \left( C_3 g_m + 2 C_5 g_m \right)}$$

10.276 INVALID-ORDER-276 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{g_m + s^3 \left( C_2 C_5 L_5 R_2 g_m + C_2 C_5 L_5 \right) + s^2 \left( -C_2 C_5 R_2 + C_5 L_5 g_m \right) + s \left( C_2 R_2 g_m + C_2 - C_5 \right)}{s^4 \left( C_2 C_3 C_5 L_5 R_2 g_m + C_2 C_3 C_5 L_5 \right) + s^3 \left( C_2 C_3 C_5 R_2 + C_3 C_5 L_5 g_m \right) + s^2 \left( C_2 C_3 R_2 g_m + C_2 C_3 + 2 C_2 C_5 R_2 g_m + 4 C_2 C_5 + C_3 C_5 \right) + s \left( C_3 g_m + 2 C_5 g_m \right)}$$

10.277 INVALID-ORDER-277 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{-C_2C_5L_5R_2s^3 + s^2\left(C_2L_5R_2g_m + C_2L_5 - C_5L_5\right) + s\left(-C_2R_2 + L_5g_m\right) - 1}{C_2C_3C_5L_5R_2s^4 + 2g_m + s^3\left(C_2C_3L_5R_2g_m + C_2C_5L_5R_2g_m + 4C_2C_5L_5 + C_3C_5L_5\right) + s^2\left(C_2C_3R_2 + C_3L_5g_m + 2C_5L_5g_m\right) + s\left(2C_2R_2g_m + 4C_2 + C_3\right)}$$

10.278 INVALID-ORDER-278 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{g_m + s^3 \left(C_2 C_5 L_5 R_2 g_m + C_2 C_5 L_5\right) + s^2 \left(C_2 C_5 R_2 R_5 g_m - C_2 C_5 R_2 + C_2 C_5 R_5 + C_5 L_5 g_m\right) + s \left(C_2 R_2 g_m + C_2 + C_5 R_5 g_m - C_5\right)}{s^4 \left(C_2 C_3 C_5 L_5 R_2 g_m + C_2 C_3 C_5 L_5\right) + s^3 \left(C_2 C_3 C_5 R_2 R_5 g_m + C_2 C_3 C_5 R_2 + C_2 C_3 C_5 R_5 + C_3 C_5 L_5 g_m\right) + s^2 \left(C_2 C_3 R_2 g_m + C_2 C_3 + 2 C_2 C_5 R_2 g_m + 4 C_2 C_5 + C_3 C_5 R_5 g_m + C_3 C_5\right) + s \left(C_3 R_2 g_m + C_2 C_3 C_5 R_5 g_m + C_3 C_5 R_5 g_m + C_3 C_5\right) + s \left(C_3 R_2 g_m + C_3 C_5 R_5 g_m + C_3 C_5 R_5 g_m + C_3 C_5\right) + s \left(C_3 R_2 g_m + C_3 C_5 R_5 g_m + C_$$

10.279 INVALID-ORDER-279 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$$

$$H(s) = \frac{-C_2C_5L_5R_2R_5s^3 - R_5 + s^2\left(C_2L_5R_2R_5g_m - C_2L_5R_2 + C_2L_5R_5 - C_5L_5R_5\right) + s\left(-C_2R_2R_5 + L_5R_5g_m - L_5\right)}{C_2C_3C_5L_5R_2R_5g_m + s^3\left(C_2C_3L_5R_2R_5g_m + C_2C_3L_5R_2 + C_2C_5L_5R_2R_5g_m + 4C_2C_5L_5R_5\right) + s^2\left(C_2C_3R_2R_5 + 2C_2L_5R_2g_m + 4C_2L_5 + C_3L_5R_5g_m + C_3L_5 + 2C_5L_5R_5g_m\right) + s\left(2C_2R_2R_5g_m + 4C_2R_5 + C_3R_5g_m + 4C_2R_5 + C_3R_5g_m + 4C_2R_5 + C_3R_5g_m + 4C_2R_5g_m\right)}$$

10.280 INVALID-ORDER-280 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{R_5g_m + s^3\left(C_2C_5L_5R_2R_5g_m - C_2C_5L_5R_2 + C_2C_5L_5R_2 - C_5L_5R_2 - C_5L_5R_$$

10.281 INVALID-ORDER-281 
$$Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$$

$$H(s) = \frac{R_5g_m + s^3\left(C_2C_5L_5R_2R_5g_m - C_2C_5L_5R_2 + C_2C_5L_5R_2 + C_2C_5L_5R_5\right) + s^2\left(-C_2C_5R_2R_5 + C_5L_5R_5g_m - C_5L_5\right) + s\left(C_2R_2R_5g_m - C_2R_2 + C_2R_5 - C_5R_5\right) - 1}{2g_m + s^4\left(C_2C_3C_5L_5R_2 + C_2C_3C_5L_5R_2 + C_2C_5L_5R_2g_m + 4C_2C_5L_5 + C_3C_5L_5R_5g_m + C_2C_3R_2 + C_2C_3R_5 + C_2C_3R_5 + C_2C_5R_5g_m + 4C_2C_5R_5 + C_3C_5L_5R_5g_m + C_3C_5R_5g_m + C_3C_5L_5R_5g_m + C_3C_5$$

10.282 INVALID-ORDER-282 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{-C_2C_5R_2R_3s^2 + R_3g_m + s\left(C_2R_2R_3g_m + C_2R_3 - C_5R_3\right)}{C_2C_3C_5R_2R_3s^3 + g_m + s^2\left(C_2C_3R_2R_3g_m + C_2C_5R_2R_3g_m + C_2C_5R_2 + 4C_2C_5R_3 + C_3C_5R_3\right) + s\left(C_2R_2g_m + C_2 + C_3R_3g_m + 2C_5R_3g_m + C_5\right)}$$

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10.283 INVALID-ORDER-283 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
 H(s) = \frac{-C_2C_5R_2R_3R_5s^2 + R_3R_5g_m - R_3 + s\left(C_2R_2R_3R_5g_m - C_2R_2R_3 + C_2R_3R_5 - C_5R_3R_5\right)}{C_2C_3C_5R_2R_3R_5s^3 + 2R_3g_m + R_5g_m + s^2\left(C_2C_3R_2R_3R_5g_m + C_2C_3R_2R_3 + C_2C_5R_2R_3R_5g_m + C_2C_5R_2R_3R_5 + 4C_2C_5R_3R_5\right) + s\left(2C_2R_2R_3g_m + C_2R_2R_5g_m + C_2R_2 + 4C_2R_3 + C_2R_5 + C_3R_3R_5g_m + C_3R_3R_5
 10.284 INVALID-ORDER-284 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)
 H(s) = \frac{R_3g_m + s^2\left(C_2C_5R_2R_3R_5g_m - C_2C_5R_2R_3 + C_2C_5R_3R_5\right) + s\left(C_2R_2R_3g_m + C_2R_3 + C_5R_3R_5g_m - C_5R_3\right)}{g_m + s^3\left(C_2C_3C_5R_2R_3R_5g_m + C_2C_3C_5R_2R_3 + C_2C_5R_2R_3g_m + C_2C_5R_2R_3g_m + C_2C_5R_2 + 4C_2C_5R_3 + C_2C_5R_3 + C_
 10.285 INVALID-ORDER-285 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)
 H(s) = \frac{R_3g_m + s^3\left(C_2C_5L_5R_2R_3g_m + C_2C_5L_5R_3\right) + s^2\left(-C_2C_5R_2R_3 + C_5L_5R_3g_m\right) + s\left(C_2R_2R_3g_m + C_2R_3 - C_5R_3\right)}{g_m + s^4\left(C_2C_3C_5L_5R_2g_m + C_2C_5L_5R_3\right) + s^3\left(C_2C_3C_5L_5R_2g_m + C_2C_5L_5R_2g_m + C_2C_5L_5R_3g_m\right) + s^2\left(C_2C_3R_2R_3g_m + C_2C_5R_3g_m + C_2C_5R_3 + C_5C_5R_3 + C_5C_
 10.286 INVALID-ORDER-286 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
 H(s) = \frac{-C_2C_5L_5R_2R_3s^3 - R_3 + s^2\left(C_2L_5R_2R_3g_m + C_2L_5R_3 - C_5L_5R_3\right) + s\left(-C_2R_2R_3 + L_5R_3g_m\right)}{C_2C_3C_5L_5R_2R_3s^4 + 2R_3g_m + s^3\left(C_2C_3L_5R_2R_3g_m + C_2C_5L_5R_3 + 2C_2C_5L_5R_2 + 4C_2C_5L_5R_3 + C_3C_5L_5R_3\right) + s^2\left(C_2C_3R_2R_3 + C_2L_5R_3g_m + 
 10.287 INVALID-ORDER-287 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)
 H(s) = \frac{R_3g_m + s^3\left(C_2C_5L_5R_2R_3g_m + C_2C_5L_5R_3\right) + s^2\left(C_2C_5R_2R_3R_5g_m - C_2C_5R_2R_3 + C_2C_5R_3R_5 + C_5L_5R_3g_m\right) + s\left(C_2R_2R_3g_m + C_2R_3 + C_5R_3R_5g_m - C_5R_3\right)}{g_m + s^4\left(C_2C_3C_5L_5R_2g_m + C_2C_3C_5L_5R_3g_m + C_2C_5L_5R_2g_m + C_2C_5L_5R_2g_m + C_2C_5R_2R_3g_m + C_2C_5R_3R_3g_m + C_2C_
 10.288 INVALID-ORDER-288 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -C_{2}C_{5}L_{5}R_{2}R_{3}R_{5}s^{3}-R_{3}R_{5}+s^{2}\left(C_{2}L_{5}R_{2}R_{3}R_{5}g_{m}-C_{2}L_{5}R_{2}R_{3}+C_{2}L_{5}R_{3}R_{5}-C_{5}L_{5}R_{3}R_{5}\right)+s\left(-C_{2}R_{2}R_{3}R_{5}+L_{5}R_{3}R_{5}g_{m}-C_{2}L_{5}R_{2}R_{3}+C_{2}L_{5}R_{3}R_{5}-C_{5}L_{5}R_{3}R_{5}\right)+s\left(-C_{2}R_{2}R_{3}R_{5}+L_{5}R_{3}R_{5}g_{m}-C_{2}L_{5}R_{3}R_{5}+C_{2}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}\right)+s\left(-C_{2}R_{2}R_{3}R_{5}+L_{5}R_{3}R_{5}g_{m}-C_{2}L_{5}R_{3}R_{5}+C_{2}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}\right)+s\left(-C_{2}R_{2}R_{3}R_{5}+L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{3}R_{5}+C_{5}L_{5}R_{5}R_{5}+C_{5}L_{5}R_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_
 H(s) = \frac{-C_2C_5L_5R_2R_3R_5s^3 - R_3R_5 + s^2\left(C_2L_5R_2R_3R_5g_m - C_2L_5R_2R_3 + C_2L_5R_3R_5 - C_5L_5R_3R_5\right) + s\left(-C_2R_2R_3R_5 + L_5R_3R_5g_m - C_2L_5R_2R_3R_5g_m + C_2L_5R_2R_3R_5g_m + C_2L_5R_3R_5 + s^2\left(C_2C_3R_2R_3R_5g_m + C_2L_5R_2R_3R_5g_m + C_2L_5R_2R_3R_5 + s^2\left(C_2C_3R_2R_3R_5 + C_2L_5R_2R_3R_5 + C_2L_5R_2R_3R_5 + C_2L_5R_2R_3R_5 + c_2L_5R_3R_5 + c_2L_5R_5R_5 + 
 10.289 INVALID-ORDER-289 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R_3R_5g_m - R_3 + s^3\left(C_2C_5L_5R_2R_3R_5g_m - C_2C_5L_5R_2R_3 + C_2C_5L_5R_3R_5\right) + s^2\left(C_2L_5R_2R_3g_m + C_2L_5R_3 + C_5L_5R_3R_5g_m - C_5L_5R_5R_5g_m - C_5L_5R_5R_5g_m - C_5L_5R_5R_5g_m - C_5L_5R_5R_5g_m - C_5L_5R_5R_5R_5g_m - C_5L_5R_5R_5g_m - C_5L_5R_5R_5R_5g_m - C_5L_5R_5R_5g_m - C_5L_5R_5R_5g_m - C_5L_5R_5R_5g_m - C_5L_5R_5R_5g_m - C_5L_5R_5R_5g_m - C_5L_5R_5R_5g_m - C_5L_5R_5R_5R_5g_m - C_5L_5R_5R_5g_m - C_5L_5R_5g_m - C_5L_5R_5g
                                                     \frac{13165g_m - 13 + s + (C_2C_5L_5R_2R_3R_5g_m + C_2C_5L_5R_2R_3R_5g_m + C_2C_5L_5R_2R_3R_5g_m + C_2C_5L_5R_2R_3g_m + C_2C_5L_5R_3R_5g_m + C_2C_5L_5R_5R_5g_m + C_2C_5L_5R_5R_5g_m + C_2C_5L_5R_5R_5g_m + C_2C_5L_5R_5R_5g_m + C_2C_5L_5R_5R_5g_m + C_2C_5L_5R_5R_5g_m + C_2C_5L_5R_5g_m +
10.290 INVALID-ORDER-290 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            H(s) = \frac{11311639m - 123 + 6 - (2223231123139m - 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 22232311231 + 2223231
 10.291 INVALID-ORDER-291 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)
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 $H(s) = \frac{-C_2C_3C_5R_2R_3s^3 + g_m + s^2\left(C_2C_3R_2R_3g_m + C_2C_3R_3 - C_2C_5R_2 - C_3C_5R_3\right) + s\left(C_2R_2g_m + C_2 + C_3R_3g_m - C_5\right)}{s^3\left(2C_2C_3C_5R_2R_3g_m + C_2C_3C_5R_2 + 4C_2C_3C_5R_3\right) + s^2\left(C_2C_3R_2g_m + C_2C_3 + 2C_2C_5R_2g_m + 4C_2C_5 + 2C_3C_5R_3g_m + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$ 

```
10.292 INVALID-ORDER-292 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
```

$$H(s) = \frac{-C_2C_3C_5R_2R_3R_5s^3 + R_5g_m + s^2\left(C_2C_3R_2R_3R_5g_m - C_2C_3R_2R_3 + C_2C_3R_3R_5 - C_2C_5R_2R_5 - C_3C_5R_3R_5\right) + s\left(C_2R_2R_5g_m - C_2R_2 + C_2R_5 + C_3R_3R_5g_m - C_3R_3 - C_5R_5\right) - 1}{2g_m + s^3\left(2C_2C_3C_5R_2R_3R_5g_m + C_2C_3C_5R_2R_5 + 4C_2C_3R_3R_5\right) + s\left(2C_2C_3R_2R_3g_m + C_2C_3R_3R_5g_m + C_2C_3R_3R_5 + 4C_2C_3R_3R_5g_m + C_2C_3R_3R_5g_m +$$

10.293 INVALID-ORDER-293 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{g_m + s^3 \left(C_2 C_3 C_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 R_2 R_3 + C_2 C_3 C_5 R_3 R_5\right) + s^2 \left(C_2 C_3 R_2 R_3 g_m + C_2 C_3 R_3 + C_2 C_5 R_2 R_5 g_m - C_2 C_5 R_2 + C_2 C_5 R_5 + C_3 C_5 R_3 R_5 g_m - C_3 C_5 R_3\right) + s \left(C_2 R_2 g_m + C_2 + C_3 R_3 g_m + C_5 R_5 g_m - C_5\right)}{s^3 \left(2 C_2 C_3 C_5 R_2 R_3 g_m + C_2 C_3 C_5 R_2 R_5 g_m + C_2 C_3 C_5 R_3 + C_2 C_3 C_5 R_3 + C_2 C_3 C_5 R_3\right) + s \left(C_2 R_2 g_m + C_2 C_5 R_2 R_5 g_m + C_3 C_5 R_3 g_m +$$

10.294 INVALID-ORDER-294 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{g_m + s^4 \left(C_2 C_3 C_5 L_5 R_2 R_3 g_m + C_2 C_3 C_5 L_5 R_3\right) + s^3 \left(-C_2 C_3 C_5 R_2 R_3 + C_2 C_5 L_5 R_2 g_m + C_2 C_5 L_5 + C_3 C_5 L_5 R_3 g_m\right) + s^2 \left(C_2 C_3 R_2 R_3 g_m + C_2 C_5 R_3 - C_2 C_5 R_3 - C_2 C_5 R_3 + C_5 L_5 g_m\right) + s \left(C_2 R_2 g_m + C_2 + C_3 R_3 g_m - C_5\right)}{s^4 \left(C_2 C_3 C_5 L_5 R_2 g_m + C_2 C_3 C_5 L_5\right) + s^3 \left(2C_2 C_3 C_5 R_2 R_3 g_m + C_2 C_3 C_5 R_3 + C_3 C_5 L_5 g_m\right) + s^2 \left(C_2 C_3 R_2 g_m + C_2 C_5 R_2 g_m + C_2 C_5 R_2 g_m + C_2 C_5 R_3 g_m + C_3 C_5 R_3 g_m + C_3 C_5 R_3 g_m\right)}$$

**10.295** INVALID-ORDER-295 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{-C_2C_3C_5L_5R_2R_3s^4 + s^3\left(C_2C_3L_5R_2R_3g_m + C_2C_5L_5R_2 - C_3C_5L_5R_3\right) + s^2\left(-C_2C_3R_2R_3 + C_2L_5R_2g_m + C_2L_5 + C_3L_5R_3g_m - C_5L_5\right) + s\left(-C_2R_2 - C_3R_3 + L_5g_m\right) - 1}{2g_m + s^4\left(2C_2C_3C_5L_5R_2R_3g_m + C_2C_3L_5R_2g_m + C_2C_3L_5R_2g_m + C_2C_5L_5R_2g_m + 4C_2C_5L_5 + 2C_3C_5L_5R_3g_m + C_3C_5L_5\right) + s^2\left(2C_2C_3R_2R_3g_m + C_2C_3R_3 + C_3L_5g_m + 2C_5L_5g_m\right) + s\left(2C_2R_2g_m + 4C_2C_3R_3g_m + C_3C_5L_5g_m\right) + s\left(2C_2R_2g_m + 4C_2C_3R_3g_m + C_3C_5L_5g_m\right) + s\left(2C_2R_3g_m + C_3C_5L_5g_m\right) + s\left(2C_2R_3g_m + C_3C_5L_5g_m\right) + s\left(2C_2R_3g_m + C_3C_5L_5g_m\right) + s\left(2C_3R_3g_m + C_3C_5L_5g_m\right$$

10.296 INVALID-ORDER-296 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{g_m + s^4 \left(C_2 C_3 C_5 L_5 R_2 R_3 g_m + C_2 C_3 C_5 L_5 R_3 g_m + C_2 C_3 C_5 L_5 R_3 g_m + C_2 C_3 C_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 R_2 R_3 R_5 g_m - C_2 C_5 R_2 R_3 g_m + C_2 C_3 R_3 R_5 g_m - C_2 C_5 R_2 R_3 g_m + C_2 C_3 R_3 R_5 g_m - C_2 C_5 R_2 R_3 g_m + C_2 C_3 R_3 R_5 g_m - C_2 C_5 R_2 R_3 g_m + C_2 C_3 R_3 R_5 g_m - C_3 C_5 R_5 g_m - C_3$$

10.297 INVALID-ORDER-297 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$$

$$H(s) = \frac{-C_2C_3C_5L_5R_2R_3R_5s^4 - R_5 + s^3\left(C_2C_3L_5R_2R_3R_5g_m - C_2C_3L_5R_2R_3 + C_2C_3L_5R_2R_5 - C_3C_5L_5R_3R_5\right) + s^2\left(-C_2C_3R_2R_3R_5 + C_2L_5R_2R_5g_m - C_2L_5R_2 + C_2L_5R_2R_5g_m - C_2L_5R_2R_5g_m - C_2L_5R_2R_5g_m + C_2C_3L_5R_2R_3R_5g_m + C_2C_3L_5R_2R_3R_5g_m + C_2C_3L_5R_2R_3R_5g_m + C_2C_3L_5R_2R_3g_m + C_2C_3L_5R_2R_3g_m + C_2C_3L_5R_2R_3g_m + C_2C_3L_5R_2R_3g_m + C_2C_3L_5R_2R_3g_m + C_2C_3L_5R_3R_5g_m + C_2C_3L_5R_5g_m + C_2C_3L_5R_5g_m + C_2C_3L_5R_5g_m + C_2C_3L_5R_5g_m + C_2C_3L_5R_5g_m + C_2C_3L_5R_5g_m + C_2C_3L_5R_$$

10.298 INVALID-ORDER-298 
$$Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \ \infty\right)$$

$$H(s) = \frac{R_5 g_m + s^4 \left(C_2 C_3 C_5 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_5 R_2 R_3 + C_2 C_3 C_5 L_5 R_3 R_5\right) + s^3 \left(C_2 C_3 L_5 R_2 R_3 g_m + C_2 C_3 L_5 R_3 + C_2 C_5 L_5 R_2 R_5 g_m - C_2 C_5 L_5 R_2 + C_2 C_5 L_5 R_3 R_5 g_m - C_3 C_5 L_5 R_3\right) + s^2 \left(C_2 C_3 R_2 R_3 R_5 g_m - C_2 C_3 R_2 R_3 + C_2 C_3 R_3 R_5 + C_2 L_5 R_2 g_m + C_2 C_3 L_5 R_3 R_5 g_m - C_3 C_5 L_5 R$$

10.299 INVALID-ORDER-299 
$$Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$$

$$H(s) = \frac{R_5 g_m + s^4 \left(C_2 C_3 C_5 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_5 R_3 R_5 g_m - C_2 C_3 C_5 L_5 R_3 R_5 g_m - C_2 C_5 L_5 R_2 R_3 R_5 g_m - C_2 C_5 L_5 R_2 R_3 R_5 g_m - C_3 C_5 L_5 R$$

**10.300** INVALID-ORDER-300 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, R_5, \infty\right)$$

$$H(s) = \frac{R_5 g_m + s^3 \left(C_2 C_3 L_3 R_2 R_5 g_m - C_2 C_3 L_3 R_2 + C_2 C_3 L_3 R_5\right) + s^2 \left(C_3 L_3 R_5 g_m - C_3 L_3\right) + s \left(C_2 R_2 R_5 g_m - C_2 R_2 + C_2 R_5\right) - 1}{2 g_m + s^3 \left(2 C_2 C_3 L_3 R_2 g_m + 4 C_2 C_3 L_3\right) + s^2 \left(C_2 C_3 R_2 R_5 g_m + C_2 C_3 R_2 + C_2 C_3 R_5 + 2 C_3 L_3 g_m\right) + s \left(2 C_2 R_2 g_m + 4 C_2 + C_3 R_5 g_m + C_3 R_5 g_m\right) + s \left(2 C_2 R_2 g_m + 4 C_2 C_3 R_5 + C_3 R_5 g_m\right) + s \left(2 C_2 R_2 g_m + 4 C_2 C_3 R_5 + C_3 R_5 g_m\right) + s \left(2 C_2 R_2 g_m + 4 C_2 C_3 R_5 + C_3 R_5 g_m\right) + s \left(2 C_2 R_2 g_m + 4 C_2 C_3 R_5 + C_3 R_5 g_m\right) + s \left(2 C_2 R_2 g_m + 4 C_2 C_3 R_5 + C_3 R_5 g_m\right) + s \left(2 C_2 R_5 g_m + 2 C_3 R_5 g_m\right) + s \left(2 C_2 R_5 g_m + 2 C_3 R_5 g_m\right) + s \left(2 C_2 R_5 g_m + 2 C_3 R_5 g_m\right) + s \left(2 C_2 R_5 g_m + 2 C_3 R_5 g_m\right) + s \left(2 C_2 R_5 g_m + 2 C_3 R_5 g_m\right) + s \left(2 C_2 R_5 g_m + 2 C_3 R_5 g_m\right) + s \left(2 C_2 R_5 g_m + 2 C_3 R_5 g_m\right) + s \left(2 C_2 R_5 g_m\right) + s \left(2 C_3 R_5 g_m\right) + s \left(2 C_3 R_5 g_m\right) + s \left(2 C_5 R_5$$

 $\textbf{10.301} \quad \textbf{INVALID-ORDER-301} \ \ Z(s) = \left( \infty, \ R_2 + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{1}{C_5 s}, \ \infty \right)$   $H(s) = \frac{-C_2 C_3 C_5 L_3 R_2 s^4 + g_m + s^3 \left( C_2 C_3 L_3 R_2 g_m + C_2 C_3 L_3 - C_3 C_5 L_3 \right) + s^2 \left( -C_2 C_5 R_2 + C_3 L_3 g_m \right) + s \left( C_2 R_2 g_m + C_2 - C_5 \right) }{s^4 \left( 2 C_2 C_3 C_5 L_3 R_2 g_m + 4 C_2 C_3 C_5 L_3 \right) + s^3 \left( C_2 C_3 C_5 R_2 + 2 C_3 C_5 L_3 g_m \right) + s^2 \left( C_2 C_3 R_2 g_m + C_2 C_5 R_2 g_m + 4 C_2 C_5 + C_3 C_5 \right) + s \left( C_3 g_m + 2 C_5 g_m \right) }$ 

10.302 INVALID-ORDER-302  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_3R_2R_5s^4 + R_5g_m + s^3\left(C_2C_3L_3R_2R_5g_m - C_2C_3L_3R_2 + C_2C_3L_3R_5 - C_3C_5L_3R_5\right) + s^2\left(-C_2C_5R_2R_5 + C_3L_3R_5g_m - C_3L_3\right) + s\left(C_2R_2R_5g_m - C_2R_2 + C_2R_5 - C_5R_5\right) - 1}{2g_m + s^4\left(2C_2C_3C_5L_3R_2g_m + 4C_2C_3C_5L_3R_5\right) + s^3\left(C_2C_3C_5R_2R_5 + 2C_2C_3L_3R_2g_m + 4C_2C_3R_5 + 2C_2C_3R_2R_5g_m + 4C_2C_3R_5 + 2C_2C_3R_5 +$ 

**10.303** INVALID-ORDER-303  $Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \infty\right)$ 

10.304 INVALID-ORDER-304  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

 $H(s) = \frac{g_m + s^5 \left(C_2 C_3 C_5 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_3 L_5\right) + s^4 \left(-C_2 C_3 C_5 L_3 R_2 + C_3 C_5 L_3 L_5 g_m\right) + s^3 \left(C_2 C_3 L_3 R_2 g_m + C_2 C_5 L_5 R_2 g_m + C_2 C_5 L_5 - C_3 C_5 L_3\right) + s^2 \left(-C_2 C_5 R_2 + C_3 L_3 g_m + C_5 L_5 g_m\right) + s \left(C_2 R_2 g_m + C_2 C_5 L_5 R_2 g_m + C_2 C_5 R_2 g_m$ 

10.305 INVALID-ORDER-305  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_3L_5R_2s^5 + s^4\left(C_2C_3L_3L_5R_2g_m + C_2C_3L_3L_5 - C_3C_5L_3L_5\right) + s^3\left(-C_2C_3L_3R_2 - C_2C_5L_5R_2 + C_3L_3L_5g_m\right) + s^2\left(C_2L_5R_2g_m + C_2L_5 - C_3L_3 - C_5L_5\right) + s\left(-C_2R_2 + L_5g_m\right) - 1}{2g_m + s^5\left(2C_2C_3C_5L_3L_5R_2g_m + 4C_2C_3L_5R_2g_m + 4C_2C_3L_5R_2g_m + 4C_2C_5L_5 + C_3C_5L_5\right) + s^2\left(C_2C_3R_2 + 2C_3L_3g_m + C_3L_5g_m\right) + s^2\left(C_2C_3R_2 + 2C_3L_3R_2g_m + 4C_2C_3L_5R_2g_m + 4C_2C_3L_5R_2g_m + 4C_2C_5L_5R_2g_m + 4C_2C_5L_5R_2g_m + 4C_2C_5L_5R_2g_m + 4C_2C_5L_5R_2g_m + 4C_2C_3L_3g_m + 4C_2C_3L_3g_m + 4C_2C_3L_3g_m + 4C_2C_3L_3g_m + 4C_2C_3L_5R_2g_m + 4C_$ 

**10.306** INVALID-ORDER-306  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$ 

 $H(s) = \frac{g_m + s^5 \left(C_2 C_3 C_5 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_3 L_5\right) + s^4 \left(C_2 C_3 C_5 L_3 R_2 R_5 g_m - C_2 C_3 C_5 L_3 R_2 + C_2 C_3 C_5 L_3 R_5 + C_3 C_5 L_3 L_5 g_m\right) + s^3 \left(C_2 C_3 L_3 R_2 g_m + C_2 C_5 L_5 + C_3 C_5 L_3 R_5 g_m - C_3 C_5 L_3\right) + s^2 \left(C_2 C_5 R_2 R_5 g_m - C_2 C_5 R_2 + C_2 C_5 R_5 + C_3 L_3 g_m + C_3 C_5 L_3 R_2 g_m\right) + s^2 \left(C_2 C_3 R_2 g_m + C_2 C_3 C_5 L_3 R_2 g_m + C_2 C_3 C_5 L_3 R_2 g_m + C_2 C_3 C_5 L_3 R_2 g_m + C_2 C_3 C_5 R_2 g_m + C_2 C_3 C_5 R_2 g_m + C_2 C_3 C_5 R_2 g_m\right) + s^2 \left(C_2 C_3 R_2 g_m + C_2 C_3 C_5 L_3 R_2 g_m + C_2 C_3 C_5 L_3 R_2 g_m + C_2 C_3 C_5 R_2 g_m\right) + s^2 \left(C_2 C_3 R_2 g_m + C_2 C_3 C_5 L_3 R_2 g_m + C_2 C_3 C_5 L_3 R_2 g_m + C_2 C_3 C_5 R_2 g_m + C_2 C_5 R_2 g_m +$ 

10.307 INVALID-ORDER-307  $Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_3L_5R_2R_5s^5 - R_5 + s^4\left(C_2C_3L_3L_5R_2R_5g_m - C_2C_3L_3L_5R_5 - C_3C_5L_3L_5R_5\right) + s^3\left(-C_2C_3L_3R_2R_5 - C_2C_5L_5R_2R_5 + C_3L_3L_5R_5g_m - C_3L_3L_5\right) + s^2\left(C_2L_5R_2R_5 + C_3L_3L_5R_5g_m + 4C_2C_3L_5R_5g_m + 4C_2C_3L_5R_5g_m$ 

**10.308** INVALID-ORDER-308  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$ 

 $H(s) = \frac{R_5 g_m + s^5 \left(C_2 C_3 C_5 L_3 L_5 R_2 R_5 g_m - C_2 C_3 C_5 L_3 L_5 R_2 + C_2 C_3 C_5 L_3 L_5 R_2 + C_2 C_3 C_5 L_3 L_5 R_2 + C_2 C_3 L_3 L_5 R_2 g_m + C_2 C_3 L_3 L_5 R_2 g_m + C_2 C_3 L_3 L_5 R_2 g_m - C_2 C_3 L_3 R_2 + C_2 C_3 L_5 R_2 + C_2 C_5 L_5$ 

10.309 INVALID-ORDER-309  $Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$ 

 $H(s) = \frac{R_5g_m + s^5\left(C_2C_3C_5L_3L_5R_2g_m - C_2C_3C_5L_3L_5R_2 + C_2C_3C_5L_3L_5R_5 + s^4\left(-C_2C_3C_5L_3L_5R_5g_m - C_3C_5L_3L_5\right) + s^3\left(C_2C_3L_3R_2R_5g_m - C_2C_3L_3R_2 + C_2C_3L_3R_2 + C_2C_3L_3R_5 + C_2C_5L_5R_2R_5g_m - C_2C_5L_5R_2R_5g_m - C_2C_5L_5R_2R_5g_m - C_2C_3L_3R_2 + C_2C$ 

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10.310 INVALID-ORDER-310 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5, \infty\right)
                                                                                                                                                                                                                             H(s) = \frac{s^2 \left( C_2 L_3 R_2 R_5 g_m - C_2 L_3 R_2 + C_2 L_3 R_5 \right) + s \left( L_3 R_5 g_m - L_3 \right)}{R_5 g_m + s^3 \left( C_2 C_3 L_3 R_2 R_5 g_m + C_2 C_3 L_3 R_2 + C_2 C_3 L_3 R_5 \right) + s^2 \left( 2 C_2 L_3 R_2 g_m + 4 C_2 L_3 + C_3 L_3 R_5 g_m + C_3 L_3 \right) + s \left( C_2 R_2 R_5 g_m + C_2 R_2 + C_2 R_5 + 2 L_3 g_m \right) + 1}
 10.311 INVALID-ORDER-311 Z(s) = \left(\infty, R_2 + \frac{1}{C_{2s}}, \frac{L_{3s}}{C_{3}L_{3}s^2+1}, \infty, \frac{1}{C_{5s}}, \infty\right)
                                                                                                                                                                                                                     H(s) = \frac{-C_2C_5L_3R_2s^3 + L_3g_ms + s^2\left(C_2L_3R_2g_m + C_2L_3 - C_5L_3\right)}{C_2C_3C_5L_3R_2s^4 + g_m + s^3\left(C_2C_3L_3R_2g_m + C_2C_5L_3R_2g_m + 4C_2C_5L_3 + C_3C_5L_3\right) + s^2\left(C_2C_5R_2 + C_3L_3g_m + 2C_5L_3g_m\right) + s\left(C_2R_2g_m + C_2 + C_5\right)}
10.312 INVALID-ORDER-312 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
H(s) = \frac{-C_2C_5L_3R_2R_5s^3 + s^2\left(C_2L_3R_2R_5g_m - C_2L_3R_2 + C_2L_3R_5 - C_5L_3R_5\right) + s\left(L_3R_5g_m - L_3\right)}{C_2C_3C_5L_3R_2R_5s^4 + R_5g_m + s^3\left(C_2C_3L_3R_2R_5g_m + C_2C_3L_3R_2 + C_2C_5L_3R_5 + C_3C_5L_3R_5\right) + s^2\left(C_2C_5R_2R_5 + 2C_2L_3R_2g_m + 4C_2L_3 + C_3L_3R_5g_m + C_3L_3 + 2C_5L_3R_5g_m\right) + s\left(C_2R_2R_5g_m + C_2R_2 + C_2R_5 + C_5R_5 + 2L_3g_m\right) + s\left(C_2R_2R_5g_m + C_2R_2R_5g_m + C_2R_2R_5g_m + C_2R_2R_5g_m + C_2R_2R_5g_m\right) + s\left(C_2R_2R_5g_m + C_2R_2R_5g_m + C_2R_5g_m\right) + s\left(C_2R_2R_5g_m + C_2R_5g_m + C_2R_5g_m\right) + s\left(C_2R_2R_5g_m + C_2R_5g_m\right) + s\left(C_2R_5g_m + C_2R_5g_m\right) + s\left(C_2R_5g_m\right) + s\left(C_2R_5g_m\right) + s\left(C_2R_5g_m\right) + s\left(C_2R_5g_m\right) + s\left(C_2R_5g_m\right) + s\left(C_2R_5g_m\right) + s\left(C_2R_5g_m\right
10.313 INVALID-ORDER-313 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_2 L_2 s^2 + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)
10.314 INVALID-ORDER-314 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{L_3 g_m s + s^4 \left(C_2 C_5 L_3 L_5 R_2 g_m + C_2 C_5 L_3 L_5\right) + s^3 \left(-C_2 C_5 L_3 R_2 + C_5 L_3 L_5 g_m\right) + s^2 \left(C_2 L_3 R_2 g_m + C_2 L_3 - C_5 L_3\right)}{g_m + s^5 \left(C_2 C_3 C_5 L_3 L_5 R_2 g_m + C_2 C_5 L_3 R_2 + C_3 C_5 L_3 L_5 R_2 g_m + C_2 C_5 L_3 R_2 g_m + C_2 C_5 L_3 R_2 g_m + C_2 C_5 L_5 + C_3 C_5 L_3\right) + s^2 \left(C_2 C_5 R_2 + C_3 L_3 g_m + C_5 L_5 g_m\right) + s \left(C_2 C_5 R_2 + C_3 L_3 R_2 g_m + C_2 C_5 L_3 R_2 g_m + C_2 C_5
10.315 INVALID-ORDER-315 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_2 L_2 s^2 + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
H(s) = \frac{-C_2C_5L_3L_5R_2s^4 - L_3s + s^3\left(C_2L_3L_5R_2g_m + C_2L_3L_5 - C_5L_3L_5\right) + s^2\left(-C_2L_3R_2 + L_3L_5g_m\right)}{C_2C_3C_5L_3L_5R_2s^5 + s^4\left(C_2C_3L_3L_5R_2g_m + C_2C_5L_3L_5R_2g_m + 4C_2C_5L_3L_5 + C_3C_5L_3L_5\right) + s^3\left(C_2C_3L_3R_2 + C_2C_5L_3L_5g_m + 4C_2L_3 + C_2L_5R_2g_m + 4C_2L_3 + C_2L_3R_2g_m + 4C_2L_3R_2g_m + 4C_2L_
10.316 INVALID-ORDER-316 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{L_3g_ms + s^4\left(C_2C_5L_3L_5R_2g_m + C_2C_5L_3R_2 + C_2C
10.317 INVALID-ORDER-317 Z(s) = \left(\infty, R_2 + \frac{1}{C_{2s}}, \frac{L_{3s}}{C_{3}L_{3s}^2 + 1}, \infty, \frac{L_{5}R_{5s}}{C_{5}L_{5}R_{5s}^2 + L_{5s} + R_{5}}, \infty\right)
H(s) = \frac{-C_2C_5L_3L_5R_2R_5s^4 - L_3R_5s + s^3\left(C_2L_3L_5R_2R_5g_m - C_2L_3L_5R_2 + C_2L_3L_5R_5 - C_5L_3L_5R_5\right) + s^2\left(-C_2L_3R_2R_5 + L_3L_5R_5g_m + C_2C_5L_3L_5R_5\right) + s^2\left(-C_2L_3R_2R_5 + L_3L_5R_5g_m + C_2C_3L_3L_5R_5\right) + s^2\left(-C_2L_3R_2R_5 + L_3L_5R_5g_m + C_2C_3L_3L_5R_5\right) + s^2\left(-C_2L_3R_2R_5 + L_3L_5R_5g_m + C_2L_3L_5R_5\right) + s^2\left(-C_2L_3R_5R_5 + L_3L_5R_5g_m + C_2L_3L_5R_5\right) + s^2\left(-C_2L
10.318 INVALID-ORDER-318 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      s^{4} \left(C_{2} C_{5} L_{3} L_{5} R_{2} R_{5} g_{m}-C_{2} C_{5} L_{3} L_{5} R_{2}+C_{2} C_{5} L_{3} L_{5} R_{5}\right)+s^{3} \left(C_{2} L_{3} L_{5} R_{2} g_{m}+C_{2} L_{3} L_{5}+C_{5} L_{3} L_{5} R_{5} g_{m}-C_{5} L_{3} L_{5}\right)+s^{2} \left(C_{2} L_{3} L_{5} R_{2} g_{m}+C_{2} L_{3} L_{5} R_{5} g_{m}-C_{5} L_{3} L_{5}\right)+s^{2} \left(C_{2} L_{3} L_{5} R_{5} g_{m}+C_{2} L_{3} L_{5} R_{5} g_{m}-C_{5} L_{3} L_{5}\right)+s^{2} \left(C_{2} L_{3} L_{5} R_{5} g_{m}+C_{2} L_{3} L_{5} R_{5} g_{m}-C_{5} L_{3} L_{5}\right)+s^{2} \left(C_{2} L_{3} L_{5} R_{5} g_{m}+C_{2} L_{3} L_{5} R_{5} g_{m}-C_{5} L_{3} L_{5}\right)+s^{2} \left(C_{2} L_{3} L_{5} R_{5} g_{m}+C_{2} L_{3} L_{5} R_{5} g_{m}-C_{5} L_{3} L_{5}\right)+s^{2} \left(C_{2} L_{3} L_{5} R_{5} g_{m}+C_{2} L_{3} L_{5} R_{5} g_{m}-C_{5} L_{3} L_{5}\right)+s^{2} \left(C_{2} L_{3} L_{5} R_{5} g_{m}+C_{2} L_{3} L_{5} R_{5} g_{m}-C_{5} L_{3} L_{5}\right)+s^{2} \left(C_{2} L_{3} L_{5} R_{5} g_{m}+C_{2} L_{3} L_{5} R_{5} g_{m}+C_{3} L_{3} L_{5} R_{5} g_{m}+C_
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 $s^{4} \left(C_{2} C_{5} L_{3} L_{5} R_{2} R_{5} g_{m}-C_{2} C_{5} L_{3} L_{5} R_{2}+C_{2} C_{5} L_{3} L_{5} R_{5}\right)+s^{3} \left(-C_{2} C_{5} L_{3} R_{2} R_{5}+C_{5} L_{3} L_{5} R_{5} g_{m}-C_{5} L_{3} L_{5}\right)+s^{3} \left(-C_{2} C_{5} L_{3} L_{5} R_{5} R_{5$ 

10.319 INVALID-ORDER-319  $Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$ 

10.320 INVALID-ORDER-320  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \infty\right)$   $R_5 a_1 + s^3 \left(C_5 C_5 L_5 R_5 R_5 a_1 - C_5 C_5 L_5 R_5 + C_5 C_5 L_5 R_5 \right) + s^2 \left(C_5 C_5 R_5 R_5 R_5 a_1 - C_5 C_5 R_5 R_5 + C_5 L_5 R_5 a_1 - C_5 L_5 R_5 a_1$ 

 $H(s) = \frac{R_5g_m + s^3\left(C_2C_3L_3R_2R_5g_m - C_2C_3L_3R_2 + C_2C_3L_3R_5\right) + s^2\left(C_2C_3R_2R_3R_5g_m - C_2C_3R_2R_3 + C_2C_3R_3R_5 + C_3L_3R_5g_m - C_3L_3\right) + s\left(C_2R_2R_5g_m - C_2R_2 + C_2R_5 + C_3R_3R_5g_m - C_3R_3\right) - 1}{2g_m + s^3\left(2C_2C_3L_3R_2g_m + 4C_2C_3L_3\right) + s^2\left(2C_2C_3R_2R_3g_m + C_2C_3R_2R_5g_m - C_2C_3R_2R_3 + C_2C_3R_3R_5 + C_2C_3R_$ 

10.321 INVALID-ORDER-321  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_3R_2s^4 + g_m + s^3\left(-C_2C_3C_5R_2R_3 + C_2C_3L_3R_2g_m + C_2C_3L_3 - C_3C_5L_3\right) + s^2\left(C_2C_3R_2R_3g_m + C_2C_3R_3 - C_2C_5R_2 - C_3C_5R_3 + C_3L_3g_m\right) + s\left(C_2R_2g_m + C_2 + C_3R_3g_m - C_5\right)}{s^4\left(2C_2C_3C_5L_3R_2g_m + 4C_2C_3C_5L_3\right) + s^3\left(2C_2C_3C_5R_2R_3g_m + C_2C_3C_5R_2 + 4C_2C_3C_5R_3 + 2C_3C_5L_3g_m\right) + s^2\left(C_2C_3R_2g_m + C_2C_3R_2g_m + C_2C_3R_2g_m + 4C_2C_5 + 2C_3C_5R_3g_m + C_3C_5\right) + s\left(C_3g_m + 2C_3G_5R_3 + 2C_3C_5R_3g_m + C_3C_5\right)}$ 

10.322 INVALID-ORDER-322  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_3R_2R_5s^4 + R_5g_m + s^3\left(-C_2C_3C_5R_2R_3R_5 + C_2C_3L_3R_2 + C_2C_3L_3R_2 + C_2C_3L_3R_5 - C_2C_3R_2R_3 + C_2C_3R_3R_5 - C_3C_5R_3R_5 + C_3C_5R_3R_5 + C_3C_3R_3R_5 - C_3C_5R_3R_5 + C_3C_5R_3R_5 + C_3C_3R_3R_5 - C_3C_5R_3R_5 + C_3C_3R_3R_5 - C_3C_5R_3R_5 - C_3C_5R_3$ 

10.323 INVALID-ORDER-323  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

**10.324** INVALID-ORDER-324  $Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \infty\right)$ 

 $H(s) = \frac{g_m + s^5 \left(C_2 C_3 C_5 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_3 L_5\right) + s^4 \left(-C_2 C_3 C_5 L_3 R_2 + C_2 C_3 C_5 L_5 R_2 R_3 g_m + C_2 C_3 C_5 L_5 R_3 + C_3 C_5 L_5 R_3 g_m + S^2 \left(C_2 C_3 C_5 L_3 R_2 g_m + C_2 C_3 L_5 R_2 g_m + C_2 L_5 L_5 R_2 g_m + C_2 L_5$ 

10.325 INVALID-ORDER-325  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_3L_5R_2s^5 + s^4\left(-C_2C_3C_5L_5R_2R_3 + C_2C_3L_3L_5R_2g_m + C_2C_3L_3L_5 + s^3\left(-C_2C_3L_3R_2 + C_2C_3L_5R_3 - C_2C_5L_5R_2 - C_3C_5L_5R_3 + C_3L_3L_5g_m\right) + s^2\left(-C_2C_3R_2R_3 + C_2L_5R_2g_m + C_2C_3L_5R_2g_m + C_2C_3L_5R$ 

10.326 INVALID-ORDER-326  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$ 

 $H(s) = \frac{g_m + s^5 \left(C_2 C_3 C_5 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_3 L_5\right) + s^4 \left(C_2 C_3 C_5 L_3 R_2 R_5 g_m - C_2 C_3 C_5 L_3 R_2 + C_2 C_3 C_5 L_3 R_2 g_m + C_2 C_3 C_5 R_2 R_3 g_m + C_2 C_3 C_5 R_3 R_3 g_m$ 

10.327 INVALID-ORDER-327  $Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \infty\right)$ 

10.328 INVALID-ORDER-328  $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$ 

 $H(s) = \frac{R_5 g_m + s^5 \left(C_2 C_3 C_5 L_3 L_5 R_2 R_5 g_m - C_2 C_3 C_5 L_3 L_5 R_2 + C_2 C_3 C_5 L_3 L_5 R_2 + C_2 C_3 C_5 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_5 R_2 R_3 R_5 g_m - C_2 C_3 L_3 L_5 R_2 g_m + C_2 C_3 L_3 L_5 R_2 g_m + C_2 C_3 L_3 L_5 R_2 g_m + C_2 C_3 L_3 L_5 R_2 g_m - C_3 C_5 L_3 L_5 R_2 g_m - C_2 C_3 L_3 R_2 R_5 g_m - C_2 C_3 L_3$ 

10.329 INVALID-ORDER-329  $Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$ 

 $H(s) = \frac{R_5g_m + s^5 \left(C_2C_3C_5L_3L_5R_2R_5g_m - C_2C_3C_5L_3L_5R_2 + C_2C_3C_5L_3L_5R_5\right) + s^4 \left(-C_2C_3C_5L_3R_2R_5 + C_2C_3C_5L_5R_2R_3R_5g_m - C_2C_3C_5L_5R_2R_3 + C_2C_3C_5L_5R_2R_3 + C_2C_3C_5L_5R_2R_3 + C_2C_3C_5L_3L_5R_5g_m - C_3C_5L_3L_5\right) + s^3 \left(-C_2C_3C_5R_2R_3R_5 + C_2C_3C_5L_3R_2R_5 + C_2C_3C_5L_5R_2R_3R_5 + C_2C_3C_5L_5R_3R_5 + C_2C_3C_5L_5R_5R_5 + C_2C_3C_5L_5R_5R_5$ 

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10.330 INVALID-ORDER-330 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5, \infty\right)
                H(s) = \frac{s^2 \left( C_2 L_3 R_2 R_3 R_5 g_m - C_2 L_3 R_2 R_3 + C_2 L_3 R_3 R_5 g_m - L_3 R_3 \right)}{R_3 R_5 g_m + R_3 + s^3 \left( C_2 C_3 L_3 R_2 R_3 R_5 g_m + C_2 C_3 L_3 R_2 R_3 + C_2 C_3 L_3 R_2 R_3 + C_2 L_3 R_2 R_5 g_m + C_2 L_3 R_2 + 4 C_2 L_3 R_3 + C_2 L_3 R_3 + C_2 L_3 R_3 R_5 g_m + C_3 L_3 R_3 \right) + s \left( C_2 R_2 R_3 R_5 g_m + C_2 R_3 R_5 g_m + C_2 R_3 R_5 g_m + C_2 R_3 R_5 g_m + C_3 R_5 R_5 g_m + C_3 R_5
10.331 INVALID-ORDER-331 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_2 s + R_3}, \infty, \frac{1}{C_5 s}, \infty\right)
                                                         10.332 INVALID-ORDER-332 Z(s) = \left(\infty, R_2 + \frac{1}{C_{2s}}, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_{3s} + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -C_2C_5L_3R_2R_3R_5s^3 + s^2\left(C_2L_3R_2R_3R_5g_m - C_2L_3R_2R_3 + C_2L_3R_3R_5 - C_5L_3R_3R_5\right) + s\left(L_3R_3R_5g_m - L_3R_3\right)
H(s) = \frac{-C_2C_5L_3R_2R_3R_5s^3 + s^2\left(C_2L_3R_2R_3R_5g_m - C_2L_3R_2R_3 + C_2L_3R_3R_5 - C_5L_3R_3R_5\right) + s\left(L_3R_3R_5g_m - L_3R_3\right)}{C_2C_3C_5L_3R_2R_3R_5s^4 + R_3R_5g_m + R_3 + s^3\left(C_2C_3L_3R_2R_3R_5g_m + C_2C_3L_3R_2R_3R_5g_m + C_2C_5L_3R_2R_3R_5\right) + s^2\left(C_2C_5R_2R_3R_5 + 2C_2L_3R_2R_3R_5 + 2C_2L_3R_3R_5 +
10.333 INVALID-ORDER-333 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_2 L_3 R_3 s^2 + L_2 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \frac{L_3R_3g_ms + s - (C_2C_5L_3R_2R_3R_5g_m - C_2C_5L_3R_2R_3R_5g_m + C_2C_5L_3R_2R_3g_m + C_2C_5L_3R_2R_3g_m + C_2C_5L_3R_2R_3g_m + C_2C_5L_3R_2R_3g_m + C_2C_5L_3R_2R_3g_m + C_2C_5L_3R_3R_5g_m + C_2C_5L_3R_5g_m + C_2C_5L_3R_5g_
10.334 INVALID-ORDER-334 Z(s) = \left(\infty, R_2 + \frac{1}{C_{2}s}, \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 L_{3}R_{3}g_{m}s + s^{4}\left(C_{2}C_{5}L_{3}L_{5}R_{2}R_{3}g_{m} + C_{2}C_{5}L_{3}L_{5}R_{3}\right) + s^{3}\left(-C_{2}C_{5}L_{3}R_{2}R_{3} + C_{5}L_{3}L_{5}R_{3}g_{m}\right) + s^{2}\left(C_{2}L_{3}R_{2}R_{3}g_{m} + C_{2}L_{3}R_{3}g_{m}\right) + s^{2}\left(C_{2}L_{3}R_{2}R_{3}g_{m}\right) + s^{2}\left(C_{2}L_{3}R_{2}R_{3}g
H(s) = \frac{L_3R_3g_ms + s^4\left(C_2C_5L_3L_5R_2R_3g_m + C_2C_5L_3L_5R_3\right) + s^3\left(-C_2C_5L_3R_2R_3 + C_5L_3L_5R_3g_m\right) + s^2\left(C_2L_3R_2R_3g_m + C_2L_3R_3g_m + C_2L_3R_3g_m\right) + s^2\left(C_2L_3R_2R_3g_m + C_2L_3R_3g_m\right) + s^2\left(C_2L_3R_3R_3g_m + C_2L_3R_3g_m\right) + s^2\left(C_2L_3R_3R_3g_m\right) + s^2\left(C_2L_3R_3g_m + C_2L_3R_3g_m\right) + s^2\left(C_2L_3R_3g_m + C_2
10.335 INVALID-ORDER-335 Z(s) = \left(\infty, R_2 + \frac{1}{C_{2s}}, \frac{L_3 R_{3s}}{C_3 L_3 R_{3s}^2 + L_{3s} + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -C_{2}C_{5}L_{3}L_{5}R_{2}R_{3}s^{4}-L_{3}R_{3}s+s^{3}\left(C_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}L_{3}L_{5}R_{3}-C_{5}L_{3}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}g_{m}\right)+c^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}g_{m}+C_{2}L_{3}L_{5}R_{3}-C_{5}L_{3}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}g_{m}+C_{2}L_{3}L_{5}R_{3}-C_{5}L_{3}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}g_{m}+C_{2}L_{3}L_{5}R_{3}-C_{5}L_{3}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}g_{m}+C_{2}L_{3}L_{5}R_{3}-C_{5}L_{3}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}g_{m}+C_{2}L_{3}L_{5}R_{3}-C_{5}L_{3}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}g_{m}+C_{2}L_{3}L_{5}R_{3}-C_{5}L_{3}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}g_{m}+C_{2}L_{3}L_{5}R_{3}-C_{5}L_{3}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}g_{m}+C_{2}L_{3}L_{5}R_{3}-C_{5}L_{3}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}-C_{5}L_{3}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}-C_{5}L_{3}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}-C_{5}L_{3}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}-C_{5}L_{3}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}-C_{5}L_{3}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}-C_{5}L_{3}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}-C_{5}L_{3}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}-C_{5}L_{3}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}+C_{5}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{3}L_{5}R_{3}+C_{5}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{2}R_{3}+L_{5}R_{3}+C_{5}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{3}+L_{5}R_{3}+C_{5}L_{5}R_{3}+C_{5}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{3}+C_{5}L_{5}R_{3}+C_{5}L_{5}R_{3}+C_{5}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{3}R_{3}+C_{5}L_{5}R_{3}+C_{5}L_{5}R_{3}+C_{5}L_{5}R_{5}\right)+s^{2}\left(-C_{2}L_{3}R_{3}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}
                                          \frac{-C_2C_5L_3L_5R_2R_3s - L_3R_3s + s^*(C_2L_3L_5R_2R_3g_m + C_2L_3L_5R_3) + s^*(C_2L_3L_5R_3) + s^*(C_2L
10.336 INVALID-ORDER-336 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   H(s) = \frac{2}{R_3 g_m + s^5 \left(C_2 C_3 C_5 L_3 L_5 R_2 R_3 g_m + C_2 C_3 C_5 L_3 L_5 R_3 \right) + s^4 \left(C_2 C_3 C_5 L_3 R_2 R_3 R_5 g_m + C_2 C_5 L_3 R_2 R_3 R_5 g_m + C_2 C_5 L_3 L_5 R_3 g_m \right) + s^3 \left(C_2 C_3 L_3 R_2 R_3 g_m + C_2 C_5 L_3 R_2 R_3 g_m + C_
10.337 INVALID-ORDER-337 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -C_2C_5L_3L_5R_2R_3R_5s^4 - L_3R_3R_5s + s^4
10.338 INVALID-ORDER-338 Z(s) = \left(\infty, R_2 + \frac{1}{C_{2s}}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        s^4 (C_2 C_5 L_3 L_5)
H(s) = \frac{1}{R_3 R_5 g_m + R_3 + s^5 \left( C_2 C_3 C_5 L_3 L_5 R_2 R_3 R_5 g_m + C_2 C_3 C_5 L_3 L_5 R_2 R_3 + C_2 C_3 C_5 L_3 L_5 R_3 R_5 \right) + s^4 \left( C_2 C_3 L_3 L_5 R_3 R_5 g_m + C_2 C_5 L_3 L_5 R_5 R_5 g_m + C_2 C_5 L_3 L_5 R_5 g_m + C_2 C_5 L_5 L_5 R_5 g_m + C_2 C_5 L
10.339 INVALID-ORDER-339 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)
```

 $\overline{R_{3}R_{5}g_{m}+R_{3}+s^{5}\left(C_{2}C_{3}C_{5}L_{3}L_{5}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{3}C_{5}L_{3}L_{5}R_{2}R_{3}+C_{2}C_{3}C_{5}L_{3}L_{5}R_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{3}L_{5}R_{2}R_{3}R_{5}+2C_{2}C_{5}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{3}L_{5}R_{3}+C_{2}C_{5}L_{3$ 

```
10.340 INVALID-ORDER-340 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, R_5, \infty\right)
```

$$H(s) = \frac{R_3R_5g_m - R_3 + s^3\left(C_2C_3L_3R_2R_3R_5g_m - C_2C_3L_3R_2R_3 + C_2C_3L_3R_2R_3 + C_2C_3L_3R_2R_3 + C_2C_3L_3R_2R_3 + C_2L_3R_2 + C_2L_3R_2 + C_2L_3R_2 + C_2L_3R_3 + C_2L_3R_3 + C_2L_3R_3 + C_2R_3R_5g_m - C_2R_2R_3 + C_2R_3R_5 + L_3R_5g_m - L_3\right)}{2R_3g_m + R_5g_m + s^3\left(2C_2C_3L_3R_2R_3g_m + C_2C_3L_3R_2R_3g_m + C_2C_3L_3R_3 + C_2C_3L_3$$

10.341 INVALID-ORDER-341 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{-C_2C_3C_5L_3R_2R_3s^4 + R_3g_m + s^3\left(C_2C_3L_3R_2R_3g_m + C_2C_5L_3R_2 - C_3C_5L_3R_2 - C_3C_5L_3R_3\right) + s^2\left(-C_2C_5R_2R_3 + C_2L_3R_2g_m + C_2L_3 + C_3L_3R_3g_m - C_5L_3\right) + s\left(C_2R_2R_3g_m + C_2R_3 - C_5R_3 + L_3g_m\right)}{g_m + s^4\left(2C_2C_3C_5L_3R_2R_3g_m + C_2C_3C_5L_3R_2 + 4C_2C_5L_3R_2g_m + C_2C_5L_3R_2g_m + C_2C_5L_3R_2g_m + C_2C_5L_3R_2g_m + C_2C_5L_3R_2g_m + C_2C_5R_3g_m + C$$

**10.342** INVALID-ORDER-342 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$$

$$H(s) = \frac{-C_2C_3C_5L_3R_2R_3R_5s^4 + R_3R_5g_m - R_3 + s^3\left(C_2C_3L_3R_2R_3R_5g_m - C_2C_5L_3R_2R_5 - C_3C_5L_3R_2R_5 - C_3C_5L_3R_3R_5\right) + s^2\left(-C_2C_5R_2R_3R_5 + C_2L_3R_2R_5g_m - C_2L_3R_2R_5g_m - C_2L_3R_2R_5g_m + C_2C_3L_3R_2R_5g_m + C_2C_3L_3R_2g_m +$$

10.343 INVALID-ORDER-343 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{R_3 g_m + s^4 \left(C_2 C_3 C_5 L_3 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_3 R_2 R_3 + C_2 C_3 C_5 L_3 R_2 R_3 + C_2 C_3 C_5 L_3 R_3 R_5 g_m - C_2 C_5 L_3 R_2 R_3 + C_2 C_5 L_3 R_2 R_5 g_m - C_2 C_5 L_3 R_2 R_5 g_m - C_2 C_5 L_3 R_3 R_5 g_m - C_2 C_5 R_2 R_3 g_m + C_2 C$$

**10.344** INVALID-ORDER-344 
$$Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \infty\right)$$

$$H(s) = \frac{R_3 g_m + s^5 \left(C_2 C_3 C_5 L_3 L_5 R_2 R_3 g_m + C_2 C_3 C_5 L_3 L_5 R_3\right) + s^4 \left(-C_2 C_3 C_5 L_3 R_2 R_3 + C_2 C_5 L_3 L_5 R_2 g_m + C_2 C_5 L_3 L_5 R_3 g_m\right) + s^3 \left(C_2 C_3 L_3 R_2 R_3 g_m + C_2 C_5 L_5 R_2 R_3 g_m + C_2 C_5 L_5 R_3 - C_3 C_5 L_3 R_3 + C_5 L_3 L_5 g_m\right) + s^2 \left(-C_2 C_5 R_2 R_3 g_m + C_2 C_5 L_5 R_2 R_3 g_m + C_2 C_5 L_5 R_3 - C_3 C_5 L_3 R_3 + C_5 L_3 L_5 g_m\right) + s^2 \left(-C_2 C_5 R_2 R_3 g_m + C_2 C_5 L_5 R_2 g_m + C_2 C_5 L_$$

10.345 INVALID-ORDER-345 
$$Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ \infty\right)$$

$$H(s) = \frac{-C_2C_3C_5L_3L_5R_2R_3s^5 - R_3 + s^4\left(C_2C_3L_3L_5R_2R_3g_m + C_2C_3L_3L_5R_3 - C_2C_5L_3L_5R_3 + s^3\left(-C_2C_3L_3R_2R_3 - C_2C_5L_5R_2R_3 + C_2L_3L_5R_2g_m + C_2L_3L_5 + C_3L_3L_5R_2\right)}{2R_3g_m + s^5\left(2C_2C_3C_5L_3L_5R_2g_m + C_2C_3L_3L_5R_2g_m + C_2C_3L_3R_2g_m + C_2C_$$

**10.346** INVALID-ORDER-346 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{R_3 g_m + s^5 \left(C_2 C_3 C_5 L_3 L_5 R_2 R_3 g_m + C_2 C_3 C_5 L_3 L_5 R_3 \right) + s^4 \left(C_2 C_3 C_5 L_3 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_3 R_2 R_3 + C_2 C_5 L_3 R_2 R_3 + C_2 C_5 L_3 L_5 R_2 g_m + C_2 C_5 L_3 L_5 R_3 g_m \right) + s^3 \left(C_2 C_3 L_3 R_2 R_3 g_m + C_2 C_3 L_3 R_3 R_5 + C_2 C_5 L_3 R_2 R_5 g_m - C_2 C_5 L_3 R_2 R_5 g_m - C_2 C_5 L_3 R_2 R_5 g_m + C_2 C_5 L_3 R_2 R_3 g_m + C_2 C_3 L_5 R_3 R_3 R_5 + C_2 C_5 L_3 R_2 R_3 g_m + C_2 C_5 L_3 R_2 R$$

10.347 INVALID-ORDER-347 
$$Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \infty\right)$$

$$H(s) = \frac{-C_2C_3C_5L_3L_5R_2R_3R_5s^5 - R_3R_5 + s^4\left(C_2C_3L_3L_5R_2R_3R_5g_m - C_2C_3L_3L_5R_2R_3 + C_2C_3L_3L_5R_2R_3 + C_2C_5L_3L_5R_2R_3 + C_2C_3L_3L_5R_2R_3R_5g_m - C_2C_3L_3L_5R_2R_3R_5g_m + C_2C_3L_3L_5R_2R_3R_5g_m + C_2C_3L_3L_5R_2R_3R_5g_m + C_2C_3L_3L_5R_2R_3g_m + C_2C_3L_3L_5R_3g_m + C_2C_3L_3L_5R$$

**10.348** INVALID-ORDER-348 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{R_3 R_5 g_m - R_3 + s^5 \left(C_2 C_3 C_5 L_3 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_3 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_3 L_5 R_3 R_5 g_m - C_2 C_3 L_5 L_5 R_2 R_3 g_m + C_2 C_3 L_3 L_5 R_3 R_5 g_m - C_2 C_5 L_3 L_5 R_3 R_5 g_m - C_3 C_5 L_3 L_5 R_5 g_m - C_3 C_5 L_5 L_5 R_5 g_m - C_3 C_5 L_5 L_5 R_5 g_m - C_5 C_5 L_5 L_5 L_5 R_5 g_m - C_5 L_5 L_5 L_5 R_5 g_m - C_5 L_5 L_5 L_5 R_5 g_m - C_5 L_5 L_5 L$$

10.349 INVALID-ORDER-349 
$$Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$$

$$H(s) = \frac{R_3R_5g_m - R_3 + s^5\left(C_2C_3C_5L_3L_5R_2R_3R_5g_m - C_2C_3C_5L_3L_5R_2R_3 + C_2C_3C_5L_3L_5R_2R_3R_5 + s^4\left(-C_2C_3C_5L_3L_5R_2R_3R_5 + C_2C_5L_3L_5R_2R_3R_5 + C_2C_5L_3L_5R_3R_5 + C_2C_5L_3L_5R_5 + C_$$

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10.350 INVALID-ORDER-350 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, R_5, \infty\right)
H(s) = \frac{R_3R_5g_m - R_3 + s^3\left(C_2C_3L_3R_2R_3R_5g_m - C_2C_3L_3R_2R_3 + C_2C_3L_3R_3R_5\right) + s^2\left(C_3L_3R_3R_5g_m - C_3L_3R_3\right) + s\left(C_2R_2R_3R_5g_m - C_2R_2R_3 + C_2R_3R_5\right)}{2R_3g_m + R_5g_m + s^3\left(2C_2C_3L_3R_2R_5g_m + C_2C_3L_3R_2 + 4C_2C_3L_3R_3\right) + s^2\left(C_2C_3R_2R_3R_5g_m - C_3L_3R_3\right) + s\left(C_2R_2R_3R_5g_m - C_2R_2R_3 + C_2R_3R_5\right)}
10.351 INVALID-ORDER-351 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{-C_2C_3C_5L_3R_2R_3s^4 + R_3g_m + s^3\left(C_2C_3L_3R_2R_3g_m + C_2C_3L_3R_3 - C_3C_5L_3R_3\right) + s^2\left(-C_2C_5R_2R_3 + C_3L_3R_3g_m\right) + s\left(C_2R_2R_3g_m + C_2R_3 - C_5R_3\right)}{g_m + s^4\left(2C_2C_3C_5L_3R_2R_3g_m + C_2C_3L_3R_2 + 4C_2C_3C_5L_3R_3\right) + s^3\left(C_2C_3C_5R_2R_3 + C_2C_3L_3R_2g_m + C_2C_3L_3R_3g_m + C_2C_3R_3g_m + C_2C_5R_2R_3g_m + C_2C_5R_2R_3g_m + C_2C_5R_3R_3g_m + C_2C_5R_3g_m + C_2
10.352 INVALID-ORDER-352 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
H(s) = \frac{-C_2C_3C_5L_3R_2R_3R_5s^4 + R_3R_5g_m - R_3 + s^3\left(C_2C_3L_3R_2R_3R_5g_m - C_2C_3L_3R_2R_3 + C_2C_3L_3R_3R_5 - C_3C_5L_3R_3R_5\right) + s^2\left(-C_2C_3C_3C_3R_3R_5 + S_3C_3C_3C_3R_3R_5\right) + s^2\left(-C_2C_3C_3C_3R_3R_5 + S_3C_3C_3C_3R_3R_5\right) + s^2\left(-C_2C_3C_3C_3R_3R_5\right) + s^2\left(-C_2C_3C_3R_3R_5\right) + s^2\left(-C_2C_3R_3R_5\right) + s^2\left(-C_
10.353 INVALID-ORDER-353 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{R_3g_m + s^4\left(C_2C_3C_5L_3R_2R_3R_5g_m - C_2C_3C_5L_3R_2R_3 + C_2C_3C_5L_3R_3R_5g_m + C_2C_3L_3R_3 + C_3C_5L_3R_3R_5g_m - C_3C_5L_3R_3 + s^2\left(C_2C_5R_2R_3R_5g_m - C_3C_5L_3R_3R_5g_m - C_3C_5L_3R_5g_m - C_3C_5L_3R_3R_5g_m - C_3C_5L_3R_5g_m - C_3C_5L_3R_5g_m
10.354 INVALID-ORDER-354 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{R_3g_m + s^5 \left(C_2C_3C_5L_3L_5R_3g_m + C_2C_3C_5L_3L_5R_3g_m + s^4 \left(-C_2C_3C_5L_3R_2R_3 + C_3C_5L_3R_2R_3g_m + C_2C_3L_3R_3 + C_2C_5L_5R_2R_3g_m + C_2C_5L_5R_3g_m + C_2C_5L_5R_3g_m + C_2C_5L_5R_3g_m + C_2C_5L_5R_3g_m + C_2C_5L_5R_3g_m + C_2C_3C_5L_3R_3g_m + C_2C_3C_5L_3
10.355 INVALID-ORDER-355 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
                                          -C_{2}C_{3}C_{5}L_{3}L_{5}R_{2}R_{3}s^{5}-R_{3}+s^{4}\left(C_{2}C_{3}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{3}L_{3}L_{5}R_{3}-C_{3}C_{5}L_{3}L_{5}R_{3}\right)+s^{3}\left(-C_{2}C_{3}L_{3}R_{2}R_{3}-C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2}R_{3}+C_{2}C_{5}L_{5}R_{2
10.356 INVALID-ORDER-356 Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)
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$$H(s) = \frac{R_3g_m + s^5 \left(C_2C_3C_5L_3L_5R_2R_3g_m + C_2C_3C_5L_3L_5R_3\right) + s^4 \left(C_2C_3C_5L_3R_2R_3R_5g_m - C_2C_3C_5L_3R_2R_3 + C_2C_3C_5L_3R_2R_3 + C_2C_3C_5L_3R_2R_3 + C_2C_3C_5L_3R_2R_3 + C_2C_3C_5L_3R_2R_3R_5g_m + C_2C_3C_5L_3R_2R_3R_5g_m + C_2C_3C_5L_3R_2R_3g_m + C_2C_3C_5L_3R_2R_3g_m + C_2C_3C_5L_3R_2R_3g_m + C_2C_3C_5L_3R_2R_3g_m + C_2C_3C_5L_3R_2R_3g_m + C_2C_3C_5L_3R_2R_3g_m + C_2C_3C_5L_3R_3R_5g_m + C_2C_3C_5L_3R_2R_3g_m + C_2C_3C_5L_3R_2R_3g_m + C_2C_3C_5L_3R_3R_5g_m + C_2C_3C_5L_3R_3g_m + C_2C_3C_5L_3R_3g_m + C_2C_3C_5L_3R_3g_m + C_2C_3C_5L_3R_3g_m + C_2C_3C_5L_3R_3g_m + C_2C_3C_5L_3R_3g_m + C_2C_3C_5L_3R_3g_$$

10.357 INVALID-ORDER-357 
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_3L_5R_2R_3R_5s^5 - R_3R_5 + s^4\left(C_2C_3C_5L_3L_5R_2R_3R_5s^5 - R_3R_5 + s^4\left(C_2C_3C_5L_3L_5R_2R_3R_5s^5 - R_3R_5 + s^4\left(C_2C_3C_5L_3L_5R_2R_3R_5s^5 - R_3R_5 + s^4\left(C_2C_3C_5L_3L_5R_2R_3R_5s^5 - R_3R_5 + s^4\left(C_2C_3C_5L_3L_5R_2R_3R_5 + s^4\left(C_2C_3C_5L_3L_5R_2R_3R_5 + s^4\left(C_2C_3L_3L_5R_2R_3R_5 + s^4\left(C_2C_3L_3L_5R_3R_5 + s^4c_2C_3L_3L_5R_3R_5 + s^4c_2C_3L_3L_5R_5 + s^4c_2C_3L_5L_5R_5 + s^4c_2C_3L_5L_5R_5 + s^4c_2C_3L_5L_5R_5 + s^4c_2C_$ 

**10.358** INVALID-ORDER-358 
$$Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \ \infty\right)$$

 $H(s) = \frac{R_3R_5g_m - R_3 + s^5\left(C_2C_3C_5L_3L_5R_2R_3R_5g_m - C_2C_3C_5L_3L_5R_2R_3 + C_2C_3C_5L_3L_5R_2R_3 + C_2C_3C_5L_3L_5R_2R_3 + C_2C_3C_5L_3L_5R_2R_3R_5g_m + C_2C_3C_5L_3L_5R_3R_5g_m + C_2C_3C_5L_3L_5R_2R_3R_5g_m + C_2C_3C_5L_3L_5R_3R_5g_m + C_2C_3C_5L_3L_5R_5g_m + C_2C_3C_5L_5R_5g_m + C_2C_3C_5L_5R_5g_m + C_2C_3C_5L_5R_5g_m + C_2C_3C_5L_5R_5g_m + C_2C_3C_5L_5R_5g_m + C_2C_3C_5L_5R_5g_m + C_2C_3C_5L_5R_5g_$ 

10.359 INVALID-ORDER-359 
$$Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$$

 $R_3R_5g_m - R_3 + s^5 (C_2C_3C_5L_3L_5R_2$ 

 $H(s) = \frac{1}{2R_3g_m + R_5g_m + s^5\left(2C_2C_3C_5L_3L_5R_2R_3g_m + C_2C_3C_5L_3L_5R_2 + 4C_2C_3C_5L_3L_5R_2 + 4C_2C_3C_5L_3R_2R_3 + C_2C_3C_5L_3R_2R_3 + 4C_2C_3C_5L_3R_2R_3 + 4C_2C_3C_5L_3R_3R_3 + 4C_2C_3C_5L_3R_3 + 4C_2C_3C_5L_3R_3R_3 + 4C_2C_3C_5L_3R_3R_3 + 4C_2C_3C_5L_3R_3R_3 + 4C_2C$ 

**10.360** INVALID-ORDER-360  $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_2R_3s^3 + C_2L_2R_3g_ms^2 + R_3g_m + s\left(C_2R_3 - C_5R_3\right)}{g_m + s^3\left(2C_2C_5L_2R_3g_m + C_2C_5L_2\right) + s^2\left(4C_2C_5R_3 + C_2L_2g_m\right) + s\left(C_2 + 2C_5R_3g_m + C_5\right)}$$

**10.361** INVALID-ORDER-361  $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_2R_3R_5s^3 + R_3R_5g_m - R_3 + s^2\left(C_2L_2R_3R_5g_m - C_2L_2R_3\right) + s\left(C_2R_3R_5 - C_5R_3R_5\right)}{2R_3g_m + R_5g_m + s^3\left(2C_2C_5L_2R_3R_5g_m + C_2C_5L_2R_5\right) + s^2\left(4C_2C_5R_3R_5 + 2C_2L_2R_3g_m + C_2L_2R_5g_m + C_2L_2\right) + s\left(4C_2R_3 + C_2R_5 + 2C_5R_3R_5g_m + C_5R_5\right) + 1}$$

**10.362** INVALID-ORDER-362  $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{R_3 g_m + s^3 \left(C_2 C_5 L_2 R_3 R_5 g_m - C_2 C_5 L_2 R_3\right) + s^2 \left(C_2 C_5 R_3 R_5 + C_2 L_2 R_3 g_m\right) + s \left(C_2 R_3 + C_5 R_3 R_5 g_m - C_5 R_3\right)}{g_m + s^3 \left(2 C_2 C_5 L_2 R_3 g_m + C_2 C_5 L_2 R_5 g_m + C_2 C_5 L_2\right) + s^2 \left(4 C_2 C_5 R_3 + C_2 C_5 R_5 + C_2 L_2 g_m\right) + s \left(C_2 + 2 C_5 R_3 g_m + C_5 R_5 g_m + C_5\right)}$$

**10.363** INVALID-ORDER-363  $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_2L_5R_3g_ms^4 + R_3g_m + s^3\left(-C_2C_5L_2R_3 + C_2C_5L_5R_3\right) + s^2\left(C_2L_2R_3g_m + C_5L_5R_3g_m\right) + s\left(C_2R_3 - C_5R_3\right)}{C_2C_5L_2L_5g_ms^4 + g_m + s^3\left(2C_2C_5L_2R_3g_m + C_2C_5L_2 + C_2C_5L_5\right) + s^2\left(4C_2C_5R_3 + C_2L_2g_m + C_5L_5g_m\right) + s\left(C_2+2C_5R_3g_m + C_5\right)}$$

**10.364** INVALID-ORDER-364  $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_2L_5R_3s^4 + C_2L_2L_5R_3g_ms^3 + L_5R_3g_ms - R_3 + s^2\left(-C_2L_2R_3 + C_2L_5R_3 - C_5L_5R_3\right)}{2R_3g_m + s^4\left(2C_2C_5L_2L_5R_3g_m + C_2C_5L_2L_5\right) + s^3\left(4C_2C_5L_5R_3 + C_2L_2L_5g_m\right) + s^2\left(2C_2L_2R_3g_m + C_2L_2 + C_2L_5 + 2C_5L_5R_3g_m + C_5L_5\right) + s\left(4C_2R_3 + L_5g_m\right) + 1}$$

10.365 INVALID-ORDER-365  $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_2L_5R_3g_ms^4 + R_3g_m + s^3\left(C_2C_5L_2R_3R_5g_m - C_2C_5L_2R_3 + C_2C_5L_5R_3\right) + s^2\left(C_2C_5R_3R_5 + C_2L_2R_3g_m + C_5L_5R_3g_m\right) + s\left(C_2R_3 + C_5R_3R_5g_m - C_5R_3\right)}{C_2C_5L_2L_5g_ms^4 + g_m + s^3\left(2C_2C_5L_2R_3g_m + C_2C_5L_2R_5g_m + C_2C_5L_2 + C_2C_5L_5\right) + s^2\left(4C_2C_5R_3 + C_2C_5R_5 + C_2L_2g_m + C_5L_5g_m\right) + s\left(C_2+2C_5R_3g_m + C_5R_3g_m + C_5R$$

**10.366** INVALID-ORDER-366  $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_2L_5R_3R_5s^4 - R_3R_5 + s^3\left(C_2L_2L_5R_3R_5g_m - C_2L_2L_5R_3\right) + s^2\left(-C_2L_2R_3R_5 + C_2L_5R_3R_5 - C_5L_5R_3R_5\right) + s\left(L_5R_3R_5g_m - L_5R_3\right)}{2R_3R_5g_m + R_5 + s^4\left(2C_2C_5L_2L_5R_3R_5g_m + C_2C_5L_2L_5R_3\right) + s^3\left(4C_2C_5L_5R_3R_5 + 2C_2L_2L_5R_3g_m + C_2L_2L_5\right) + s^2\left(2C_2L_2R_3R_5g_m + C_2L_2R_5 + 4C_2L_5R_3 + C_2L_5R_3 + C_2L_5R_3R_5g_m + C_5L_5R_3\right) + s\left(4C_2R_3R_5 + 2C_2L_5R_3g_m + C_2L_2L_5R_3g_m + C_2L_2L_5\right) + s^2\left(2C_2L_2R_3R_5g_m + C_2L_2R_5 + 4C_2L_5R_3 + C_2L_5R_3 + C_2L_5R_3\right) + s\left(4C_2R_3R_5 + 2C_2L_5R_3g_m + C_2L_2L_5R_3g_m + C_2L_2L_5\right) + s^2\left(2C_2L_2R_3R_5g_m + C_2L_2R_5 + 4C_2L_5R_3 + C_2L_5R_3\right) + s\left(4C_2R_3R_5 + 2C_2L_5R_3g_m + C_2L_2L_5\right) + s^2\left(2C_2L_2R_3R_5g_m + C_2L_2R_5 + 4C_2L_5R_3 + C_2L_5R_5\right) + s\left(4C_2R_3R_5 + 2C_2L_5R_3g_m + C_2L_5R_3g_m + C_2L_5R_5\right) + s\left(4C_2R_3R_5 + 2C_2L_5R_3g_m + C_2L_2L_5R_3g_m + C_2L_2L_5\right) + s^2\left(2C_2L_2R_3R_5g_m + C_2L_5R_3 + 4C_2L_5R_5\right) + s\left(4C_2R_3R_5 + 2C_2L_5R_3g_m + C_2L_5R_5\right) + s\left(4C_2R_3R_5 + 2C_2L_5R_5\right) + s\left(4C_2R_$$

10.367 INVALID-ORDER-367  $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{R_3R_5g_m - R_3 + s^4\left(C_2C_5L_2L_5R_3R_5g_m - C_2C_5L_2L_5R_3\right) + s^3\left(C_2C_5L_5R_3R_5 + C_2L_2L_5R_3g_m\right) + s^2\left(C_2L_2R_3R_5g_m - C_2L_2R_3 + C_2L_5R_3 + C_5L_5R_3R_5g_m - C_5L_5R_3\right) + s\left(C_2R_3R_5 + L_5R_3g_m\right)}{2R_3g_m + R_5g_m + s^4\left(2C_2C_5L_2L_5R_3g_m + C_2C_5L_2L_5\right) + s^3\left(4C_2C_5L_5R_3 + C_2C_5L_5R_3 + C_2L_2L_5g_m\right) + s^2\left(2C_2L_2R_3g_m + C_2L_2R_5g_m + C_2L_2 + C_2L_5 + 2C_5L_5R_3g_m + C_5L_5R_3g_m + C_5L_5\right) + s\left(4C_2R_3 + C_2R_5 + L_5g_m\right) + s^2\left(2C_2L_2R_3g_m + C_2L_2R_5g_m + C_2L_2 + C_2L_5 + 2C_5L_5R_3g_m + C_5L_5R_3g_m + C_5$$

10.368 INVALID-ORDER-368 
$$Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$$

 $H(s) = \frac{R_3R_5g_m - R_3 + s^4\left(C_2C_5L_2L_5R_3R_5g_m - C_2C_5L_2L_5R_3\right) + s^3\left(-C_2C_5L_2R_3R_5 + C_2C_5L_2R_3R_5 + C_2C_5L_2R_3R_5g_m - C_2L_2R_3 + C_5L_5R_3R_5g_m - C_5L_5R_3\right) + s\left(C_2R_3R_5 - C_5R_3R_5\right)}{2R_3g_m + R_5g_m + s^4\left(2C_2C_5L_2L_5R_3g_m + C_2C_5L_2L_5\right) + s^3\left(2C_2C_5L_2R_3R_5g_m + C_2C_5L_2R_5 + 4C_2C_5L_5R_3 + C_2C_5L_2R_3R_5 + 2C_2L_2R_3g_m + C_2L_2R_3g_m + C_2L_2R_3g_m + C_5L_5R_3g_m + C_5L_5R_3g_m$ 

**10.369** INVALID-ORDER-369  $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, R_5, \infty\right)$ 

$$H(s) = \frac{C_2R_5s + R_5g_m + s^2\left(C_2L_2R_5g_m - C_2L_2\right) - 1}{2g_m + s^3\left(C_2C_3L_2R_5g_m + C_2C_3L_2\right) + s^2\left(C_2C_3R_5 + 2C_2L_2g_m\right) + s\left(4C_2 + C_3R_5g_m + C_3\right)}$$

10.370 INVALID-ORDER-370  $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_2s^3 + C_2L_2g_ms^2 + g_m + s\left(C_2 - C_5\right)}{C_2C_3C_5L_2s^4 + s^3\left(C_2C_3L_2g_m + 2C_2C_5L_2g_m\right) + s^2\left(C_2C_3 + 4C_2C_5 + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$$

10.371 INVALID-ORDER-371  $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_2R_5s^3 + R_5g_m + s^2\left(C_2L_2R_5g_m - C_2L_2\right) + s\left(C_2R_5 - C_5R_5\right) - 1}{C_2C_3C_5L_2R_5s^4 + 2g_m + s^3\left(C_2C_3L_2R_5g_m + C_2C_5L_2R_5g_m\right) + s^2\left(C_2C_3R_5 + 4C_2C_5R_5 + 2C_2L_2g_m + C_3C_5R_5\right) + s\left(4C_2 + C_3R_5g_m + C_3 + 2C_5R_5g_m\right)}$$

10.372 INVALID-ORDER-372  $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{g_m + s^3 \left( C_2 C_5 L_2 R_5 g_m - C_2 C_5 L_2 \right) + s^2 \left( C_2 C_5 R_5 + C_2 L_2 g_m \right) + s \left( C_2 + C_5 R_5 g_m - C_5 \right)}{s^4 \left( C_2 C_3 C_5 L_2 R_5 g_m + C_2 C_3 C_5 L_2 \right) + s^3 \left( C_2 C_3 C_5 R_5 + C_2 C_3 L_2 g_m + 2 C_2 C_5 L_2 g_m \right) + s^2 \left( C_2 C_3 + 4 C_2 C_5 + C_3 C_5 R_5 g_m + C_3 C_5 \right) + s \left( C_3 g_m + 2 C_5 g_m \right)}$$

10.373 INVALID-ORDER-373  $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_2L_5g_ms^4 + g_m + s^3\left(-C_2C_5L_2 + C_2C_5L_5\right) + s^2\left(C_2L_2g_m + C_5L_5g_m\right) + s\left(C_2 - C_5\right)}{C_2C_3C_5L_2L_5g_ms^5 + s^4\left(C_2C_3C_5L_2 + C_2C_3C_5L_5\right) + s^3\left(C_2C_3L_2g_m + 2C_2C_5L_2g_m + C_3C_5L_5g_m\right) + s^2\left(C_2C_3 + 4C_2C_5 + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$$

10.374 INVALID-ORDER-374  $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_2L_5s^4 + C_2L_2L_5g_ms^3 + L_5g_ms + s^2\left(-C_2L_2 + C_2L_5 - C_5L_5\right) - 1}{C_2C_3C_5L_2L_5s^5 + 2g_m + s^4\left(C_2C_3L_2L_5g_m + 2C_2C_5L_2L_5g_m\right) + s^3\left(C_2C_3L_2 + C_2C_3L_5 + 4C_2C_5L_5 + C_3C_5L_5\right) + s^2\left(2C_2L_2g_m + C_3L_5g_m + 2C_5L_5g_m\right) + s\left(4C_2 + C_3\right)}$$

10.375 INVALID-ORDER-375  $Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \infty\right)$ 

10.376 INVALID-ORDER-376  $Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_2L_5R_5s^4 - R_5 + s^3\left(C_2L_2L_5R_5g_m - C_2L_2L_5\right) + s^2\left(-C_2L_2R_5 + C_2L_5R_5 - C_5L_5R_5\right) + s\left(L_5R_5g_m - L_5\right)}{C_2C_3C_5L_2L_5R_5s^5 + 2R_5g_m + s^4\left(C_2C_3L_2L_5R_5g_m + C_2C_3L_2L_5 + 2C_2C_5L_2L_5R_5g_m\right) + s^3\left(C_2C_3L_2R_5 + C_2C_3L_5R_5 + 4C_2C_5L_5R_5\right) + s^2\left(2C_2L_2R_5g_m + 4C_2L_5 + C_3L_5R_5g_m + C_3L_5 + 2C_5L_5R_5g_m\right) + s\left(4C_2R_5 + C_3R_5 + 2C_5L_5R_5g_m\right) + s\left(4C_2R_5 + C_3R_5 + 2C_5R_5g_m\right) + s\left(4C_2R_5 + C_3R_5g_m\right) + s\left(4C_2R_5 + C_3R_5g_m\right$$

10.377 INVALID-ORDER-377  $Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{R_5g_m + s^4 \left( C_2C_5L_2L_5R_5g_m - C_2C_5L_2L_5 \right) + s^3 \left( C_2C_5L_5R_5 + C_2L_2L_5g_m \right) + s^2 \left( C_2L_2R_5g_m - C_2L_2 + C_2L_5 + C_5L_5R_5g_m - C_5L_5 \right) + s \left( C_2R_5 + L_5g_m \right) - 1}{2g_m + s^5 \left( C_2C_3C_5L_2L_5R_5g_m + C_2C_3L_2L_5g_m + 2C_2C_5L_2L_5g_m \right) + s^3 \left( C_2C_3L_2R_5g_m + C_2C_3L_5 + 4C_2C_5L_5 + C_3C_5L_5R_5g_m + C_3C_5L_5 \right) + s^2 \left( C_2C_3R_5 + 2C_2L_2g_m + C_3L_5g_m + 2C_5L_5g_m \right) + s \left( 4C_2 + C_3R_5g_m + C_3C_5L_5 + C_3C_5L_5R_5g_m + C_3C_5L_5 \right) + s^2 \left( C_2C_3R_5 + 2C_2L_2g_m + C_3L_5g_m + C_3C_5L_5 \right) + s^2 \left( C_2C_3R_5 + 2C_2L_2g_m + C_3L_5g_m + C_3C_5L_5 \right) + s^2 \left( C_2C_3R_5 + 2C_2L_2g_m + C_3C_5L_5 \right) + s^2 \left( C_2C_3R_5 + 2C_3L_5 \right) + s^2$$

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10.378 INVALID-ORDER-378 Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)
10.379 INVALID-ORDER-379 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, \infty\right)
                                                                                                                                                                                                                                                        H(s) = \frac{C_2R_3R_5s + R_3R_5g_m - R_3 + s^2\left(C_2L_2R_3R_5g_m - C_2L_2R_3\right)}{2R_3g_m + R_5g_m + s^3\left(C_2C_3L_2R_3R_5g_m + C_2C_3L_2R_3\right) + s^2\left(C_2C_3R_3R_5 + 2C_2L_2R_3g_m + C_2L_2R_5g_m + C_2L_2\right) + s\left(4C_2R_3 + C_2R_5 + C_3R_3R_5g_m + C_3R_3\right) + 1}
10.380 INVALID-ORDER-380 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, \infty\right)
                                                                                                                                                                                                                                               H(s) = \frac{-C_2C_5L_2R_3s^3 + C_2L_2R_3g_ms^2 + R_3g_m + s\left(C_2R_3 - C_5R_3\right)}{C_2C_3C_5L_2R_3s^4 + g_m + s^3\left(C_2C_3L_2R_3g_m + 2C_2C_5L_2R_3g_m + C_2C_5L_2\right) + s^2\left(C_2C_3R_3 + 4C_2C_5R_3 + C_2L_2g_m + C_3C_5R_3\right) + s\left(C_2 + C_3R_3g_m + 2C_5R_3g_m + C_5C_5R_3\right)}
10.381 INVALID-ORDER-381 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
H(s) = \frac{-C_2C_5L_2R_3R_5s^3 + R_3R_5g_m - R_3 + s^2\left(C_2L_2R_3R_5g_m - C_2L_2R_3\right) + s\left(C_2R_3R_5 - C_5R_3R_5\right)}{C_2C_3C_5L_2R_3R_5s^4 + 2R_3g_m + R_5g_m + s^3\left(C_2C_3L_2R_3R_5g_m + C_2C_5L_2R_3R_5g_m + C_2C_5L_2R_3g_m + C_2L_2R_5g_m + C_2R_5R_5g_m + C_2R_5R_5g_m + C_3R_5R_5g_m + C_3R_5R
10.382 INVALID-ORDER-382 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{R_3g_m + s^3\left(C_2C_5L_2R_3R_5g_m - C_2C_5L_2R_3\right) + s^2\left(C_2C_5R_3R_5 + C_2L_2R_3g_m\right) + s\left(C_2R_3 + C_5R_3R_5g_m - C_5R_3\right)}{g_m + s^4\left(C_2C_3C_5L_2R_3g_m + C_2C_5L_2R_3g_m + C_2C_5L_2R_3g_m + C_2C_5L_2R_3g_m + C_2C_5L_2R_3g_m + C_2C_5L_2R_3g_m + C_2C_5L_2R_3g_m + C_2C_5R_3 + C_2C_5R_3 + C_2C_5R_3 + C_2C_5R_3 + C_2C_5R_3R_5g_m + C_3C_5R_3\right) + s\left(C_2R_3R_5g_m - C_5R_3\right) + s\left(C_2R_3R_5g_m - C_5R_3g_m - C_5R_3\right) + s\left(C_2R_3R_5g_m - C_5R_3g_m - C_5R_3g_m - C_5R_3\right) + s\left(C_2R_3R_5g_m - C_5R_3g_m - C_
10.383 INVALID-ORDER-383 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{C_2C_5L_2L_5R_3g_ms^4 + R_3g_m + s^3\left(-C_2C_5L_2R_3 + C_2C_5L_5R_3\right) + s^2\left(C_2L_2R_3g_m + C_5L_5R_3g_m\right) + s\left(C_2R_3 - C_5R_3\right)}{C_2C_3C_5L_2L_5R_3g_ms^5 + g_m + s^4\left(C_2C_3C_5L_2R_3 + C_2C_5L_2R_3g_m + 2C_2C_5L_2R_3g_m + 2C_2C_5L_2 + C_2C_5L_5 + C_3C_5L_5R_3g_m\right) + s^2\left(C_2C_3R_3 + 4C_2C_5R_3 + C_2L_2g_m + C_3C_5R_3 + C_5L_5g_m\right) + s\left(C_2C_3R_3g_m + C_5C_5R_3g_m + C_5C_5R_3g_m\right) + s\left(C_2C_3R_3 + C_2C_5R_3 + C_
10.384 INVALID-ORDER-384 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
H(s) = \frac{-C_2C_5L_2L_5R_3s^4 + C_2L_2L_5R_3g_ms^3 + L_5R_3g_ms - R_3 + s^2\left(-C_2L_2R_3 + C_2L_5R_3 - C_5L_5R_3\right)}{C_2C_3C_5L_2L_5R_3s^5 + 2R_3g_m + s^4\left(C_2C_3L_2L_5R_3g_m + 2C_2C_5L_2L_5R_3g_m + C_2C_5L_2L_5\right) + s^3\left(C_2C_3L_2R_3 + C_2C_3L_5R_3 + 4C_2C_5L_5R_3 + C_2L_2L_5g_m + C_3C_5L_5R_3\right) + s^2\left(2C_2L_2R_3g_m + C_2L_2 + C_2L_5 + C_3L_5R_3g_m + 2C_5L_5R_3g_m + C_5L_5\right) + s\left(4C_2R_3 + C_3R_3 
10.385 INVALID-ORDER-385 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)
                                        \frac{C_2C_5L_2L_5R_3g_ms^4 + R_3g_m + s^3\left(C_2C_5L_2R_3R_5g_m - C_2C_5L_2R_3 + C_2C_5L_2R_3 + C_2C_5L_2R_3g_m + C_5L_5R_3g_m\right) + s\left(C_2R_3 + C_5R_3R_5g_m - C_5R_3\right)}{C_2C_3C_5L_2L_5R_3g_ms^5 + g_m + s^4\left(C_2C_3C_5L_2R_3R_5g_m + C_2C_5L_2R_3g_m + C
10.386 INVALID-ORDER-386 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \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_2C_5L_2L_5R_3R_5s^4 - R_3R_5 + s^3\left(C_2L_2L_5R_3R_5g_m - C_2L_2L_5R_3\right) + s^2\left(-C_2L_2R_3R_5 + C_2L_5R_3R_5 - C_5L_5R_3R_5\right) + s\left(L_5R_3R_5g_m - C_2L_2L_5R_3R_5s^5 + 2R_3R_5g_m + R_5 + s^4\left(C_2C_3L_2L_5R_3R_5g_m + C_2C_3L_2L_5R_3R_5g_m + C_2C_3L_2L_5R_3R_5\right) + s\left(C_2C_3L_2L_5R_3R_5 + 2C_2L_2L_5R_3g_m + C_2L_2L_5R_3g_m + 
10.387 INVALID-ORDER-387 Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \ \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R_{3}R_{5}g_{m}-R_{3}+s^{4}\left(C_{2}C_{5}L_{2}L_{5}R_{3}R_{5}g_{m}-C_{2}C_{5}L_{2}L_{5}R_{3}\right)+s^{3}\left(C_{2}C_{5}L_{5}R_{3}R_{5}+C_{2}L_{2}L_{5}R_{3}g_{m}\right)+s^{2}\left(C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}+C_{2}L_{2}L_{5}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}+C_{2}L_{2}L_{5}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g
                                          \frac{2R_3g_m + R_5g_m + s^5\left(C_2C_3C_5L_2L_5R_3R_5g_m + C_2C_3L_5L_5R_3\right) + s^4\left(C_2C_3C_5L_2L_5R_3g_m + 2C_2C_5L_2L_5R_3g_m + 2C_2C_5L_2L_5R_3g_m + C_2C_3L_2R_3 + C_2C_3L_5R_3 + 4C_2C_5L_5R_3 + 4C_2C_5L_5R_3g_m + C_2C_5L_5R_3g_m + C_2C_5L_5R_3g_m
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10.388 INVALID-ORDER-388 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    H(s) = \frac{R_3R_5g_m - R_3 + s^4\left(C_2C_5L_2L_5R_3R_5g_m - C_2C_5L_2L_5R_3\right) + s^3\left(-C_2C_5L_2R_3R_5 + C_2C_5L_5R_3R_5\right) + s^2\left(C_2L_2R_3R_5 + C_2C_5L_2R_3R_5 + C_2C_5L_2R_3R_5\right) + s^2\left(C_2L_2R_3R_5 + C_2C_5L_2R_3R_5g_m + C_2C_5L_2R_5g_m + C_2C
10.389 INVALID-ORDER-389 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, R_5, \infty\right)
                                                                                                                                                                                                                                                                                                                             H(s) = \frac{R_5 g_m + s^3 \left(C_2 C_3 L_2 R_3 R_5 g_m - C_2 C_3 L_2 R_3\right) + s^2 \left(C_2 C_3 R_3 R_5 + C_2 L_2 R_5 g_m - C_2 L_2\right) + s \left(C_2 R_5 + C_3 R_3 R_5 g_m - C_3 R_3\right) - 1}{2 g_m + s^3 \left(2 C_2 C_3 L_2 R_3 g_m + C_2 C_3 L_2 R_5 g_m + C_2 C_3 L_2\right) + s^2 \left(4 C_2 C_3 R_3 + C_2 C_3 R_5 + 2 C_2 L_2 g_m\right) + s \left(4 C_2 + 2 C_3 R_3 g_m + C_3 R_5 g_m + C_3 R_5 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 + 2 C_3 R_3 g_m + C_3 R_5 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 + 2 C_3 R_3 g_m + C_3 R_5 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 + 2 C_3 R_3 g_m + C_3 R_5 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 + 2 C_3 R_5 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 + 2 C_3 R_5 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 R_5 g_m + C_3 R_5 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 R_5 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 R_5 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 R_5 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 R_5 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 R_5 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 R_
10.390 INVALID-ORDER-390 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)
                                                                                                                                                                                                                                                                               H(s) = \frac{-C_2C_3C_5L_2R_3s^4 + g_m + s^3\left(C_2C_3L_2R_3g_m - C_2C_5L_2\right) + s^2\left(C_2C_3R_3 + C_2L_2g_m - C_3C_5R_3\right) + s\left(C_2 + C_3R_3g_m - C_5\right)}{s^4\left(2C_2C_3C_5L_2R_3g_m + C_2C_3C_5L_2\right) + s^3\left(4C_2C_3C_5R_3 + C_2C_3L_2g_m + 2C_2C_5L_2g_m\right) + s^2\left(C_2C_3 + 4C_2C_5 + 2C_3C_5R_3g_m + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}
10.391 INVALID-ORDER-391 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
H(s) = \frac{-C_2C_3C_5L_2R_3R_5s^4 + R_5g_m + s^3\left(C_2C_3L_2R_3R_5g_m - C_2C_5L_2R_3\right) + s^2\left(C_2C_3R_3R_5 + C_2L_2R_5g_m - C_2L_2 - C_3C_5R_3R_5\right) + s\left(C_2R_5 + C_3R_3R_5g_m - C_3R_3 - C_5R_5\right) - 1}{2g_m + s^4\left(2C_2C_3C_5L_2R_3R_5g_m + C_2C_3L_2R_3g_m + C_2C_3L_2R
10.392 INVALID-ORDER-392 Z(s) = \left(\infty, L_2 s + \frac{1}{C_{7} s}, R_3 + \frac{1}{C_{7} s}, \infty, R_5 + \frac{1}{C_{7} s}, \infty\right)
                                                                                                      H(s) = \frac{g_m + s^4 \left(C_2 C_3 C_5 L_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 R_3\right) + s^3 \left(C_2 C_3 C_5 R_3 R_5 + C_2 C_3 L_2 R_3 g_m + C_2 C_5 L_2 R_5 g_m - C_2 C_5 L_2\right) + s^2 \left(C_2 C_3 R_3 + C_2 C_5 R_5 + C_2 L_2 g_m + C_3 C_5 R_3 R_5 g_m - C_3 C_5 R_3\right) + s \left(C_2 + C_3 R_3 g_m + C_5 R_5 g_m - C_5\right)}{s^4 \left(2 C_2 C_3 C_5 L_2 R_3 g_m + C_2 C_3 C_5 L_2\right) + s^3 \left(4 C_2 C_3 C_5 R_3 + C_2 C_3 C_5 R_3 + C_2 C_3 C_5 L_2 g_m\right) + s^2 \left(C_2 C_3 + 4 C_2 C_5 + 2 C_3 C_5 R_3 g_m + C_3 C_5 R_3 g_m\right)}
10.393 INVALID-ORDER-393 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)
                                                                                              H(s) = \frac{C_2C_3C_5L_2L_5R_3g_ms^5 + g_m + s^4\left(-C_2C_3C_5L_2R_3 + C_2C_3C_5L_2R_3 + C_2C_5L_2L_5g_m\right) + s^3\left(C_2C_3L_2R_3g_m - C_2C_5L_2 + C_2C_5L_5 + C_3C_5L_5R_3g_m\right) + s^2\left(C_2C_3R_3 + C_2L_2g_m - C_3C_5R_3 + C_5L_5g_m\right) + s\left(C_2 + C_3R_3g_m - C_5C_5L_5R_3g_m\right) + s^2\left(C_2C_3R_3 + C_2L_2g_m - C_3C_5R_3 + C_5L_5g_m\right) + s\left(C_2 + C_3R_3g_m - C_5C_5L_5R_3g_m\right) + s\left(C_2C_3R_3 + C_2L_2g_m - C_3C_5R_3 + C_5L_5g_m\right) + s\left(C_2C_3R_3 + C_5L_5g_m\right) + s\left(C_2C_3R_3 + C_5L_5g_m\right) + s\left(C_2C_3R_3 + C_5L_5g_m\right) + s\left(C_3C_3R_3 + C_5L_5g_m\right) + s\left(C
10.394 INVALID-ORDER-394 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
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$$H(s) = \frac{-C_2C_3C_5L_2L_5R_3s^5 + s^4\left(C_2C_3L_2L_5R_3g_m - C_2C_5L_2L_5\right) + s^3\left(-C_2C_3L_2R_3 + C_2C_3L_5R_3 + C_2L_2L_5g_m - C_3C_5L_5R_3\right) + s^2\left(-C_2L_2 + C_2L_5 + C_3L_5R_3g_m - C_5L_5\right) + s\left(-C_3R_3 + L_5g_m\right) - 1}{2g_m + s^5\left(2C_2C_3C_5L_2L_5R_3g_m + C_2C_3L_5L_5R_3 + C_2C_3L_5R_3g_m + C_2C_3L_5R_3g_m + C_3C_5L_5\right) + s^4\left(4C_2C_3C_5L_5R_3 + C_2C_3L_5R_3g_m + C_2C_3L_5R_3g_m + C_3C_5L_5\right) + s^2\left(4C_2C_3R_3 + 2C_2L_2g_m + C_3L_5g_m\right) + s^2\left(4C_2C_3R_3g_m + C_3C_5L_5g_m\right) + s^$$

10.395 INVALID-ORDER-395 
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_2L_5R_3g_ms^5 + g_m + s^4\left(C_2C_3C_5L_2R_3R_5g_m - C_2C_3C_5L_2R_3 + C_2C_3C_5L_2R_3 + C_2C_3C_5L_2R_3 + C_2C_3C_5L_2R_3g_m + C_2C_5L_2R_3g_m + C_2C_5L_2R_3g_m + C_2C_5L_2 + C_2C_5L_5 + C_3C_5L_3R_3g_m + s^2\left(C_2C_3R_3 + C_2C_5R_5 + C_2L_2g_m + C_3C_5R_3R_5g_m - C_3C_5R_3R_5 + C_2C_3C_5L_2R_3g_m + C_2C_5L_2R_3g_m + C_2C_5L_2R_3g_m$$

**10.396** INVALID-ORDER-396 
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$$

$$H(s) = \frac{-C_2C_3C_5L_2L_5R_3R_5s^5 - R_5 + s^4\left(C_2C_3L_2L_5R_3R_5g_m - C_2C_3L_2L_5R_3 - C_2C_5L_2L_5R_3\right) + s^3\left(-C_2C_3L_2R_3R_5 + C_2C_3L_5R_3R_5 + C_2L_2L_5R_5g_m - C_2L_2L_5 - C_3C_5L_5R_3R_5\right) + s^2\left(-C_2L_5R_3R_5g_m + S^5\left(2C_2C_3C_5L_2L_5R_3R_5g_m + C_2C_3L_2L_5R_3g_m + C_2C_3L_2L_3R_3g_m + C_2C_3L_2L_3R_3g_m + C_2C_3L_2L_3R_3g_m + C_2C_3L_2L_3R_3g_m + C_2C_3L_2L_3R_3g_m +$$

10.397 INVALID-ORDER-397 
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{R_5 g_m + s^5 \left(C_2 C_3 C_5 L_2 L_5 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_3\right) + s^4 \left(C_2 C_3 C_5 L_5 R_3 R_5 + C_2 C_3 L_2 L_5 R_3 g_m + C_2 C_5 L_2 L_5 R_3 g_m - C_2 C_3 L_2 R_3 R_5 g_m - C_2 C_3 L_2 R_3 R_5 g_m - C_3 C_5 L_5 R_5 g_m - C_5 L_5 R_5 g$$

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10.398 INVALID-ORDER-398 Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)
H(s) = \frac{R_5g_m + s^5\left(C_2C_3C_5L_2L_5R_3R_5g_m - C_2C_3C_5L_2L_5R_3\right) + s^4\left(-C_2C_3C_5L_2R_3R_5 + C_2C_5L_2L_5R_3R_5 + C_2C_5L_2L_5\right) + s^3\left(C_2C_3L_2R_3R_5g_m - C_2C_3L_2R_3 - C_2C_5L_2R_5 + C_2C_5L_5R_5 + C_3C_5L_5R_3R_5\right) + s^4\left(2C_2C_3C_5L_2R_3R_5g_m - C_2C_3L_2R_3R_5g_m - C_2C_3L_2R_3g_m - C_2
10.399 INVALID-ORDER-399 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, R_5, \infty\right)
                                                                                                                                                                                                                                                                                         H(s) = \frac{C_2C_3L_3R_5s^3 + C_2R_5s + R_5g_m + s^4\left(C_2C_3L_2L_3R_5g_m - C_2C_3L_2L_3\right) + s^2\left(C_2L_2R_5g_m - C_2L_2 + C_3L_3R_5g_m - C_3L_3\right) - 1}{2C_2C_3L_2L_3g_ms^4 + 2g_m + s^3\left(C_2C_3L_2R_5g_m + C_2C_3L_2 + 4C_2C_3L_3\right) + s^2\left(C_2C_3R_5 + 2C_2L_2g_m + 2C_3L_3g_m\right) + s\left(4C_2 + C_3R_5g_m + C_3L_3\right)}
10.400 INVALID-ORDER-400 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)
                                                                                                                                                                                                                                                H(s) = \frac{-C_2C_3C_5L_2L_3s^5 + C_2C_3L_2L_3g_ms^4 + g_m + s^3\left(C_2C_3L_3 - C_2C_5L_2 - C_3C_5L_3\right) + s^2\left(C_2L_2g_m + C_3L_3g_m\right) + s\left(C_2 - C_5\right)}{2C_2C_3C_5L_2L_3g_ms^5 + s^4\left(C_2C_3C_5L_2 + 4C_2C_3C_5L_3\right) + s^3\left(C_2C_3L_2g_m + 2C_2C_5L_2g_m + 2C_3C_5L_3g_m\right) + s^2\left(C_2C_3 + 4C_2C_5 + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}
10.401 INVALID-ORDER-401 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
                                       -C_2C_3C_5L_2L_3R_5s^5 + R_5g_m + s^4\left(C_2C_3L_2L_3R_5g_m - C_2C_3L_2L_3\right) + s^3\left(C_2C_3L_3R_5 - C_2C_5L_2R_5 - C_3C_5L_3R_5\right) + s^2\left(C_2L_2R_5g_m - C_2L_2 + C_3L_3R_5g_m - C_3L_3\right) + s\left(C_2R_5 - C_5R_5\right) - 1
-C_2C_3C_5L_2L_3R_5g_m + s^4\left(C_2C_3C_5L_2R_5 + 4C_2C_3L_2R_5g_m + s^4\left(C_2C_3L_2R_5g_m + C_2C_3L_2R_5g_m + C_2C_3L_2R_5g_m + 2C_3C_5L_3R_5g_m\right) + s^2\left(C_2L_2R_5g_m - C_3L_3R_5g_m - C_3L_3\right) + s\left(C_2R_5 - C_5R_5\right) - 1
-C_2C_3C_5L_2R_5g_m + s^4\left(C_2C_3C_5L_2R_5g_m + s^4\left(C_2C_3C_5L_2R_5g_m + C_2C_3L_2R_5g_m + C_2C_3L_2R_5g_m + C_3C_5L_3R_5g_m\right) + s^2\left(C_2C_3R_5 + 4C_2C_5R_5 + 2C_2L_2g_m + C_3C_5R_5 + 2C_3L_3g_m\right) + s\left(C_2C_3C_5L_3R_5g_m + C_3C_5L_3R_5g_m + C_3C_5L_3R_5g_m\right) + s^2\left(C_2C_3R_5g_m + C_3C_5R_5g_m\right) + s^2\left(C_2C_3R_5g_m\right) + s^2\left(C_2C_3R_5g_m + C_3C_5R_5g_m\right) + s^2\left(C_2C_3R_5g_m + C_3C_5R_5g_m\right) + s^2\left(C_2C_3R_5g_m\right) + s^2\left(C_2C_3R_5
10.402 INVALID-ORDER-402 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)
                                                                                     10.403 INVALID-ORDER-403 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)
                                                                                H(s) = \frac{C_2C_3C_5L_2L_3L_5g_ms^6 + g_m + s^5\left(-C_2C_3C_5L_2L_3 + C_2C_3C_5L_3L_5\right) + s^4\left(C_2C_3L_2L_3g_m + C_2C_5L_2L_5g_m + C_3C_5L_3L_5g_m\right) + s^3\left(C_2C_3L_3 - C_2C_5L_2 + C_2C_5L_5 - C_3C_5L_3\right) + s^2\left(C_2L_2g_m + C_3L_3g_m + C_5L_5g_m\right) + s\left(C_2-C_5L_5g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m\right) + s^2\left(C_2C_3C_5L_2L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m\right) + s^2\left(C_2C_3C_5L_2L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m\right) + s^2\left(C_2C_3C_5L_2L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m\right) + s^2\left(C_2C_3C_5L_2L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m\right) + s^2\left(C_2C_3C_5L_2L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m\right) + s^2\left(C_2C_3C_5L_2L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m\right) + s^2\left(C_2C_3C_5L_2L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m\right) + s^2\left(C_2C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m\right) + s^2\left(C_2C_3C_5L_3g_m + C_3C_5L_3g_m + C_3C_5L_3g_m\right) + s^2\left(C_3C_3C_5L_3G_3L_3g_m + C_3C_5L_3g_m\right) + s^2\left(C_3C_3C_3C_3L_3G_3L_3g_m + C_3C_3C_3L_3g_m\right) + s^2\left(C_3C_3C_3C_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L_3G_3L
10.404 INVALID-ORDER-404 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
H(s) = \frac{-C_2C_3C_5L_2L_3L_5s^6 + C_2C_3L_2L_3L_5g_ms^5 + L_5g_ms + s^4\left(-C_2C_3L_2L_3 + C_2C_5L_2L_5 - C_3C_5L_3L_5\right) + s^3\left(C_2L_2L_5g_m + C_3L_3L_5g_m\right) + s^2\left(-C_2L_2 + C_2L_5 - C_3L_3 - C_5L_5\right) - 1}{2C_2C_3C_5L_2L_3L_5g_ms^6 + 2g_m + s^5\left(C_2C_3C_5L_2L_5 + 4C_2C_3L_2L_5g_m + 2C_3C_5L_2L_5g_m\right) + s^3\left(C_2C_3L_2L_5g_m + C_3L_3L_5g_m\right) + s^3\left(C_2C_3L_2L_5g_m + C_3L_3L_5g_m\right) + s^3\left(C_2C_3L_2L_5g_m + C_3L_5L_5g_m\right) + s^3\left(C_2C_3L_2L_5g_m + C_3L_5L_5g_m\right) + s^3\left(C_2C_3L_5L_5g_m + C_3L_5L_5g_m\right) + s^3\left(C_2C_3L_5L_5g_m + C_3L_5L_5g_m\right) + s^3\left(C_2C_3L_5L_5g_m + C_3L_5g_m\right) + s^3\left(C_2C_3L_5L_5g_m + C_3L_5g_m\right) + s^3\left(C_2C_3L_5g_m + C_3L_5g_m\right) +
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**10.405** INVALID-ORDER-405 
$$Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \infty\right)$$

 $H(s) = \frac{C_2C_3C_5L_2L_3L_5g_ms^6 + g_m + s^5\left(C_2C_3C_5L_2L_3R_5g_m - C_2C_3C_5L_2L_3 + C_2C_3C_5L_2L_3g_m + C_2C_5L_2L_3g_m + C_2C_5L_3L_3g_m + C_2C_5L_$ 

10.406 INVALID-ORDER-406 
$$Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_5s^6 - R_5 + s^5\left(C_2C_3L_2L_3L_5R_5g_m - C_2C_3L_2L_3L_5\right) + s^4\left(-C_2C_3L_2L_3R_5 + C_2C_5L_2L_5R_5 - C_3C_5L_3L_5R_5\right) + s^3\left(C_2L_2L_5R_5g_m - C_2L_2L_5 + C_3L_3L_5R_5\right) + s^3\left(C_2L_2L_5R_5g_m - C_2L_2L_5 + C_3L_3L_5R_5\right) + s^4\left(2C_2C_3L_2L_3L_5R_5g_m + C_2C_3L_2L_5R_5g_m + C_2C_3L_3L_5R_5g_m + C_2C_3L_3L_5R$ 

10.407 INVALID-ORDER-407 
$$Z(s) = \left(\infty, \ L_2s + \frac{1}{C_2s}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \ \infty\right)$$

 $H(s) = \frac{R_5 g_m + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_5 g_m - C_2 C_3 C_5 L_2 L_3 L_5\right) + s^5 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_5 + C_2 C_3 L_2 L_3 L_5 g_m\right) + s^4 \left(C_2 C_3 L_2 L_3 R_5 g_m - C_2 C_3 L_2 L_5 R_5 g_m - C_2 C_5 L_2 L_5 R_5 g_m - C_3 C_5 L_3 L_5\right) + s^3 \left(C_2 C_3 L_3 R_5 + C_2 C_5 L_5 R_5 + C_2 L_2 L_5 g_m + C_2 C_5 L_5 R_5\right) + s^4 \left(C_2 C_3 C_5 L_2 L_5 R_5 g_m + C_2 C_3 L_2 L_5 g_m + C_2 C_5 L_5 L_5 R_5 g_m + C_2 C_5 L_5 R_5 g_m + C_2$ 

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H(s) = \frac{R_5g_m + s^6 \left(C_2C_3C_5L_2L_3L_5R_5g_m - C_2C_3C_5L_2L_3R_5 + C_2C_3C_5L_2L_3R_5 + C_2C_3C_5L_2L_3R_5g_m - C_2C_3L_2L_3 + C_2C_5L_2L_5R_5g_m - C_2C_5L_2L_5 + C_3C_5L_3L_5 + s^3 \left(C_2C_3C_5L_2L_3R_5g_m - C_2C_3L_2L_3R_5g_m - C_2C
10.409 INVALID-ORDER-409 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5, \infty\right)
                                                                                                                                                                                                                                             H(s) = \frac{C_2L_3R_5s^2 + s^3\left(C_2L_2L_3R_5g_m - C_2L_2L_3\right) + s\left(L_3R_5g_m - L_3\right)}{R_5g_m + s^4\left(C_2C_3L_2L_3R_5g_m + C_2C_3L_2L_3\right) + s^3\left(C_2C_3L_3R_5 + 2C_2L_2L_3g_m\right) + s^2\left(C_2L_2R_5g_m + C_2L_2 + 4C_2L_3 + C_3L_3R_5g_m + C_3L_3\right) + s\left(C_2R_5 + 2L_3g_m\right) + 1}
10.410 INVALID-ORDER-410 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{1}{C_5 s}, \infty\right)
                                                                                                                                                                                                                                       H(s) = \frac{-C_2C_5L_2L_3s^4 + C_2L_2L_3g_ms^3 + L_3g_ms + s^2\left(C_2L_3 - C_5L_3\right)}{C_2C_3C_5L_2L_3s^5 + g_m + s^4\left(C_2C_3L_2L_3g_m + 2C_2C_5L_2L_3g_m\right) + s^3\left(C_2C_3L_3 + C_2C_5L_2 + 4C_2C_5L_3 + C_3C_5L_3\right) + s^2\left(C_2L_2g_m + C_3L_3g_m + 2C_5L_3g_m\right) + s\left(C_2 + C_5\right)}
10.411 INVALID-ORDER-411 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
H(s) = \frac{-C_2C_5L_2L_3R_5s^4 + s^3\left(C_2L_2L_3R_5g_m - C_2L_2L_3\right) + s^2\left(C_2L_3R_5 - C_5L_3R_5\right) + s\left(L_3R_5g_m - L_3\right)}{C_2C_3C_5L_2L_3R_5s^5 + R_5g_m + s^4\left(C_2C_3L_2L_3R_5g_m + C_2C_5L_2L_3R_5g_m\right) + s^3\left(C_2C_3L_3R_5 + C_2C_5L_2R_5 + 4C_2C_5L_3R_5\right) + s^2\left(C_2L_3R_5 - C_5L_3R_5\right) + s^2\left(C_2L_3R_5g_m - L_3\right)}
10.412 INVALID-ORDER-412 Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_2 L_3 s^2 + 1}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \infty\right)
10.413 INVALID-ORDER-413 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{C_2C_5L_2L_3L_5g_ms^5 + L_3g_ms + s^4\left(-C_2C_5L_2L_3 + C_2C_5L_3L_5\right) + s^3\left(C_2L_2L_3g_m + C_5L_3L_5g_m\right) + s^2\left(C_2L_3 - C_5L_3\right)}{C_2C_3C_5L_2L_3L_5g_ms^6 + g_m + s^5\left(C_2C_3C_5L_2L_3 + C_2C_5L_2L_3g_m + 2C_2C_5L_2L_3g_m + C_2C_5L_2L_5g_m\right) + s^3\left(C_2C_3L_3 + C_2C_5L_3 + C_2C_5L_3 + C_2C_5L_3 + C_2C_5L_3 + C_2C_5L_3\right) + s^2\left(C_2L_3G_m + C_3L_3g_m + C_5L_3g_m\right) + s^2\left(C_2L_3G_m + C_3C_5L_3G_m + C_5L_3G_m\right) + s^2\left(C_2L_3G_m + C_3L_3G_m + C_5L_3G_m\right) + s^2\left(C_2L_3G_m + C_3L_3G_m + C_3L_3G_m\right) + s^2\left(C_2L_3G_m + C_3L_3G_m + C_3L_3G_m\right) + s^2\left(C_3L_3G_m + 
10.414 INVALID-ORDER-414 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
H(s) = \frac{-C_2C_5L_2L_3L_5s^5 + C_2L_2L_3L_5g_ms^4 + L_3L_5g_ms^2 - L_3s + s^3\left(-C_2L_2L_3 + C_2L_3L_5 - C_5L_3L_5\right)}{C_2C_3C_5L_2L_3L_5s^6 + s^5\left(C_2C_3L_2L_3L_5g_m + 2C_2C_5L_2L_3L_5g_m\right) + s^4\left(C_2C_3L_2L_3 + C_2C_3L_3L_5 + C_2C_5L_3L_5 + 4C_2C_5L_3L_5 + C_3C_5L_3L_5\right) + s^3\left(2C_2L_2L_3g_m + C_3L_3L_5g_m\right) + s^2\left(C_2L_2 + 4C_2L_3 + C_2L_3 + C_3L_3 + C_5L_5\right) + s\left(2C_3L_3L_5g_m + C_3L_3L_5g_m\right) + s^2\left(C_3L_3L_5g_m + C_3L_5g_m\right) + s^2\left(C_3L_3L_5g_m + C_3L_5g_m\right) + s^2\left(C_3L_3L_5g_m + C
10.415 INVALID-ORDER-415 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)
                                        \frac{C_2C_5L_2L_3L_5g_ms^5 + L_3g_ms + s^4\left(C_2C_5L_2L_3R_5g_m - C_2C_5L_2L_3 + C_2C_5L_3L_5\right) + s^3\left(C_2C_5L_3R_5 + C_2L_2L_3g_m + C_5L_3L_5g_m\right) + s^2\left(C_2L_3 + C_5L_3R_5g_m - C_5L_3\right)}{C_2C_3C_5L_2L_3E_5g_ms^6 + g_m + s^5\left(C_2C_3C_5L_2L_3R_5g_m + C_2C_5L_2L_3g_m + C_2C_5L_3L_3g_m + C_2C_5L_3L_3g_m
10.416 INVALID-ORDER-416 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \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_2C_5L_2L_3L_5R_5s^5 - L_3R_5s + s^4\left(C_2L_2L_3L_5R_5g_m - C_2L_2L_3L_5\right) + s^3\left(-C_2L_2L_3R_5 + C_2L_3L_5R_5 - C_5L_3L_5R_5\right) + s^2\left(L_3L_5R_5 - C_5L_3L_5R_5\right) + s^2\left(L_3L_5R_5 + c_2C_5L_2L_3L_5R_5 + c_2C_5L_2L_3L_5R_5\right) + s^2\left(C_3L_2L_3L_5R_5 + c_2C_5L_2L_3L_5R_5 + c_2C_5L_2L_3L_5R_5\right) + s^2\left(C_3L_2L_3L_5R_5 + c_2C_3L_2L_3L_5R_5\right) + s^2\left(C_3L_2L_3L_5R_5 + c_2C_3L_3L_5R_5\right) + s^2\left(C_3L_2L_3L_5R_5 + c_2C_3L_3L_5R_5\right) + s^2\left(C_3L_2L_3L_5R_5 + c_2C_3L_3L_5R_5\right) + s^2\left(C_3L_3L_5R_5 + c_2C_3L_3L_5R_5\right) + s^2\left(C_3L_3L_5R_5\right) + s^2\left(C_3L_3L_5R
10.417 INVALID-ORDER-417 Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \ \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            s^{5}\left(C_{2}C_{5}L_{2}L_{3}L_{5}R_{5}g_{m}-C_{2}C_{5}L_{2}L_{3}L_{5}\right)+s^{4}\left(C_{2}C_{5}L_{3}L_{5}R_{5}+C_{2}L_{2}L_{3}L_{5}g_{m}\right)+s^{3}\left(C_{2}L_{2}L_{3}R_{5}g_{m}-C_{2}L_{2}L_{3}+C_{2}L_{3}L_{5}+C_{5}L_{3}L_{5}R_{5}+C_{2}L_{3}L_{5}g_{m}\right)+s^{2}\left(C_{2}L_{2}L_{3}R_{5}g_{m}-C_{2}L_{2}L_{3}+C_{2}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{3}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_
                                          \frac{R_5q_m + s^6 \left(C_2C_3C_5L_2L_3L_5q_m + C_2C_3L_2L_3L_5q_m + C_2C_5L_2L_3L_5q_m + s^4 \left(C_2C_3L_2L_3L_5q_m + C_2C_5L_2L_3L_5q_m + C_2C_5L_2L_5R_5q_m + C_2C_5L_3L_5R_5q_m + C_2C_5L_5R_5q_m + C_
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10.408 INVALID-ORDER-408  $Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$ 

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10.418 INVALID-ORDER-418 Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)
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 $H(s) = \frac{s^5 \left(C_2 C_5 L_2 L_3 L_5 R_5 g_m - C_2 C_5 L_2 L_3 L_5\right) + s^4 \left(-C_2 C_5 L_2 L_3 R_5 + C_2 C_5 L_2 L_3 R_5 g_m - C_2 L_2 L_3}{R_5 g_m + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_5 g_m + C_2 C_5 L_2 L_3 L_5 g_m\right) + s^4 \left(C_2 C_3 L_2 L_3 R_5 g_m + C_2 C_5 L_2 L_3 R_5 g_m + C_2$ 

**10.419** INVALID-ORDER-419 
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \infty\right)$$

 $H(s) = \frac{R_5 g_m + s^4 \left(C_2 C_3 L_2 L_3 R_5 g_m - C_2 C_3 L_2 L_3\right) + s^3 \left(C_2 C_3 L_2 R_3 R_5 g_m - C_2 C_3 L_2 R_3 + C_2 C_3 L_3 R_5\right) + s^2 \left(C_2 C_3 R_3 R_5 + C_2 L_2 R_5 g_m - C_2 L_2 + C_3 L_3 R_5 g_m - C_3 L_3\right) + s \left(C_2 R_5 + C_3 R_3 R_5 g_m - C_3 R_3\right) - 1}{2 C_2 C_3 L_2 L_3 g_m s^4 + 2 g_m + s^3 \left(2 C_2 C_3 L_2 R_3 g_m + C_2 C_3 L_2 R_5 g_m + C_2 C_3 L_2 + 4 C_2 C_3 L_3\right) + s^2 \left(4 C_2 C_3 R_3 + C_2 C_3 R_5 + 2 C_2 L_2 g_m + 2 C_3 L_3 g_m\right) + s \left(4 C_2 + 2 C_3 R_3 g_m + C_3 R_5 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 + 2 C_3 R_3 g_m + C_3 R_5 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 + 2 C_3 R_3 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 + 2 C_3 R_3 g_m + C_3 R_5 g_m\right) + s \left(4 C_2 + 2 C_3 R_3 g_m\right) +$ 

10.420 INVALID-ORDER-420 
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3s^5 + g_m + s^4\left(-C_2C_3C_5L_2R_3 + C_2C_3L_2L_3g_m\right) + s^3\left(C_2C_3L_2R_3g_m + C_2C_3L_3 - C_2C_5L_2 - C_3C_5L_3\right) + s^2\left(C_2C_3R_3 + C_2L_2g_m - C_3C_5R_3 + C_3L_3g_m\right) + s\left(C_2 + C_3R_3g_m - C_5\right)}{2C_2C_3C_5L_2L_3g_ms^5 + s^4\left(2C_2C_3C_5L_2R_3g_m + C_2C_3L_2L_3g_m\right) + s^3\left(4C_2C_3C_5R_3 + C_2C_3L_2g_m + 2C_2C_5L_2g_m + 2C_3C_5L_3g_m\right) + s^2\left(C_2C_3 + 4C_2C_5 + 2C_3C_5R_3g_m + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$ 

10.421 INVALID-ORDER-421 
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3R_5s^5 + R_5g_m + s^4\left(-C_2C_3C_5L_2R_3R_5 + C_2C_3L_2L_3R_5g_m - C_2C_3L_2L_3\right) + s^3\left(C_2C_3L_2R_3R_5g_m - C_2C_3L_2R_3 + C_2C_3L_2R_5 - C_3C_5L_2R_5 - C_3C_5L_3R_5\right) + s^2\left(C_2C_3R_3R_5 + C_2L_2R_5g_m - C_2L_2 - C_3C_5R_3R_5 + C_2C_3L_2R_3g_m + C_2C_3L$ 

10.422 INVALID-ORDER-422 
$$Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \infty\right)$$

 $H(s) = \frac{g_m + s^5 \left(C_2 C_3 C_5 L_2 L_3 R_5 g_m - C_2 C_3 C_5 L_2 L_3\right) + s^4 \left(C_2 C_3 C_5 L_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 R_3 + C_2 C_3 L_2 L_3 g_m\right) + s^3 \left(C_2 C_3 C_5 L_2 R_3 g_m + C_2 C_3 L_2 R_3 g_m + C_2 C_5 L_2 R_5 g_m - C_2 C_5 L_2 + C_3 C_5 L_3 R_5 g_m - C_3 C_5 L_3\right) + s^2 \left(C_2 C_3 R_3 + C_2 C_5 R_5 + C_2 L_2 g_m + C_2 C_5 L_2 R_5 g$ 

10.423 INVALID-ORDER-423 
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$$

 $H(s) = \frac{C_2C_3C_5L_2L_3L_5g_ms^6 + g_m + s^5\left(-C_2C_3C_5L_2L_3 + C_2C_3C_5L_2L_5R_3g_m + C_2C_3C_5L_2R_3 + C_2C_3C_5L_2R_3 + C_2C_3L_2L_3g_m + C_2C_3L_2L_3g_m + C_2C_3L_2L_3g_m + C_2C_3L_2L_3g_m + C_2C_3L_3L_3g_m + C_2C_3L_3C_5L_3 + C_2C_3L_3C_5L_3 + C_2C_3L_3G_m + C_2C_3L$ 

10.424 INVALID-ORDER-424 
$$Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3L_5s^6 + s^5\left(-C_2C_3C_5L_2L_5R_3 + C_2C_3L_2L_5R_3 + C_2$ 

10.425 INVALID-ORDER-425 
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

 $H(s) = \frac{C_2C_3C_5L_2L_3L_5g_ms^6 + g_m + s^5\left(C_2C_3C_5L_2L_3R_5g_m - C_2C_3C_5L_2L_3R_5g_m - C_2C_3C_5L_2L_3R_5g_m - C_2C_3C_5L_2R_3R_5g_m - C_2C_3C_5L_2R_3 + C_2C_3C_5L_2R_3 + C_2C_3C_5L_2R_3 + C_2C_3C_5L_2R_3 + C_2C_3C_5L_2R_3 + C_2C_3C_5L_2R_3g_m + C_2C_$ 

10.426 INVALID-ORDER-426 
$$Z(s) = \left(\infty, \ L_2s + \frac{1}{C_2s}, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \ \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_5s^6 - R_5 + s^5\left(-C_2C_3C_5L_2L_5R_3R_5 + C_2C_3L_2L_5R_3R_5g_m - C_2C_3L_2L_5R_3R_5g_m - C_2C_3L_2L_5R_3R_5g_m - C_2C_3L_2L_5R_3 + C_2C_3L_2L_5R_3 + C_2C_3L_2L_5R_3R_5g_m - C_2C_3L_2L_5R_5g_m - C_2$ 

10.427 INVALID-ORDER-427 
$$Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \ \infty\right)$$

 $H(s) = \frac{R_5 g_m + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_5 g_m - C_2 C_3 C_5 L_2 L_3 L_5\right) + s^5 \left(C_2 C_3 C_5 L_2 L_5 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_3 R_5 + C_2 C_3 L_2 L_3 R_5 g_m - C_2 C_3 L_2 L_3 R_5 g_m - C_2 C_3 L_2 L_5 R_3 g_m + C_2 C_3 L_2 L_5 R_5 g_m - C_2 C_5 L_5 R_5 g_m - C_2 C$ 

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H(s) = \frac{R_5g_m + s^6\left(C_2C_3C_5L_2L_3L_5R_5g_m - C_2C_3C_5L_2L_3R_5 + C_2C_3C_5L_2L_3R_5 + C_2C_3C_5L_2L_3R_5 + C_2C_3C_5L_2L_3R_5g_m - C_2C_3C_5L_2L_3R_5 + C_2C_3C_5L_2L_3R_5g_m - C_2C_3C_5L_2L_3R_5g_m - C_2C_3L_2L_3R_5g_m - C_2C_3L_2L_3R_5g_m - C_2C_3C_5L_2L_3R_5g_m - C_2C_3C_5L_2R_5g_m - C_
10.429 INVALID-ORDER-429 Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ R_5, \ \infty\right)
            H(s) = \frac{C_2L_3R_3R_5s^2 + s^3\left(C_2L_2L_3R_3R_5g_m - C_2L_2L_3R_3\right) + s\left(L_3R_3R_5g_m - L_3R_3\right)}{R_3R_5g_m + R_3 + s^4\left(C_2C_3L_2L_3R_3R_5g_m + C_2L_2L_3R_3\right) + s^3\left(C_2C_3L_3R_3R_5 + 2C_2L_2L_3R_3g_m + C_2L_2L_3\right) + s^2\left(C_2L_2R_3R_5g_m + C_2L_3R_3 + 4C_2L_3R_3 + 4C_2L_3R_3 + C_2L_3R_3 + C_2L_3R_3\right) + s\left(C_2R_3R_5 + 2L_3R_3g_m + L_3R_5g_m + C_2L_2L_3\right) + s^2\left(C_2L_2R_3R_5g_m + C_2L_2R_3 + 4C_2L_3R_3 + C_2L_3R_3 + C_2L_3R_3\right) + s\left(C_2R_3R_5 + 2L_3R_3g_m + C_2L_2R_3 + 4C_2L_3R_3\right) + s\left(C_2R_3R_5 + 2L_3R_3g_m + C_2L_2R_3\right) + s\left(C_2R_3R_5 + 2L_3R_3g_m + 2L_3R_3g_m + C_2L_2R_3\right) + s\left(C_2R_3R_5 + 2L_3R_3g_m + 2L_3R_3
10.430 INVALID-ORDER-430 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, \infty\right)
       H(s) = \frac{-C_2C_5L_2L_3R_3s^4 + C_2L_2L_3R_3g_ms^3 + L_3R_3g_ms^3 + L_3R_3g_ms + s^2\left(C_2L_3R_3 - C_5L_3R_3\right)}{C_2C_3C_5L_2L_3R_3s^5 + R_3g_m + s^4\left(C_2C_3L_2L_3R_3g_m + C_2C_5L_2L_3R_3g_m + C_2C_5L_2R_3 + 4C_2C_5L_3R_3 + C_2L_2L_3g_m + C_3C_5L_3R_3\right) + s^2\left(C_2L_3R_3g_m + C_3L_3R_3g_m + C
10.431 INVALID-ORDER-431 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -C_2C_5L_2L_3R_3R_5s^4 + s^3\left(C_2L_2L_3R_3R_5g_m - C_2L_2L_3R_3\right) + s^2\left(C_2L_3R_3R_5 - C_5L_3R_3R_5\right) + s\left(L_3R_3R_5g_m - L_3R_3\right)
H(s) = \frac{-C_2C_5L_2L_3R_3R_5s^2 + s^3\left(C_2L_2L_3R_3R_5g_m - C_2L_2L_3R_3\right) + s^2\left(C_2L_3R_3R_5 - C_5L_3R_3R_5\right) + s\left(L_3R_3R_5g_m - L_3R_3\right)}{C_2C_3C_5L_2L_3R_3R_5s^5 + R_3R_5g_m + R_3 + s^4\left(C_2C_3L_2L_3R_3R_5g_m + C_2C_5L_2L_3R_3\right) + s^3\left(C_2C_3L_3R_3R_5 + C_2C_5L_2R_3R_5\right) + s^3\left(C_2C_3L_3R_3R_5 + C_2C_5L_2R_3R_5\right) + s^2\left(C_2L_2R_3R_5g_m + C_2L_2L_3R_3g_m + C_2L_2L
10.432 INVALID-ORDER-432 Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            L_{3}R_{3}g_{m}s + s^{4}\left(C_{2}C_{5}L_{2}L_{3}R_{3}R_{5}g_{m} - C_{2}C_{5}L_{2}L_{3}R_{3}\right) + s^{3}\left(C_{2}C_{5}L_{3}R_{3}R_{5} + C_{2}L_{2}L_{3}R_{3}g_{m}\right) + s^{2}\left(C_{2}L_{3}R_{3} + C_{5}L_{3}R_{3}R_{5}g_{m} - C_{2}C_{5}L_{2}L_{3}R_{3}\right) + s^{2}\left(C_{2}C_{5}L_{3}R_{3}R_{5} + C_{2}L_{2}L_{3}R_{3}g_{m}\right) + s^{2}\left(C_{2}L_{3}R_{3} + C_{5}L_{3}R_{3}R_{5}g_{m} - C_{2}C_{5}L_{2}L_{3}R_{3}\right) + s^{2}\left(C_{2}L_{3}R_{3} + C_{5}L_{3}R_{3}R_{5}g_{m} - C_{2}C_{5}L_{3}R_{3}R_{5}g_{m}\right) + s^{2}\left(C_{2}L_{3}R_{3} + C_{5}L_{3}R_{3}R_{5}g_{m} - C_{2}C_{5}L_{3}R_{3}R_{5}g_{m}\right) + s^{2}\left(C_{2}L_{3}R_{3} + C_{5}L_{3}R_{3}R_{5}g_{m} - C_{2}C_{5}L_{3}R_{3}R_{5}g_{m}\right) + s^{2}\left(C_{2}L_{3}R_{3} + C_{5}L_{3}R_{3}R_{5}g_{m}\right) + s^{2}\left(C_{2}L_{3}R_{3} + C_{5}L_{3}R_{3}g_{m}\right) + s^{2}\left(C_{2}L_{3}
                                                     \frac{L_{3}R_{3}g_{m}s+s^{4}\left(C_{2}C_{5}L_{2}L_{3}R_{3}R_{5}g_{m}-C_{2}C_{5}L_{2}L_{3}R_{3}\right)+s^{3}\left(C_{2}C_{5}L_{3}R_{3}R_{5}+C_{2}L_{2}L_{3}R_{3}g_{m}\right)+s^{2}\left(C_{2}L_{3}R_{3}+C_{5}L_{3}R_{3}R_{5}g_{m}-C_{2}C_{5}L_{2}L_{3}R_{3}R_{5}+C_{2}L_{2}L_{3}R_{3}g_{m}\right)+s^{2}\left(C_{2}L_{3}R_{3}+C_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{5}L_{2}L_{3}R_{3}g_{m}+C_{5}L_{5}L_{5}L_{5}R_{3}R_{5}g_{m}+C_{5}L_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C_{5}L_{5}L_{5}R_{5}g_{m}+C
10.433 INVALID-ORDER-433 Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \frac{C_2C_5L_2L_3L_5R_3g_ms^s + L_3R_3g_ms + s^* \left(-C_2C_5L_2L_3R_3 + C_2C_5L_2L_3R_3g_m + C_5L_3L_5R_3g_m + s^* \left(-C_2C_5L_2L_3R_3g_m + c_5L_3L_5R_3g_m + s^* \left(-C_2C_5L_3L_5R_3g_m + 
10.434 INVALID-ORDER-434 Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ \infty\right)
H(s) = \frac{-C_2C_5L_2L_3L_5R_3g_ms^4 + L_3L_5R_3g_ms^4 + L_3L_5R_3g_ms^2 - L_3R_3s + s^3\left(-C_2L_2L_3R_3 + C_2L_3L_5R_3 - C_5L_3L_5R_3\right)}{C_2C_3C_5L_2L_3L_5R_3s^6 + R_3 + s^5\left(C_2C_3L_2L_3L_5R_3g_m + C_2C_5L_2L_3L_5R_3g_m + C_2C_5L_3L_5R_3g_m + C_2C_5L_3L_5R_
10.435 INVALID-ORDER-435 Z(s) = \left(\infty, L_2 s + \frac{1}{C_{2} s}, \frac{L_3 R_3 s}{C_2 L_2 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C_2C_5L_2L_3L_5R_3g_ms^5 + L_3R_3g_ms + s^4(C_2C_5L_2L_3R_3R_5g_m - C_2C_5L_2L_3R_3R_5g_m - C_2C_5L_2L_3R_3R_5g_m - C_2C_5L_2L_3R_3R_5g_m - C_2C_5L_3R_3R_5g_m - C_2C_5L_3R_5R_5g_m - C_2C_5R_5R_5g_m - C_2C_5R_5g_m - C_2C_5R_5g_m - C_2C_5R_5g_m - C_2C_5R_5g_m - C_2C_5R_5g_
                                                     \frac{C_2C_5L_2L_3L_5R_3g_ms + s_1C_2C_5L_2L_3R_3g_ms + s_1C_2C_5L_3L_3R_3g_ms + s_1C_2C_5L_3L_3R_
10.436 INVALID-ORDER-436 Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -C_2C_5L_2L_3L_5R_3R_5s^5 - L_3R_3R_5s + s^4
                                                   \frac{1}{C_2C_3C_5L_2L_3L_5R_3R_5s^6 + R_3R_5 + s^5\left(C_2C_3L_2L_3L_5R_3R_5g_m + C_2C_5L_2L_3L_5R_3R_5g_m + C_2C_5L_2L_3L_5R_3R_5 + C_2C_5L_3L_5R_3R_5 + C_2C_5L_5L_5R_5R_5 + C_2C_5L_5L_5R_5 + C_2C_5L_5L_5R_5R_5 + C_2C_5L_5L_5R_5R_5 + C_2C_5L_5L_5R_5 + C_2C_5L_5L_5R_5 + C_2C_5L_5L_5R_5 + C_2C_5L_5R_5
10.437 INVALID-ORDER-437 Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \ \infty\right)
                                                      \frac{1}{R_3 R_5 g_m + R_3 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_3 R_5 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_3 R_5 + C_2 C_3 L_2 L_3 L_5 R_3 g_m + C_2 C_5 L_2 L_5 R_3 g_m + C_2 C_5 L_5 L_5 R_5 g_m + C_2 C_5 L_5 L_5 L_5 R_5 g_m + C_2 C_5 L_5 L_5 R_5 g
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10.428 INVALID-ORDER-428  $Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$ 

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10.438 INVALID-ORDER-438 Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)
```

10.439 INVALID-ORDER-439 
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, R_5, \infty\right)$$

 $H(s) = \frac{R_3R_5g_m - R_3 + s^4\left(C_2C_3L_2L_3R_3R_5g_m - C_2C_3L_2L_3R_3\right) + s^3\left(C_2C_3L_2R_3R_5 + C_2L_2L_3R_5g_m - C_2L_2L_3\right) + s^2\left(C_2L_2R_3R_5g_m - C_2L_2R_3 + C_2L_3R_5 + C_3L_3R_3R_5g_m - C_3L_3R_3\right) + s\left(C_2R_3R_5 + L_3R_5g_m - L_3\right)}{2R_3g_m + R_5g_m + s^4\left(2C_2C_3L_2L_3R_3g_m + C_2C_3L_2L_3R_5g_m + C_2L_2L_3g_m\right) + s^2\left(2C_2L_2R_3g_m + C_2L_2R_5g_m + C_2L_2 + 4C_2L_3 + 2C_3L_3R_3g_m + C_3L_3R_5g_m + C_3L_3R_5g$ 

**10.440** INVALID-ORDER-440 
$$Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{1}{C_5 s}, \ \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3R_3s^5 + R_3g_m + s^4\left(C_2C_3L_2L_3R_3g_m - C_2C_5L_2L_3\right) + s^3\left(C_2C_3L_3R_3 - C_2C_5L_2R_3 + C_2L_2L_3g_m - C_3C_5L_3R_3\right) + s^2\left(C_2L_2R_3g_m + C_2L_3 + C_3L_3R_3g_m - C_5L_3\right) + s\left(C_2R_3 - C_5R_3 + L_3g_m\right)}{g_m + s^5\left(2C_2C_3C_5L_2L_3R_3g_m + C_2C_5L_2L_3g_m + C_2C_5L_2R_3g_m + C_2C_5L_2R_3g_m + C_2C_5L_3R_3g_m + C_2C_$ 

10.441 INVALID-ORDER-441 
$$Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3R_3R_5s^5 + R_3R_5g_m - R_3 + s^4\left(C_2C_3L_2L_3R_3 + C_2C_5L_2L_3R_5\right) + s^3\left(C_2C_3L_3R_3R_5 - C_2C_5L_2R_3R_5 + C_2L_2L_3R_5g_m - C_2L_2L_3 - C_3C_5L_3R_3R_5\right)}{2R_3g_m + R_5g_m + s^5\left(2C_2C_3C_5L_2L_3R_3g_m + C_2C_3L_2L_3R_5g_m + C_2C_3L_2L_3R_5g_m + C_2C_3L_2L_3R_5g_m + C_2C_3L_2L_3R_5g_m + C_2C_3L_2R_3R_5g_m + C_2C_3L_3R_3R_5g_m + C_2C_3L_3R_3R_5g_m + C_2C_3L_3R_3R_5g_m + C_2C_3L_3R_3R_5g_m + C_2C_3L_3R_3R_5g_m + C_2C_3L_3R_3R_5g_m + C_2C_3L_3R_3g_m + C_2C$ 

**10.442** INVALID-ORDER-442 
$$Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \infty\right)$$

 $H(s) = \frac{R_3 g_m + s^5 \left(C_2 C_3 C_5 L_2 L_3 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_3 R_3\right) + s^4 \left(C_2 C_3 C_5 L_2 L_3 R_3 g_m + C_2 C_5 L_2 L_3 R_5 g_m - C_2 C_5 L_2 L_3 R_5 g_m - C_2 C_5 L_2 R_3 R_5 g_m - C_2 C_5 L_2 R_3 R_5 g_m - C_3 C_5 L_3 R_5 g_m - C_3 C$ 

**10.443** INVALID-ORDER-443 
$$Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \infty\right)$$

 $H(s) = \frac{C_2C_3C_5L_2L_3L_5R_3g_ms^6 + R_3g_m + s^5\left(-C_2C_3C_5L_2L_3R_3 + C_2C_5L_2L_3R_3 + C_2C_5L_2L_3R_3 + C_2C_5L_2L_3R_3 + C_2C_5L_2L_3R_3g_m - C_2C_5L_2L_3R_3g_m + C_2C_5L_2L_3g_m + C_2C_5L_3L_3g_m + C_2C_5L$ 

10.444 INVALID-ORDER-444 
$$Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_3s^6 - R_3 + s^5\left(C_2C_3L_2L_3L_5R_3g_m - C_2C_5L_2L_3L_5\right) + s^4\left(-C_2C_3L_2L_3R_3 + C_2C_5L_2L_5R_3 + C_2L_2L_3L_5g_m - C_3C_5L_3L_5R_3\right) + s^3\left(-C_2L_2L_3 + C_2L_3L_5R_3g_m + C_2C_5L_2L_3L_5g_m + C_2C_5L_2L_5g_m +$ 

**10.445** INVALID-ORDER-445 
$$Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \infty\right)$$

 $H(s) = \frac{C_2C_3C_5L_2L_3L_5R_3g_ms^6 + R_3g_m + s^5\left(C_2C_3C_5L_2L_3R_3R_5g_m - C_2C_3C_5L_2L_3R_3 + C_2C_3L_5L_3L_5R_3g_m + C_2C_5L_2L_3R_3g_m + C_2C_5L_$ 

10.446 INVALID-ORDER-446 
$$Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_3R_5s^6 - R_3R_5 + s^5\left(C_2C_3L_2L_3L_5R_3R_5g_m - C_2C_3L_2L_3L_5R_3 - C_2C_5L_2L_3L_5R_5\right) + s^4\left(-C_2C_3C_5L_3L_5R_3R_5g_m + C_2C_3L_2L_3L_5R_3R_5g_m + C_2C_3L_2L_3L_5R_3g_m + C_2C_3L_3L_5R_3g_m + C_2C_3L_3L_5R_3g_$ 

10.447 INVALID-ORDER-447 
$$Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \ \infty\right)$$

 $H(s) = \frac{R_3 R_5 g_m - R_3 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_3 L_5 R_3 R_5 g_m - C_2 C_3 L_2 L_3 L_5 R_3 R_5 g_m - C_2 C_5 L_2 L_3 L_5 R_3 g_m + C_2 C_5 L_2 L_3 L_5 R_3 g_m + C_2 C_5 L_2 L_3 L_5 R_3 g_m - C_2 C_3 L_2 L_3 R_3 R_5 g_m - C_2 C_3 L_2 L_3 R_3 R_5 g_m - C_2 C_3 L_2 L_3 R_3 R_5 g_m - C_2 C_5 L_2 L_5 R_3 R_5 g_m - C_2 C_5 L_2 L_5 R_3 R_5 g_m - C_2 C_5 L_2 L_3 L_5 R_3 g_m + C_2 C_3 L$ 

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 10.448 \quad \text{INVALID-ORDER-448} \ Z(s) = \left( \infty, \ L_2s + \frac{1}{l_{2s}}, \ \frac{C_{3L_3R_3s^2 + L_3s + R_3}{C_3l_3s^2 + 1}, \ \infty, \ \frac{R_5(C_5L_5s^2 + 1)}{C_5l_4s^3 + C_5R_5s + 1}, \ \infty \right) 
 R_3R_5g_m - R_3 + s^6 \left( C_2C_3C_5L_2L_3L_5R_3R_5g_m - C_2C_3C_5L_2L_3L_5R_3 \right) + s^5 \left( -C_2C_3C_5L_2L_3R_3R_5 + C_2C_3C_5L_3L_5R_3R_5 + C_2C_5L_2L_3R_5R_5g_m - C_2C_5L_2L_5R_5g_m - C_2C_5L_2L_5R_3R_5 + C_2C_3C_5L_2L_3R_5R_5g_m - C_2C_5L_2L_5R_5g_m - C_2C_5L_2L_5R_3R_5g_m - C_2C_5L_2L_5R_3R_5g_m - C_2C_5L_2L_3R_5R_5g_m - C_2C_5L_2L_3R_5g_m + C_2C_3C_5L_2L_3R_5g_m + C_2C_3L_2L_3R_5g_m - C_2C_5L_2L_3R_5g_m - C_2L_2R_5g_m - C_2L_2R_5g_m
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10.451 INVALID-ORDER-451  $Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2L_3R_3R_5s^5 + R_3R_5g_m - R_3 + s^4\left(C_2C_3L_2L_3R_3R_5g_m - C_2C_3L_2L_3R_3\right) + s^3\left(C_2C_3L_3R_3R_5 - C_2C_5L_2R_3R_5 - C_3C_5L_2R_3R_5 - C_3C_5L_2R_3R_5 - C_3C_5L_2R_3R_5g_m + C_3C_3L_2R_3R_5g_m + C_3C_3L_3R_3R_5g_m + C_3C_3L_3R_3g_m + C_3C_3L_3R_3g_m$ 

10.452 INVALID-ORDER-452  $Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \infty\right)$ 

 $H(s) = \frac{R_3g_m + s^5 \left(C_2C_3C_5L_2L_3R_3R_5g_m - C_2C_3C_5L_2L_3R_3\right) + s^4 \left(C_2C_3C_5L_2R_3R_5g_m + C_2C_5L_2R_3R_5g_m - C_2C_5L_2R_3 + C_3C_5L_2R_3R_5g_m - C_2C_5L_2R_3R_5g_m - C_2C_5L_2R_3g_m - C_2C_5L_$ 

10.453 INVALID-ORDER-453  $Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \infty\right)$ 

 $H(s) = \frac{C_2C_3C_5L_2L_3L_5R_3g_ms^6 + R_3g_m + s^5\left(-C_2C_3C_5L_2L_3R_3 + C_2C_3C_5L_2L_3R_3g_m + C_2C_5L_2L_5R_3g_m + C_3C_5L_3L_5R_3g_m + s^3\left(C_2C_3L_3R_3 - C_2C_5L_2R_3 + C_2C_3C_5L_2R_3 + C_2C_3C_5L_2R_3g_m + C_3C_5L_2R_3g_m + C_3C_5L_3R_3g_m + C_3C_5L_3R_$ 

**10.454** INVALID-ORDER-454  $Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \frac{L_5 s}{C_5 L_5 s^2 + 1}, \ \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_3g_ms^5 + L_5R_3g_ms - R_3 + s^4\left(-C_2C_3L_2L_3R_3 + C_2C_3L_2L_5R_3 - C_2C_5L_2L_5R_3 - C_3C_5L_2L_5R_3 - C_3C_5L_2L_5R_3 - C_3C_5L_2L_5R_3 - C_3C_5L_2L_5R_3g_m + s^4\left(2C_2C_3L_2L_3L_5R_3g_m + C_2C_3L_2L_5R_3g_m + C_2C_3L_3L_5R_3g_m + C_2C_3L_3L_5R_$ 

**10.455** INVALID-ORDER-455  $Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \infty\right)$ 

 $H(s) = \frac{C_2C_3C_5L_2L_3L_5R_3g_ms^6 + R_3g_m + s^5\left(C_2C_3C_5L_2L_3R_3R_5g_m - C_2C_3C_5L_2L_3R_3 + C_2C_3C_5L_2L_3R_3R_5 + C_2C_3L_2L_3R_3g_m + C_2C_5L_2L_3R_3g_m + C_2C_5L_2L_3R_3g_m + C_2C_3C_5L_2L_3R_3g_m + C_2C_3C_5L_2L_3R_3g_m + C_2C_3C_5L_2L_3R_3g_m + C_2C_3C_5L_2L_3R_3g_m + C_2C_3C_5L_2L_3R_3g_m + C_2C_3C_5L_2R_3R_5g_m + C_2C_3C_5L_2R_3g_m +$ 

10.456 INVALID-ORDER-456  $Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_3R_5s^6 - R_3R_5 + s^5\left(C_2C_3L_2L_3L_5R_3R_5s^6 - R_3R_5 + s^5\left(C_2C_3L_2L_3L_5R_3R_5 + s^6\left(2C_2C_3C_5L_2L_3L_5R_3R_5 + s^6\left(2C_2C_3L_2L_3L_5R_3R_5 + s^6\left(2C_2C_3L_2L_3L_5R_5 + s^6c_2C_3L_2L_3L_5R_5 + s^6c_2C_3L_3L_5R_5 + s^6c_2C_3L_3L_$ 

10.457 INVALID-ORDER-457  $Z(s) = \left(\infty, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \ \infty\right)$ 

 $H(s) = \frac{R_3 R_5 g_m - R_3 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_3 L_5 R_3\right) + s^5 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_3\right) + s^5 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_3 R_5 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_5 g_m + C_2 C_3 C_5 L_5 L_5 R_3 R_5 g_m + C_2 C_3 C_5 L_5 L_5 R_3 R_5 g_m + C_2 C_3 C_5 L_5 L_5 R_3 R_5 g_m + C_2 C_3 C_5 L_5 L_5 R_3 R_5 g_m + C_2 C_3 C_5 L_5 L_5 R_3 R_5 g_m + C_2 C_3 C_5 L_5 L_5 R_5 g_m + C_2 C_5 L_5 L_5 R_5 g_m$ 

10.458 INVALID-ORDER-458  $Z(s) = \left(\infty, \ L_2s + \frac{1}{C_2s}, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \infty\right)$ 

 $H(s) = \frac{R_3 R_5 g_m - R_3 + s^6 \left( C_2 C_3 C_5 L_2 L_3 L_5 R_3 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_3 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_3 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_3 g_m + C_2 C_3 C_5 L_2 L_3 R_5 g_m + C_2 C_3 C_5$ 

**10.459** INVALID-ORDER-459  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_2R_3s^3 + R_3g_m + s^2\left(-C_2C_5R_2R_3 + C_2L_2R_3g_m\right) + s\left(C_2R_2R_3g_m + C_2R_3 - C_5R_3\right)}{g_m + s^3\left(2C_2C_5L_2R_3g_m + C_2C_5L_2\right) + s^2\left(2C_2C_5R_2R_3g_m + C_2C_5R_2 + 4C_2C_5R_3 + C_2L_2g_m\right) + s\left(C_2R_2g_m + C_2 + 2C_5R_3g_m + C_5\right)}$$

**10.460** INVALID-ORDER-460  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$ 

 $H(s) = \frac{-C_2C_5L_2R_3R_5s^3 + R_3R_5g_m - R_3 + s^2\left(-C_2C_5R_2R_3R_5 + C_2L_2R_3R_5g_m - C_2L_2R_3\right) + s\left(C_2R_2R_3R_5g_m - C_2R_2R_3 + C_2R_3R_5 - C_5R_3R_5\right)}{2R_3g_m + R_5g_m + s^3\left(2C_2C_5L_2R_3R_5g_m + C_2C_5L_2R_3\right) + s\left(2C_2C_5R_2R_3R_5g_m + C_2L_2R_3g_m + C_2L_2R_3g_m + C_2L_2\right) + s\left(2C_2R_2R_3g_m + C_2R_2R_5g_m + C_2R_2 + 4C_2R_3 + C_2R_5 + 2C_5R_3R_5g_m + C_5R_5\right) + 1}$ 

10.461 INVALID-ORDER-461  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{R_3 g_m + s^3 \left(C_2 C_5 L_2 R_3 R_5 g_m - C_2 C_5 L_2 R_3\right) + s^2 \left(C_2 C_5 R_2 R_3 R_5 g_m - C_2 C_5 R_2 R_3 + C_2 C_5 R_3 R_5 + C_2 L_2 R_3 g_m\right) + s \left(C_2 R_2 R_3 g_m + C_2 R_3 + C_5 R_3 R_5 g_m - C_5 R_3\right)}{g_m + s^3 \left(2 C_2 C_5 L_2 R_3 g_m + C_2 C_5 L_2 R_5 g_m + C_2 C_5 R_2 R_3 g_m + C_2 C_5 R_2 R_5 g_m + C_2 C_5 R_3 +$$

10.462 INVALID-ORDER-462  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_2L_5R_3g_ms^4 + R_3g_m + s^3\left(-C_2C_5L_2R_3 + C_2C_5L_5R_2R_3g_m + C_2C_5L_5R_3\right) + s^2\left(-C_2C_5R_2R_3 + C_2L_2R_3g_m + C_5L_5R_3g_m\right) + s\left(C_2R_2R_3g_m + C_2R_3 - C_5R_3\right)}{C_2C_5L_2L_5g_ms^4 + g_m + s^3\left(2C_2C_5L_2R_3g_m + C_2C_5L_2 + C_2C_5L_5R_2g_m + C_2C_5L_5\right) + s^2\left(2C_2C_5R_2R_3g_m + C_2C_5R_2 + 4C_2C_5R_3 + C_2L_2g_m + C_5L_5g_m\right) + s\left(C_2R_2g_m + C_2+C_5R_3g_m + C_2C_5R_3g_m + C_$$

10.463 INVALID-ORDER-463  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_2L_5R_3s^4 - R_3 + s^3\left(-C_2C_5L_5R_2R_3 + C_2L_2L_5R_3g_m\right) + s^2\left(-C_2L_2R_3 + C_2L_5R_2g_m + C_2L_5R_3g_m + C_2L_5R_3\right) + s\left(-C_2R_2R_3 + L_5R_3g_m\right)}{2R_3g_m + s^4\left(2C_2C_5L_2L_5R_3g_m + C_2C_5L_5R_2R_3g_m + C_2C_5L_5R_3 + C_2L_2L_5g_m\right) + s^2\left(2C_2L_2R_3g_m + C_2L_2 + C_2L_5R_3g_m + C_2L_5 + 2C_5L_5R_3g_m + C_5L_5\right) + s\left(2C_2R_2R_3g_m + C_2R_2 + 4C_2R_3 + L_5g_m\right) + 1}$$

10.464 INVALID-ORDER-464  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$ 

$$H(s) = \frac{C_2C_5L_2L_5R_3g_ms^4 + R_3g_m + s^3\left(C_2C_5L_2R_3R_5g_m - C_2C_5L_2R_3 + C_2C_5L_2R_3g_m + C_2C_5L_2R_3g_m + C_2C_5R_2R_3 + C_2C_5R_3R_5 + C_2L_2R_3g_m + C_5L_5R_3g_m + s\left(C_2R_2R_3g_m + C_2R_3g_m +$$

10.465 INVALID-ORDER-465  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_2L_5R_3R_5s^4 - R_3R_5 + s^3\left(-C_2C_5L_5R_2R_3R_5 + C_2L_2L_5R_3R_5g_m - C_2L_2L_5R_3\right) + s^2\left(-C_2L_2R_3R_5 + C_2L_5R_2R_3R_5g_m - C_2L_5R_2R_3 + C_2L_5R_3R_5 - C_5L_5R_3R_5\right) + s\left(-C_2R_2R_3R_5g_m + R_5 + s^4\left(2C_2C_5L_2R_3R_5g_m + C_2C_5L_5R_3R_5g_m + C_2L_2L_5R_3g_m + C_2L_2L_5\right) + s^2\left(2C_2L_2R_3R_5g_m + C_2L_2R_5 + 2C_2L_5R_3g_m + C_2L_5R_3g_m + C_2L_5R$$

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10.466 INVALID-ORDER-466 Z(s) = \left(\infty, L_2s + R_2 + \frac{1}{C_2s}, R_3, \infty, \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \infty\right)
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$$H(s) = \frac{R_3R_5g_m - R_3 + s^4\left(C_2C_5L_2L_5R_3R_5g_m - C_2C_5L_2L_5R_3\right) + s^3\left(C_2C_5L_5R_2R_3R_5g_m - C_2C_5L_5R_2R_3 + C_2C_5L_5R_3R_5 + C_2L_2L_5R_3g_m\right) + s^2\left(C_2L_2R_3R_5g_m - C_2L_2R_3 + C_2L_5R_3g_m + C_2$$

10.467 INVALID-ORDER-467 
$$Z(s) = \left(\infty, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$$

 $H(s) = \frac{R_3R_5g_m - R_3 + s^4\left(C_2C_5L_2L_5R_3R_5g_m - C_2C_5L_2L_5R_3\right) + s^3\left(-C_2C_5L_2R_3R_5 + C_2C_5L_5R_2R_3R_5g_m - C_2C_5L_5R_2R_3R_5\right) + s^2\left(-C_2C_5R_2R_3R_5 + C_2L_2R_3R_5g_m - C$ 

**10.468** INVALID-ORDER-468 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, R_5, \infty\right)$$

$$H(s) = \frac{R_5g_m + s^2\left(C_2L_2R_5g_m - C_2L_2\right) + s\left(C_2R_2R_5g_m - C_2R_2 + C_2R_5\right) - 1}{2g_m + s^3\left(C_2C_3L_2R_5g_m + C_2C_3L_2\right) + s^2\left(C_2C_3R_2R_5g_m + C_2C_3R_2 + C_2C_3R_5 + 2C_2L_2g_m\right) + s\left(2C_2R_2g_m + 4C_2 + C_3R_5g_m + C_3\right)}$$

**10.469** INVALID-ORDER-469 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{-C_2C_5L_2s^3 + g_m + s^2\left(-C_2C_5R_2 + C_2L_2g_m\right) + s\left(C_2R_2g_m + C_2 - C_5\right)}{C_2C_3C_5L_2s^4 + s^3\left(C_2C_3C_5R_2 + C_2C_3L_2g_m + 2C_2C_5L_2g_m\right) + s^2\left(C_2C_3R_2g_m + C_2C_3 + 2C_2C_5R_2g_m + 4C_2C_5 + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$$

10.470 INVALID-ORDER-470 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$$

$$H(s) = \frac{-C_2C_5L_2R_5s^3 + R_5g_m + s^2\left(-C_2C_5R_2R_5 + C_2L_2R_5g_m - C_2L_2\right) + s\left(C_2R_2R_5g_m - C_2R_2 + C_2R_5 - C_5R_5\right) - 1}{C_2C_3C_5L_2R_5s^4 + 2g_m + s^3\left(C_2C_3C_5R_2R_5 + C_2C_3L_2R_5g_m + C_2C_3L_2 + 2C_2C_5L_2R_5g_m\right) + s^2\left(C_2C_3R_2R_5g_m + C_2C_3R_2 + C_2C_5R_5g_m + 4C_2C_5R_5 + 2C_2L_2g_m + 4C_2C_5R_5\right) + s\left(2C_2R_2g_m + 4C_2 + C_3R_5g_m + C_3C_5R_5g_m\right)}$$

10.471 INVALID-ORDER-471 
$$Z(s) = \left(\infty, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \infty\right)$$

$$H(s) = \frac{g_m + s^3 \left(C_2 C_5 L_2 R_5 g_m - C_2 C_5 L_2\right) + s^2 \left(C_2 C_5 R_2 R_5 g_m - C_2 C_5 R_2 + C_2 C_5 R_5 + C_2 L_2 g_m\right) + s \left(C_2 R_2 g_m + C_2 + C_5 R_5 g_m - C_5\right)}{s^4 \left(C_2 C_3 C_5 L_2 R_5 g_m + C_2 C_3 C_5 R_2 R_5 g_m + C_2 C_3 C_5 R_2 + C_2 C_3 C_5 R_2 + C_2 C_3 C_5 R_2 + C_2 C_3 L_2 g_m + 2 C_2 C_5 L_2 g_m\right) + s^2 \left(C_2 C_3 R_2 g_m + C_2 C_3 + 2 C_2 C_5 R_2 g_m + 4 C_2 C_5 + C_3 C_5 R_5 g_m + C_3 C_5\right) + s \left(C_3 g_m + 2 C_5 G_5 R_5 + C_5 C_5 R_5 g_m + C_5 C_$$

10.472 INVALID-ORDER-472 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{C_2C_5L_2L_5g_ms^4 + g_m + s^3\left(-C_2C_5L_2 + C_2C_5L_5R_2g_m + C_2C_5L_5\right) + s^2\left(-C_2C_5R_2 + C_2L_2g_m + C_5L_5g_m\right) + s\left(C_2R_2g_m + C_2 - C_5\right)}{C_2C_3C_5L_2L_5g_ms^5 + s^4\left(C_2C_3C_5L_2 + C_2C_3C_5L_5R_2g_m + C_2C_3C_5L_5\right) + s^3\left(C_2C_3C_5R_2 + C_2C_3L_2g_m + C_3C_5L_5g_m\right) + s^2\left(C_2C_3R_2g_m + C_2C_3 + 2C_2C_5R_2g_m + 4C_2C_5 + C_3C_5\right) + s\left(C_3g_m + 2C_5g_m\right)}$$

10.473 INVALID-ORDER-473 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{-C_2C_5L_2L_5s^4 + s^3\left(-C_2C_5L_5R_2 + C_2L_2L_5g_m\right) + s^2\left(-C_2L_2 + C_2L_5R_2g_m + C_2L_5 - C_5L_5\right) + s\left(-C_2R_2 + L_5g_m\right) - 1}{C_2C_3C_5L_2L_5s^5 + 2g_m + s^4\left(C_2C_3C_5L_5R_2 + C_2C_3L_2L_5g_m\right) + s^3\left(C_2C_3L_2 + C_2C_3L_5R_2g_m + C_2C_5L_5R_2g_m + 4C_2C_5L_5 + C_3C_5L_5\right) + s^2\left(C_2C_3R_2 + 2C_2L_2g_m + C_3L_5g_m\right) + s^2\left(C_2C_3R_2 + C_2C_3L_5R_2g_m + 4C_2C_5L_5R_2g_m\right) + s^2\left(C_2C_3R_2 + C_2C_3L_5R_2g_m + C_2C_3L_5R_2g_m\right) + s^2\left(C_2C_3R_2 + C_2C_3R$$

**10.474** INVALID-ORDER-474 
$$Z(s) = \left(\infty, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \infty\right)$$

$$H(s) = \frac{C_2C_5L_2L_5g_ms^4 + g_m + s^3\left(C_2C_5L_2R_5g_m - C_2C_5L_2 + C_2C_5L_5R_2g_m + C_2C_5L_5\right) + s^2\left(C_2C_5R_2R_5g_m - C_2C_5R_2 + C_2C_5R_5 + C_2L_2g_m + C_5L_5g_m\right) + s\left(C_2R_2g_m + C_2 + C_5R_5g_m - C_5\right)}{C_2C_3C_5L_2L_5g_ms^5 + s^4\left(C_2C_3C_5L_2R_5g_m + C_2C_3C_5L_2 + C_2C_3C_5L_2\right) + s^3\left(C_2C_3C_5R_2R_5g_m + C_2C_3C_5R_2 + C_2C_3C_5R_5 + C_2C_3L_2g_m + C_3C_5L_2g_m\right) + s^2\left(C_2C_3R_2g_m + C_2C_3C_5R_2g_m + C_2C_3C_5R_2g_m + C_2C_3C_5R_2g_m + C_2C_3C_5R_2g_m\right) + s^2\left(C_2C_3R_2g_m + C_2C_3C_5R_2g_m + C_2C_3C_5R_2g_m + C_2C_3C_5R_2g_m\right) + s^2\left(C_2C_3R_2g_m + C_2C_3C_5R_2g_m + C_2C_3C_5R_2g_m + C_2C_3C_5R_2g_m\right) + s^2\left(C_2C_3R_2g_m + C_2C_3C_5R_2g_m\right) + s^2\left(C_2C_3R_2g_m + C_2C_3C_3R_2g_m + C_2C_3C_5R_2g_m\right) + s^2\left(C_2C_3R_2g_m + C_2C_3C_3R_2g_m\right) + s^2\left(C_2C_3R_2g_m + C_2C_3C_3R_2g_m\right) + s^2\left(C_2C_3R_2g_m + C_2C_3R_2g_m\right) + s^2\left(C_2C_3R_2g_m + C_2C_3C_3R_2g_m\right) + s^2\left(C_2C_3R_2g_m + C$$

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10.475 INVALID-ORDER-475 Z(s) = \left(\infty, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \infty\right)
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 $H(s) = \frac{-C_2C_5L_2L_5R_5s^4 - R_5 + s^3\left(-C_2C_5L_5R_2R_5 + C_2L_2L_5R_5g_m - C_2L_2L_5\right) + s^2\left(-C_2L_2R_5 + C_2L_5R_2g_m - C_2L_5R_2 + C_2L_5R_5 - C_5L_5R_5\right) + s\left(-C_2R_2R_5 + L_5R_5g_m - C_2L_5R_5g_m + S^4\left(C_2C_3C_5L_5R_5g_m + S^4\left(C_2C_3C_5L_5R_5g_m + C_2C_3L_5R_5g_m + C_2$ 

10.476 INVALID-ORDER-476 
$$Z(s) = \left(\infty, L_2s + R_2 + \frac{1}{C_2s}, \frac{1}{C_3s}, \infty, \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \infty\right)$$

 $H(s) = \frac{R_5 g_m + s^4 \left(C_2 C_5 L_2 L_5 R_5 g_m - C_2 C_5 L_2 L_5\right) + s^3 \left(C_2 C_5 L_5 R_2 R_5 g_m - C_2 L_2 L_5 g_m\right) + s^2 \left(C_2 L_2 R_5 g_m - C_2 L_2 + C_2 L_5 R_2 g_m + C_2 L_5 + C_5 L_5 R_5 g_m - C_5 L_5\right) + s \left(C_2 C_3 C_5 L_5 R_2 R_5 g_m + C_2 C_3 C_5 L_5 R_2 + C_2 C_3 C_5 L_5 R_2 + C_2 C_3 L_2 L_5 g_m\right) + s^3 \left(C_2 C_3 L_2 R_5 g_m + C_2 C_3 L_5 R_2 g_m + C_2 C_3 L_5 R_3 g_m + C_2 C$ 

10.477 INVALID-ORDER-477 
$$Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ \frac{1}{C_3s}, \ \infty, \ \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \ \infty\right)$$

 $H(s) = \frac{R_5g_m + s^4 \left(C_2C_5L_2L_5R_5g_m - C_2C_5L_2L_5\right) + s^3 \left(-C_2C_5L_2R_5 + C_2C_5L_5R_2R_5g_m - C_2C_5L_5R_2 + C_2C_5L_5R_5\right) + s^2 \left(-C_2C_5R_2R_5 + C_2L_2R_5g_m - C_2L_2 + C_5L_5R_5\right) + s^2 \left(-C_2C_5R_2R_5 + C_2C_5L_5R_5\right) + s^2 \left(-C_2C_5R_5R_5 + C_2C_5R_5R_5\right) + s^2 \left(-C_2C_5R$ 

10.478 INVALID-ORDER-478 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, \infty\right)$$

 $H(s) = \frac{R_3R_5g_m - R_3 + s^2\left(C_2L_2R_3R_5g_m - C_2L_2R_3\right) + s\left(C_2R_2R_3R_5g_m - C_2R_2R_3 + C_2R_3R_5\right)}{2R_3g_m + R_5g_m + s^3\left(C_2C_3L_2R_3R_5g_m + C_2C_3L_2R_3\right) + s^2\left(C_2C_3R_2R_3R_5g_m + C_2C_3R_3R_5 + 2C_2L_2R_3g_m + C_2L_2R_5g_m + C_2L_2\right) + s\left(2C_2R_2R_3g_m + C_2R_2R_5g_m +$ 

10.479 INVALID-ORDER-479 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, \infty\right)$$

 $H(s) = \frac{-C_2C_5L_2R_3s^3 + R_3g_m + s^2\left(-C_2C_5R_2R_3 + C_2L_2R_3g_m\right) + s\left(C_2R_2R_3g_m + C_2R_3 - C_5R_3\right)}{C_2C_3C_5L_2R_3s^4 + g_m + s^3\left(C_2C_3C_5R_2R_3 + C_2C_3L_2R_3g_m + C_2C_5L_2R_3g_m + C_2C_5R_3g_m + C$ 

10.480 INVALID-ORDER-480 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$$

 $H(s) = \frac{-C_2C_5L_2R_3R_5s^3 + R_3R_5g_m - R_3 + s^2\left(-C_2C_5R_2R_3R_5 + C_2L_2R_3R_5g_m - C_2L_2R_3\right) + s\left(C_2R_2R_3R_5g_m - C_2R_2R_3 + C_2R_3R_5 - C_5R_3R_5g_m - C_2R_2R_3 + C_2R_3R_5g_m - C_2R_2R_3 + C_2R_3R_5g_m - C_2R_2R_3R_5g_m - C_2R_2R$ 

**10.481** INVALID-ORDER-481 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$$

 $H(s) = \frac{R_3g_m + s^3\left(C_2C_5L_2R_3R_5g_m - C_2C_5L_2R_3\right) + s^2\left(C_2C_5R_2R_3R_5g_m - C_2C_5R_2R_3 + C_2C_5R_3R_5 + C_2L_2R_3g_m\right) + s\left(C_2R_2R_3g_m + C_2R_3 + C_5R_3R_5g_m - C_5R_3R_5g_m - C_5R_3R_5g_m\right) + s\left(C_2R_2R_3g_m + C_2R_3R_5g_m + C_2$ 

10.482 INVALID-ORDER-482 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$$

 $H(s) = \frac{C_2C_5L_2L_5R_3g_ms^4 + R_3g_m + s^3\left(-C_2C_5L_2R_3 + C_2C_5L_5R_2g_m + C_2C_5L_5R_3\right) + s^2\left(-C_2C_5R_2R_3 + C_2L_2R_3g_m + C_5L_5R_3g_m\right) + s\left(C_2R_2R_3g_m + C_2R_3 - C_5R_3g_m\right) + s\left(C_2R_2R_3g_m + C_2R_3g_m + C_2R_3g_m\right) + s\left(C_2R_3R_3g_m + C_2R_3G_3g_m + C_2R_3g_m\right) + s\left(C_2R_3R_3g_m + C_2R_3g_m + C_2R_3g_m\right) + s\left(C_2R_3g_m + C_2R_3g_m\right) + s\left($ 

10.483 INVALID-ORDER-483 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$$

 $H(s) = \frac{-C_2C_5L_2L_5R_3s^4 - R_3 + s^3\left(-C_2C_5L_5R_2R_3 + C_2L_2L_5R_3g_m\right) + s^2\left(-C_2L_2R_3 + C_2L_5R_3g_m + C_2L_5R_3 - C_5L_5R_3\right) + s\left(-C_2R_2R_3 + L_5R_3g_m + C_2C_5L_5R_3s^5 + 2R_3g_m + s^4\left(C_2C_3C_5L_5R_3s^5 + 2R_3g_m + C_2C_5L_5R_3s^6 + 2C_2C_5L_5R_3s^6 + 2C_2C_5L$ 

**10.486** INVALID-ORDER-486  $Z(s) = \left(\infty, L_2s + R_2 + \frac{1}{C_2s}, \frac{R_3}{C_3R_3s+1}, \infty, \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \infty\right)$ 

 $H(s) = \frac{R_3 R_5 g_m - R_3 + s^4 \left(C_2 C_5 L_2 L_5 R_3 R_5 g_m - C_2 C_5 L_2 L_5 R_3\right) + s^3 \left(C_2 C_5 L_2 L_5 R_3 R_5 g_m - C_2 C_5 L_2 L_5 R_3\right) + s^3 \left(C_2 C_5 L_2 L_5 R_3 R_5 g_m + C_2 C_5 L_2 L_5 R_5 g_m + C_2 C_5 L_5 L_5 R_5 g_m + C$ 

10.487 INVALID-ORDER-487  $Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ \frac{R_3}{C_3R_3s+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \infty\right)$ 

 $H(s) = \frac{R_3R_5g_m - R_3 + s^4\left(C_2C_5L_2L_5R_3R_5g_m + C_2C_5L_2L_5R_3R_5g_m + C_2C_5L_2L_5R_3R_5g_m + C_2C_5L_2L_5R_3R_5g_m + C_2C_5L_2L_5R_3R_5g_m + C_2C_5L_2L_5R_3g_m + C_$ 

**10.488** INVALID-ORDER-488  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, R_5, \infty\right)$ 

 $H(s) = \frac{R_5 g_m + s^3 \left(C_2 C_3 L_2 R_3 R_5 g_m - C_2 C_3 L_2 R_3\right) + s^2 \left(C_2 C_3 R_2 R_3 R_5 g_m - C_2 C_3 R_2 R_3 + C_2 C_3 R_3 R_5 + C_2 L_2 R_5 g_m - C_2 L_2\right) + s \left(C_2 R_2 R_5 g_m - C_2 R_2 + C_2 R_5 + C_3 R_3 R_5 g_m - C_3 R_3\right) - 1}{2 g_m + s^3 \left(2 C_2 C_3 L_2 R_3 g_m + C_2 C_3 L_2 R_5 g_m + C_2 C_3 L_2\right) + s^2 \left(2 C_2 C_3 R_2 R_3 g_m + C_2 C_3 R_2 R_5 g_m + C_2 C_3 R_2 + 4 C_2 C_3 R_3 + C_2 C_3 R_5 + 2 C_2 L_2 g_m\right) + s \left(2 C_2 R_2 g_m + 4 C_2 + 2 C_3 R_3 g_m + C_3 R_5 g_m$ 

10.489 INVALID-ORDER-489  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2R_3s^4 + g_m + s^3\left(-C_2C_3C_5R_2R_3 + C_2C_3L_2R_3g_m - C_2C_5L_2\right) + s^2\left(C_2C_3R_2R_3g_m + C_2C_5R_2 + C_2L_2g_m - C_3C_5R_3\right) + s\left(C_2R_2g_m + C_2 + C_3R_3g_m - C_5\right)}{s^4\left(2C_2C_3C_5L_2R_3g_m + C_2C_3C_5L_2\right) + s^3\left(2C_2C_3C_5R_2R_3g_m + C_2C_3C_5R_2 + 4C_2C_3C_5R_3 + C_2C_3L_2g_m + 2C_2C_5L_2g_m\right) + s^2\left(C_2C_3R_2g_m + C_2C_3R_2g_m + C_2C_5R_2g_m + 4C_2C_5 + 2C_3C_5R_3g_m + C_3C_5\right) + s\left(C_3R_3g_m + C_3C_3R_3g_m + C_3C_3R_$ 

10.490 INVALID-ORDER-490  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2R_3R_5s^4 + R_5g_m + s^3\left(-C_2C_3C_5R_2R_3R_5 + C_2C_3L_2R_3R_5g_m - C_2C_5L_2R_5\right) + s^2\left(C_2C_3R_2R_3R_5g_m - C_2C_3R_2R_3 + C_2C_3R_3R_5 - C_2C_5R_2R_5 + C_2L_2R_5g_m - C_2L_2 - C_3C_5R_3R_5\right) + s^2\left(2C_2C_3C_5L_2R_3R_5g_m + C_2C_3L_2R_3g_m + C_2C_3L_2R_3g_m + C_2C_3L_2R_3g_m + C_2C_3L_2R_3g_m + C_2C_3L_2R_3g_m + C_2C_3R_2R_3g_m + C_2C_3R_3R_3g_m + C_2C_3R_3R_3$ 

**10.491** INVALID-ORDER-491  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

 $H(s) = \frac{g_m + s^4 \left(C_2 C_3 C_5 L_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 R_3\right) + s^3 \left(C_2 C_3 C_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 R_2 R_3 + C_2 C_3 C_5 R_3 R_5 + C_2 C_3 L_2 R_3 g_m + C_2 C_5 L_2\right) + s^2 \left(C_2 C_3 R_2 R_3 g_m + C_2 C_5 R_2 R_5 g_m - C_2 C_5 R_2 + C_2 C_5 R_5 + C_2 L_2 g_m + C_3 C_5 R_3 R_5 g_m - C_3 C_5 R_3\right) + s^2 \left(C_2 C_3 C_5 L_2 R_3 g_m + C_2 C_3 C_5 L_2 R_3 g_m + C_2 C_3 C_5 R_2 R_3 g_m + C_2 C_3 C_5 R_2 R_3 g_m + C_2 C_3 C_5 R_2 R_3 g_m + C_2 C_3 C_5 R_3 R_5 g_m - C_2 C_5 L_2 g_m\right) + s^2 \left(C_2 C_3 R_2 g_m + C_2 C_5 R_2 g_m + C_2$ 

**10.492** INVALID-ORDER-492  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)$ 

 $H(s) = \frac{C_2C_3C_5L_2L_5R_3g_ms^5 + g_m + s^4\left(-C_2C_3C_5L_2R_3 + C_2C_3C_5L_2R_3 + C_2C_3C_5L_5R_3 + C_2C_5L_2L_5g_m\right) + s^3\left(-C_2C_3C_5R_2R_3 + C_2C_5L_2R_3g_m + C_2C_5L_5 + C_3C_5L_5 + C_3C_5L_$ 

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10.493 INVALID-ORDER-493 Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
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 $H(s) = \frac{-C_2C_3C_5L_2L_5R_3s^5 + s^4\left(-C_2C_3C_5L_5R_2R_3 + C_2C_3L_2L_5R_3g_m - C_2C_5L_2L_5\right) + s^3\left(-C_2C_3L_2R_3 + C_2C_3L_5R_3g_m + C_2C_3L_5R_3g_m + C_2C_5L_5R_3 + C_2C_3L_5R_3g_m + C$ 

**10.494** INVALID-ORDER-494 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)$$

 $H(s) = \frac{C_2C_3C_5L_2L_5R_3g_ms^5 + g_m + s^4\left(C_2C_3C_5L_2R_3R_5g_m - C_2C_3C_5L_2R_3 + C_2C_3C_5L_2R_3g_m + C_2C_3C_5R_2R_3g_m + C_2C_3C_5R_2R_3g_m + C_2C_3C_5R_2R_3g_m + C_2C_3C_5R_2R_3g_m + C_2C_3C_5R_3R_3g_m + C_2C_3C_5R_3g_m +$ 

**10.495** INVALID-ORDER-495 
$$Z(s) = \left(\infty, L_2s + R_2 + \frac{1}{C_2s}, R_3 + \frac{1}{C_3s}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_5R_3R_5s^5 - R_5 + s^4\left(-C_2C_3C_5L_5R_2R_3R_5 + C_2C_3L_2L_5R_3R_5g_m - C_2C_3L_2L_5R_3 - C_2C_5L_2L_5R_5\right) + s^3\left(-C_2C_3L_2R_3R_5 + C_2C_3L_5R_2R_3R_5g_m - C_2C_3L_2L_5R_3R_5g_m - C_2C_3L_2L_5R_3R_5g_m + C_2C_3L_5R_3R_5g_m + C_2C_3L_5R_5g_m + C_2C_3L_5R_5g$ 

**10.496** INVALID-ORDER-496 
$$Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \ \infty\right)$$

 $H(s) = \frac{R_5 g_m + s^5 \left(C_2 C_3 C_5 L_2 L_5 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_3\right) + s^4 \left(C_2 C_3 C_5 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_5 R_2 R_3 + C_2 C_3 C_5 L_5 R_2 R_3 + C_2 C_3 L_5 R_3 R_5 + C_2 C_3 L_5 R_3 R_5 g_m - C_2 C_3 L_5 R_5$ 

10.497 INVALID-ORDER-497 
$$Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \ \infty\right)$$

 $H(s) = \frac{R_5g_m + s^5 \left(C_2C_3C_5L_2L_5R_3R_5g_m - C_2C_3C_5L_2L_5R_3\right) + s^4 \left(-C_2C_3C_5L_2R_3R_5 + C_2C_3C_5L_5R_2R_3 + C_2C_3C_5L_5R_3R_5 + C_2C_3C_5L_5R_3R_5 + C_2C_5L_2L_5R_5g_m - C_2C_5L_2L_5\right) + s^3 \left(-C_2C_3C_5L_2R_3R_5g_m + C_2C_3C_5L_2R_3R_5g_m + C_2C_3C_5L_5R_3R_5g_m + C_2C_3C_5L_5R_5g_m + C_2C$ 

10.498 INVALID-ORDER-498 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, R_5, \infty\right)$$

 $H(s) = \frac{R_5 g_m + s^4 \left(C_2 C_3 L_2 L_3 R_5 g_m - C_2 C_3 L_2 L_3\right) + s^3 \left(C_2 C_3 L_3 R_2 R_5 g_m - C_2 C_3 L_3 R_2 + C_2 C_3 L_3 R_5\right) + s^2 \left(C_2 L_2 R_5 g_m - C_2 L_2 + C_3 L_3 R_5 g_m - C_3 L_3\right) + s \left(C_2 R_2 R_5 g_m - C_2 R_2 + C_2 R_5\right) - 1}{2 C_2 C_3 L_2 L_3 g_m s^4 + 2 g_m + s^3 \left(C_2 C_3 L_2 R_5 g_m + C_2 C_3 L_3 R_2 g_m + 4 C_2 C_3 L_3\right) + s^2 \left(C_2 C_3 R_2 R_5 g_m + C_2 C_3 R_5 + 2 C_2 L_2 g_m + 2 C_3 L_3 g_m\right) + s \left(2 C_2 R_2 g_m + 4 C_2 + C_3 R_5 g_m + C_3 L_3\right) + s^2 \left(C_2 R_5 g_m + C_2 R_5 g_m + C_2 R_5 g_m + C_3 R_5 g_m$ 

**10.499** INVALID-ORDER-499 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3s^5 + g_m + s^4\left(-C_2C_3C_5L_3R_2 + C_2C_3L_2L_3g_m\right) + s^3\left(C_2C_3L_3R_2g_m + C_2C_3L_3 - C_2C_5L_2 - C_3C_5L_3\right) + s^2\left(-C_2C_5R_2 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_2R_2g_m + C_2 - C_5\right)}{2C_2C_3C_5L_2L_3g_ms^5 + s^4\left(C_2C_3C_5L_2 + 2C_2C_3C_5L_3R_2g_m + 4C_2C_3C_5L_3\right) + s^3\left(C_2C_3C_5R_2 + C_2C_3L_2g_m + 2C_2C_5L_2g_m + 2C_3C_5L_3g_m\right) + s^2\left(C_2C_3R_2g_m + C_2C_3R_2g_m + 4C_2C_5 + C_3C_5\right) + s\left(C_3R_2g_m + 2C_2C_5R_2g_m + 2C_2C$ 

10.500 INVALID-ORDER-500 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3R_5s^5 + R_5g_m + s^4\left(-C_2C_3C_5L_3R_2R_5 + C_2C_3L_2L_3R_5g_m - C_2C_3L_2L_3\right) + s^3\left(C_2C_3L_3R_2R_5g_m - C_2C_3L_3R_5 - C_2C_5L_2R_5 - C_3C_5L_3R_5\right) + s^2\left(-C_2C_5R_2R_5 + C_2L_2R_5g_m - C_2L_2R_5g_m - C_2L_3R_5g_m\right) + s^2\left(-C_2C_5R_2R_5 + C_2C_3L_3R_5g_m + C_2C_3L_3R$ 

10.501 INVALID-ORDER-501 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$$

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10.502 INVALID-ORDER-502 Z(s) = \left(\infty, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \infty\right)
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$$H(s) = \frac{C_2C_3C_5L_2L_3L_5g_ms^6 + g_m + s^5\left(-C_2C_3C_5L_2L_3 + C_2C_3C_5L_3L_5g_m + C_2C_3L_5L_3g_m + C_2C_5L_2L_5g_m + C_3C_5L_3L_5g_m + S^3\left(C_2C_3L_3R_2g_m + C_2C_3L_3R_2g_m + C_2C_5L_5g_m + C_2C_5L_5R_2g_m + C_2C_5L_5R_2g_m + C_2C_5L_5R_2g_m + C_2C_5L_5g_m + S^3\left(C_2C_3C_5L_3R_2g_m + C_2C_5L_3G_5L_3g_m + C_2C_5L_5g_m + C_2C_5$$

**10.503** INVALID-ORDER-503 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$$

$$H(s) = \frac{-C_2C_3C_5L_2L_3L_5s^6 + s^5\left(-C_2C_3C_5L_3L_5R_2 + C_2C_3L_2L_3L_5g_m\right) + s^4\left(-C_2C_3L_2L_3 + C_2C_3L_3L_5 - C_2C_5L_2L_5 - C_3C_5L_3L_5\right) + s^3\left(-C_2C_3L_3R_2 - C_2C_5L_5R_2 + C_2L_2L_5g_m + C_3L_3L_5g_m\right) + s^2\left(-C_2C_3C_5L_2L_5G_m + s^5\left(-C_2C_3C_5L_2L_5G_m + C_2C_3L_3L_5G_m\right) + s^4\left(-C_2C_3L_3L_5G_m + C_2C_3L_3L_5G_m + C_2C_3L_3L_5G_m\right) + s^2\left(-C_2C_3L_3L_5G_m + s^5\left(-C_2C_3L_3L_5G_m + s^5\left(-C_2C_3L_3L_5G_m + c_2C_3L_3L_5G_m\right) + s^4\left(-C_2C_3L_3L_5G_m + c_2C_3L_3L_5G_m + c_2C_3L_3L_5G_m\right) + s^2\left(-C_2C_3L_3L_5G_m + s^5\left(-C_2C_3L_3L_5G_m + c_2C_3L_3L_5G_m + c_2C_3L_3L_5G_m\right) + s^2\left(-C_2C_3L_3L_5G_m + c_2C_3L_3L_5G_m + c_2C_3L_3L_5G_m + c_2C_3L_3L_5G_m\right) + s^2\left(-C_2C_3L_3L_5G_m + s^5\left(-C_2C_3L_3L_5G_m + c_2C_3L_3L_5G_m + c_2C_3L_3L_5G_m\right) + s^2\left(-C_2C_3L_3L_5G_m + c_2C_3L_3L_5G_m + c_2C_3L_3L_5G_m + c_2C_3L_3L_5G_m\right) + s^2\left(-C_2C_3L_3L_5G_m + c_2C_3L_3L_5G_m + c_2C_3L_3L_5G_m + c_2C_3L_5G_m + c_2C_3L_5G_m\right) + s^2\left(-C_2C_3L_3L_5G_m + c_2C_3L_5G_m + c_2C_3L_5G_m + c_2C_3L_5G_m + c_2C_3L_5G_m\right) + s^2\left(-C_2C_3L_3L_5G_m + c_2C_3L_5G_m + c_2C_3L_5G_m + c_2C_3L_5G_m + c_2C_3L_5G_m\right) + s^2\left(-C_2C_3L_5G_m + c_2C_3L_5G_m + c_2C_3L_5$$

10.504 INVALID-ORDER-504 
$$Z(s) = \left(\infty, L_2s + R_2 + \frac{1}{C_2s}, L_3s + \frac{1}{C_3s}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \infty\right)$$

$$H(s) = \frac{C_2C_3C_5L_2L_3L_5g_ms^6 + g_m + s^5\left(C_2C_3C_5L_2L_3R_5g_m - C_2C_3C_5L_2L_3 + C_2C_3C_5L_3L_5 + s^4\left(C_2C_3C_5L_3R_2 + C_2C_3C_5L_3R_2 + C_2C_3C_5L_3R_5 + C_2C_3L_5g_m + C_2C_3L_5g_m + C_2C_3L_5g_m + C_2C_3L_5g_m + C_2C_3L_5g_m + C_2C_3L_5g_m + C_2C_3C_5L_3R_2 + C_2C_3$$

**10.505** INVALID-ORDER-505 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \infty\right)$$

$$H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_5s^6 - R_5 + s^5\left(-C_2C_3C_5L_3L_5R_2R_5 + C_2C_3L_2L_3L_5R_5g_m - C_2C_3L_2L_3L_5\right) + s^4\left(-C_2C_3L_2L_3R_5 + C_2C_3L_2L_3R_5 + C_2C_3L_3L_3R_5 + C_2C_3L_3L_3R$$

10.506 INVALID-ORDER-506 
$$Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \ \infty\right)$$

$$H(s) = \frac{R_5 g_m + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_5 g_m - C_2 C_3 C_5 L_2 L_3 L_5\right) + s^5 \left(C_2 C_3 C_5 L_3 L_5 R_2 R_5 g_m - C_2 C_3 C_5 L_3 L_5 R_5 + C_2 C_3 L_2 L_3 L_5 g_m\right) + s^4 \left(C_2 C_3 L_2 L_3 R_5 g_m - C_2 C_3 L_2 L_3 R_5 g_m + C_2 C_3 L_2 L_5 R_5 g_m - C_2 C_5 L_2 L_5 R_5 g_m - C_2 C_5 L_2 L_5 R_5 g_m - C_2 C_5 L_2 L_5 R_5 g_m\right) + s^4 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_5 g_m + C_2 C_3 L_2 L_5 R_5 g$$

10.507 INVALID-ORDER-507 
$$Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \infty\right)$$

$$H(s) = \frac{R_5g_m + s^6\left(C_2C_3C_5L_2L_3L_5R_5g_m - C_2C_3C_5L_2L_3L_5\right) + s^5\left(-C_2C_3C_5L_2L_3R_5 + C_2C_3C_5L_3L_5R_2 + C_2C_3C_5L_3L_5R_2\right) + s^4\left(-C_2C_3C_5L_3L_5R_5\right) + s^4\left(-C_2C_3C_5L_3L_5R_5\right) + s^4\left(-C_2C_3C_5L_3L_5R_5g_m - C_2C_3L_2L_3R_5g_m - C_2C_3L_2L_3R_5g_m - C_2C_3C_5L_3L_5R_5\right) + s^4\left(-C_2C_3C_5L_3L_5R_5g_m + C_2C_3C_5L_3L_5R_5g_m + C_2C_3C_5L_3R_5g_m + C_2C_3C_5L_3R_5g$$

**10.508** INVALID-ORDER-508 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5, \infty\right)$$

$$H(s) = \frac{s^3 \left(C_2 L_2 R_3 R_5 g_m - C_2 L_2 L_3\right) + s^2 \left(C_2 L_3 R_2 R_5 g_m - C_2 L_3 R_5\right) + s \left(L_3 R_5 g_m - L_3\right)}{R_5 g_m + s^4 \left(C_2 C_3 L_2 L_3 R_5 g_m + C_2 C_3 L_2 L_3\right) + s^3 \left(C_2 C_3 L_3 R_2 R_5 g_m + C_2 C_3 L_3 R_5 + 2 C_2 L_2 L_3 g_m\right) + s^2 \left(C_2 L_2 R_5 g_m + C_2 L_2 + 2 C_2 L_3 R_2 g_m + 4 C_2 L_3 + C_3 L_3 R_5 g_m + C_3 L_3\right) + s \left(C_2 R_2 R_5 g_m + C_2 R_5 + 2 L_3 g_m\right) + 1}$$

10.509 INVALID-ORDER-509 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{1}{C_5 s}, \infty\right)$$

$$H(s) = \frac{-C_2C_5L_2L_3s^4 + L_3g_ms + s^3\left(-C_2C_5L_3R_2 + C_2L_2L_3g_m\right) + s^2\left(C_2L_3R_2g_m + C_2L_3 - C_5L_3\right)}{C_2C_3C_5L_2L_3s^5 + g_m + s^4\left(C_2C_3C_5L_3R_2 + C_2C_5L_2L_3g_m\right) + s^3\left(C_2C_3L_3R_2g_m + C_2C_5L_2 + 2C_2C_5L_3R_2g_m + 4C_2C_5L_3 + C_3C_5L_3\right) + s^2\left(C_2C_5R_2 + C_2L_2g_m + C_3L_3g_m\right) + s^2\left(C_2C_5R_2 + C_2L_2g_m\right) + s^2\left(C_2C_5R_2 + C_2C_5R_2 + C_2C_$$

10.510 INVALID-ORDER-510 
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$$

$$H(s) = \frac{-C_2C_5L_2R_3F_3^4 + s^3\left(-C_2C_5L_3R_2R_5 + C_2L_2L_3R_5g_m - C_2L_2L_3\right) + s^2\left(C_2L_3R_2R_5g_m - C_2L_3R_2 + C_2L_3R_5 - C_5L_3R_5\right) + s\left(L_3R_5g_m - C_2L_3R_5 + C_2C_5L_3R_5 + C_2C_5L_3R$$

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10.511 INVALID-ORDER-511 Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{L_3 g_m s + s^4 \left(C_2 C_5 L_2 L_3 R_5 g_m - C_2 C_5 L_2 L_3\right) + s^3 \left(C_2 C_5 L_3 R_2 R_5 g_m - C_2 C_5 L_3 R_5 + C_2 L_2 L_3 g_m\right) + s^2 \left(C_2 L_3 R_2 g_m + C_2 L_3 + C_5 L_3 R_5 g_m - C_5 L_3 R_5 g_m - C_5 L_3 R_5 g_m + C_5 L_5 R_5 g
10.512 INVALID-ORDER-512 Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{C_2C_5L_2L_3L_5g_ms^5 + L_3g_ms + s^4\left(-C_2C_5L_2L_3 + C_2C_5L_3L_5R_2g_m + C_2C_5L_3L_5\right) + s^3\left(-C_2C_5L_3R_2 + C_2L_2L_3g_m + C_5L_3L_5g_m\right) + s^2\left(C_2L_3R_2g_m + C_2L_3R_2g_m + C_2L_3R_2
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**10.513** INVALID-ORDER-513  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

 $H(s) = \frac{-C_2C_5L_2L_3L_5s^5 - L_3s + s^4\left(-C_2C_5L_3L_5R_2 + C_2L_2L_3L_5g_m\right) + s^3\left(-C_2L_2L_3 + C_2L_3L_5R_2g_m + C_2L_3L_5 - C_5L_3L_5\right) + s^2\left(-C_2L_3R_2 + L_2C_3C_5L_3L_5s^6 + s^5\left(C_2C_3C_5L_3L_5S_2 + C_2C_5L_3L_5S_2 + C_2C_5L_5L_5S_2 +$ 

10.514 INVALID-ORDER-514  $Z(s) = \left(\infty, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \infty\right)$ 

 $C_2C_5L_2L_3L_5q_ms^5 + L_3q_ms + s^4\left(C_2C_5L_2L_3R_5q_m - C_2C_5L_2L_3 + C_2C_5L_3L_5R_2q_m + C_2C_5L_3L_5\right) + s^3\left(C_2C_5L_3R_2R_5q_m - C_2C_5L_3L_5\right) + s^3\left(C_2C_5L_3R_5q_m - C_2C_5L_3R_5q_m - C_2C_5L_3L_5\right) + s^3\left(C_2C_5L_3R_5q_m - C_2C_5L_3R_5q_m - C_2C_5L_3$  $H(s) = \frac{C_2C_5L_2L_3L_5g_ms^5 + L_3g_ms + s^4\left(C_2C_5L_2L_3R_5g_m - C_2C_5L_2L_3 + C_2C_5L_3L_5R_2g_m + C_2C_5L_3L_5\right) + s^3\left(C_2C_5L_3R_2R_5g_m - C_2C_5L_3L_5R_2g_m + C_2C_5L_3L_5\right) + s^4\left(C_2C_3C_5L_3R_2R_5g_m + C_2C_3C_5L_3R_5\right) + s^4\left(C_2C_3C_5L_3R_5g_m + C_2C_3C_5L_3R_5\right) + s^4\left(C_2C_3C_5L_3R_5g_m + C_2C_5L_2L_3g_m + C_2C_5L_2L_3g_m + C_2C_5L_3L_5\right) + s^4\left(C_2C_3C_5L_3R_5g_m + C_2C_3C_5L_3R_5g_m + C_2C_5L_3L_5g_m + C_2C_5L_5L_5g_m +$ 

10.515 INVALID-ORDER-515  $Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \ \infty\right)$ 

 $-C_2C_5L_2L_3L_5R_5s^5 - L_3R_5s + s^4(-C_2C_5L_3L_5R_2R_5 + C_2L_2L_3L_5R_5)$  $H(s) = \frac{C_2C_3L_2L_3L_5R_5s^6 + R_5 + s^5\left(C_2C_3C_5L_2L_3L_5R_5g_m + C_2C_3L_2L_3L_5R_5g_m + C_2C_3L_2L_3L_5R_5g_m + C_2C_3L_3L_5R_5g_m + C_2C_3L_3L_5R_$ 

**10.516** INVALID-ORDER-516  $Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2+1}, \ \infty\right)$ 

 $s^{5} \left(C_{2} C_{5} L_{2} L_{3} L_{5} R_{5} g_{m}-C_{2} C_{5} L_{2} L_{3} L_{5}\right)+s^{4} \left(C_{2} C_{5} L_{3} L_{5} R_{2} R_{5} g_{m}-C_{5} L_{5} L_{5$  $H(s) = \frac{c_1 + c_2 + c_3 + c_2 + c_3 + c_3 + c_4 + c_4 + c_5 + c_5 + c_4 + c_5 + c_5 + c_5 + c_4 + c_5 + c$ 

10.517 INVALID-ORDER-517  $Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \infty\right)$ 

 $s^5 \left( C_2 C_5 L_2 L_3 L_5 R_5 g_m - C_2 C_5 L_2 L_3 L_5 \right) +$  $H(s) = \frac{1}{R_5 g_m + s^6 \left( C_2 C_3 C_5 L_2 L_3 L_5 R_5 g_m + C_2 C_3 C_5 L_2 L_3 L_5 \right) + s^5 \left( C_2 C_3 C_5 L_2 L_3 R_5 + C_2 C_3 C_5 L_3 L_5 R_2 + C_2 C_5 L_2 L_3 L_5 R_5 \right) + s^4 \left( C_2 C_3 C_5 L_2 L_3 R_5 g_m + C_2 C_5$ 

10.518 INVALID-ORDER-518  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5, \infty\right)$ 

 $H(s) = \frac{R_5g_m + s^4\left(C_2C_3L_2L_3R_5g_m - C_2C_3L_2L_3\right) + s^3\left(C_2C_3L_2R_3R_5g_m - C_2C_3L_2R_3 + C_2C_3L_3R_5g_m - C_2C_3L_2R_3 + C_2C_3L_3R_5g_m - C_2C_3L_2R_3 + C_2C_3L_3R_5g_m - C_2C_3L_2R_3R_5g_m - C_2L_2 + C_3L_3R_5g_m - C_2L_3R_5g_m - C_2L_3R$ 

**10.519** INVALID-ORDER-519  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{1}{C_5 s}, \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2L_3s^5 + g_m + s^4\left(-C_2C_3C_5L_2R_3 - C_2C_3C_5L_2R_3 - C_2C_3C_5L_3R_2 + C_2C_3L_2L_3g_m\right) + s^3\left(-C_2C_3C_5R_2R_3 + C_2C_3L_2R_3g_m + C_2C_3L_3R_2g_m + C_2C_3L_3 - C_2C_5L_2 - C_3C_5L_3\right) + s^2\left(C_2C_3R_2R_3g_m + C_2C_3R_3 - C_2C_5R_2 + C_2L_2g_m - C_3C_5R_3 + C_3L_3g_m\right) + s\left(C_2R_2g_m + C_2C_3C_5L_2R_3g_m + C_2C_3C_5L_2R_3g_m + C_2C_3C_5R_3 + C_2C_3C_5R_3g_m + C_2C_3C_5R_3g_m$ 

- 10.520 INVALID-ORDER-520  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)$
- $H(s) = \frac{-C_2C_3C_5L_2L_3R_5s^5 + R_5g_m + s^4\left(-C_2C_3C_5L_2R_3R_5 C_2C_3C_5L_3R_2R_5 + C_2C_3L_2L_3R_5g_m C_2C_3L_2L_3\right) + s^3\left(-C_2C_3C_5R_2R_3R_5 + C_2C_3L_2R_3R_5g_m C_2C_3L_2R_3 + C_2C_3L_2R_3R_5g_m C_2C_3L_2R_3 + C_2C_3L_3R_5g_m C_2C_3L_2R_3R_5g_m C_2C_3L_2R_3g_m C_2C_3L$
- 10.521 INVALID-ORDER-521  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$
- $H(s) = \frac{g_m + s^5 \left(C_2 C_3 C_5 L_2 L_3 R_5 g_m C_2 C_3 C_5 L_2 L_3\right) + s^4 \left(C_2 C_3 C_5 L_2 R_3 R_5 g_m C_2 C_3 C_5 L_2 R_3 + C_2 C_3 C_5 L_2 R_3 R_5 g_m C_2 C_3 C_5 L_2 R_3 R_5 g_m C_2 C_3 C_5 L_2 R_3 R_5 g_m C_2 C_3 C_5 L_2 R_3 g_m + C_2 C_3 C_5 R_2 R_3 g_m + C$
- 10.522 INVALID-ORDER-522  $Z(s) = \left(\infty, L_2s + R_2 + \frac{1}{C_2s}, L_3s + R_3 + \frac{1}{C_3s}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)$
- $H(s) = \frac{C_2C_3C_5L_2L_3L_5g_ms^6 + g_m + s^5\left(-C_2C_3C_5L_2L_3 + C_2C_3C_5L_2L_5g_m + C_2C_3C_5L_2L_5g_m + C_2C_3C_5L_2L_3g_m + C_2C_3C_5L_2R_3 C_2C_3C_5L_3R_3 C_2C_3C$
- 10.523 INVALID-ORDER-523  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$
- $H(s) = \frac{-C_2C_3C_5L_2L_3L_5s^6 + s^5\left(-C_2C_3C_5L_2L_5R_3 C_2C_3C_5L_2L_5R_3 C_2C_3L_2L_3L_5g_m\right) + s^4\left(-C_2C_3C_5L_2L_3 + C_2C_3L_2L_5R_3g_m + C_2C_3L_2L_5R_3g_m + C_2C_3L_3L_5R_2g_m + C_2C_3L_3L_5R_2g_m + C_2C_3L_3L_5R_2g_m + C_2C_3L_3L_5R_2g_m + C_2C_3L_3L_5R_2g_m + C_2C_3L_3L_5R_2g_m + C_2C_3L_3L_5R_3g_m + C_2C_3L_3L_5R_3g_m + C_2C_3L_3L_5R_3g_m + C_2C_3L_3L_5R_3g_m + C_2C_3L_3L_5R_3g_m + C_2C_3L_3L_5R_3g_m + C_2C_3L_3L_5g_m + C$
- 10.524 INVALID-ORDER-524  $Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ L_5s + R_5 + \frac{1}{C_5s}, \ \infty\right)$
- $H(s) = \frac{C_2C_3C_5L_2L_3L_5g_ms^6 + g_m + s^5\left(C_2C_3C_5L_2L_3R_5g_m C_2C_3C_5L_2L_3R_5g_m C_2C_3C_5L_2R_3R_5g_m C_2C_3C_5L_3R_2R_5g_m C_2C_3C_5L_3R_5 + C_2C_3C_5L_$
- 10.525 INVALID-ORDER-525  $Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \ \infty\right)$
- $H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_5s^6 R_5 + s^5\left(-C_2C_3C_5L_2L_5R_3R_5 C_2C_3C_5L_2L_5R_3R_5 C_2C_3L_2L_3L_5R_5g_m C_2C_3L_2L_3L_5\right) + s^4\left(-C_2C_3C_5L_5R_2R_3R_5 C_2C_3L_2L_3L_5R_5g_m + C_2C_3C_5L_5R_2R_3R_5g_m + C_2C_3C_5L_5R_3R_5g_m + C_2C_3C_5L_5R_5g_m + C_2C_3C_5L_5R_5g$
- 10.526 INVALID-ORDER-526  $Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \ \infty\right)$
- $H(s) = \frac{R_5 g_m + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_5 g_m C_2 C_3 C_5 L_2 L_3 L_5\right) + s^5 \left(C_2 C_3 C_5 L_2 L_5 R_3 R_5 g_m C_2 C_3 C_5 L_2 L_5 R_3 R_5 g_m C_2 C_3 C_5 L_3 L_5 R_2 + C_2 C_3 C_5 L_3 L_5 R_2 + C_2 C_3 C_5 L_3 L_5 R_2 + C_2 C_3 C_5 L_3 L_5 R_3 + C_2 C_3 C_5 L_3 L_5 R_3 R_5 g_m C_2 C_3 C_5 L_5 R_2 R_3 R_5 g_m C_2 C_3 C_5 L_5 R_3 R_5 g_m C_2 C_3 C_5 L_5 R_5 g_m C_2 C_5$
- 10.527 INVALID-ORDER-527  $Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \infty\right)$
- $H(s) = \frac{R_5g_m + s^6\left(C_2C_3C_5L_2L_3L_5R_5g_m C_2C_3C_5L_2L_3L_5\right) + s^5\left(-C_2C_3C_5L_2L_3R_5 + C_2C_3C_5L_2L_3R_5 + C_2C_3C_5L_2L_5R_3R_5g_m C_2C_3C_5L_2L_5R_3 + C_2C_3C_5L_2L_5R_3 + C_2C_3C_5L_2L_5R_3 + C_2C_3C_5L_3L_5R_2 + C_2C_3C_5L_3L_5R_3 + C_2C_3$
- **10.528** INVALID-ORDER-528  $Z(s) = \left(\infty, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ R_5, \ \infty\right)$
- $H(s) = \frac{s^3 \left(C_2 L_2 R_3 R_5 g_m C_2 L_2 R_3 R_5 g_m C_2 L_3 R_2 R_3 + C_2 L_3 R_3 R_5 g_m C_2 L_3 R_2 R_3 + C_2 L_3 R_3 R_5 g_m L_3 R_3\right)}{R_3 R_5 g_m + R_3 + s^4 \left(C_2 C_3 L_2 L_3 R_3 R_5 g_m + C_2 L_2 L_3 R_3 R_5 g_m + C_2 L_2 L_3 R_3 R_5 g_m + C_2 L_2 L_3 R_3 g_m + C_2 L_2 L_3 R_3 g_m + C_2 L_2 L_3 R_3 g_m + C_2 L_2 R_3 R_5 g_m + C_2 L_3 R_5 g_m + C_2 L_3$

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10.529 INVALID-ORDER-529 Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, \infty\right)
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 $H(s) = \frac{-C_2C_5L_2L_3R_3s^4 + L_3R_3g_ms + s^3\left(-C_2C_5L_3R_2R_3 + C_2L_2L_3R_3g_m\right) + s^2\left(C_2L_3R_2R_3g_m + C_2L_3R_3 - C_5L_3R_3\right)}{C_2C_3C_5L_2L_3R_3s^5 + R_3g_m + s^4\left(C_2C_3C_5L_3R_2R_3 + C_2C_5L_2R_3R_3g_m + C_2C_5L_2R_3 + C_2C_5L_3R_3g_m + C_2C_5L_3R_3g$ 

10.530 INVALID-ORDER-530  $Z(s) = \left(\infty, L_2s + R_2 + \frac{1}{C_2s}, \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \infty, \frac{R_5}{C_5R_5s + 1}, \infty\right)$ 

 $-C_2C_5L_2L_3R_3R_5s^4 + s^3(-C_2C_5L_3R_2R_3R_5 + C_3C_5L_3R_3R_5)$ 

 $- \cup_{2} \cup_{5} \bot_{2} \bot_{3} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{2} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{2} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{2} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{2} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{2} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{2} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{2} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{2} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{2} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{2} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{5} s + s + (- \cup_{2} \cup_{5} \bot_{3} \pi_{5} s + s + (- \cup$ 

**10.531** INVALID-ORDER-531  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

 $L_3R_3g_ms + s^4(C_2C_5L_2L_3R_3R_5g_m - C_2C_5L_2L_3R_3) + s^3(C_2C_5L_3R_3)$ 

 $H(s) = \frac{L_3 R_3 g_m s + s^4 \left(C_2 C_5 L_2 L_3 R_3 R_5 g_m - C_2 C_5 L_2 L_3 R_3 \right) + s^3 \left(C_2 C_3 C_5 L_2 L_3 R_3 R_5 g_m - C_2 C_5 L_2 L_3 R_3 \right) + s^3 \left(C_2 C_3 C_5 L_2 L_3 R_3 R_5 g_m + C_2 C_3 L_2 L_3 R_3 g_m + C_2 C_5 L_2 L_3 R_3 g_m + C_2 C_5$ 

10.532 INVALID-ORDER-532  $Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \ \infty, \ L_5s + \frac{1}{C_5s}, \ \infty\right)$ 

 $C_2C_5L_2L_3L_5R_3g_ms^5 + L_3R_3g_ms + s^4(-C_2C_5L_2L_3R_3 + C_2C_5$ 

 $H(s) = \frac{C_2C_5L_2L_3L_5R_3g_ms^\circ + L_3R_3g_ms + s^*\left(-C_2C_5L_2L_3R_3 + C_2C_5L_2L_3R_3 + C_2C_5L_2L_3R_3 + C_2C_5L_2L_3R_3 + C_2C_5L_2L_3R_3 + C_2C_5L_2L_3R_3 + C_2C_5L_2L_3R_3g_m + s^*\left(-C_2C_5L_2L_3R_3g_m + S^*\left(-C_2C_5L_2L_3R_3g_m + S^*\left(-C_2C_5L_2L_3R_3g_m + C_2C_5L_2L_3R_3g_m + C_2C_5L_3L_5R_3g_m + C_2C_5L_3L_5R_3$ 

10.533 INVALID-ORDER-533  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_{2s}}, \frac{L_3 R_{3s}}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

 $-C_2C_5L_2L_3L_5R_3s^5 - L_3R_3s + s^4(-C_2C_5L_3L_5R_2)$ 

 $H(s) = \frac{-C_2C_5L_2L_3L_5R_3s^\circ - L_3R_3s + s^*\left(-C_2C_5L_3L_5R_3g_m + C_2C_5L_3L_5R_3g_m +$ 

10.534 INVALID-ORDER-534  $Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \ \infty, \ L_5s + R_5 + \frac{1}{C_5s}, \ \infty\right)$ 

 $H(s) = \frac{1}{C_2C_3C_5L_2L_3L_5R_3g_ms^6 + R_3g_m + s^5\left(C_2C_3C_5L_2L_3R_3R_5g_m + C_2C_3C_5L_2L_3R_3 + C_2C_3C_5L_3L_5R_3 + C_2C_3C_5L_3L_5R_3 + C_2C_3C_5L_3L_5R_3 + C_2C_3C_5L_3L_5R_3 + C_2C_3C_5L_3R_3R_5g_m + C_2C_3C_5L_3R_5g_m + C_2C_3C_5L_$ 

10.535 INVALID-ORDER-535  $Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \ \infty\right)$ 

 $\overline{C_{2}C_{3}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}s^{6}+R_{3}R_{5}+s^{5}\left(C_{2}C_{3}C_{5}L_{3}L_{5}R_{2}R_{3}R_{5}+C_{2}C_{3}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_{5}R_{5}g_{m}+C_{2}C_{5}L_{5}L_$ 

**10.536** INVALID-ORDER-536  $Z(s) = \left(\infty, L_2s + R_2 + \frac{1}{C_2s}, \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \infty, \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \infty\right)$ 

10.537 INVALID-ORDER-537  $Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \ \infty, \ \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \ \infty\right)$ 

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10.538 INVALID-ORDER-538 Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, R_5, \infty\right)
H(s) = \frac{R_3 R_5 g_m - R_3 + s^4 \left(C_2 C_3 L_2 L_3 R_3 R_5 g_m - C_2 C_3 L_2 L_3 R_3 \right) + s^3 \left(C_2 C_3 L_3 R_2 R_3 R_5 g_m - C_2 C_3 L_3 R_3 R_5 + C_2 L_2 L_3 R_5 g_m - C_2 L_2 L_3 \right) + s^2 \left(C_2 L_2 R_3 R_5 g_m - C_2 L_3 R_2 R_5 g_m - C_2 L_3 R_2 + C_2 L_3 R_5 g_m - C_2 L_3 R_5
10.539 INVALID-ORDER-539 Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \frac{1}{C_5 s}, \infty\right)
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10.540 INVALID-ORDER-540  $Z(s) = \left(\infty, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{R_5}{C_5 R_5 s + 1}, \ \infty\right)$ 

 $-C_2C_3C_5L_2L_3R_3R_5s^5 + R_3R_5g_m - R_3 + s^4\left(-C_2C_3C_5L_3R_2R_3R_5 + C_2C_3L_2L_3R_3R_5g_m - C_2C_3L_2L_3R_3 - C_2C_5L_2L_3R_5\right) + s^3\left(C_2C_3L_3R_2R_3R_5g_m - C_2C_3L_2L_3R_3R_5g_m - C_2C_3L_2L_3R_3R_5g_m - C_2C_3L_2L_3R_5g_m + C_$ 

 $H(s) = \frac{-C_2C_3C_5L_2L_3R_3s^5 + R_3g_m + s^4\left(-C_2C_3C_5L_3R_2R_3 + C_2C_3L_2L_3R_3g_m - C_2C_5L_2R_3 - C_2C_5L_2R_3 - C_2C_5L_3R_2 + C_2L_2L_3g_m - C_3C_5L_3R_3\right) + s^2\left(-C_2C_5R_2R_3 + C_2L_2R_3g_m + C_2L_3R_3g_m + C_2C_5L_2R_3g_m + C_2C_5L_3R_2g_m + C_2C_5L_3R_3g_m + C_2C_5L$ 

10.541 INVALID-ORDER-541  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_2 L_2 s^2 + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)$ 

 $H(s) = \frac{R_3 g_m + s^5 \left(C_2 C_3 C_5 L_2 L_3 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_3 R_3\right) + s^4 \left(C_2 C_3 C_5 L_3 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_3 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_3 R_2 R_3 R_5 g_m - C_2 C_5 L_2 L_3 R_3 g_m + C_2 C_5 L_2 L_3 R_3 g_m + C_2 C_3 L_3 R_2 R_3 g_m + C_2 C_3 L_3 R$ 

10.542 INVALID-ORDER-542  $Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \ \infty, \ L_5s + \frac{1}{C_5s}, \ \infty\right)$ 

 $H(s) = \frac{C_2C_3C_5L_2L_3L_5R_3g_ms^6 + R_3g_m + s^5\left(-C_2C_3C_5L_2L_3R_3 + C_2C_3C_5L_3L_5R_2g_m + C_2C_5L_2L_3R_3 + C_2C_5L_2L_3R_3g_m + C_2C_5L_3L_5R_3g_m + C_2C_5L_3L_5g_m + C_2C_5L_3L_5g_m$ 

10.543 INVALID-ORDER-543  $Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)$ 

 $-C_{2}C_{3}C_{5}L_{2}L_{3}L_{5}R_{3}s^{6}-R_{3}+s^{5}\left(-C_{2}C_{3}C_{5}L_{3}L_{5}R_{2}R_{3}+C_{2}C_{3}L_{2}L_{3}L_{5}R_{3}g_{m}-C_{2}C_{5}L_{2}L_{3}L_{5}\right)+s^{4}\left(-C_{2}C_{3}L_{2}L_{3}R_{3}+C_{2}C_{3}L_{3}L_{5}R_{2}g_{m}+C_{2}C_{3}L_{3}L_{5}R_{3}g_{m}-C_{2}C_{5}L_{2}L_{3}L_{5}\right)+s^{4}\left(-C_{2}C_{3}L_{2}L_{3}R_{3}+C_{2}C_{3}L_{3}L_{5}R_{2}g_{m}+C_{2}C_{3}L_{3}L_{5}R_{3}g_{m}-C_{2}C_{5}L_{2}L_{3}L_{5}\right)+s^{4}\left(-C_{2}C_{3}L_{2}L_{3}R_{3}+C_{2}C_{3}L_{3}L_{5}R_{2}g_{m}+C_{2}C_{3}L_{3}L_{5}R_{3}g_{m}-C_{2}C_{5}L_{2}L_{3}L_{5}\right)+s^{4}\left(-C_{2}C_{3}L_{2}L_{3}R_{3}+C_{2}C_{3}L_{3}L_{5}R_{2}g_{m}+C_{2}C_{3}L_{3}L_{5}R_{3}$  $\frac{2R_3q_m + s^6 \left(2C_2C_3C_5L_2L_3L_5R_3q_m + C_2C_3C_5L_2L_3L_5\right) + s^5 \left(2C_2C_3C_5L_3L_5R_2R_3q_m + C_2C_3C_5L_3L_5R_3 + C_2C_3L_3L_5R_3 + C_2C_3L_3L_5R_3q_m + C_2C_3L_3L_5$ 

10.544 INVALID-ORDER-544  $Z(s) = \left(\infty, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \infty\right)$ 

 $H(s) = \frac{C_2C_3C_5L_2L_3L_5R_3g_ms^6 + R_3g_m + s^5\left(C_2C_3C_5L_2L_3R_3R_5g_m - C_2C_3C_5L_2L_3R_3g_m + C_2C_3C_5L_3L_5R_3g_m + C_2C_3C_5L_3L_5R_3g_m + C_2C_3C_5L_3L_5g_m\right) + s^4\left(C_2C_3C_5L_3R_2R_3R_5g_m - C_2C_3C_5L_3R_3R_5 + C_2C_3L_2L_3R_3g_m + C_2C_5L_2L_3R_3g_m + C_2C_3C_5L_3L_5R_3g_m + C_2C_3C_5L_3L_5R_3g_m + C_2C_3C_5L_3R_3g_m + C_2C$ 

10.545 INVALID-ORDER-545  $Z(s) = \left(\infty, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{L_5 R_5 s}{C_5 L_5 R_5 s^2 + L_5 s + R_5}, \ \infty\right)$ 

 $-C_2C_3C_5L_2L_3L_5R_3R_5s^6 - R_3R_5 + s^5(-C_2C_3C_5L_3L_5R_2R_3$ 

 $H(s) = \frac{1}{2R_3R_5g_m + R_5 + s^6\left(2C_2C_3C_5L_2L_3L_5R_3R_5g_m + C_2C_3C_5L_2L_3L_5R_5g_m + C_2C_3C_5L_3L_5R_3g_m + C_2C_3C_5L_3L_5R_3g_m + C_2C_3L_3L_5R_3g_m + C_2C_3L_3L_3$ 

10.546 INVALID-ORDER-546  $Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \ \infty, \ \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \ \infty\right)$ 

 $H(s) = \frac{R_3 R_5 g_m - R_3 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_3 L_5 R_3 R_5 g_m - C_2 C_3 C_5 L_3 L_5 R_3 R_5 g_m - C_2 C_3 C_5 L_3 L_5 R_3 R_5 g_m - C_2 C_3 C_5 L_3 L_5 R_3 R_5 g_m - C_2 C_5 L_2 L_3 L_5 R_3 g_m + C_2 C_5 L_2 L_3 L_5 R_3 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_3 g_m + C_2 C_3 C_5 L_3 L_5 R_3 g_m$ 

10.547 INVALID-ORDER-547  $Z(s) = \left(\infty, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \ \infty, \ \frac{R_5 \left(C_5 L_5 s^2 + 1\right)}{C_5 L_5 s^2 + C_5 R_5 s + 1}, \ \infty\right)$ 

 $R_{3}R_{5}g_{m}-R_{3}+s^{6}\left(C_{2}C_{3}C_{5}L_{2}L_{3}L_{5}R_{3}R_{5}g_{m}-C_{2}C_{3}C_{5}L_{2}L_{3}L_{5}R_{3}\right)+s^{5}\left(-C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}+C_{2}C_{3}C_{5}L_{3}L_{5}R_{2}R_{3}R_{5}+C_{2}C_{3}C_{5}L_{3}L_{5}R_{3}R_{5}+C_{2}C_{3}C_{5}L_{5}L_{5}R_{5}R_{5}+C_{2}C_{3}C_{5}L_{5}L_{5}R_{5}R_{5}+C_{2}C_{3}C_{5}L_{5}L_{5}R_{5}+C_{2}C_{3}C_{5}L_{5}R_{5}+C_{2}C_{3}C_{5}L_{5}R_{5}+C_{2}C_{3}C_{5}L_{5}R_{5}+C_{2}C_{3}C_{5}L_{5}R_{5}+C_{2}C_{3}C_{5}L_{5}R_{5}+C_{2}C_{3}C_{5}L_{5}R_{5}+C_{2}C_{3}C_{5}L_{5}+C_{2}C_{3}C_{5}L_{5}+C_{2}C_{3}C_{5}L_{5}+C_{2}C_{3}C_{5}L_{5}+C_{2}C_{3}C_{5}L_{5}+C_{2}C_{3}C_{5}+C_{2}C_{3}C_{5}+C_{2}+C_{2}C_{5}+C_{2}+$  $\frac{2R_3g_m + R_5g_m + s^6\left(2C_2C_3C_5L_2L_3L_5R_3g_m + C_2C_3C_5L_2L_3L_5R_5g_m + C_2C_3C_5L_2L_3L_5R_3g_m + C_2C_3C_5L_3L_5R_3g_m + C_2C_3C$ 

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10.548 INVALID-ORDER-548 Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, R_5, \infty\right)
H(s) = \frac{R_3R_5g_m - R_3 + s^4\left(C_2C_3L_2L_3R_3R_5g_m - C_2C_3L_2R_3R_5g_m - C_2C_3L_3R_2R_3 + C_2C_3L_3R_3R_5\right) + s^2\left(C_2L_2R_3R_5g_m - C_2L_2R_3 + C_3L_3R_3R_5g_m - C_2L_2R_3 + C_3L_3R_3R_5g_m - C_2L_2R_3 + C_3L_3R_3R_5g_m - C_2L_2R_3R_5g_m + C_2C_3L_3R_3R_5g_m + C_2C_3L_3R_5g_m + C_2C_3L_3R_5g_m + C_2C_3L_3R_5g_m + C_2C_3L_3R_5g_m + C_2C_3L_3R_5g_m + C_2C_3L_3R_5g_m + C_2C_3L_3R
10.549 INVALID-ORDER-549 Z(s) = \left(\infty, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \frac{1}{C_5 s}, \ \infty\right)
H(s) = \frac{-C_2C_3C_5L_2L_3R_3s^5 + R_3g_m + s^4\left(-C_2C_3C_5L_3R_2R_3 + C_2C_3L_2L_3R_3g_m\right) + s^3\left(C_2C_3L_3R_2R_3g_m + C_2C_3L_3R_3 - C_2C_5L_2R_3 - C_3C_5L_3R_3\right) + s^2\left(-C_2C_5R_2R_3 + C_2C_3C_5L_3R_3 + C_2C_3L_3R_3g_m\right) + s^3\left(C_2C_3C_5L_2R_3g_m + C_2C_3L_3R_3g_m + C_2C_3L_3R_
10.550 INVALID-ORDER-550 Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -C_2C_3C_5L_2L_3R_3R_5s^5 + R_3R_5g_m - R_3 + s^4(-C_2C_3C_5L_3R_2R_3R_5 + R_3R_5g_m - R_3R_5g_m -
H(s) = \frac{-C_2C_3C_5L_2L_3R_3R_5s^{-} + R_3R_5g_m - R_3 + s^{-} (-C_2C_3C_5L_2R_3R_5g_m - R_3R_5g_m -
10.551 INVALID-ORDER-551 Z(s) = \left(\infty, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ R_5 + \frac{1}{C_5 s}, \ \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \frac{R_{3}g_{m}+s^{5}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}g_{m}-C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{3}R_{2}R_{3}+C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R_{3}R_{5}-C_{2}C_{3}C_{5}L_{3}R
10.552 INVALID-ORDER-552 Z(s) = \left(\infty, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ L_5 s + \frac{1}{C_5 s}, \ \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C_{2}C_{3}C_{5}L_{2}L_{3}L_{5}R_{3}g_{m}s^{6} + R_{3}g_{m} + s^{5}\left(-C_{2}C_{3}C_{5}L_{2}L_{3}R_{3} + C_{2}C_{3}C_{5}L_{3}L_{5}R_{2}R_{3}g_{m} + C_{2}C_{3}C_{5}L_{3}L_{5}R_{3}\right) + s^{4}\left(-C_{2}C_{3}C_{5}L_{3}R_{2}R_{3} + C_{2}C_{3}L_{5}R_{3}R_{3} + C_{2}C_{3}C_{5}L_{3}L_{5}R_{3}R_{3} + C_{2}C_{3}C_{5}L_{3}L_{5}R_{3}\right) + s^{4}\left(-C_{2}C_{3}C_{5}L_{3}R_{2}R_{3} + C_{2}C_{3}L_{5}R_{3}R_{3} + C_{2}C_{3}C_{5}L_{3}L_{5}R_{3}\right) + s^{4}\left(-C_{2}C_{3}C_{5}L_{3}R_{2}R_{3} + C_{2}C_{3}L_{5}R_{3}R_{3} + C_{2}C_{3}L_{5}R_{3}R_{3}\right) + s^{4}\left(-C_{2}C_{3}C_{5}L_{3}R_{2}R_{3} + C_{2}C_{3}L_{5}R_{3}R_{3} + C_{2}C_{3}L_{5}R_{3}R_{3} + C_{2}C_{3}L_{5}R_{3}R_{3} + C_{2}C_{3}L_{5}R_{3}R_{3}\right) + s^{4}\left(-C_{2}C_{3}C_{5}L_{3}R_{2}R_{3} + C_{2}C_{3}L_{5}R_{3}R_{3} + C_{2}C_{3}L_{5}R_{3} + C_{2}C_{3}L_{5}R_{3}R_{3} + C_{2}C_{3}L_{5}R_{3}R_{3} + C_{2}C_{3}L_{5}R_{3} + C_{2}C_{3}L_{5}R_{3} + C_{2}C_{3}L_{5}R_{3} +
H(s) = \frac{C_2C_3C_5L_2L_3L_5R_3g_ms^6 + R_3g_m + s^5\left(-C_2C_3C_5L_2L_3R_3 + C_2C_3C_5L_3L_5R_2g_m + C_2C_3C_5L_3L_5R_3g_m + C_2C_3C_5L_3L_5R_3g_m + C_2C_3C_5L_3L_5R_3g_m + C_2C_3C_5L_3L_5R_3g_m + C_2C_3C_5L_3R_3g_m + C
10.553 INVALID-ORDER-553 Z(s) = \left(\infty, L_2s + R_2 + \frac{1}{C_2s}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \infty\right)
                                                -C_2C_3C_5L_2L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_2R_3+C_2C_3L_2L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_2R_3+C_2C_3L_2L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_2R_3+C_2C_3L_2L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\left(-C_2C_3C_5L_3L_5R_3s^6-R_3+s^5\right)\right)\right)\right]
10.554 INVALID-ORDER-554 Z(s) = \left(\infty, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ L_5 s + R_5 + \frac{1}{C_5 s}, \ \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C_2C_3C_5L_2L_3L_5R_3g_ms^6 + R_3g_m + s^5\left(C_2C_3C_5L_2L_3R_3R_5g_m - C_2C_3C_5L_2L_3R_3 + C_2C_3C_5L_3L_5R_2R_3g_m\right)
H(s) = \frac{C_2C_3C_5L_2L_3L_5R_3g_ms^6 + R_3g_m + s^5\left(C_2C_3C_5L_2L_3R_3R_5g_m - C_2C_3C_5L_2L_3R_3 + C_2C_3C_5L_2L_3R_3 + C_2C_3C_5L_2L_3R_3g_m + C_2C_3C_5L_2R_3g_m + C_2C_3C_5L_2R_3g_m + C_2C_3C_5L_2R_3g_m + C_2C_3C_5L_2R_3g_m + C_2C_3C_5L_2R_3g_m + C_2C_3C_5L_3R_3g_m + C_2C_3C_5L_3R_
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10.555 INVALID-ORDER-555 
$$Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ \frac{R_3\left(C_3L_3s^2 + 1\right)}{C_3L_3s^2 + C_3R_3s + 1}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \ \infty\right)$$

 $H(s) = \frac{1}{2R_3R_5g_m + R_5 + s^6\left(2C_2C_3C_5L_2L_3L_5R_3R_5g_m + C_2C_3C_5L_2L_3L_5R_5\right) + s^5\left(C_2C_3C_5L_2L_5R_3R_5 + 2C_2C_3C_5L_3L_5R_2R_3R_5g_m + C_2C_3C_5L_3L_5R_3g_m + C_2C_3L_2L_3L_5R_3g_m + C_2C_3L_3L_5R_3g_m + C_2C_3L_3L_3L_3R_3g_m + C_2C_3L_3L_3R_3g_m + C_2C_3L_3L_3L_3R_3g_m + C_2C_3L_3L_3R_3g_m + C_2C_3L_3L_3L_3R_3g_m + C_2C_3L_3L_3L_3R_3g_m$ 

10.556 INVALID-ORDER-556 
$$Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2 + C_3R_3s + 1}, \ \infty, \ \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \ \infty\right)$$

10.558 INVALID-ORDER-558  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3, \infty, \frac{1}{C_5s}, \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_2R_2R_3s^3 + R_2R_3g_m + R_3 + s^2\left(C_2L_2R_2R_3g_m + C_2L_2R_3 - C_5L_2R_3\right) + s\left(-C_5R_2R_3 + L_2R_3g_m\right)}{R_2g_m + s^3\left(2C_2C_5L_2R_2g_m + C_2C_5L_2R_2 + 4C_2C_5L_2R_3\right) + s^2\left(C_2L_2R_2g_m + C_2L_2 + 2C_5L_2R_3g_m + C_5L_2\right) + s\left(2C_5R_2R_3g_m + C_5R_2 + 4C_5R_3 + L_2g_m\right) + 1}$$

**10.559** INVALID-ORDER-559  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3, \infty, \frac{R_5}{C_5R_5s + 1}, \infty\right)$ 

 $H(s) = \frac{-C_2C_5L_2R_2R_3R_5s^3 + R_2R_3R_5g_m - R_2R_3 + R_3R_5g_m - C_2L_2R_2R_3R_5g_m - C_2L_2R_3R_5 - C_5L_2R_3R_5) + s\left(-C_5R_2R_3R_5 + L_2R_3R_5g_m - L_2R_3\right)}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^3\left(2C_2C_5L_2R_2R_3R_5g_m + C_2C_5L_2R_3R_5\right) + s^2\left(2C_2L_2R_2R_3g_m + C_2L_2R_3 + C_2L_2R_$ 

**10.560** INVALID-ORDER-560  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3, \infty, R_5 + \frac{1}{C_5s}, \infty\right)$ 

$$H(s) = \frac{R_2R_3g_m + R_3 + s^3\left(C_2C_5L_2R_2R_3R_5g_m - C_2C_5L_2R_2R_3 + C_2C_5L_2R_3R_5\right) + s^2\left(C_2L_2R_2R_3g_m + C_2L_2R_3 + C_5L_2R_3R_5g_m - C_5L_2R_3\right) + s\left(C_5R_2R_3R_5g_m - C_5R_2R_3 + C_5R_3R_5 + L_2R_3g_m\right)}{R_2g_m + s^3\left(2C_2C_5L_2R_2R_3g_m + C_2C_5L_2R_2R_5g_m + C_2C_5L_2R_3 + C_2C_5L_2R_3 + C_2C_5L_2R_3g_m + C_5L_2R_3g_m + C_5L_2R_3g_m + C_5L_2R_3g_m + C_5L_2R_3g_m + C_5L_2R_3g_m + C_5R_2R_3g_m + C_5R_3g_m + C_5R_3g$$

10.561 INVALID-ORDER-561  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3, \infty, L_5s + \frac{1}{C_5s}, \infty\right)$ 

$$H(s) = \frac{R_2 R_3 g_m + R_3 + s^4 \left(C_2 C_5 L_2 L_5 R_2 g_m + C_2 C_5 L_2 L_5 R_3 g_m + C_2 C_5 L_2 L_5 R_3 g_m + S^2 \left(C_2 L_2 R_2 g_m + C_2 L_2 R_3 - C_5 L_2 R_3 + C_5 L_5 R_3 g_m + C_5 L_5$$

10.562 INVALID-ORDER-562  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3, \infty, \frac{L_5s}{C_5L_5s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_2L_5R_2R_3s^4 - R_2R_3 + s^3\left(C_2L_2L_5R_2R_3g_m + C_2L_2L_5R_3 - C_5L_2L_5R_3\right) + s^2\left(-C_2L_2R_2R_3 - C_5L_5R_2R_3 + L_2L_5R_3g_m\right) + s\left(-L_2R_3 + L_5R_2g_m + L_5R_3\right)}{2R_2R_3g_m + R_2 + 4R_3 + s^4\left(2C_2C_5L_2L_5R_2g_m + C_2L_2L_5R_3\right) + s^3\left(C_2L_2L_5R_2g_m + C_2L_2L_5 + 2C_5L_2L_5R_3g_m + C_5L_2L_5\right) + s^2\left(2C_2L_2R_2R_3g_m + C_2L_2R_3 + 4C_2L_2R_3 + 4C_2$$

10.563 INVALID-ORDER-563  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3, \infty, L_5s + R_5 + \frac{1}{C_5s}, \infty\right)$ 

$$H(s) = \frac{R_2 R_3 g_m + R_3 + s^4 \left(C_2 C_5 L_2 L_5 R_3 g_m + C_2 C_5 L_2 L_5 R_3 g_m + C_2 C_5 L_2 R_3 R_5 g_m - C_5 L_2 R_5 R_5 g_m - C_5 L$$

10.564 INVALID-ORDER-564  $Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ R_3, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \ \infty\right)$ 

$$H(s) = \frac{-C_2C_5L_2L_5R_2R_3R_5s^4 - R_2R_3R_5s^4 - R_2R_3R_5s^4 - R_2R_3R_5g_m - C_2L_2L_5R_2R_3 + C_2L_2L_5R_3R_5 - C_5L_2L_5R_3R_5) + s^2\left(-C_2L_2R_2R_3R_5 - C_5L_2L_5R_3R_5 - C_5L_5L_5R_5 - C_$$

10.565 INVALID-ORDER-565  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3, \infty, \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \infty\right)$ 

$$H(s) = \frac{R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5 + s^4 \left(C_2 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_5 L_2 L_5 R_3 R_5 g_m - C_2 L_2 L_5 R_3 R_5 g_m - C_2 L_2 L_5 R_3 R_5 g_m - C_2 L_2 L_5 R_3 R_5 g_m - C_5 L_2 L_5 R_3 R_5 g_m - C_5 L_2 L_5 R_3 R_5 g_m - C_2 L_2 R_2 R_3 R_5 g_m - C_2 L_2 R_3 R_5 g_m - C_2 L_2 R_2 R_3 R_5 g_m - C_2 L_2 R_5 R_5 g$$

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10.566 INVALID-ORDER-566 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3, \infty, \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \infty\right)
H(s) = \frac{R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5 + s^4 \left(C_2 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_5 L_2 L_5 R_3 R_5 \right) + s^3 \left(-C_2 C_5 L_2 R_2 R_3 R_5 + C_5 L_2 L_5 R_3 R_5 g_m - C_5 L_2 L_5 R_3 \right) + s^2 \left(C_2 L_2 R_2 R_3 R_5 + C_5 L_2 L_5 R_3 R_5 g_m - C_5 L_2 L_5 R_3 g_m - C_5 L_5 L_
10.567 INVALID-ORDER-567 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{1}{C_3s}, \infty, R_5, \infty\right)
                                                                                                                                   10.568 INVALID-ORDER-568 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{1}{C_3s}, \infty, \frac{1}{C_5s}, \infty\right)
                                                                                                                      H(s) = \frac{-C_2C_5L_2R_2s^3 + R_2g_m + s^2\left(C_2L_2R_2g_m + C_2L_2 - C_5L_2\right) + s\left(-C_5R_2 + L_2g_m\right) + 1}{C_2C_3C_5L_2R_2s^4 + s^3\left(C_2C_3L_2R_2g_m + C_2C_5L_2R_2g_m + 4C_2C_5L_2 + C_3C_5L_2\right) + s^2\left(C_3C_5R_2 + C_3L_2g_m + 2C_5L_2g_m\right) + s\left(C_3R_2g_m + C_3 + 2C_5R_2g_m + 4C_5\right)}
10.569 INVALID-ORDER-569 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{1}{C_3 s}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
H(s) = \frac{-C_2C_5L_2R_2S^3 + R_2R_5g_m - R_2 + R_5 + s^2\left(C_2L_2R_2S_{5g_m} - C_2L_2R_5 + C_5L_2R_5\right) + s\left(-C_5R_2R_5 + L_2R_5g_m - L_2\right)}{C_2C_3C_5L_2R_2S^4 + 2R_2g_m + s^3\left(C_2C_3L_2R_2S_{5g_m} + C_2C_3L_2R_5 + C_2C_5L_2R_5g_m + 4C_2C_5L_2R_5 + C_3C_5L_2R_5\right) + s^2\left(2C_2L_2R_2g_m + 4C_2L_2 + C_3C_5R_2S_{5g_m} + C_3L_2 + C_5L_2R_5g_m + C_3R_2 + C_3R_5g_m + C_3R_2 + C_3R_5g_m + C_3R_5g_
10.570 INVALID-ORDER-570 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{1}{C_3 s}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)
 H(s) = \frac{R_2g_m + s^3\left(C_2C_5L_2R_2R_5g_m - C_2C_5L_2R_2 + C_2C_5L_2R_5\right) + s^2\left(C_2L_2R_2g_m + C_2L_2 + C_5L_2R_5g_m - C_5L_2\right) + s\left(C_5R_2R_5g_m - C_5R_2 + C_5R_5 + L_2g_m\right) + 1}{s^4\left(C_2C_3C_5L_2R_2g_m + C_2C_3L_2R_2g_m + C_2C_3L_2R_2g_m + C_2C_5L_2R_2g_m + 4C_2C_5L_2 + C_3C_5L_2R_5g_m + C_3C_5L_2\right) + s^2\left(C_3C_5R_2R_5g_m - C_5R_2 + C_5R_5 + L_2g_m\right) + s\left(C_3R_2g_m + C_3C_5L_2R_2g_m + C_3C_5L_2R_2g_m + C_3C_5L_2R_5g_m + C_3C_5L_2R_5g_m + C_3C_5R_2R_5g_m + C_3C_5R_5g_m + C_3
10.571 INVALID-ORDER-571 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{1}{C_3s}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)
                      10.572 INVALID-ORDER-572 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{1}{C_3 s}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
10.573 INVALID-ORDER-573 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{1}{C_3 s}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)
                      10.574 INVALID-ORDER-574 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{1}{C_3s}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \infty\right)
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 $H(s) = \frac{R_2 R_5 g_m - R_2 + R_5 + s^4 \left(C_2 C_5 L_2 L_5 R_2 g_m - C_2 C_5 L_2 L_5 R_2 + C_2 C_5 L_2 L_5 R_2 g_m + C_2 L_2 L_5 + C_5 L_2 L_5 R_2 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_2 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_2 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_2 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_2 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_2 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_2 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_2 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_2 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_2 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_2 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_2 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_2 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m - C_5 L_2 L_5\right) + s^2 \left(C_2 L_5 R_5 g_m - C_5 L_5 L_5\right) + s^2 \left(C_2 L_5 R_5 g_m - C_5 L_5 L_5\right) + s^2 \left(C_2 L_5 R_5 g_m - C_5 L_5 L_5\right) + s^2 \left(C_2 L_5 R_5 g_m - C_5 L_5 L_5\right) + s^2 \left(C_2 L_5 R_5 g_m - C_5 L_5\right) + s^2 \left(C_2 L_5 R_5 g_m - C_5 L_5\right) + s^2 \left(C_2 L_5 R_5 g_m - C_5 L_5\right) + s^2 \left(C_2 L_5 R_5 g_m - C_5 L_5\right) + s^2 \left(C_2 L_5 R_5 g_m - C_5 L_5\right) + s^2 \left(C_2 L_5 R_5 g_m - C_5 L_5\right) + s^2 \left(C_2 L_5 R_5 g_m - C_5 L_5\right) + s^2 \left(C_2 L_5 R_5 g_m - C_5 L_5\right) + s^2 \left(C_2 L_5 R_5 g_m - C_5 L_5\right) + s^2 \left(C_2 L_5 R_5 g_m - C_5 L_5\right) + s^2 \left(C_5 L_5 R_5 g_m - C_5 L_5\right) + s^2 \left(C_5 L_5 R_5 g_m - C_5 L_5\right) + s^2 \left(C_5$ 

 $H(s) = \frac{-C_2C_5L_2L_5R_2R_5s^4 - R_2R_5 + s^3\left(C_2L_2L_5R_2R_5g_m - C_2L_2L_5R_2 + C_2L_2L_5R_5 - C_5L_2L_5R_5\right) + s^2\left(-C_2L_2R_2R_5 - C_5L_5R_2R_5 + L_2L_5R_5\right)}{C_2C_3C_5L_2L_5R_2R_5s^5 + 2R_2R_5g_m + 4R_5 + s^4\left(C_2C_3L_2L_5R_2 + C_2C_3L_2L_5R_2 + C_2C_3L_2L_5R_5 + C_3C_5L_2L_5R_5\right) + s^3\left(C_2C_3L_2R_2R_5 + 2C_2L_2L_5R_2g_m + 4C_2L_2L_5 + C_3C_5L_2L_5R_5\right) + s^3\left(C_2C_3L_2R_5R_5 + C_3L_2L_5R_5 + C_3L_2L_5R_5 + C_3L_2L_5R_5 + C_3L_2L_5R_5\right) + s^3\left(C_2C_3L_2R_2R_5 + C_3L_2L_5R_5 + C_3L_2L_5R_5\right) + s^3\left(C_2C_3L_2R_5R_5 + C_3L_2L_5R_5 + C_3L_2L_5R_5\right) + s^3\left(C_2C_3L_2R_5R_5 + C_3L_2L_5R_5 + C_3L_2L_5R_5\right) + s^3\left(C_2C_3L_2R_5R_5 + C_3L_2R_5\right) + s^3\left(C_2C_3L_2R_5R_5 + C_3L_2R_5\right) + s^3\left(C_2C_3L_2R_5R_5\right) + s^3\left(C_2C_3L_2R_5\right) + s^3\left(C_2C_3L_2R_5R_5\right) + s^3\left(C_2C_3L_2R_5\right) + s$ 

10.575 INVALID-ORDER-575  $Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{1}{C_3 s}, \infty, \frac{C_5 L_5 R_5 s^2 + L_5 s + R_5}{C_5 L_5 s^2 + 1}, \infty\right)$ 

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10.576 INVALID-ORDER-576 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{1}{C_3s}, \infty, \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R_{2}R_{5}g_{m} - R_{2} + R_{5} + s^{4}\left(C_{2}C_{5}L_{2}L_{5}R_{2}R_{5}g_{m} - C_{2}C_{5}L_{2}L_{5}R_{2} + C_{2}C_{5}L_{2}L_{5}R_{5}\right) + s^{3}\left(-C_{2}C_{5}L_{2}R_{2}R_{5} + C_{5}L_{2}L_{5}R_{5}g_{m} - C_{5}L_{2}L_{5}\right) + s^{2}\left(-C_{2}C_{5}L_{2}R_{5}R_{5} + C_{5}L_{2}L_{5}R_{5}g_{m} - C_{5}L_{2}L_{5}R_{5}\right) + s^{2}\left(-C_{2}C_{5}L_{2}R_{5}R_{5} + C_{5}L_{2}L_{5}R_{5}R_{5}\right) + s^{2}\left(-C_{2}C_{5}L_{2}R_{5}R_{5} + C_{5}L_{2}L_{5}R_{5}R_{5}\right) + s^{2}\left(-C_{2}C_{5}L_{2}R_{5}R_{5} + C_{5}L_{2}L_{5}R_{5}R_{5}\right) + s^{2}\left(-C_{2}C_{5}L_{2}R_{5}R_{5} + C_{5}L_{2}R_{5}R_{5}\right) + s^{2}\left(-C_{2}C_{5}L_{2}R_{5}R_{5} + C_{5}L_{2}R_{5}R_{5}\right) + s^{2}\left(-C_{2}C_{5}L_{5}R_{5}R_{5} + C_{5}L_{5}R_{5}R_{5}\right) + s^{2}\left(-C_{5}L_{5}R_{5}R_{5} + C_{5}L_{5}R_{5}\right) + s^{2}\left(-C_{5}L_{5}R_{5}R_{5}\right) + s
H(s) = \frac{R_2R_5g_m - R_2 + R_5 + s^{4}\left(C_2C_5L_2L_5R_2g_m - C_2C_5L_2L_5R_2 + C_2C_5L_2L_5R_5\right) + s^{5}\left(-C_2C_5L_2L_5R_5g_m - C_5L_2L_5\right) + s^{4}\left(-C_2C_5L_2L_5R_5g_m - C_5L_2L_5\right) + s^{4}\left(-C_2C_5L_2L_5R_2g_m + C_2C_5L_2L_5R_2g_m + C_2C_5L_2L_5R_2g_m + C_2C_3L_2R_5 + C_2C_3L_2R_5 + C_2C_5L_2L_5R_2g_m + C_2C_3L_2R_5 + C_2C_3L_2R_5 + C_2C_5L_2L_5R_5g_m + C_2C_3L_2R_5 + C_2C_3
10.577 INVALID-ORDER-577 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5, \infty\right)
                                                          \frac{R_{2}R_{3}R_{5}g_{m}-R_{2}R_{3}+R_{3}R_{5}+s^{2}\left(C_{2}L_{2}R_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}\right)+s\left(L_{2}R_{3}R_{5}g_{m}-L_{2}R_{3}\right)}{2R_{2}R_{3}g_{m}+R_{2}+4R_{3}+R_{5}+s^{3}\left(C_{2}C_{3}L_{2}R_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}\right)+s^{2}\left(2C_{2}L_{2}R_{2}R_{3}g_{m}+C_{2}L_{2}R_{5}+C_{3}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2
10.578 INVALID-ORDER-578 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{-C_2C_5L_2R_3s^3 + R_2R_3g_m + R_3 + s^2\left(C_2L_2R_2R_3g_m + C_2L_2R_3 - C_5L_2R_3\right) + s\left(-C_5R_2R_3 + L_2R_3g_m\right)}{C_2C_3C_5L_2R_2R_3s^4 + R_2g_m + s^3\left(C_2C_3L_2R_2R_3g_m + C_2C_5L_2R_3 + 2C_5C_5L_2R_3 + C_5C_5L_2R_3\right) + s^2\left(C_2L_2R_2g_m + C_2L_2 + C_3C_5R_2R_3 + C_5L_2R_3g_m + C_5L_2\right) + s\left(C_3R_2R_3g_m + C_3R_3 + 2C_5R_2R_3g_m + C_5R_2 + 4C_5R_3g_m\right)}
10.579 INVALID-ORDER-579 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -C_{2}C_{5}L_{2}R_{2}R_{3}R_{5}s^{3}+R_{2}R_{3}R_{5}g_{m}-R_{2}R_{3}+R_{3}R_{5}+s^{2}\left(C_{2}L_{2}R_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{2}R_{3}+C_{2}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}R_{5}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_{3}-C_{5}L_{2}R_
H(s) = \frac{-C_2C_5L_2R_3R_5s^\circ + R_2R_3R_5g_m - R_2R_3 + R_3R_5g_m - R_2R_3R_5g_m - C_2L_2R_2R_3R_5g_m - C_2L_2R_3R_5g_m - C_2L_2R_2R_3R_5g_m - C_2L_2R_2R_3
10.580 INVALID-ORDER-580 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, R_5 + \frac{1}{C_5 s}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R_{2}R_{3}g_{m}+R_{3}+s^{3}\left(C_{2}C_{5}L_{2}R_{2}R_{3}R_{5}g_{m}-C_{2}C_{5}L_{2}R_{2}R_{3}+C_{2}C_{5}L_{2}R_{3}R_{5}\right)+s^{2}\left(C_{2}L_{2}R_{2}R_{3}g_{m}+C_{2}L_{2}R_{3}+C_{5}L_{2}R_{3}R_{5}g_{m}-C_{5}L_{2}R_{3}R_{5}\right)+s^{2}\left(C_{2}L_{2}R_{2}R_{3}g_{m}+C_{2}L_{2}R_{3}+C_{5}L_{2}R_{3}R_{5}g_{m}-C_{5}L_{2}R_{3}R_{5}\right)+s^{2}\left(C_{2}L_{2}R_{2}R_{3}g_{m}+C_{2}L_{2}R_{3}+C_{5}L_{2}R_{3}R_{5}g_{m}-C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R_{5}g_{m}+C_{5}L_{2}R_{3}R
                                                          \frac{R_2R_3g_m + R_3 + s^3\left(C_2C_5L_2R_2R_3R_5g_m - C_2C_5L_2R_2R_3 + C_2C_5L_2R_3R_5\right) + s^2\left(C_2L_2R_2R_3g_m + C_2L_2R_3 + C_5L_2R_3R_5g_m - C_5L_2R_3R_5g_m - C_5L_2R_3R_5g_m - C_5L_2R_3R_5g_m + C_2C_5L_2R_3R_5g_m + C_2C_5L_2R_5g_m +
10.581 INVALID-ORDER-581 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R_2R_3g_m + R_3 + s^4\left(C_2C_5L_2L_5R_3g_m + C_2C_5L_2L_5R_3\right) + s^3\left(-C_2C_5L_2R_2R_3 + C_5L_2L_5R_3g_m\right) + s^2\left(C_2L_2R_2R_3g_m + C_2L_2R_3 - C_5L_2R_3g_m\right) + s^2\left(C_2L_2R_2R_3g_m + C_2L_2R_3 - C_5L_2R_3g_m\right) + s^2\left(C_2L_2R_3g_m + C_2L_2R_3g_m + C_2L_2R_3g_m\right) + s^2\left(C_2L_2R_3g_m + C_2L_2R_3g_m\right) + s^2\left(C_2L_2R_3g_m + C_2L_2R
                                                          R_2 R_3 g_m + R_3 + s^* \left( C_2 C_5 L_2 L_5 R_3 g_m + C_2 C_5 L_2 L_5 R_3 g_m + C_2 C_5 L_2 L_5 R_3 g_m + s^* \left( C_2 L_2 R_2 R_3 g_m + C_2 L_2 R_3 g_m + C_
10.582 INVALID-ORDER-582 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -C_{2}C_{5}L_{2}L_{5}R_{2}R_{3}s^{4}-R_{2}R_{3}+s^{3}\left(C_{2}L_{2}L_{5}R_{2}R_{3}g_{m}+C_{2}L_{2}L_{5}R_{3}-C_{5}L_{2}L_{5}R_{3}\right)+s^{2}\left(-C_{2}L_{2}R_{2}R_{3}-C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}R_{3}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}R_{2}+C_{5}L_{5}
H(s) = \frac{-C_2C_5L_2L_5R_3s^4 - R_2R_3 + s^3\left(C_2L_2L_5R_2R_3g_m + C_2L_2L_5R_3 - C_5L_2L_5R_3\right) + s^2\left(-C_2L_2R_2R_3 - C_5L_5R_2R_3s^4 - C_5L_2L_5R_3\right) + s^2\left(-C_2L_2R_3R_3 - C_5L_5R_2R_3s^4 - C_5L_5R_3R_3s^4 - R_2R_3s^5 + 2R_2R_3g_m + C_2L_2L_5R_3s^4 - C_5L_2L_5R_3s^4 - C_5L_5L_5R_3s^4 - C_5L_5L_
10.583 INVALID-ORDER-583 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \frac{R_2R_3g_m + R_3 + s^2 \left(C_2C_5L_2L_5R_2R_3g_m + C_2C_5L_2L_5R_3\right) + s^2 \left(C_2C_5L_2R_3R_5g_m + C_2C_5L_2R_3R_5g_m - C_2C_5L_2R_3R_5g_m - C_2C_5L_2R_3R_5g_m - C_2C_5L_2R_3R_5g_m + C_2C_5L_2L_5R_3g_m + C_2C_5L_2L_5R_3g_m + C_2C_5L_2L_5R_3g_m + C_2C_5L_2L_5R_3g_m + C_2C_5L_2L_5R_3g_m + C_2C_5L_2L_5R_3g_m + C_2C_5L_2R_3R_5g_m + C_2C_5L_2R_5g_m + C_2C_5L_2R_5g_m
10.584 INVALID-ORDER-584 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{R_3}{C_3R_3s + 1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \infty\right)
                                                       \frac{1}{C_2C_3C_5L_2L_5R_2R_3R_5s^5 + 2R_2R_3R_5g_m + R_2R_5 + 4R_3R_5 + s^4\left(C_2C_3L_2L_5R_2R_3R_5g_m + C_2C_3L_2L_5R_2R_3R_5g_m + C_2C_5L_2L_5R_2R_3R_5g_m + C_2C_5L_2L_5R_2R_3R_5g_m + C_2C_5L_2L_5R_3R_5 + 4C_2C_5L_2L_5R_3R_5 + 4C_2C_5L_2L_5R_5 +
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 $\frac{1}{2R_2R_3q_m + R_2R_5q_m + R_2 + 4R_3 + R_5 + s^5\left(C_2C_3C_5L_2L_5R_2R_3R_5q_m + C_2C_3C_5L_2L_5R_3R_5\right) + s^4\left(C_2C_3L_2L_5R_3q_m + C_2C_5L_2L_5R_3q_m + C_2C_5L_2L_5R_3q_m$ 

79

10.585 INVALID-ORDER-585  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{R_3}{C_3R_3s + 1}, \infty, \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \infty\right)$ 

 $R_2R_3R_5g_m - R_2R_3 + R_3R_5$ 

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10.586 INVALID-ORDER-586 Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ \frac{R_3}{C_3R_3s + 1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \ \infty\right)
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 $H(s) = \frac{1}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^5\left(C_2C_3C_5L_2L_5R_2R_3R_5g_m + C_2C_3C_5L_2L_5R_3R_5\right) + s^4\left(C_2C_3C_5L_2L_5R_3R_5 + 2C_2C_5L_2L_5R_3g_m + C_2C_5L_2L_5R_3g_m + C_2C_5L_2L_5R_3R_5g_m + C_2C_5L_2L_5R_5g_m + C_2C_5L_2L_5R_5g$ 

**10.587** INVALID-ORDER-587 
$$Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3 + \frac{1}{C_3s}, \infty, R_5, \infty\right)$$

 $H(s) = \frac{R_2R_5g_m - R_2 + R_5 + s^3\left(C_2C_3L_2R_2R_3R_5g_m - C_2C_3L_2R_2R_3 + C_2C_3L_2R_3R_5\right) + s^2\left(C_2L_2R_2R_5g_m - C_2L_2R_2 + C_2L_2R_5 + C_3L_2R_3R_5g_m - C_3L_2R_3\right) + s\left(C_3R_2R_3R_5g_m - C_3R_2R_3 + C_3R_3R_5 + L_2R_5g_m - L_2\right)}{2R_2g_m + s^3\left(2C_2C_3L_2R_2R_3g_m + C_2C_3L_2R_2R_5g_m + C_2C_3L_2R_3 + C_2C_3L_2R_3 + C_2C_3L_2R_3\right) + s\left(C_3R_2R_3R_5g_m - C_3R_2R_3 + C_3R_3R_5g_m - C_3R_2R_3 + C_3R_3R_5 + L_2R_5g_m - L_2\right)}{2R_2g_m + s^3\left(2C_2C_3L_2R_2R_3g_m + C_2C_3L_2R_2R_5g_m + C_2C_3L_2R_3 + C_2C_3L_2R_3 + C_2C_3L_2R_3\right) + s\left(C_3R_2R_3R_5g_m - C_3R_2R_3 + C_3R_3R_5 + L_2R_5g_m - L_2\right)}$ 

**10.588** INVALID-ORDER-588 
$$Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3 + \frac{1}{C_3s}, \infty, \frac{1}{C_5s}, \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2R_2R_3s^4 + R_2g_m + s^3\left(C_2C_3L_2R_2R_3g_m + C_2C_5L_2R_2 - C_3C_5L_2R_3\right) + s^2\left(C_2L_2R_2g_m + C_2L_2 - C_3C_5R_2R_3 + C_3L_2R_3g_m - C_5L_2\right) + s\left(C_3R_2R_3g_m + C_3R_3 - C_5R_2 + L_2g_m\right) + 1}{s^4\left(2C_2C_3C_5L_2R_2g_m + C_2C_3L_2R_2g_m + C_2C_3L_2R_2g_m + C_2C_5L_2R_2g_m + C_2C_5L_2R_2g_m + C_2C_5L_2R_2g_m + C_3C_5L_2\right) + s^2\left(2C_3C_5R_2R_3g_m + C_3C_5R_2 + 4C_3C_5R_3 + C_3L_2g_m + C_3C_5L_2g_m\right) + s\left(C_3R_2R_3g_m + C_3C_5L_2R_3g_m + C_3C_5L_2R_3g_m + C_3C_5L_2R_3g_m + C_3C_5R_2R_3g_m + C_3C_5R_3g_m + C_3C_5R_3$ 

10.589 INVALID-ORDER-589 
$$Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3 + \frac{1}{C_3s}, \infty, \frac{R_5}{C_5R_5s + 1}, \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2R_2R_3R_5s^4 + R_2R_5g_m - R_2 + R_5 + s^3\left(C_2C_3L_2R_2R_3R_5g_m - C_2C_3L_2R_2R_3 + C_2C_3L_2R_3R_5 - C_3C_5L_2R_3R_5\right) + s^2\left(C_2L_2R_2R_5g_m - C_2L_2R_2 + C_2L_2R_5 - C_3C_5L_2R_3R_5\right) + s^2\left(C_2L_2R_2R_5g_m - C_2L_2R_2 + C_2L_2R_5 - C_3C_5L_2R_3R_5\right) + s^2\left(C_2L_2R_2R_5g_m - C_2L_2R_2 + C_2L_2R_5 - C_3C_5L_2R_3R_5\right) + s^2\left(C_2L_2R_2R_5g_m - C_2L_2R_2 + C_2L_2R_5\right) + s^2\left(C_2L_2R_2R_5g_m + C_2C_3L_2R_2R_5g_m + C_2C_3L_2R_3R_5g_m + C_2C_3L_$ 

**10.590** INVALID-ORDER-590 
$$Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3 + \frac{1}{C_3s}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)$$

 $H(s) = \frac{R_2 g_m + s^4 \left(C_2 C_3 C_5 L_2 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 R_2 R_3 + C_2 C_3 C_5 L_2 R_3 R_5 g_m - C_2 C_3 L_2 R_3 R_5 g_m - C_2 C_5 L_2 R_3 R_5 g_m - C_2 C_5 L_2 R_3 R_5 g_m - C_3 C_5 L_2 R_3 R_5 g_m - C_3 C_5 R_2 R_5 g_m - C_3 C_5$ 

10.591 INVALID-ORDER-591 
$$Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3 + \frac{1}{C_3s}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)$$

 $H(s) = \frac{R_2 g_m + s^5 \left(C_2 C_3 C_5 L_2 L_5 R_2 R_3 g_m + C_2 C_3 C_5 L_2 L_5 R_3\right) + s^4 \left(-C_2 C_3 C_5 L_2 R_3 + C_2 C_5 L_2 L_5 R_2 g_m + C_2 C_5 L_2 L_5 R_3 g_m\right) + s^3 \left(C_2 C_3 L_2 R_3 g_m + C_2 C_5 L_2 R_3 - C_2 C_5 L_$ 

10.592 INVALID-ORDER-592 
$$Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3 + \frac{1}{C_3s}, \infty, \frac{L_5s}{C_5L_5s^2 + 1}, \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_5R_2R_3s^5 - R_2 + s^4\left(C_2C_3L_2L_5R_2R_3g_m + C_2C_3L_2L_5R_3 - C_2C_5L_2L_5R_3 + s^3\left(-C_2C_3L_2R_2R_3 + C_2L_2L_5R_2g_m + C_2L_2L_5 - C_3C_5L_2R_3 + C_3L_2L_5R_3g_m + C_2C_3L_2L_5R_3g_m + C_2C_3L_2L_5R_3g_m + C_2C_3L_2L_5R_2g_m + C_2C_3L_2L_5R_3g_m + C$ 

10.593 INVALID-ORDER-593 
$$Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, R_3 + \frac{1}{C_3s}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \infty\right)$$

 $H(s) = \frac{R_2 g_m + s^5 \left(C_2 C_3 C_5 L_2 L_5 R_3 g_m + C_2 C_3 C_5 L_2 L_5 R_3 g_m + C_2 C_3 C_5 L_2 R_3 R_5 g_m - C_2 C_5 L_2 R_3 R_5 g_m + C_2 C_3 L_2 R_3 R_5 g_m - C_2 C_5 L_2 R_5 g_m - C_2 C_5 L_2 R_5 R_5 g_m - C_2 C_5 L_2 R_5 g_m$ 

10.594 INVALID-ORDER-594 
$$Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \ \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_5R_2R_3R_5s^5 - R_2R_5 + s^4\left(C_2C_3L_2L_5R_2R_3R_5g_m - C_2C_3L_2L_5R_2R_3 + C_2C_3L_2L_5R_3R_5 - C_2C_5L_2L_5R_2R_3R_5 - C_2C_5L_2L_5R_2R_3R_5 - C_2C_5L_2L_5R_3R_5 - C_2C_5L_2L_5R_5 - C_2C$ 

10.595 INVALID-ORDER-595 
$$Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \ \infty\right)$$

 $H(s) = \frac{R_2 R_5 g_m - R_2 + R_5 + s^5 \left(C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_3 R_5 g_m - C_2 C_3 L_2 L_5 R_3 R_5 g_m - C_2 C_3 L_2 L_5 R_3 R_5 g_m - C_3 C_5 L_2 L_5 R_5 R_5 g_m - C_3 C_5 L_2 L_5 R_5 R_5 g_m - C_3 C_5 L_2 L_5 R_5 g_m - C_3 C_5 L_2 L_5$ 

10.599 INVALID-ORDER-599 
$$Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, L_3s + \frac{1}{C_3s}, \infty, \frac{R_5}{C_5R_5s + 1}, \infty\right)$$

$$H(s) = \frac{-C_2C_3C_5L_2L_3R_2R_5s^5 + R_2R_5g_m - R_2 + R_5 + s^4\left(C_2C_3L_2L_3R_2 + C_2C_3L_2L_3R_5 - C_3C_5L_2L_3R_5\right) + s^3\left(-C_2C_5L_2R_2R_5 - C_3C_5L_3R_2R_5 + C_3L_2L_3R_5g_m - C_3L_2L_3R_5g_m - C_3L_2L_3R_5g_m + s^5\left(2C_2C_3C_5L_2L_3R_5g_m + 4C_2C_3L_2L_3R_5g_m + 4C_2C_3L_2L_3R_5g_m + 4C_2C_3L_2R_5g_m + 4C_2$$

**10.600** INVALID-ORDER-600 
$$Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, L_3s + \frac{1}{C_3s}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)$$

$$H(s) = \frac{R_2 g_m + s^5 \left(C_2 C_3 C_5 L_2 L_3 R_2 R_5 g_m - C_2 C_3 C_5 L_2 L_3 R_2 + C_2 C_3 C_5 L_2 L_3 R_2 + C_2 C_3 C_5 L_2 L_3 R_5 g_m + C_2 C_3 L_2 L_3 R_5 g_m - C_3 C_5 L_2 L_3 R_5 g_m - C_3 C_5 L_2 R_5 g_m - C_3$$

10.601 INVALID-ORDER-601 
$$Z(s) = \left(\infty, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, L_3s + \frac{1}{C_3s}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)$$

$$H(s) = \frac{R_2 g_m + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5\right) + s^5 \left(-C_2 C_3 C_5 L_2 L_3 R_2 + C_3 C_5 L_2 L_3 R_2 g_m + C_2 C_3 L_2 L_3 R_2 g_m + C_2 C_5 L_2 L_5 R_2 g_m + C_2 C_5 L_2 L_5 R_2 g_m + C_3 C_5 L_3 L_5\right) + s^3 \left(-C_2 C_5 L_2 R_2 - C_3 C_5 L_3 R_2 + C_3 C_5 L_2 L_3 R_2 g_m + C_2 C_5 L_2 R_2$$

**10.602** INVALID-ORDER-602 
$$Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \frac{L_5s}{C_5L_5s^2 + 1}, \ \infty\right)$$

$$H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_2s^6 - R_2 + s^5\left(C_2C_3L_2L_3L_5R_2g_m + C_2C_3L_2L_3L_5 - C_3C_5L_2L_3R_2 - C_2C_5L_2L_5R_2 - C_3C_5L_3L_5R_2 + C_3L_2L_3L_5g_m\right) + s^3\left(C_2L_2L_5R_2g_m + C_2L_2L_5R_2g_m + C_2L_3L_5R_2g_m + C_2$$

**10.603** INVALID-ORDER-603 
$$Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, L_3s + \frac{1}{C_3s}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \infty\right)$$

$$H(s) = \frac{R_2 g_m + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5 \right) + s^5 \left(C_2 C_3 C_5 L_2 L_3 R_2 R_5 g_m - C_2 C_3 C_5 L_2 L_3 R_5 + C_3 C_5 L_2 L_3 R_5 g_m + C_2 C_3 L_2 L_3 R_2 g_m + C_2 C_3 C_5 L_2 R_2 g_m + C_$$

10.604 INVALID-ORDER-604 
$$Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \ \infty\right)$$

$$H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_2R_5s^6 - R_2R_5 + s^5\left(C_2C_3L_2L_3L_5R_2R_5g_m - C_2C_3L_2L_3L_5R_2 + C_2C_3L_2L_3L_5R_5 - C_3C_5L_2L_3L_5R_5}{2R_2R_5g_m + 4R_5 + s^6\left(2C_2C_3C_5L_2L_3L_5R_2g_m + 4C_2C_3L_2L_3L_5R_2g_m + 4C_2C_3L_2L_3R_5R_5g_m + 4C_2C_3L_2L_3R_5g_m +$$

10.605 INVALID-ORDER-605 
$$Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, L_3s + \frac{1}{C_3s}, \infty, \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \infty\right)$$

$$H(s) = \frac{R_2 R_5 g_m - R_2 + R_5 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m - C_2 C_3 C_5 L_2 L_3 L_5 R_2 + C_2 C_3 C_5 L_2 L_3 L_5 R_2 + C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 L_2 L_3 L_5 R_2 g_m + C_2 C_3 L_2 L_3 L_5 R_2 g_m - C_2 C_3 L_2 L_3 R_2 + C_2 C_3 L_2$$

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10.607 INVALID-ORDER-607 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{L_3s}{C_3L_3s^2 + 1}, \infty, R_5, \infty\right)
H(s) = \frac{s^3 \left(C_2 L_2 L_3 R_2 g_m - C_2 L_2 L_3 R_2 + C_2 L_2 L_3 R_5 \right) + s^2 \left(L_2 L_3 R_5 g_m - L_2 L_3\right) + s \left(L_3 R_2 g_m - L_3 R_2 + L_3 R_5\right)}{R_2 R_5 g_m + R_2 + R_5 + s^4 \left(C_2 C_3 L_2 L_3 R_2 g_m + C_2 C_3 L_2 L_3 R_2\right) + s^3 \left(2 C_2 L_2 L_3 R_2 g_m + 4 C_2 L_2 L_3 + C_3 L_2 L_3 R_5 g_m + C_3 L_2 L_3\right) + s^2 \left(C_2 L_2 R_2 R_5 g_m + C_2 L_2 R_5 + C_3 L_3 R_2 R_5 g_m + C_3 L_3 R_2 + C_3 L_3 R_5 + 2 L_2 L_3 g_m\right) + s \left(L_2 R_5 g_m + L_2 + L_3 R_5 g_m + C_3 L_3 R_5 g
10.608 INVALID-ORDER-608 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{1}{C_5 s}, \infty\right)
H(s) = \frac{-C_2C_5L_2L_3R_2s^4 + s^3\left(C_2L_2L_3R_2g_m + C_2L_2L_3 - C_5L_2L_3\right) + s^2\left(-C_5L_3R_2 + L_2L_3g_m\right) + s\left(L_3R_2g_m + L_3\right)}{C_2C_3C_5L_2L_3R_2s^5 + R_2g_m + s^4\left(C_2C_3L_2L_3R_2g_m + C_2C_5L_2L_3 + 2C_2C_5L_2L_3 + C_3C_5L_2L_3\right) + s^3\left(C_2C_5L_2R_2 + C_3C_5L_2R_2 + C_3C_5L_2R_2 + C_3L_2R_2g_m + C_2L_2 + C_3L_3R_2g_m + C_3L_3 + C_5L_2 + 2C_5L_3R_2g_m + C_5L_3R_2g_m + 
10.609 INVALID-ORDER-609 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{R_5}{C_5 R_5 s + 1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -C_{2}C_{5}L_{2}L_{3}R_{2}R_{5}s^{4} + s^{3}\left(C_{2}L_{2}L_{3}R_{2}R_{5}g_{m} - C_{2}L_{2}L_{3}R_{2} + C_{2}L_{2}L_{3}R_{5} - C_{5}L_{2}L_{3}R_{5}\right) + s^{2}\left(-C_{5}L_{3}R_{2}R_{5} + L_{2}L_{3}R_{5}\right) + s^{2}\left(-C_{5}L_{3}R_{5} + L_{2}L_{3}R_{5}\right) + s^{2}
H(s) = \frac{-C_2C_5L_2L_3R_2R_5s^5 + s^\circ \left(C_2L_2L_3R_2R_5g_m - C_2L_2L_3R_5 - C_5L_2L_3R_5 - C_5L_2L_3R_5\right) + s^\circ \left(-C_5L_3R_2R_5 + L_2L_3R_5\right)}{C_2C_3C_5L_2L_3R_2R_5s^5 + R_2R_5g_m + R_2 + R_5 + s^4 \left(C_2C_3L_2L_3R_2 + C_2C_3L_2L_3R_2 + C_2C_5L_2L_3R_5\right) + s^3 \left(C_2C_5L_2R_2R_5 + 2C_2L_2L_3R_2g_m + 4C_2L_2L_3 + C_3C_5L_2L_3R_2R_5 + C_3L_2L_3R_2R_5 + C_3L_2L_3R_5\right)}
10.610 INVALID-ORDER-610 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{L_3s}{C_3L_3s^2 + 1}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      s^{4} \left(C_{2} C_{5} L_{2} L_{3} R_{2} R_{5} g_{m}-C_{2} C_{5} L_{2} L_{3} R_{2}+C_{2} C_{5} L_{2} L_{3} R_{5}\right)+s^{3} \left(C_{2} L_{2} L_{3} R_{2} g_{m}+C_{2} L_{2} L_{3}+C_{5} L_{2} L_{3} R_{5} g_{m}-C_{5} L_{2} L_{3}\right)+s^{2} \left(C_{5} L_{3} R_{2} R_{5} g_{m}+C_{5} L_{2} L_{3} R_{5} g_{m}-C_{5} L_{2} L_{3}\right)+s^{2} \left(C_{5} L_{3} R_{2} R_{5} g_{m}+C_{5} L_{5} L_
                                                    \frac{s^4 \left(C_2 C_5 L_2 L_3 R_2 R_5 g_m - C_2 C_5 L_2 L_3 R_2 + C_2 C_5 L_2 L_3 R_2 + C_2 C_5 L_2 L_3 R_5 g_m - C_5 L_2 L_3 + C_5 L_2 L_3 R_5 g_m - C_5 L_2 L_3 \right) + s^2 \left(C_5 L_3 R_2 R_5 g_m + C_5 L_2 L_3 R_5 g_m + C_5 L_2 R_5 g_m + C_5 L_2 L_3 R_5 g_m + C_5 L_2 L_3
10.611 INVALID-ORDER-611 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{L_3s}{C_3L_3s^2 + 1}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            s^{5}\left(C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{5}L_{2}L_{3}L_{5}g_{m}\right)+s^{3}\left(C_{2}L_{2}L_{3}R_{2}g_{m}+C_{2}L_{2}L_{3}-C_{5}L_{2}L_{3}+C_{5}L_{3}L_{5}R_{2}g_{m}\right)+s^{2}\left(C_{2}L_{2}L_{3}R_{2}g_{m}+C_{2}L_{2}L_{3}-C_{5}L_{2}L_{3}+C_{5}L_{3}L_{5}R_{2}g_{m}\right)+s^{2}\left(C_{2}L_{2}L_{3}R_{2}g_{m}+C_{2}L_{2}L_{3}-C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}R_{2}g_{m}\right)+s^{2}\left(C_{2}L_{2}L_{3}R_{2}g_{m}+C_{2}L_{2}L_{3}-C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}R_{2}g_{m}\right)+s^{2}\left(C_{2}L_{2}L_{3}R_{2}g_{m}+C_{2}L_{2}L_{3}-C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}R_{2}g_{m}\right)+s^{2}\left(C_{2}L_{2}L_{3}R_{2}g_{m}+C_{2}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}R_{2}g_{m}\right)+s^{2}\left(C_{2}L_{2}L_{3}R_{2}g_{m}+C_{2}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{
                                                    s^{3}\left(C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}L_{5}g_{m}\right)+s^{3}\left(C_{2}L_{2}L_{3}R_{2}g_{m}+C_{2}L_{2}L_{3}-C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}+C_{5}L_{2}L_{3}L_{5}g_{m}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}L_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+C_{2}C_{5}L_{2}L_{3}+
10.612 INVALID-ORDER-612 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \frac{L_5 s}{C_5 L_5 s^2 + 1}, \infty\right)
H(s) = \frac{-C_2C_5L_2L_3L_5R_2s^5 - L_3R_2s + s^4\left(C_2L_2L_3L_5R_2g_m + C_2L_2L_3L_5 - C_5L_2L_3L_5\right) + s^3\left(-C_2L_2L_3R_2 - C_5L_3L_5R_2 + C_5L_3L_5R_2s^6 + R_2 + s^5\left(C_2C_3L_2L_3L_5R_2g_m + C_2C_3L_2L_3L_5 + C_3C_5L_2L_3L_5\right) + s^4\left(C_2C_3L_2L_3L_5R_2s^6 + R_2 + s^5\left(C_2C_3L_2L_3L_5R_2g_m + C_2C_3L_2L_3L_5R_2g_m + C_2C_3L_2L_3L_5\right) + s^4\left(C_2C_3L_2L_3L_5R_2s^6 + R_2 + s^5\left(C_2C_3L_2L_3L_5R_2g_m + C_2C_3L_2L_3L_5R_2g_m + C_2C_3L_2L_3L_5\right) + s^4\left(C_2C_3L_2L_3L_5R_2s^6 + R_2 + s^5\left(C_2C_3L_2L_3L_5R_2g_m + C_2C_3L_2L_3L_5R_2g_m + C_2C_3L_3L_5R_2g_m + C_2C_3L_
10.613 INVALID-ORDER-613 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, L_5 s + R_5 + \frac{1}{C_5 s}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               s^{5}\left(C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}\right)+s^{4}\left(C_{2}C_{5}L_{2}L_{3}R_{2}R_{5}g_{m}-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C
                                                    \frac{s + (C_2C_3L_2L_3L_5R_2g_m + C_2C_5L_2L_3L_5g_m + C_2C_5L_2L_3R_2g_m + C_2C_5L_2L_3R_2g_m
10.614 INVALID-ORDER-614 Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ \frac{L_3s}{C_3L_3s^2 + 1}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \ \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -C_2C_5L_2L_3L_5R_2R_5s^5-L_3
                                                  \frac{1}{C_2C_3C_5L_2L_3L_5R_2R_5s^6+R_2R_5+s^5\left(C_2C_3L_2L_3L_5R_2R_5g_m+C_2C_3L_2L_3L_5R_5+2C_2C_5L_2L_3L_5R_5+C_3C_5L_2L_3L_5R_5+C_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_2L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_3L_5R_5+c_3C_5L_5L_5R_5+c_3C_5L_5R_5+c_3C_5L_5R_5+c_3C_5L_5R_5+c_3C_5L_5R_5+c_3C_5L_5R_5+c_3C_5L_5R_5+c_3C_5L_5R_5+c_3C_5L_5R_5+c_3C_5L
10.615 INVALID-ORDER-615 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{L_3s}{C_3L_3s^2 + 1}, \infty, \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \infty\right)
                                                     82
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 $H(s) = \frac{R_2R_5g_m - R_2 + R_5 + s^6\left(C_2C_3C_5L_2L_3L_5R_2g_m - C_2C_3C_5L_2L_3L_5R_2 + C_2C_3C_5L_2L_3L_5R_5 + s^5\left(-C_2C_3C_5L_2L_3R_2R_5 + C_3C_5L_2L_3L_5R_5g_m - C_3C_5L_2L_3L_5R_5 + s^6\left(C_2C_3C_5L_2L_3L_5R_2 + C_2C_3C_5L_2L_3L_5R_2 + C_2C_3C_5L_2L_3R_2R_5 + C_2$ 

**10.606** INVALID-ORDER-606  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, L_3s + \frac{1}{C_3s}, \infty, \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \infty\right)$ 

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 \begin{aligned} & \textbf{10.616} & \textbf{INVALID-ORDER-616} \ Z(s) = \left( \infty, \ \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \ \infty, \ \frac{R_5 (C_5 I_3 s^2 + 1)}{C_5 L_3 s^2 + C_5 R_5 s + 1}, \ \infty \right) \\ & H(s) = \frac{R_2 R_5 g_m + R_2 + R_5 + s^6 \left( C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_3 C_5 L_2 L_3 L_5 R_2 R_5 + C_2 C_5 C_5 L_2 L_3 L_5 R_2 g_m + 4 C_2 C_5 L_2 L_3 L_5 R_5 g_m + C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 L_2 L_3 R_2 R_5 + C_2 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 L_2 L_3 R_2 R_5 + C_2 C_5 L_2 L_3 L_5 R_2 g_m + 4 C_2 C_5 L_2 L_3 L_5 R_5 g_m + C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 L_2 L_3 R_2 R_5 g_m + C_2 C_3 L_2 L_3 R_5 R_5 g_m + C_2 C_3 L_2 R_3 R_5 R_5 g_m + C_2 C_3 L_2 R_3 R_5 R_5 g_m - C_3 L_2 L_3 R_5 R_5 g_m - C_3 L_2 L_3 R_5 R_5 g_m - C_3 L_2 R_5 g_m - C_3 L_2 R_5 R_5 g
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 $H(s) = \frac{-C_2C_3C_5L_2L_3R_2R_5s^5 + R_2R_5g_m - R_2 + R_5 + s^4\left(-C_2C_3C_5L_2R_2R_3R_5 + C_2C_3L_2L_3R_2 + C_2C_3L_2L_3R_2 + C_2C_3L_2L_3R_5\right) + s^3\left(C_2C_3L_2R_2R_3R_5g_m - C_2C_3L_2R_2R_3R_5 + C_2C_3L_2R_3R_5 + C_2C_3L_2R_3R_5g_m + C_2C_3L_2R_3R_5\right) + s^3\left(C_2C_3L_2R_2R_3R_5g_m + C_2C_3L_2R_3R_5g_m + C_2C_3L_2R_3R_5g$ 

10.620 INVALID-ORDER-620  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)$ 

 $H(s) = \frac{R_2 g_m + s^5 \left(C_2 C_3 C_5 L_2 L_3 R_2 g_m - C_2 C_3 C_5 L_2 L_3 R_2 + C_2 C_3 C_5 L_2 R_3 R_5 g_m - C_3 C_5 L_2 R_5 g$ 

10.621 INVALID-ORDER-621  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)$ 

10.622 INVALID-ORDER-622  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{L_5s}{C_5L_5s^2 + 1}, \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_2s^6 - R_2 + s^5\left(-C_2C_3C_5L_2L_5R_2g_m + C_2C_3L_2L_3L_5 + s^4\left(-C_2C_3L_2L_3R_2 + C_2C_3L_2L_5R_2g_m + C_2C_3L_2L_5R_3g_m + C_2C_3L_2L_5R_3 - C_2C_5L_2L_5R_3 - C_2C_5L_2L_5R_2 - C_3C_5L_2L_3L_5R_2g_m + s^6\left(2C_2C_3C_5L_2L_3L_5R_2g_m + 4C_2C_3C_5L_2L_5R_2 + 4C_2C_3C_5L_2L_5R_2 + 4C_2C_3L_2L_3R_2g_m + 4C_2C_3L_2L_3R_2g_m + 4C_2C_3L_2L_5R_2g_m + 4C_2C_3L_2L_5R_2$ 

10.623 INVALID-ORDER-623  $Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ L_5s + R_5 + \frac{1}{C_5s}, \ \infty\right)$ 

 $H(s) = \frac{R_2 g_m + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5\right) + s^5 \left(C_2 C_3 C_5 L_2 L_3 R_2 R_5 g_m - C_2 C_3 C_5 L_2 L_3 R_5 + C_2 C_3 C_5 L_2 L_3 R_5 + C_2 C_3 C_5 L_2 L_3 R_5 g_m + C_2 C_3 C_5 L_2 L_3 R_5 g_m + C_2 C_3 C_5 L_2 L_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_5 g_m - C_2 C_3 C_5 L_5 L_5 R_5 g_m - C_2 C_3 C_5 L_5 L_5 R_5 g_m - C_2 C_3 C_5 L_5 L_5 R_5 g_m - C_2 C_5 L_5 L_5 R_5 g$ 

10.624 INVALID-ORDER-624  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_2R_5s^6 - R_2R_5 + s^5\left(-C_2C_3C_5L_2L_5R_2R_3R_5 + C_2C_3L_2L_3L_5R_2R_5g_m - C_2C_3L_2L_3L_5R_2R_5g_m - C_2C_3L_2L_3L_5R_2R_5g_m - C_2C_3L_2L_3L_5R_2R_5g_m - C_2C_3L_2L_3L_5R_2R_5g_m + s^6\left(2C_2C_3C_5L_2L_3L_5R_2R_5g_m + s^6\left(2C_2C_3L_2L_3L_5R_2R_5g_m + s^6\left(2C_2C_3L_2L_3L_5R_5g_m + s^6\left(2C_2C_3L_2L_3L_5R_2R_5g_m + s^6\left(2C_2C_3L_2L_3L_5R_5R_5g_m + s^6\left(2C_2C_3L_2L_3L_5R_5R_5g_m + s^6\left(2C_2C_3L_2L_3L_5R_5R_5g_m + s^6\left(2C_2C_3L_2L_3L_5R_5R_5g_m + s^6\left(2C_2C_3L_2L_3L_5R_5R_5g_m + s^6\left(2C_2C_3L_2L_3L_5R_5R_5g_m + s^6$ 

10.625 INVALID-ORDER-625  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \infty\right)$ 

 $H(s) = \frac{R_2 R_5 g_m - R_2 + R_5 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_5 g_m - C_2 C_3 C_5 L_2 L_3 L_5 R_2 + C_2 C_3 C_5 L_2 L_3 L_5 R_2 + C_2 C_3 C_5 L_2 L_3 L_5 R_2 + C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m - C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_5 R_2 R_3 g_m + C_2 C$ 

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H(s) = \frac{R_2 R_5 g_m - R_2 + R_5 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_5 g_m - C_2 C_3 C_5 L_2 L_3 L_5 R_2 + C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_3 R_5 + C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_3 R_5 + C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_2 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_5 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_5 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_5 R_5 g_m - C_2 C_5 L_5 R_5 R_5 g_m - C_2 C_5 L_5 L_5
10.627 INVALID-ORDER-627 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \infty, R_5, \infty\right)
H(s) = \frac{s^3 \left( C_2 L_2 L_3 R_2 R_3 R_5 g_m - C_2 L_2 L_3 R_2 R_3 + C_2 L_2 L_3 R_3 R_5 g_m - L_2 L_3 R_3 R_5 g_m - L_2 L_3 R_3 \right) + s^2 \left( L_2 L_3 R_3 R_5 g_m - L_2 L_3 R_3 R_5 g_m + C_2 L_2 L_3 R_2 R_3 g_m + C_2 L_2 L_3 R_3 R_5 g_m + C_2 L_2 R_3 R_5 g_m + C_2 L_
10.628 INVALID-ORDER-628 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \frac{1}{C_5 s}, \infty\right)
10.629 INVALID-ORDER-629 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \infty, \frac{R_5}{C_5R_5s + 1}, \infty\right)
                                     \frac{-C_2C_5L_2L_3}{C_2C_3C_5L_2L_3R_2R_3R_5s^5 + R_2R_3R_5g_m + R_2R_3 + R_3R_5 + s^4\left(C_2C_3L_2L_3R_2R_3R_5g_m + C_2C_3L_2L_3R_2R_3R_5 + 2C_2C_5L_2L_3R_2R_3R_5g_m + C_2C_5L_2L_3R_2R_3R_5 + 4C_2C_5L_2L_3R_3R_5 + 4C_2C_5L_2L_3R_3R_5 + s^4\left(C_2C_3L_2L_3R_2R_3R_5g_m + C_2C_3L_2L_3R_2R_3R_5 + 2C_2C_5L_2L_3R_2R_3R_5 + 4C_2C_5L_2L_3R_3R_5 + 4C_2C_5L_2L_3R_3R_5 + s^4\left(C_2C_3L_2L_3R_2R_3R_5g_m + C_2C_3L_2L_3R_2R_3R_5 + 2C_2C_5L_2L_3R_2R_3R_5 + 4C_2C_5L_2L_3R_3R_5 + 4C_2C_5L_2L_3R_3R_5 + 2C_2C_5L_2L_3R_3R_5 + 2C_2C_5L_2R_3R_5 +
10.630 INVALID-ORDER-630 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)
H(s) = \frac{s^4 \left( C_2 C_5 L_2 L_3 R_2 R_3 g_m + R_3 + s^5 \left( C_2 C_3 C_5 L_2 L_3 R_2 R_3 R_5 g_m + C_2 C_3 C_5 L_2 L_3 R_2 R_3 g_m + C_2 C_5 L_2 L_3 R_3 R_5 g_m + C_2 C_5 L_2 L_3 R_5 g_m + C_2 C_5 L_2 L_3 R_5 g_m + C
10.631 INVALID-ORDER-631 Z(s) = \left(\infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, L_5 s + \frac{1}{C_5 s}, \infty\right)
                                       10.632 INVALID-ORDER-632 Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \ \infty, \ \frac{L_5s}{C_5L_5s^2 + 1}, \ \infty\right)
H(s) = \frac{-C_2C_5L_2L_3}{C_2C_3C_5L_2L_3L_5R_2R_3s^6 + R_2R_3 + s^5\left(C_2C_3L_2L_3L_5R_2R_3g_m + C_2C_3L_2L_3L_5R_2 + 4C_2C_5L_2L_3L_5R_3 + C_3C_5L_2L_3L_5R_3 + C_3C_5L_3L_5R_3 + C_3C_5L_5L_5R_3 + C_3C_5L_5L_5R_3 + C_3C_5L_5L_5L_5R_3 + C_3C_5L_5L_5L_5R_3 + C_3C_5L_5L_5L_5R_3 + C_3C_5L_5L_5L_5R_3 + C_3C_5L
10.633 INVALID-ORDER-633 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_3s^2 + 1}, \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \infty\right)
                                        \overline{R_{2}R_{3}g_{m}+R_{3}+s^{6}\left(C_{2}C_{3}C_{5}L_{2}L_{3}L_{5}R_{2}g_{m}+C_{2}C_{3}C_{5}L_{2}L_{3}L_{5}R_{3}g_{m}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}g_{m}+S^{4}\left(C_{2}C_{3}L_{2}L_{3}L_{5}R_{3}g_{m}+C_{2}C_{3}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{3}g_{m}+S^{4}\left(C_{2}C_{3}L_{2}L_{3}L_{5}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}+C_{2}
10.634 INVALID-ORDER-634 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \infty\right)
H(s) = \frac{1}{C_2C_3C_5L_2L_3L_5R_2R_3R_5s^6 + R_2R_3R_5 + s^5\left(C_2C_3L_2L_3L_5R_2R_3R_5g_m + C_2C_3L_2L_3L_5R_2R_3R_5 + 2C_2C_5L_2L_3L_5R_2R_3R_5g_m + C_2C_5L_2L_3L_5R_2R_3R_5 + 4C_2C_5L_2L_3L_5R_3R_5 + 4C_2C_5L_3L_3L_5R_3R_5 + 4C_2C_5L_3L_5R_3R_5 + 4C_2C_5L_3L_5R_5R_5 + 4C_2C_5L_5L_5R_5R_5 + 4C_2C_5L_5L_5R_5R_5 + 4C_2C_5L_5L_5R_5R_5 + 4C_2C_5L_5L_5R_5R_5 + 4C_2C_5L_5L_5R_5R_5 + 4C_2C_5L_5L_5R_5R_5 + 4C_2C_5L_5R_5R_5 + 4C_2C_5L_5R_5R_5 + 4C_2C_5L_5R_5R_5 + 4C_2C_5L_5R_5R_5 + 4C_2C_5L_5R_5R_5 + 4C_2C_5L_5R_5R_5 
10.635 INVALID-ORDER-635 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \infty, \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \infty\right)
                                        \overline{R_{2}R_{3}R_{5}g_{m}+R_{2}R_{3}+R_{3}R_{5}+s^{6}\left(C_{2}C_{3}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{3}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{3}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{3}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}R_{3}g_{m}+C_{2
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10.626 INVALID-ORDER-626  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2+L_2s+R_2}{C_2L_2s^2+1}, L_3s+R_3+\frac{1}{C_3s}, \infty, \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \infty\right)$ 

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 \textbf{10.636} \quad \textbf{INVALID-ORDER-636} \ Z(s) = \left( \infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \ \infty, \ \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \ \infty \right) \\ H(s) = \frac{1}{R_2R_3R_5g_m + R_2R_3 + R_3R_5 + s^6\left(C_2C_3C_5L_2L_3L_5R_2R_3R_5g_m + C_2C_3C_5L_2L_3L_5R_3R_5\right) + s^5\left(C_2C_3C_5L_2L_3R_2R_3R_5 + 2C_2C_5L_2L_3L_5R_2R_3g_m + C_2C_5L_2L_3L_5R_2R_3g_m + C_2C_5L_2L_3L_5R_2R_3g_m + C_2C_5L_2L_3L_5R_2 + 4C_2C_5L_2L_3L_5R_3 + C_2C_5L_2L_3L_5R_3 + C_2C_5L_2L_3L_5R_3
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10.637 INVALID-ORDER-637  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \infty, R_5, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5 + s^4 \left(C_2 C_3 L_2 L_3 R_2 R_3 R_5 g_m - C_2 L_2 L_3 R_3 R_5 g_m - C_2 L_2 L_3 R_2 R_3 R_5 g_m - C_2 L_2 L_3 R_3 R_5 g_m - C_2 L_2 L_3 R_3 R_5 g_m - C_2 L_2 L_3 R_3 R_5 g_m - C_3 L_2 L_3 R_3 R_5 g_m - C_2 L_2 R_5 g_m$ 

**10.638** INVALID-ORDER-638  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \infty, \frac{1}{C_5s}, \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2L_3R_2R_3s^5 + R_2R_3g_m + R_3 + s^4\left(C_2C_3L_2L_3R_2g_m + C_2C_5L_2L_3R_2 - C_3C_5L_2L_3R_3\right) + s^3\left(-C_2C_5L_2R_2R_3 + C_2L_2L_3R_2g_m + C_2L_2L_3 - C_3C_5L_3R_2R_3 + C_3L_2L_3R_3g_m - C_5L_2R_3R_3\right) + s^4\left(C_2C_3L_2L_3R_2g_m + C_2C_3L_2L_3R_2g_m + C_2C_3L_2L_3R_2g_m + C_3C_5L_2L_3R_3g_m + C_3C_5L_3R_3g_m + C_3C_5L_3R_3g$ 

10.639 INVALID-ORDER-639  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \infty, \frac{R_5}{C_5R_5s + 1}, \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2L_3R_2R_3R_5s^5 + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^4\left(C_2C_3L_2L_3R_2R_3R_5g_m - C_2C_3L_2L_3R_2R_3 + C_2C_3L_2L_3R_2R_3 + C_2C_3L_2L_3R_2R_3 + C_2C_3L_2L_3R_2R_3R_5g_m + C_2C_3L_2L_3R_2R_3R_5g_m + C_2C_3L_2L_3R_2R_3R_5g_m + C_2C_3L_2L_3R_2R_3R_5g_m + C_2C_3L_2L_3R_2R_3R_5g_m + C_2C_3L_2L_3R_3R_5g_m + C_2C_3L_2L_3R_5g_m + C_2C_3L_2L_3R$ 

**10.640** INVALID-ORDER-640  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^5 \left(C_2 C_3 C_5 L_2 L_3 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_3 R_2 R_3 + C_2 C_3 L_2 L_3 R_3 R_5 g_m - C_2 C_5 L_2 L_3 R_3 R_5 g_m - C_2 C_5 L_2 L_3 R_3 R_5 g_m - C_3 C_5 L_2 L_3 R_3 R_5 g_m - C_3 C_5 L_2 L_3 R_3 R_5 g_m - C_2 C_5 L_2 L_3 R_3 R_5 g_m - C_2 C_5 L_2 L_3 R_3 R_5 g_m - C_3 C_5 L_2 L_3 R_5 g_m - C_3 C_5 L_2 L$ 

10.641 INVALID-ORDER-641  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_3 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_3 g_m + C_2 C_5 L_2 L_3 R_2 R_3 + C_2 C_5 L_2 L_3 L_5 R_3 g_m + C_2 C_5 L_2 L_3 L_5 R_3 g_m + C_2 C_5 L_2 L_3 R_2 R$ 

10.642 INVALID-ORDER-642  $Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \ \infty, \ \frac{L_5s}{C_5L_5s^2 + 1}, \ \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_2R_3s^6 - R_2R_3 + s^5\left(C_2C_3L_2L_3L_5R_2R_3g_m + C_2C_3L_2L_3L_5R_3 - C_2C_5L_2L_3L_5R_2 - C_3C_5L_2L_3L_5R_2\right)}{2R_2R_3g_m + R_2 + 4R_3 + s^6\left(2C_2C_3C_5L_2L_3L_5R_2g_m + C_2C_3L_2L_3L_5R_2g_m + C_2C_3L_2L_3L_5R$ 

10.643 INVALID-ORDER-643  $Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \ \infty, \ L_5s + R_5 + \frac{1}{C_5s}, \ \infty\right)$ 

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_3 g_m + C_2 C_3 C_5 L_2 L_3 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_3 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_3 R_2 R_3 R_5 + C_2 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_5 L_2 L_3 L_5 R_3 g_m \right) \\ + s^4 \left(C_2 C_3 L_2 L_3 R_2 R_3 g_m + C_2 C_3 L_2 L_3 R_3 R_5 - C_2 C_3 C_5 L_2 L_3 R_2 R_3 R_5 + C_2 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_5 L_2 L_3 L_5 R_3 g_m \right) \\ + s^4 \left(C_2 C_3 L_2 L_3 R_2 R_3 g_m + C_2 L_3 L_3 R_3 g_m + C_2 L_3 L_3 R_3 R_3 g_m$ 

10.644 INVALID-ORDER-644  $Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \infty\right)$ 

 $H(s) = \frac{1}{2R_2R_3R_5g_m + R_2R_5 + 4R_3R_5 + s^6\left(2C_2C_3C_5L_2L_3L_5R_2R_3R_5g_m + C_2C_3C_5L_2L_3L_5R_2R_3R_5\right) + s^5\left(2C_2C_3L_2L_3L_5R_2R_3g_m + C_2C_3L_2L_3L_5R_2 + 4C_2C_3L_2L_3L_5R_3 + C_2C_3L_2L_3L_5R_3 + C_2C_3L_3L_5R_3 + C_$ 

10.645 INVALID-ORDER-645  $Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \ \infty, \ \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \ \infty\right)$ 

 $H(s) = \frac{R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_3 g_m - C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_3 g_m - C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_3 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_3 L_2 L_3 L_5 R_2 R_5 g_m - C_2 C_5 L_2 L_3 L_5 R_2 + C_2 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 L_2 L_3 L_5 R_2 g$ 

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10.646 INVALID-ORDER-646 Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \ \infty\right)
10.647 INVALID-ORDER-647 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{R_3\left(C_3L_3s^2 + 1\right)}{C_3L_3s^2 + C_3R_3s + 1}, \infty, R_5, \infty\right)
H(s) = \frac{R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5 + s^4 \left(C_2 C_3 L_2 L_3 R_2 R_3 R_5 g_m - C_2 C_3 L_2 L_3 R_2 R_3 + C_2 C_3 L_2 L_3 R_3 R_5 g_m - C_3 L_2 L_3 R_5
10.648 INVALID-ORDER-648 Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ \frac{R_3\left(C_3L_3s^2 + 1\right)}{C_3L_3s^2 + C_3R_3s + 1}, \ \infty, \ \frac{1}{C_5s}, \ \infty\right)
H(s) = \frac{-C_2C_3C_5L_2L_3R_2R_3s^5 + R_2R_3g_m + R_3 + s^4\left(C_2C_3L_2L_3R_2R_3g_m + C_2C_3L_2L_3R_3 - C_3C_5L_2L_3R_3\right) + s^3\left(-C_2C_5L_2R_2R_3 - C_3C_5L_2R_2R_3 - C_3C_5L_2R_2R_3\right)}{R_2g_m + s^5\left(2C_2C_3C_5L_2L_3R_2g_m + C_2C_3L_2L_3R_2 + 4C_2C_3L_2L_3R_2\right) + s^3\left(C_2C_3L_2L_3R_2g_m + C_2C_3L_2R_3g_m + C_2C_3L_2R_
10.649 INVALID-ORDER-649 Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ \frac{R_3\left(C_3L_3s^2 + 1\right)}{C_3L_3s^2 + C_3R_3s + 1}, \ \infty, \ \frac{R_5}{C_5R_5s + 1}, \ \infty\right)
                                     10.650 INVALID-ORDER-650 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{R_3\left(C_3L_3s^2 + 1\right)}{C_3L_3s^2 + C_3R_3s + 1}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R_2R_3g_m + R_3 + s^5\left(C_2C_3C_5L_2L_3R_2R_3R_5g_m - C_2C_3C_5L_2L_3R_2R_3 + C_2C_3C_5L_2L_3R_3R_5\right) + s^4\left(C_2C_3L_3R_3R_5\right) + s^4\left(C_2C_3L_3R_3R_5\right) + s^4\left(C_2C_3L_3R_3R_5\right) + s^4\left(C_3C_3L_3R_3R_5\right) + s^4\left(C_3C_3L_3R_5\right) + s^4\left(C_3C_3R_5\right) + s^4\left(C_3C_5\right) + s^4\left(C_3C_3R_5\right) + s^4\left(C_3C_5\right) + s^4\left(C_3C_5\right) + s^4\left(C_3C_5\right) + s^4\left(C_3C_5\right) + s^4\left(C_3C_5\right) + s^4\left(C_3C_5\right) + s^4\left(C_
H(s) = \frac{R_2R_3g_m + R_3 + s^{\circ}\left(C_2C_3C_5L_2L_3R_2R_3R_5g_m - C_2C_3C_5L_2L_3R_2R_3 + C_2C_3C_5L_2L_3R_3 + C_2C_3C_5L_2L_3R_3 + C_2C_3C_5L_2L_3R_3 + C_2C_3C_5L_2L_3R_3 + C_2C_3C_5L_2L_3R_3 + C_2
10.651 INVALID-ORDER-651 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{R_3\left(C_3L_3s^2 + 1\right)}{C_3L_3s^2 + C_3R_3s + 1}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)
H(s) = \frac{R_2 R_3 g_m + R_3 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_3\right) + s^5 \left(-C_2 C_3 C_5 L_2 L_3 R_2 R_3 + C_3 C_5 L_2 L_3 R_2 R_3 + C_3 C_5 L_2 L_3 R_2 R_3 + C_2 C_3 C_5 L_2 L_3 R_3 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10.652 INVALID-ORDER-652 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{R_3\left(C_3L_3s^2 + 1\right)}{C_3L_3s^2 + C_3R_3s + 1}, \infty, \frac{L_5s}{C_5L_5s^2 + 1}, \infty\right)
10.653 INVALID-ORDER-653 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{R_3(C_3L_3s^2 + 1)}{C_3L_3s^2 + C_3R_3s + 1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R_2R_3g_m + R_3 + s^6 \left( C_2C_3C_5L_2L_3L_5R_2R_3g_m + C_2C_3C_5L_2L_3L_5R_3 \right)
                                     \frac{R_2R_3g_m + R_3 + s^{\circ}\left(C_2C_3C_5L_2L_3L_5R_2g_m + C_2C_3C_5L_2L_3L_5R_2g_m + C_2C_3C_5L_2L_3R_2g_m + C_2C_3C_5L_2L_3R_2g
10.654 INVALID-ORDER-654 Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ \frac{R_3\left(C_3L_3s^2 + 1\right)}{C_3L_3s^2 + C_3R_3s + 1}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2 + L_5s + R_5}, \ \infty\right)
 H(s) = \frac{1}{2R_2R_3R_5g_m + R_2R_5 + 4R_3R_5 + s^6\left(2C_2C_3C_5L_2L_3L_5R_2R_3R_5g_m + C_2C_3C_5L_2L_3L_5R_2R_3R_5\right) + s^5\left(C_2C_3C_5L_2L_3L_5R_2R_3g_m + C_2C_3L_2L_3L_5R_2R_3g_m + C_2C_3L_2L_3L_5R_3g_m + C_2C_3L_2L_3L_3L_3R_3g_m + C_2C_3L_3L_3L_3R_3g_m + C_2C
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10.655 INVALID-ORDER-655 Z(s) = \left(\infty, \ \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \ \frac{R_3\left(C_3L_3s^2 + 1\right)}{C_3L_3s^2 + C_3R_3s + 1}, \ \infty, \ \frac{C_5L_5R_5s^2 + L_5s + R_5}{C_5L_5s^2 + 1}, \ \infty\right)
H(s) = \frac{1}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^6\left(2C_2C_3C_5L_2L_3L_5R_2R_3g_m + C_2C_3C_5L_2L_3L_5R_2 + 4C_2C_3C_5L_2L_3L_5R_3 + C_2C_3C_5L_2L_3L_5R_3 + C_2C_3C_5L_3L_5R_3 + C_2C
10.656 INVALID-ORDER-656 Z(s) = \left(\infty, \frac{C_2L_2R_2s^2 + L_2s + R_2}{C_2L_2s^2 + 1}, \frac{R_3\left(C_3L_3s^2 + 1\right)}{C_3L_3s^2 + C_3R_3s + 1}, \infty, \frac{R_5\left(C_5L_5s^2 + 1\right)}{C_5L_5s^2 + C_5R_5s + 1}, \infty\right)
H(s) = \frac{1}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^6\left(2C_2C_3C_5L_2L_3L_5R_2R_3g_m + C_2C_3C_5L_2L_3L_5R_2 + 4C_2C_3C_5L_2L_3L_5R_3 + C_2C_3C_5L_2L_3L_5R_3 + C_2C_3C_5L_2L_3R_5R_5 + s^6\left(2C_2C_3C_5L_2L_3L_5R_2R_3g_m + C_2C_3C_5L_2L_3L_5R_2 + 4C_2C_3C_5L_2L_3L_5R_3 + C_2C_3C_5L_2L_3L_5R_3 + C_2C_3C_5L_2L_3R_3R_5g_m + C_2C_3C_5L_2L_3R_5g_m + C_2C_3C_5L_2L_3R_5
10.657 INVALID-ORDER-657 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3, \infty, \frac{1}{C_5s}, \infty\right)
                                                                                                                                                                                                                                           H(s) = \frac{-C_2C_5L_2R_2R_3s^3 + R_2R_3g_m + R_3 + s^2\left(C_2L_2R_2R_3g_m + C_2L_2R_3\right) + s\left(C_2R_2R_3 - C_5R_2R_3\right)}{R_2g_m + s^3\left(2C_2C_5L_2R_2R_3g_m + C_2C_5L_2R_2 + 4C_2C_5L_2R_3\right) + s^2\left(4C_2C_5R_2R_3 + C_2L_2R_2g_m + C_2L_2\right) + s\left(C_2R_2 + 2C_5R_2R_3g_m + C_5R_2 + 4C_5R_3\right) + 1}
10.658 INVALID-ORDER-658 Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ R_3, \ \infty, \ \frac{R_5}{C_5R_5s+1}, \ \infty\right)
                                      -C_{2}C_{5}L_{2}R_{3}R_{5}s^{3}+R_{2}R_{3}R_{5}g_{m}-R_{2}R_{3}+R_{3}R_{5}+s^{2}\left(C_{2}L_{2}R_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}\right)+s\left(C_{2}R_{2}R_{3}R_{5}-C_{5}R_{2}R_{3}R_{5}\right)\\-2R_{2}R_{3}g_{m}+R_{2}R_{5}g_{m}+R_{2}+4R_{3}+R_{5}+s^{3}\left(2C_{2}C_{5}L_{2}R_{2}R_{3}R_{5}g_{m}+C_{2}C_{5}L_{2}R_{3}R_{5}\right)+s^{2}\left(4C_{2}C_{5}R_{2}R_{3}R_{5}+2C_{2}L_{2}R_{3}R_{5}+C_{2}L_{2}R_{3}R_{5}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R_{3}+C_{2}L_{2}R
10.659 INVALID-ORDER-659 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3, \infty, R_5 + \frac{1}{C_5s}, \infty\right)
                                                                            H(s) = \frac{R_2 R_3 g_m + R_3 + s^3 \left(C_2 C_5 L_2 R_2 R_3 R_5 g_m - C_2 C_5 L_2 R_2 R_3 + C_2 C_5 L_2 R_3 R_5\right) + s^2 \left(C_2 C_5 R_2 R_3 R_5 + C_2 L_2 R_2 R_3 g_m + C_2 L_2 R_3\right) + s \left(C_2 R_2 R_3 + C_5 R_2 R_3 R_5 g_m - C_5 R_2 R_3 + C_5 R_3 R_5\right)}{R_2 g_m + s^3 \left(2 C_2 C_5 L_2 R_2 R_3 g_m + C_2 C_5 L_2 R_2 R_5 g_m + C_2 C_5 L_2 R_3 + 
10.660 INVALID-ORDER-660 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3, \infty, L_5s + \frac{1}{C_5s}, \infty\right)
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10.661 INVALID-ORDER-661 
$$Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3, \infty, \frac{L_5s}{C_5L_5s^2+1}, \infty\right)$$

$$-C_2C_2L_2L_2R_2R_2R_2 + \frac{s^3}{2}(C_2L_2L_2R_2R_2R_2 + C_2L_2R_2R_2 + C_2L_2R_2 + C_2L_2R_2$$

 $H(s) = \frac{-C_2C_5L_2L_5R_2R_3s^4 - R_2R_3 + s^3\left(C_2L_2L_5R_2R_3g_m + C_2L_2L_5R_3\right) + s^2\left(-C_2L_2R_2R_3 + C_2L_5R_2R_3 - C_5L_5R_2R_3\right) + s\left(L_5R_2R_3g_m + L_5R_3\right)}{2R_2R_3g_m + R_2 + 4R_3 + s^4\left(2C_2C_5L_2L_5R_2g_m + C_2L_2L_5R_3\right) + s^3\left(4C_2C_5L_2L_5R_2g_m + C_2L_2L_5\right) + s^2\left(2C_2L_2R_2R_3g_m + C_2L_2R_3 + C_2L_5R_2 + 4C_5L_5R_2\right) + s^2\left(2C_2L_2R_2R_3g_m + C_2L_2R_3 +$ 

10.662 INVALID-ORDER-662 
$$Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3, \infty, L_5s + R_5 + \frac{1}{C_5s}, \infty\right)$$

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^4 \left(C_2 C_5 L_2 L_5 R_2 R_3 g_m + C_2 C_5 L_2 L_5 R_3\right) + s^3 \left(C_2 C_5 L_2 R_2 R_3 R_5 g_m - C_2 C_5 L_2 R_3 R_5 + C_2 C_5 L_2 R_3 R_5 + C_2 C_5 L_2 R_3 R_5 + C_2 L_2 R_3 g_m + C_2 L_2 R_3 g_m + C_5 L_5 R_3\right) + s \left(C_2 R_2 R_3 + C_5 L_2 R_3 R_5 g_m - C_5 R_2 R_3 R_5 + C_2 L_2 R_3 R_5$ 

**10.663** INVALID-ORDER-663 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ R_3, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \ \infty\right)$$

 $H(s) = \frac{-C_2C_5L_2L_5R_2R_3R_5s^4 - R_2R_3R_5 + s^3\left(C_2L_2L_5R_2R_3R_5g_m - C_2L_2L_5R_2R_3 + C_2L_2L_5R_3R_5\right) + s^2\left(-C_2L_2R_2R_3R_5 + C_2L_5R_2R_3R_5 - C_5L_5R_2R_3R_5\right) + s^2\left(-C_2L_2R_2R_3R_5 + C_2L_5R_2R_3R_5 + C_2L_5R_2R_3R_5\right) + s^2\left(-C_2L_2R_2R_3R_5 + C_2L_5R_2R_3R_5\right) + s^2\left(-C_2L_2R_2R_3R_5 + C_2L_5R_2R_3R_5 + C_2L_5R_2R_3R_5\right) + s^2\left(-C_2L_2R_2R_3R_5 + C_2L_2L_5R_3R_5\right) + s^2\left(-C_2L_2R_2R_3R_5 + C_2L_2R_3R_5\right) + s^2\left(-C_2L_2R_3R_5 + C_2L_2R_3R_5\right) + s^2\left(-C_2L_2R_3R_5\right) + s^2\left($ 

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10.664 INVALID-ORDER-664 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3, \infty, \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \infty\right)
10.665 INVALID-ORDER-665 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3, \infty, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \infty\right)
H(s) = \frac{R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5 + s^4 \left(C_2 C_5 L_2 L_5 R_2 R_3 R_5 g_m - C_2 C_5 L_2 L_5 R_3 R_5\right) + s^3 \left(-C_2 C_5 L_2 R_2 R_3 R_5 + C_2 C_5 L_5 R_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_2 R_3 R_5 + C_2 C_5 L_2 R_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_2 R_3 R_5 g_m - C_2 C_5 L_2 L_5 R_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_2 R_3 R_5 g_m + C_2 C_5 L_2 L_5 R_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_2 R_3 R_5 g_m + C_2 C_5 L_2 L_5 R_2 R_3 R_5 + C_2 C_5 L_2 R_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_2 R_3 R_5 g_m + C_2 C_5 L_2 L_5 R_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_2 R_3 R_5 g_m + C_2 C_5 L_2 L_5 R_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_2 R_3 R_5 g_m + C_2 C_5 L_2 L_5 R_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_2 R_3 R_5 g_m + C_2 C_5 L_2 L_5 R_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_2 R_3 R_5 g_m + C_2 C_5 L_2 L_5 R_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 L_5 R_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_3 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_5\right) + s^2 \left(C_2 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m + C_2 C_5 L_2 R_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m + C_2 C_5 L_2 R_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m + C_2 C_5 L_2 R_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m + C_2 L_5 R_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m + C_2 L_5 R_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m + C_2 L_5 R_5\right) + s^2 \left(C_2 L_2 R_5 R_5 g_m 
10.666 INVALID-ORDER-666 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{1}{C_3s}, \infty, R_5, \infty\right)
                                                                                                                                                                                                                                  10.667 INVALID-ORDER-667 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{1}{C_3s}, \infty, \frac{1}{C_5s}, \infty\right)
                                                                                                                                                                                                                  H(s) = \frac{-C_2C_5L_2R_2s^3 + R_2g_m + s^2\left(C_2L_2R_2g_m + C_2L_2\right) + s\left(C_2R_2 - C_5R_2\right) + 1}{C_2C_3C_5L_2R_2s^4 + s^3\left(C_2C_3L_2R_2g_m + C_2C_5L_2R_2g_m + 4C_2C_5L_2\right) + s^2\left(C_2C_3R_2 + 4C_2C_5R_2 + C_3C_5R_2\right) + s\left(C_3R_2g_m + C_3 + 2C_5R_2g_m + 4C_5\right)}
10.668 INVALID-ORDER-668 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{1}{C_3s}, \infty, \frac{R_5}{C_5R_5s+1}, \infty\right)
H(s) = \frac{-C_2C_5L_2R_2R_5s^3 + R_2R_5g_m - R_2 + R_5 + s^2\left(C_2L_2R_2R_5g_m - C_2L_2R_2 + C_2L_2R_5\right) + s\left(C_2R_2R_5 - C_5R_2R_5\right)}{C_2C_3C_5L_2R_2R_5s^4 + 2R_2g_m + s^3\left(C_2C_3L_2R_2F_5g_m + C_2C_3L_2R_2 + C_2C_3L_2R_5 + 2C_2C_5L_2R_5\right) + s^2\left(C_2C_3R_2R_5 + 4C_2C_5R_2R_5 + 2C_2L_2R_2g_m + 4C_2L_2 + C_3C_5R_2R_5\right) + s\left(4C_2R_2 + C_3R_2R_5g_m + C_3R_2 + C_3R_5 + 2C_5R_2R_5g_m + 4C_5R_5\right) + s\left(4C_2R_2 + C_3R_2R_5g_m + C_3R_2 + C_3R_5g_m + 4C_5R_5\right) + s\left(4C_2R_2 + C_3R_5g_m + C_3R_2 + C_3R_5g_m + 4C_5R_5\right) + s\left(4C_2R_2 + C_3R_5g_m + C_3R_5g_m + C_3R_5g_m + 4C_5R_5\right) + s\left(4C_2R_2 + C_3R_5g_m + C_3R_5g_m + C_3R_5g_m + 4C_5R_5\right) + s\left(4C_2R_2 + C_3R_5g_m + C_3R_5g_m + C_3R_5g_m + 4C_5R_5\right) + s\left(4C_2R_2 + C_3R_5g_m + C_3R_5g_m + C_3R_5g_m + 4C_5R_5\right) + s\left(4C_2R_2 + C_3R_5g_m + C_3R_5g_m + C_3R_5g_m + 4C_5R_5\right) + s\left(4C_2R_2 + C_3R_5g_m + C_3R_5g_m + C_3R_5g_m + 4C_5R_5\right) + s\left(4C_2R_2 + C_3R_5g_m + C_3R_5g_m + C_3R_5g_m + 4C_5R_5\right) + s\left(4C_2R_2 + C_3R_5g_m + C_3R_5g_m + C_3R_5g_m + 4C_5R_5\right) + s\left(4C_2R_2 + C_3R_5g_m + C_3R_5g_m + C_3R_5g_m + 4C_5R_5\right) + s\left(4C_2R_2 + C_3R_5g_m + C_3R_5g_m + C_3R_5g_m + 4C_5R_5\right) + s\left(4C_2R_5g_m + C_3R_5g_m + C_3R_5g_m + 4C_5R_5\right) + s\left(4C_2R_5g_m + C_3R_5g_m + C_3R_5g_m + 4C_5R_5\right) + s\left(4C_2R_5g_m + C_3R_5g_m + C_3R_5g_m + C_3R_5g_m + 4C_5R_5\right) + s\left(4C_2R_5g_m + C_3R_5g_m + C_3R_5g_m + C_3R_5g_m + 4C_5R_5g_m + C_3R_5g_m + C_3R_
10.669 INVALID-ORDER-669 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{1}{C_3s}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)
                         H(s) = \frac{R_2 g_m + s^3 \left(C_2 C_5 L_2 R_2 R_5 g_m - C_2 C_5 L_2 R_2 + C_2 C_5 L_2 R_5 \right) + s^2 \left(C_2 C_5 R_2 R_5 + C_2 L_2 R_2 g_m + C_2 L_2\right) + s \left(C_2 R_2 + C_5 R_2 R_5 g_m - C_5 R_2 + C_5 R_5\right) + 1}{s^4 \left(C_2 C_3 C_5 L_2 R_2 + C_2 C_3 C_5 L_2 R_5 \right) + s^3 \left(C_2 C_3 C_5 R_2 R_5 + C_2 C_3 L_2 R_2 g_m + C_2 C_5 L_2 R_2 g_m + 4 C_2 C_5 L_2\right) + s^2 \left(C_2 C_3 R_2 + 4 C_2 C_5 R_2 + C_3 C_5 R_2 R_5 g_m + C_3 C_5 R_2 + C_3 C_5 R_2\right) + s \left(C_3 R_2 g_m + C_3 C_5 R_2 R_5 g_m + C_3 C_5 R_5 g_m + C_3 
10.670 INVALID-ORDER-670 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{1}{C_3s}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)
                  H(s) = \frac{R_2 g_m + s^4 \left(C_2 C_5 L_2 L_5 R_2 g_m + C_2 C_5 L_2 L_5\right) + s^3 \left(-C_2 C_5 L_2 R_2 + C_2 C_5 L_5 R_2\right) + s^2 \left(C_2 L_2 R_2 g_m + C_2 L_2 + C_5 L_5 R_2 g_m + C_5 L_5\right) + s \left(C_2 R_2 - C_5 R_2\right) + 1}{s^5 \left(C_2 C_3 C_5 L_2 L_5\right) + s^4 \left(C_2 C_3 C_5 L_2 R_2 + C_2 C_3 C_5 L_5 R_2\right) + s^3 \left(C_2 C_3 L_2 R_2 g_m + C_2 C_5 L_2 R_2 g_m + 4 C_2 C_5 L_2 R_2 g_m + C_3 C_5 L_5\right) + s^2 \left(C_2 C_3 R_2 + 4 C_2 C_5 R_2 + C_3 C_5 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 C_5 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 C_5 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 C_5 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 C_5 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 G_3 R_2 + C_3 R_2\right) + s \left(C_3 R_2 R_2 R_2 + C_3 R_2\right) + s \left(C_3 R_2 R_2 R_2 R_2 R_2 R_2\right) + s \left(C_3 R_2 R_2 R_2 R_2 R_2 R_2\right) + s \left(C_3 R_2 R_2 R_2 R_2 R_2 R_2\right) + s \left(C_3 R_2 R_2 R_2 R_2 R_2 R_2\right) + s \left(C_3 R_2 R_2 R_2 R_2 R_2 R_2\right) + s \left(C_3 R_2 R_2 R_2 R_2 R_2 R_2\right) + s \left(C_3 R_2 R_2 R_2
10.671 INVALID-ORDER-671 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{1}{C_3s}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \infty\right)
                                   \frac{-C_2C_5L_2L_5R_2s^4-R_2+s^3\left(C_2L_2L_5R_2g_m+C_2L_2L_5\right)+s^2\left(-C_2L_2R_2+C_2L_5R_2-C_5L_5R_2\right)+s\left(L_5R_2g_m+L_5\right)}{C_2C_3C_5L_2L_5R_2s^5+2R_2g_m+s^4\left(C_2C_3L_2L_5R_2g_m+C_2C_5L_2L_5\right)+s^3\left(C_2C_3L_2R_2+C_2C_3L_5R_2+C_2C_5L_5R_2\right)+s^2\left(2C_2L_2R_2g_m+4C_2L_2+C_3L_5R_2g_m+4C_5L_5\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^2\left(4C_2R_2+C_3R_2\right)+s^
10.672 INVALID-ORDER-672 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{1}{C_3s}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \infty\right)
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10.673 INVALID-ORDER-673 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{1}{C_3s}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \infty\right)
H(s) = \frac{-C_2C_5L_2L_5R_2R_5s^4 - R_2R_5 + s^3\left(C_2L_2L_5R_2S_2g_m - C_2L_2L_5R_2 + C_2L_2L_5R_5\right) + s^2\left(-C_2L_2R_2R_5 + C_2L_5R_2R_5 - C_5L_5R_2R_5\right) + s\left(L_5R_2R_5g_m - C_2L_2L_5R_2R_5s^4 - R_2R_5s^4 - R_2
10.674 INVALID-ORDER-674 Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{1}{C_3s}, \ \infty, \ \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \ \infty\right)
H(s) = \frac{R_2R_5g_m - R_2 + R_5 + s^4\left(C_2C_5L_2L_5R_2g_m - C_2C_5L_2L_5R_2 + C_2C_5L_2L_5R_2 + C_2L_2L_5R_2g_m + C_2L_2L_5\right) + s^3\left(C_2C_5L_2R_2g_m + C_2L_2L_5\right) + s^2\left(C_2L_2R_2g_m - C_2L_2R_2 + C_2L_2R_5 + C_2L_2R_5\right)}{2R_2g_m + s^5\left(C_2C_3C_5L_2L_5R_2g_m + C_2C_3L_2L_5R_2g_m + C_2C_3L_2R_2g_m + C_2C_3L_2R_
10.675 INVALID-ORDER-675 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{1}{C_3s}, \infty, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \infty\right)
10.676 INVALID-ORDER-676 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, R_5, \infty\right)
                                     \frac{C_{2}R_{2}R_{3}R_{5}s+R_{2}R_{3}R_{5}g_{m}-R_{2}R_{3}+R_{3}R_{5}+s^{2}\left(C_{2}L_{2}R_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}R_{5}g_{m}+C_{2}L_{2}R_{3}
10.677 INVALID-ORDER-677 Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{R_3}{C_3R_3s+1}, \ \infty, \ \frac{1}{C_5s}, \ \infty\right)
10.678 INVALID-ORDER-678 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \frac{R_5}{C_5R_5s+1}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -C_{2}C_{5}L_{2}R_{2}R_{3}R_{5}s^{3}+R_{2}R_{3}R_{5}g_{m}-R_{2}R_{3}+R_{3}R_{5}+s^{2}\left(C_{2}L_{2}R_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{2}R_{3}+C_{2}L_{2}R_{3}R_{5}\right)+s\left(C_{2}R_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}\right)+s\left(C_{2}R_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}\right)+s\left(C_{2}R_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_{2}R_{3}R_{5}g_{m}-C_{2}L_
H(s) = \frac{-C_2C_5L_2R_3R_5s^6 + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^2\left(C_2L_2R_2R_3R_5g_m - C_2L_2R_2R_3 + C_2L_2R_3R_5\right) + s\left(C_2R_2R_3R_5 - C_2L_2R_3R_5 + s^2\left(C_2L_2R_3R_5 - C_2L_2R_3R_5 - C_2L_2R_3R_5 - C_2L_2R_3R_5 + s^2\left(C_2L_2R_3R_5 - C_2L_2R_3R_5 - C_2L
10.679 INVALID-ORDER-679 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)
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$$H(s) = \frac{R_2 R_3 g_m + R_3 + s^3 \left(C_2 C_5 L_2 R_2 R_3 R_5 g_m - C_2 C_5 L_2 R_3 R_5\right) + s^2 \left(C_2 C_5 R_2 R_3 R_5 + C_2 L_2 R_3 g_m + C_2 L_2 R_3\right) + s \left(C_2 R_2 R_3 R_5 + C_2 L_2 R_3 R_5 +$$

10.680 INVALID-ORDER-680 
$$Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)$$

10.681 INVALID-ORDER-681 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{R_3}{C_3R_3s+1}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1}, \ \infty\right)$$

$$H(s) = \frac{-C_2C_5L_2L_5R_2R_3s^4 - R_2R_3 + s^3\left(C_2L_2L_5R_2R_3g_m + C_2L_2L_5R_3\right) + s^2\left(-C_2L_2R_2R_3 + C_2L_5R_2R_3 - C_5L_5R_2R_3\right) + s\left(L_5R_2R_3R_3s^4 - R_2R_3s^5 + 2R_2R_3g_m + R_2 + 4R_3 + s^4\left(C_2C_3L_2L_5R_3g_m + C_2C_5L_2L_5R_3g_m + C_2C_5L_2L_5R_3\right) + s\left(C_2C_3L_2R_3R_3s^4 - R_2R_3s^4 - R_2$$

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10.682 INVALID-ORDER-682 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \infty\right)
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 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^4 \left(C_2 C_5 L_2 L_5 R_3 g_m + C_2 C_5 L_2 L_5 R_3\right) + s^3 \left(C_2 C_5 L_2 R_3 R_5 g_m - C_2 C_5 L_2 R_2 R_3 R_5 g_m - C_2 C_5 L_2 R_2 R_3 R_5 g_m - C_2 C_5 L_2 R_3 R_5 g_m + C_2 C_5 L_2 R_5$ 

10.683 INVALID-ORDER-683  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \infty\right)$ 

 $H(s) = \frac{-C_2C_5L_2L_5R_2R_3R_5s^4 - R_2R_3R_5s^4 - R_2R_3R_5s^4$ 

10.684 INVALID-ORDER-684  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{R_3}{C_3R_3s+1}, \ \infty, \ \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \ \infty\right)$ 

10.685 INVALID-ORDER-685  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 R_5 g_m}{2 R_2 R_3 g_m + R_2 R_5 g_m + R_2 + 4 R_3 + R_5 + s^5 \left(C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 g_m + C_2 C_3 C_5 L_2 L_5 R_3 R_5\right) + s^4 \left(C_2 C_3 C_5 L_2 R_3 R_5 + C_2 C_3 C_5 L_2 L_5 R_2 R_3 R_5 + C_2 C_5 L_2 L_5 R_5 R_5 + C_2 C_5 L_5 L_5 R_$ 

**10.686** INVALID-ORDER-686  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, R_5, \infty\right)$ 

 $H(s) = \frac{R_2R_5g_m - R_2 + R_5 + s^3\left(C_2C_3L_2R_2R_3R_5g_m - C_2C_3L_2R_2R_3 + C_2C_3L_2R_3R_5\right) + s^2\left(C_2C_3R_2R_3R_5 + C_2L_2R_2g_m - C_2L_2R_2 + C_2L_2R_5\right) + s\left(C_2R_2R_5 + C_3R_2R_3R_5g_m - C_3R_2R_3 + C_3R_3R_5\right)}{2R_2g_m + s^3\left(2C_2C_3L_2R_2R_3g_m + C_2C_3L_2R_2g_m + C_2C_3L_2R_2 + C_2C_3L_2R_3 + C_2C_3L_2R_3$ 

10.687 INVALID-ORDER-687  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{1}{C_5s}, \ \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2R_2R_3s^4 + R_2g_m + s^3\left(C_2C_3L_2R_2R_3g_m + C_2C_5L_2R_2\right) + s^2\left(C_2C_3R_2R_3 + C_2L_2R_2g_m + C_2L_2 - C_3C_5R_2R_3\right) + s\left(C_2R_2 + C_3R_2R_3g_m + C_3R_3 - C_5R_2\right) + 1}{s^4\left(2C_2C_3C_5L_2R_2R_3g_m + C_2C_3L_2R_2g_m + C_2C_3L_2R_2g_m + C_2C_5L_2R_2g_m + 4C_2C_5L_2\right) + s^2\left(C_2C_3R_2R_3 + C_2C_3C_5R_2R_3g_m + C_3R_3 - C_5R_2\right) + 1}\\ = \frac{-C_2C_3C_5L_2R_2R_3s^4 + R_2g_m + s^3\left(C_2C_3L_2R_2R_3g_m + C_2C_3L_2R_2g_m + C_2L_2R_2g_m + C_2L_2R_2g_$ 

10.688 INVALID-ORDER-688  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{R_5}{C_5R_5s+1}, \ \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2R_2R_3R_5s^4 + R_2R_5g_m - R_2 + R_5 + s^3\left(C_2C_3L_2R_2R_3R_5g_m - C_2C_3L_2R_2R_3 + C_2C_5L_2R_2R_5\right) + s^2\left(C_2C_3R_2R_3R_5 + C_2L_2R_2R_5g_m - C_2L_2R_2 + C_2R_2R_3R_5\right) + s^2\left(C_2C_3R_2R_3R_5 + C_2L_2R_2R_5g_m - C_2L_2R_2\right) + s^2\left(C_2C_3R_2R_3R_5 + C_2C_3L_2R_2R_3R_5 + C_2C_3L_2R_2R_3R_5 + C_2C_3L_2R_2R_3R_5 + C_2C_3L_2R_2R_3R_5\right) + s^2\left(C_2C_3R_2R_3R_5 + C_2L_2R_2R_3g_m - C_2L_2R_2\right) + s^2\left(C_2C_3R_2R_3R_5 + C_2C_3L_2R_2R_3R_5 + C_2C_3L_2R_2R_3R_5 + C_2C_3L_2R_2R_3R_5\right) + s^2\left(C_2C_3R_2R_3R_5 + C_2C_3L_2R_2R_3R_5 + C_2C_3L_2R_2R_3R_5 + C_2C_3L_2R_2R_3R_5\right) + s^2\left(C_2C_3R_2R_3R_5 + C_2C_3L_2R_2R_3R_5 + C_2C_3L_2R_2R_3R_5 + C_2C_3L_2R_2R_3R_5\right) + s^2\left(C_2C_3R_2R_3R_5 + C_2C_3L_2R_2R_3R_5\right) + s^2\left(C_2C_3R_2R_3R_5 + C_2C_3L_2R_2R_3R_5\right) + s^2\left(C_2C_3R_2R_3R_5 + C_2C_3L_2R_2R_3R_5\right) + s^2\left(C_2C_3R_2R_3R_5 + C_2C_3L_2R_3R_5\right) + s^2\left(C_2C_3R_2R_3R_5 + C_2C_3L_2R_5\right) + s^2\left(C_2C_3R_2R_3R_5 + C_2C_3L_2R_5\right) + s^2\left(C_2C_3R_2R_3R_5 + C_2C_3L_2R_5\right) + s^2\left(C_2C_3R_2R_5\right) + s^2\left(C_2C_3R_2R_5\right) + s^2\left(C_2C_3R_2R_5\right) + s^2\left(C_2C_3$ 

**10.689** INVALID-ORDER-689  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)$ 

 $H(s) = \frac{R_2g_m + s^4\left(C_2C_3C_5L_2R_2R_3R_5g_m - C_2C_3C_5L_2R_2R_3 + C_2C_3C_5L_2R_3R_5 + c_2C_3L_2R_3R_5 + c_2C_3L_2R_3R_5 + c_2C_3L_2R_3R_5 + c_2C_3L_2R_3R_5 + c_2C_5L_2R_3R_5 + c_2C_5L_2R_3 + c_$ 

**10.690** INVALID-ORDER-690  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)$ 

 $H(s) = \frac{R_2 g_m + s^5 \left(C_2 C_3 C_5 L_2 L_5 R_2 R_3 g_m + C_2 C_3 C_5 L_2 L_5 R_3\right) + s^4 \left(-C_2 C_3 C_5 L_2 R_3 + C_2 C_3 C_5 L_2 R_3 + C_2 C_5 L_2 R_3$ 

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10.691 INVALID-ORDER-691 Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1}, \ \infty\right)
H(s) = \frac{-C_2C_3C_5L_2L_5R_2R_3s^5 - R_2 + s^4\left(C_2C_3L_2L_5R_2g_m + C_2C_3L_2L_5R_3 - C_2C_5L_2L_5R_2\right) + s^3\left(-C_2C_3L_2R_2R_3 + C_2C_3L_5R_2R_3 + C_2L_2L_5R_2g_m + C_2L_2L_5 - C_3C_5L_5R_2R_3\right) + s^2\left(2C_2C_3C_5L_2L_5R_2g_m + C_2C_3L_5R_2g_m + C_2C_3L_5R_2g_m
10.692 INVALID-ORDER-692 Z(s) = \left(\infty, \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, L_5s + R_5 + \frac{1}{C_5s}, \infty\right)
H(s) = \frac{R_2 g_m + s^5 \left(C_2 C_3 C_5 L_2 L_5 R_2 g_3 g_m + C_2 C_3 C_5 L_2 L_5 R_3 g_m + C_2 C_3 C_5 L_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 R_3 R_5 + C_2 C_3 C_5 L_2 R_5 R_5
10.693 INVALID-ORDER-693 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -C_2C_3C_5L_2L_5R_2R_3R_5s^5-R_2R_5+s^4\left(C_2C_3L_2L_5R_2R_3R_5g_m-C_2C_3L_2L_5R_2R_3+C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_3R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_2L_5R_5g_m-C_2C_3L_5R_5g_m-C_2C_3L_5R_5g_m-C_2C_3L_5R_5g_m-C_2C_3L_5R_5g_m-C_2C_3L_5R_5g_m-C_2C_5R_5g_m-C_2C_5R_5g_m-C_2C_5R_5g_m-C_2C_5R_5g_m-C_2C_5R_5g_m-C_2C_5R_5g_m-C_2C_5R_5g_m-C_2C_5R_5g_m-C_2C_5R_5g_m-C_2C_5R_5g_m-C_2C_5R_5g_m-C_2C_5R_5g_m-C_2C_5R_5g_m-C_
                                                    -C_2C_3C_5L_2L_5R_2R_3R_5s^* - R_2R_5 + s^*(C_2C_3L_2L_5R_2R_3R_5g_m - C_2C_3L_2L_5R_2R_3 + C_2C_3L_2L_5R_2R_3 + C_2C_3L_2L_5R_2R_3 + C_2C_3L_2L_5R_2R_3R_5 + C_2C_3L_2L_5R_3R_5 +
10.694 INVALID-ORDER-694 Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \ \infty\right)
                                                      \frac{R_2R_5g_m - R_2 + R_5 + s^5\left(C_2C_3C_5L_2L_5R_2R_3R_5g_m - C_2C_3C_5L_2L_5R_2R_3 + C_2C_3L_2L_5R_3R_5 + C_2C_3L_2L_5R_3R_5 + C_2C_3L_2L_5R_3R_5 + C_2C_3L_2L_5R_3R_5 + C_2C_3L_2L_5R_3R_5 + C_2C_3L_2L_5R_3 + C_2C_5L_2L_5R_2 + C_2C_5L_2L_5R_2 + C_2C_5L_2L_5R_3 + C_2C_3L_2L_5R_3R_5 + C_2C_3L_2L_5R_5 + C_2C_3L_2L_5R_3R_5 + C_2C_3L_2L_5R_5 + C_2C_3L_2L_5R_5 + C_2C_3L_2L_5R_5 + C_2C_3L_2L_5R_5 + C_2C_3L_2L_5
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$$H(s) = \frac{1}{2R_2g_m + s^5} \frac{1}{(2C_2C_3C_5L_2L_5R_2R_3g_m + C_2C_3C_5L_2L_5R_2+C_2C_3C$$

$$\textbf{10.695} \quad \textbf{INVALID-ORDER-695} \ Z(s) = \left( \infty, \ \frac{R_2\left( C_2L_2s^2 + 1 \right)}{C_2L_2s^2 + C_2R_2s + 1}, \ R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{R_5\left( C_5L_5s^2 + 1 \right)}{C_5L_5s^2 + C_5R_5s + 1}, \ \infty \right) \\ H(s) = \frac{R_2R_5g_m - R_2 + R_5 + s^5\left( C_2C_3C_5L_2L_5R_2R_3R_5g_m - C_2C_3C_5L_2L_5R_2R_3 + C_2C_3C_5L_2L_5R_3R_5 \right) + s^4\left( -C_2C_3C_5L_2R_2R_3R_5 + C_2C_3C_5L_2R_2R_3R_5 + C_2C_3C_5L_2R_2R_3R_5$$

$$\begin{aligned} \textbf{10.696} \quad & \textbf{INVALID-ORDER-696} \ Z(s) = \left( \infty, \ \frac{R_2\left( C_2L_2s^2 + 1 \right)}{C_2L_2s^2 + C_2R_2s + 1}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ R_5, \ \infty \right) \\ & H(s) = \frac{C_2C_3L_3R_2R_5s^3 + C_2R_2R_5s + R_2R_5g_m - R_2 + R_5 + s^4\left( C_2C_3L_2L_3R_2R_5g_m - C_2C_3L_2L_3R_2 + C_2C_3L_2L_3R_5 \right) + s^2\left( C_2L_2R_2R_5g_m - C_2L_2R_2 + C_2L_2R_5 + C_3L_3R_2R_5g_m - C_3L_3R_2 + C_3L_3R_5 \right) }{2R_2g_m + s^4\left( 2C_2C_3L_2L_3R_2g_m + 4C_2C_3L_2L_3 \right) + s^3\left( C_2C_3L_2R_2R_5g_m + C_2C_3L_2R_2 + C_2C_3L_2R_5 + 4C_2C_3L_2R_5 + 2C_2L_2R_2g_m + 4C_2L_2 + 2C_3L_3R_2g_m + 4C_3L_3 \right) + s\left( 4C_2R_2 + C_3R_2R_5g_m + C_3R_2R_5g$$

10.697 INVALID-ORDER-697 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \frac{1}{C_5s}, \ \infty\right)$$

$$H(s) = \frac{-C_2C_3C_5L_2L_3R_2s^5 + R_2g_m + s^4\left(C_2C_3L_2L_3R_2g_m + C_2C_3L_2L_3\right) + s^3\left(C_2C_3L_3R_2 - C_2C_5L_2R_2 - C_3C_5L_3R_2\right) + s^2\left(C_2L_2R_2g_m + C_2L_2 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_2R_2 - C_5R_2\right) + 1}{s^5\left(2C_2C_3C_5L_2L_3R_2g_m + 4C_2C_3C_5L_2R_2\right) + s^4\left(C_2C_3C_5L_2R_2 + 4C_2C_3C_5L_2R_2g_m + C_2C_3L_2R_2g_m + 4C_2C_5L_2 + 2C_3C_5L_3R_2g_m + 4C_3C_5L_3\right) + s^2\left(C_2C_3R_2 + 4C_2C_5R_2 + 4C_2C_5R_$$

10.698 INVALID-ORDER-698 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \frac{R_5}{C_5R_5s+1}, \ \infty\right)$$

$$H(s) = \frac{-C_2C_3C_5L_2L_3R_2R_5s^5 + R_2R_5g_m - R_2 + R_5 + s^4\left(C_2C_3L_2L_3R_2 + C_2C_3L_2L_3R_2 + C_2C_3L_2L_3R_2 + C_2C_5L_2R_2R_5 - C_3C_5L_2R_2R_5 - C_3C_5L_2R_2R_5 + s^2\left(C_2L_2R_2R_5 - C_3C_5L_2R_2R_5 - C_3C_5L_2R_2R_5 + s^2\left(C_2L_2R_2R_5 - C_3C_5L_2R_2R_5 + s^2\left(C_2L_2R_2R_5 - C_3C_5L_2R_2R_5 + s^2\left(C_2L_2R_2R_5 - C_3C_5L_2R_2R_5 + s^2\left(C_2L_2R_2R_5 - C_3C_5L_2R_2R_5 - c_3C_5L_2R_2R_5 + s^2\left(C_2L_2R_2R_5 - c_3C_5L_2R_2R_5 + s^2\left(C_2L_2R_2R_5 - c_3C_5L_2R_2R_5 + s^2\left(C_2L_2R_2R_5 - c_3C_5L_2R_2R_5 - c_3C_5L_2R_2R_5 - c_3C_5L_2R_2R_5 + s^2\left(C_2L_2R_2R_5 - c_3C_5L_2R_2R_5 - c_3C_5L_2R_2R_5 + s^2c_3C_5L_2R_2R_5 + s^2c_3C_5L_2R_2R_5$$

10.699 INVALID-ORDER-699 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ R_5 + \frac{1}{C_5s}, \ \infty\right)$$

$$H(s) = \frac{R_2 g_m + s^5 \left(C_2 C_3 C_5 L_2 L_3 R_2 R_5 g_m - C_2 C_3 C_5 L_2 L_3 R_2 + C_2 C_3 C_5 L_2 L_3 R_2 + C_2 C_3 L_2 L_3 R_2 + C_2 C_3 L_2 L_3 R_2 g_m + C_2 C_3 L_2 L_3 R_2 g_m + C_2 C_3 L_2 L_3 R_2 g_m + C_2 C_5 L_2 R_2 + C_2 C_5 L_2 R_2$$

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 \begin{aligned} \mathbf{10.700} \quad \mathbf{INVALID\text{-}ORDER\text{-}700} \ \ Z(s) &= \left( \infty, \ \frac{R_2\left( C_2L_2s^2 + 1 \right)}{C_2L_2s^2 + C_2R_2s + 1}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ L_5s + \frac{1}{C_5s}, \ \infty \right) \\ H(s) &= \frac{R_2g_m + s^6 \left( C_2C_3C_5L_2L_3L_5R_2g_m + C_2C_3C_5L_2L_3L_5 \right) + s^5 \left( -C_2C_3C_5L_2L_3R_2 + C_2C_3C_5L_3L_5R_2 \right) + s^4 \left( C_2C_3L_2L_3R_2g_m + C_2C_5L_2L_5 + C_3C_5L_2L_5 + C_3C_5L_3L_5 \right) + s^3 \left( C_2C_3L_3R_2 - C_2C_5L_2R_2 + C_2C_5L_5R_2 - C_3C_5L_3R_2 \right) + s^4 \left( C_2C_3C_5L_2L_3R_2g_m + C_2C_3L_2L_3 + C_2C_5L_2L_5 + C_3C_5L_2L_5 + C_3C_5L_3L_5 \right) + s^3 \left( C_2C_3L_3R_2 - C_2C_5L_2R_2 + C_2C_5L_5R_2 - C_3C_5L_3R_2 \right) + s^4 \left( C_2C_3C_5L_2L_3R_2g_m + C_2C_3L_3R_2 + C_2C_5L_3R_2 + C_2C_5L_3R_2 \right) + s^4 \left( C_2C_3C_5L_2L_3R_2g_m + C_2C_3L_3R_2 + C_2C_5L_3R_2 + C_2C_5L_3R_2 \right) + s^4 \left( C_2C_3C_5L_2L_3R_2g_m + C_2C_3L_3R_2 + C_2C_5L_3R_2 \right) + s^4 \left( C_2C_3C_5L_2L_3R_2g_m + C_2C_3L_3R_2 + C_2C_5L_3R_2 \right) + s^4 \left( C_2C_3C_5L_2L_3R_2g_m + C_2C_3L_3R_2 + C_2C_5L_3R_2 \right) + s^4 \left( C_2C_3C_5L_2R_2g_m + C_2C_3C_5L_3R_2 + C_2C_5L_3R_2 \right) + s^4 \left( C_2C_3C_5L_2R_2g_m + C_2C_3C_5L_3R_2 + C_2C_5L_3R_2 \right) + s^4 \left( C_2C_3C_5L_2R_2g_m + C_2C_3C_5L_3R_2 \right) + s^4 \left( C_2C_3C_5L_2R_2g_m + C_2C_3C_5L_2R_2 \right) + s^4 \left( C_2C_3C_5L_2R_2g_m
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10.701 INVALID-ORDER-701 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1}, \ \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_2s^6 - R_2 + s^5\left(C_2C_3L_2L_3L_5R_2g_m + C_2C_3L_2L_3R_2 + C_2C_3L_2L_5R_2 - C_3C_5L_2L_5R_2 - C_3C_5L_3L_5R_2\right) + s^3\left(C_2L_2L_5R_2g_m + C_2L_2L_5 + C_2C_3L_2L_3R_2g_m + C_2C_3L_2L_3R_2g_m + C_2C_3L_2L_3R_2g_m + C_2C_3L_2L_5R_2g_m + C_2C_3L_2L_5R_2$ 

10.702 INVALID-ORDER-702 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ L_3s+\frac{1}{C_3s}, \ \infty, \ L_5s+R_5+\frac{1}{C_5s}, \ \infty\right)$$

 $H(s) = \frac{R_2 g_m + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5 \right) + s^5 \left(C_2 C_3 C_5 L_2 L_3 R_2 R_5 g_m - C_2 C_3 C_5 L_2 L_3 R_2 + C_2 C_3 C_5 L_2 L_3 R_2 + C_2 C_3 C_5 L_2 L_3 R_2 g_m + C_2 C_3 C_5 L_2 R_2 g_m +$ 

10.703 INVALID-ORDER-703 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \ \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_2R_5s^6 - R_2R_5 + s^5\left(C_2C_3L_2L_3L_5R_2R_5g_m - C_2C_3L_2L_3L_5R_2 + C_2C_3L_2L$ 

10.704 INVALID-ORDER-704 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \ \infty\right)$$

 $H(s) = \frac{R_2 R_5 g_m - R_2 + R_5 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_5 g_m - C_2 C_3 C_5 L_2 L_3 L_5 R_2 + C_2 C_3 C_5 L_2 L_3 L_5 R_2 + C_2 C_3 C_5 L_2 L_3 L_5 R_2 + C_2 C_3 L_2 L_3 L_5 R_2 + C_2 C_3 L_2 L_3 R_2 + C$ 

10.705 INVALID-ORDER-705 
$$Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + \frac{1}{C_3s}, \infty, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \infty\right)$$

10.706 INVALID-ORDER-706 
$$Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, R_5, \infty\right)$$

10.707 INVALID-ORDER-707 
$$Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{1}{C_5s}, \infty\right)$$

 $H(s) = \frac{-C_2C_5L_2L_3R_2s^4 + s^3\left(C_2L_2L_3R_2g_m + C_2L_2L_3\right) + s^2\left(C_2L_3R_2 - C_5L_3R_2\right) + s\left(L_3R_2g_m + L_3\right)}{C_2C_3C_5L_2L_3R_2s^5 + R_2g_m + s^4\left(C_2C_3L_2L_3R_2g_m + C_2C_5L_2L_3\right) + s^3\left(C_2C_3L_3R_2 + C_2C_5L_2R_2 + 4C_2C_5L_3R_2\right) + s^2\left(C_2L_3R_2g_m + C_2L_2 + C_3L_3R_2g_m + C_3L_3 + C_3L_3R_2g_m + C_3L_3R_2g$ 

10.708 INVALID-ORDER-708 
$$Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{R_5}{C_5R_5s+1}, \infty\right)$$

 $H(s) = \frac{-C_2C_5L_2L_3R_2R_5s^4 + s^3\left(C_2L_2L_3R_2R_5g_m - C_2L_2L_3R_2 + C_2L_2L_3R_5\right) + s^2\left(C_2L_3R_2R_5 - C_5L_3R_2R_5\right) + s\left(L_3R_2R_5g_m - R_2C_5L_2L_3R_2R_5s^5 + R_2R_5g_m + R_2 + R_5 + s^4\left(C_2C_3L_2L_3R_2 + C_2C_3L_2L_3R_2 + C_2C_3L_3R_2 + C_$ 

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10.709 INVALID-ORDER-709 Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)
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 $H(s) = \frac{s^4 \left( C_2 C_5 L_2 L_3 R_2 R_5 g_m - C_2 C_5 L_2 L_3 R_2 + C_2 C_5 L_2 L_3 R_2 R_5 + C_2 L_2 L_3 R_2 g_m + C_2 L_2 L_3 \right) + s^2 \left( C_2 L_3 R_2 + C_5 L_3 R_2 R_5 g_m - C_2 C_5 L_2 L_3 R_2 g_m + C_2 C_5 L_2 R_2 R_5 g_m + C_2 C_5 L_2 R_5 R_5 R_5 g_m + C_2 C_5 L_2 R_5 R_5 g_m + C_2 C_5 L_2 R_5 R_5 g_m + C_2 C_5 L_2 R_5 R_$  $s^{4} \left(C_{2} C_{5} L_{2} L_{3} R_{2} R_{5} g_{m}-C_{2} C_{5} L_{2} L_{3} R_{2}+C_{2} C_{5} L_{2} L_{3} R_{5}\right)+s^{3} \left(C_{2} C_{5} L_{3} R_{2} R_{5}+C_{2} L_{2} L_{3} R_{2} g_{m}+C_{2} L_{2} L_{3}\right)+s^{2} \left(C_{2} L_{3} R_{2}+C_{5} L_{3} R_{2} R_{5} g_{m}-C_{2} L_{3} R_{2} R_{5} g_{m}+C_{2} L_{3} R_{3} R_{5} g_{m}+C_{2} L_{3} R_{3} R_{5} g_{m}+C_{2} L_{3} R_{5} g_{m}+C_{2}$ 

10.710 INVALID-ORDER-710  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)$ 

 $s^{5}\left(C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}g_{m}+C_{2}C_{5}L_{2}L_{3}L_{5}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{3}\left(C_{2}L_{2}L_{3}R_{2}g_{m}+C_{2}L_{2}L_{3}+C_{5}L_{3}L_{5}R_{2}g_{m}+C_{5}L_{3}L_{5}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{3}\left(C_{2}L_{2}L_{3}R_{2}g_{m}+C_{2}L_{2}L_{3}+C_{5}L_{3}L_{5}R_{2}g_{m}+C_{5}L_{3}L_{5}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{2}L_{3}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{3}L_{5}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{3}L_{5}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{3}L_{5}R_{2}+C_{2}C_{5}L_{3}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{3}L_{5}R_{2}+C_{2}C_{5}L_{5}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{5}L_{5}R_{2}+C_{5}L_{5}L_{5}R_{2}\right)+s^{4}\left(-C_{2}C_{5}L_{5}L_{5}R_{5}+C_{5}L_{5}L_{5}R_{5}\right)+s^{4}\left(-C_{2}C_{5}L_{5}L_{5}R_{5}+C_{5}L_{5}L_{5}R_{5}\right)+s^{4}\left(-C_{2}C_{5}L_{5}L_{5}R_{5}+C_{5}L_{5}L_{5}R_{5}\right)+s^{4}\left(-C_{2}C_{5}L_{5}L_{5}R_{5}+C_{5}L_{5}L_{5}R_{5}\right)+s^{4}\left(-C_{2}C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}R_{5}\right)+s^{4}\left(-C_{2}C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}R_{5}\right)+s^{4}\left(-C_{2}C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}$  $H(s) = \frac{s^5 \left(C_2 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_5 L_2 L_3 L_5 \right) + s^4 \left(-C_2 C_5 L_2 L_3 R_2 g_m + C_2 L_2 L_3 + C_5 L_3 L_5 R_2 g_m + C_5 L_3 L_5 \right) + s^4 \left(C_2 C_3 L_2 L_3 R_2 g_m + C_2 C_5 L_$ 

10.711 INVALID-ORDER-711  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1}, \ \infty\right)$ 

 $-C_{2}C_{5}L_{2}L_{3}L_{5}R_{2}s^{5}-L_{3}R_{2}s+s^{4}\left(C_{2}L_{2}L_{3}L_{5}R_{2}g_{m}+C_{2}L_{2}L_{3}L_{5}\right)+s^{3}\left(-C_{2}L_{2}L_{3}R_{2}+C_{2}L_{3}L_{5}R_{2}-C_{5}L_{3}L_{5}R_{2}\right)+s^{2}\left(L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}\right)+s^{2}\left(L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}\right)+s^{2}\left(L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}\right)+s^{2}\left(L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}\right)+s^{2}\left(L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}\right)+s^{2}\left(L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}\right)+s^{2}\left(L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}\right)+s^{2}\left(L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}\right)+s^{2}\left(L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}\right)+s^{2}\left(L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}\right)+s^{2}\left(L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}\right)+s^{2}\left(L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}\right)+s^{2}\left(L_{3}L_{5}R_{2}+C_{5}L_{3}L_{5}R_{2}+C_{5}L_{5}L_{5}R_{2}\right)+s^{2}\left(L_{3}L_{5}R_{2}+C_{5}L_{5}L_{5}R_{2}+C_{5}L_{5}L_{5}R_{2}\right)+s^{2}\left(L_{3}L_{5}R_{2}+C_{5}L_{5}L_{5}R_{2}+C_{5}L_{5}L_{5}R_{2}\right)+s^{2}\left(L_{5}L_{5}L_{5}R_{2}+C_{5}L_{5}L_{5}R_{2}+C_{5}L_{5}L_{5}R_{2}\right)+s^{2}\left(L_{5}L_{5}L_{5}L_{5}R_{2}+C_{5}L_{5}L_{5}R_{2}\right)+s^{2}\left(L_{5}L_{5}L_{5}R_{2}+C_{5}L_{5}L_{5}R_{2}\right)+s^{2}\left(L_{5}L_{5}L_{5}R_{5}+C_{5}L_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}R_{5}\right)+s^{2}\left(L_{5}L_{5}L_{5}R_{5}+C_{5}L_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}+C_{5}L_{5}R_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}L_{5}+C_{5}+C_{5}L_{5}+C_{5}+C_{5}L_{5}+C_{5}+C_{5}+C_{5}+C_{5}+C_{5}+C_{5}+$  $H(s) = \frac{-C_2C_5L_2L_3L_5R_2s^3 - L_3R_2s + s^4\left(C_2L_2L_3L_5R_2g_m + C_2L_2L_3L_5\right) + s^3\left(-C_2L_2L_3R_2 + C_2L_3L_5R_2 - C_5L_3L_5R_2\right) + s^2\left(L_3L_5R_2 - C_5L_3L_5R_2 - C_5L_3L_5R_2\right) + s^2\left(L_3L_5R_2 - C_5L_3L_5R_2 - C_5L_3L_5R_2\right) + s^2\left(C_3L_3L_5R_2 + C_5L_3L_5R_2 + C_5L_3L_5R_2 + C_5L_3L_5R_2\right) + s^3\left(C_5L_3L_5R_2 + C_5L_3L_5R_2 - C_5L_3L_5R_2\right) + s^3\left(C_5L_3L_5R_2 - C_5L_3L_5R_2\right) + s^3\left(C_5L_5L_5R_2 - C_5L_5L_5R_2\right) + s^3\left(C_5L_5L_5L_5R_2 - C_5L_5L_5R_2\right) + s^3\left(C_5L_5L_5R_2 -$ 

10.712 INVALID-ORDER-712  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, L_5s+R_5+\frac{1}{C_5s}, \infty\right)$ 

 $\frac{s^{\circ} \left(C_{2} C_{5} L_{2} L_{3} L_{5} R_{2} g_{m}+C_{2} C_{5} L_{2} L_{3} L_{5}\right)+s^{\star} \left(C_{2} C_{5} L_{2} L_{3} R_{2} R_{5} g_{m}-C_{2} C_{5} L_{2} L_{3} R_{2}+C_{2} C_{5} L_{2} L_{3} R_{5}}{R_{2} g_{m}+s^{6} \left(C_{2} C_{3} C_{5} L_{2} L_{3} L_{5} R_{2} g_{m}+C_{2} C_{3} C_{5} L_{2} L_{3} R_{2} g_{m}+C_{2} C_{3} C_{5} L_{2} L_{3} R_{2} g_{m}+C_{2} C_{5} L_{2} L_{3} R_{2} g_{m}+C_{2}$ 

10.713 INVALID-ORDER-713  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \infty\right)$ 

 $-C_2C_5L_2L_3L_5R_2R_5s^5 - L_3R_2R_5s + s^4(C_2L_2)$ 

10.714 INVALID-ORDER-714  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \ \infty\right)$ 

 $s^{\circ} \left( C_2 C_5 L_2 L_3 L_5 R_2 R_5 g_m - C_2 C_5 L_2 L_3 L_5 R_2 R_5 g_m - C_2 C_5 L_2 L_3 L_5 R_2 R_5 g_m - C_2 C_5 L_2 L_3 L_5 R_2 R_5 g_m - C_2 C_5 L_2 L_3 L_5 R_2 R_5 g_m + C_2 C_3 L_2 L_3 L_5 R_2 R_5 g_m + C_2 C_3 L_2 L_3 L_5 R_2 R_5 g_m + C_2 C_3 L_2 L_3 L_5 R_2 R_5 g_m + C_2 C_3 L_2 L_3 L_5 R_2 g_m + C_2 C_3 L_2 L_3 L_5 R_2$ 

10.715 INVALID-ORDER-715  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \infty\right)$ 

 $H(s) = \frac{s^{\circ}(C_2C_5L_2L_3R_2R_5)}{R_2R_5g_m + R_2 + R_5 + s^{\circ}(C_2C_3C_5L_2L_3L_5R_2 + C_2C_3C_5L_2L_3L_5R_2 + C_2C_3C_5L_2L_3R_2R_5 + C_2C_3C_5L_2R_2R_5 + C_2C_3C_5L_2R_2R_5$ 

10.716 INVALID-ORDER-716  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, R_5, \infty\right)$ 

10.717 INVALID-ORDER-717  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{1}{C_5s}, \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2L_3R_2s^5 + R_2g_m + s^4\left(-C_2C_3C_5L_2R_3 + C_2C_3L_2L_3R_2g_m + C_2C_3L_2R_3 + C_2C_3$ 

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10.718 INVALID-ORDER-718 Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ L_3s+R_3+\frac{1}{C_3s}, \ \infty, \ \frac{R_5}{C_5R_5s+1}, \ \infty\right)
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 $H(s) = \frac{-C_2C_3C_5L_2L_3R_2R_5s^5 + R_2R_5g_m - R_2 + R_5 + s^4\left(-C_2C_3C_5L_2R_2R_3R_5 + C_2C_3L_2L_3R_2R_5g_m - C_2C_3L_2L_3R_2 + C_2C_3L_2L_3R_2 + C_2C_3L_2L_3R_5\right) + s^3\left(C_2C_3L_2R_2R_3R_5g_m - C_2C_3L_2L_3R_2R_5g_m - C_2C_3L_2L_3R_2g_m - C_2C_3L_$ 

10.719 INVALID-ORDER-719 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ R_5 + \frac{1}{C_5s}, \ \infty\right)$$

 $H(s) = \frac{R_2 g_m + s^5 \left(C_2 C_3 C_5 L_2 L_3 R_2 R_5 g_m - C_2 C_3 C_5 L_2 L_3 R_2 + C_2 C_3 C_5 L_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 R_3 R_5 + C_2 C_3 C_5 L_2 R_3 R_5 + C_2 C_3 L_2 L_3 R_2 g_m + C_2 C_3 L_2 R_3 R_5 + C_2 L_2 R$ 

10.720 INVALID-ORDER-720 
$$Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)$$

 $H(s) = \frac{R_2 g_m + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5 \right) + s^5 \left(-C_2 C_3 C_5 L_2 L_3 R_2 + C_2 C_3 C_5 L_2 L_5 R_3 g_m + C_2 C_3 C_5 L_2 L_5 R_3 + C_2 C_3 C_5 L_2 L_5 R_3 + C_2 C_3 C_5 L_2 L_3 R_2 g_m + C_2 C_3 L_2 L_3 R_2 g_m + C_2 C_3 L_2 L_3 R_2 g_m + C_2 C_3 C_5 L_2 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 R_2 g_m + C_2 C_3 C_5 L_2 R_3 g_m + C_2 C_3 C_5 L_2 R_3$ 

10.721 INVALID-ORDER-721 
$$Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_2s^6 - R_2 + s^5\left(-C_2C_3C_5L_2L_5R_2g_m + C_2C_3L_2L_3L_5\right) + s^4\left(-C_2C_3L_2L_3R_2 + C_2C_3L_2L_5R_2g_m + C_2C_3L_2L_5R_3g_m + C_2C_3L_2L_5R_3 + C_2C_3L_2L_5R_3 + C_2C_3L_2L_5R_3 + C_2C_3L_2L_5R_3 + C_2C_3L_2L_5R_3 + C_2C_3L_2L_5R_2g_m + C_2C_3L_2L$ 

10.722 INVALID-ORDER-722 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ L_3s+R_3+\frac{1}{C_3s}, \ \infty, \ L_5s+R_5+\frac{1}{C_5s}, \ \infty\right)$$

 $H(s) = \frac{R_2 g_m + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5 \right) + s^5 \left(C_2 C_3 C_5 L_2 L_3 R_2 R_5 g_m - C_2 C_3 C_5 L_2 L_3 R_5 + C_2 C_3 C_5 L_2 L_3 R_5 + C_2 C_3 C_5 L_2 L_5 R_3 + C_2 C_3 C_5 L_2 L_5 R_3 + C_2 C_3 C_5 L_2 L_3 R_5 g_m - C_2 C_3 C_5 L_2 L_3 R_5 + C_2 C_3 C_5 L_2 L_3 R_5 + C_2 C_3 C_5 L_2 L_5 R_3 g_m + C_2 C_3 C_5 L_2 L_3 R_5 g_m + C_2 C_3 C_5 L_2 L_3 R_5 g_m - C_2 C_3 C_5 L_2 L_5 R_5 g_m - C_2 C_5 L_5 L_5 R_5 g_m -$ 

10.723 INVALID-ORDER-723 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \ \infty\right)$$

 $H(s) = \frac{C_2C_3C_5L_2L_3L_5R_2R_5}{2R_2R_5g_m + 4R_5 + s^6\left(2C_2C_3C_5L_2L_3L_5R_2, F_{2}R_5g_m + 4C_2C_3C_5L_2L_5R_2, F_{2}R_5g_m + 4C_2C_3C_5L_2L_5R_2,$ 

10.724 INVALID-ORDER-724 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \ \infty\right)$$

 $H(s) = \frac{R_2R_5g_m - R_2 + R_5 + s^6\left(C_2C_3C_5L_2L_3L_5R_2g_m - C_2C_3C_5L_2L_3L_5R_2 + C_2C_3C_5L_2L_5R_2R_3R_5g_m - C_2C_3C_5L_2L_5R_2R_3 + C_2C_3C_5L_2L_5R_2 + C_2C_3C_$ 

10.725 INVALID-ORDER-725 
$$Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \frac{R_5(C_5L_5s^2+1)}{C_5L_5s^2+C_5R_5s+1}, \infty\right)$$

 $H(s) = \frac{R_2R_5g_m - R_2 + R_5 + s^6\left(C_2C_3C_5L_2L_3L_5R_2 + C_2C_3C_5L_2L_3L_5R_2 + C_2C_3C_5L_2L_3R_2R_5 + C_2C_3C_5L_2L_3R_2R_5 + C_2C_3C_5L_2L_5R_2R_3R_5g_m - C_2C_3C_5L_2L_5R_2R_3R_5g_m - C_2C_3C_5L_2L_5R_2R_3R_5g_m - C_2C_3C_5L_2L_5R_2R_3g_m + C_2C_3C_5L_2L_5R_2R_3g_m + C_2C_3C_5L_2L_5R_2R_3g_m + C_2C_3C_5L_2L_5R_2 + 4C_2C_3C_5L_2L_5R_3 + 4C_2C_3C_5L_2L_5R_2 + 4C_2C_3C_5L_2L_5R_3 + 4C$ 

10.726 INVALID-ORDER-726 
$$Z(s) = \left(\infty, \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, R_5, \infty\right)$$

 $I(s) = \frac{C_2L_3R_2R_3R_5s^2 + s^3\left(C_2L_2L_3R_2R_3R_5g_m - C_2L_2L_3R_2R_3 + C_2L_2L_3R_3R_5\right) + s\left(L_3R_2R_3R_5g_m - L_3R_2R_3 + L_3R_3R_5\right)}{R_2R_3R_5g_m + R_2R_3 + R_3R_5 + s^4\left(C_2C_3L_2L_3R_2R_3R_5g_m + C_2L_2L_3R_2R_3R_5 + s^4\left(C_2C_3L_2L_3R_2R_3R_5g_m + C_2L_2L_3R_2R_3R_5 + s^4\left(C_2L_2L_3R_3R_5g_m + C_2L_2L_3R_3R_5\right) + s^4\left(C_2L_2L_3R_3R_5g_m + C_2L_2L_3R_3R_5 + s^4\left(C_2L_2L_3R_3R_5 + s^4\left(C_2L_2L_3R_3R$ 

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10.727 INVALID-ORDER-727 Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ \frac{1}{C_5s}, \ \infty\right)
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 $H(s) = \frac{-C_2C_5L_2L_3R_2R_3s^4 + s^3\left(C_2L_2L_3R_2R_3g_m + C_2L_2L_3R_3\right) + s^2\left(C_2L_3R_2R_3 - C_5L_3R_2R_3\right) + s\left(L_3R_2R_3g_m + L_3R_3\right)}{C_2C_3C_5L_2L_3R_2R_3s^5 + R_2R_3g_m + R_3 + s^4\left(C_2C_3L_2L_3R_2R_3g_m + C_2C_5L_2L_3R_2\right) + s^2\left(C_2L_3R_2R_3g_m + C_2C_5L_2L_3R_3\right) + s^2\left(C_2L_3R_2R_3g_m + C_2L_2L_3R_2R_3g_m + C_2L_2L_3R_3\right) + s^2\left(C_2L_3R_2R_3g_m + C_2L_2L_3R_3g_m + C_2L_2L_3R_3\right) + s^2\left(C_2L_3R_2R_3g_m + C_2L_2L_3R_3g_m + C_2$ 

10.728 INVALID-ORDER-728  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ \frac{R_5}{C_5R_5s+1}, \ \infty\right)$ 

 $H(s) = \frac{-C_2C_5L_2L_3R_2R_3R_5s^4 + s^3\left(C_2L_2R_2R_3R_5s^4 + s^3\left(C_2L_2R_2R_3R_5s^4 + s^3\left(C_2L_2R_2R_3R_5s^4 + s^3\left(C_2L_2R_2R_3R_5s^4 + s^3\left(C_2L_2R_2R_3R_5s^4 + s^3\left(C_2L_2R_2R_3R_5s^4 + s^2\left(C_2L_2R_2R_3R_5s^4 + s^2\left(C_2R_2R_3R_5s^4 + s^2\right)\right)\right)\right)\right)\right)}\right)$ 

10.729 INVALID-ORDER-729  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ R_5 + \frac{1}{C_5s}, \ \infty\right)$ 

10.730 INVALID-ORDER-730  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ L_5s+\frac{1}{C_5s}, \ \infty\right)$ 

 $H(s) = \frac{s^5 \left( C_2 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_5 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_5 L_2 L_3 R_2 R_3 g_m + C_2 C_5 L_2$ 

10.731 INVALID-ORDER-731  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \frac{L_5s}{C_5L_5s^2+1}, \infty\right)$ 

 $H(s) = \frac{-C_2C_5L_2L_3L_5R_2R_3s^5 - L_3R_2R_3s^5 - L_3R_2R_3s^5$ 

10.732 INVALID-ORDER-732  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ L_5s+R_5+\frac{1}{C_5s}, \ \infty\right)$ 

10.733 INVALID-ORDER-733  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \ \infty\right)$ 

 $H(s) = \frac{1}{C_2C_3C_5L_2L_3L_5R_2R_3R_5s^6 + R_2R_3R_5 + s^5\left(C_2C_3L_2L_3L_5R_2R_3R_5g_m + C_2C_3L_2L_3L_5R_2R_3R_5g_m + C_2C_5L_2L_3L_5R_2R_3R_5g_m + C_2C_5L_2L_3L_5R_3R_5g_m + C_2C_5L_3L_5R_3R_5g_m + C_2C_5L_3L_5R_5g_m + C_2C_5L_3L_5R_5g_m + C_2C_5L_3L_5R_5g_m + C_2C_5L_3L_5R_5g_m + C_2C_5L_5L_5R_5g_m +$ 

10.734 INVALID-ORDER-734  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \ \infty\right)$ 

 $H(s) = \frac{1}{R_2 R_3 R_5 g_m + R_2 R_3 + R_3 R_5 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_3 R_5 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_3 R_5 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_3 R_5 + C_2 C_3 L_2 L_3 L_5 R_2 R_3 R_5 + C_2 C_3 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_5 L_2 L_3 L_5 R_3 g_m + C_$ 

10.735 INVALID-ORDER-735  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \infty\right)$ 

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10.736 INVALID-ORDER-736 Z(s) = \left(\infty, \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \infty, R_5, \infty\right)
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 $H(s) = \frac{R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5 + s^4 \left(C_2 C_3 L_2 L_3 R_2 R_3 R_5 g_m - C_2 C_3 L_2 L_3 R_2 R_3 R_5 - C_2 C_3 L_2 L_3 R_2 R_3 R_5 + C_2 L_2 L_3 R_2 R_3 R_5 + C_2 L_2 L_3 R_2 R_3 R_5 - C_2 L_2 L_3 R_2 R_3 R_5 - C_2 L_2 L_3 R_2 R_3 R_5 - C_2 L_2 L_3 R_2 R_3 R_5 + C_2 L_2 L_3 R_2 R_3 R_5 - C_2 L_2 L_3 R_2 R_5 - C_2 L_2 L$ 

10.737 INVALID-ORDER-737 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \ \infty, \ \frac{1}{C_5s}, \ \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3R_2R_3s^5 + R_2R_3g_m + R_3 + s^4\left(C_2C_3L_2L_3R_2g_m + C_2C_5L_2L_3R_2\right) + s^3\left(C_2C_3L_3R_2R_3 - C_2C_5L_2R_2R_3 + C_2L_2L_3R_2g_m + C_2L_2L_3 - C_3C_5L_3R_2R_3\right) + s^2\left(C_2L_2R_2R_3 + C_2L_2L_3R_2g_m + C_2L_2L_3R_2g_$ 

10.738 INVALID-ORDER-738 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \ \infty, \ \frac{R_5}{C_5R_5s+1}, \ \infty\right)$$

 $H(s) = \frac{-C_2C_3C_5L_2L_3R_2R_3R_5s^5 + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^4\left(C_2C_3L_2L_3R_2R_3R_5g_m - C_2C_3L_2L_3R_2R_3R_5g_m - C_2C_3L_2L_3R_2R_3R_5g_m - C_2C_3L_2L_3R_2R_3R_5g_m + C_2C_3L_2L_3R_3R_5g_m + C_2C_3L_2L_3R_3R_5g_m + C_2C_3L_2L_3R_3R_5g_m + C_2C_3L_2L_3R_3R_5g_m + C_2C_3L_2L_3R_3R_5g_m + C_2C_3L_2L_3R_3R_5g_m + C_2C_3L_2L_3R$ 

10.739 INVALID-ORDER-739 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \ \infty, \ R_5 + \frac{1}{C_5s}, \ \infty\right)$$

10.740 INVALID-ORDER-740 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \ \infty, \ L_5s+\frac{1}{C_5s}, \ \infty\right)$$

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 L_2 L_3 L_5 R_3 g_m + C_2 C_3 L_2 L_3 R_3 + C_2 C_5 L_2 L_3 R_2 R_3 g_m + C_2 C_5 L_2 L_3 R_2 R_3 g_m + C_2 C_5 L_2 L_3 R_3 - C_2 C_5 L_2 L_3 R_3 - C_2 C_5 L_2 L_3 R_2 R_3 g_m + C_2 C_5 L_2 L_5 R_3 g_m + C_2 C_5 L_2 L_5 R_3 g_m + C_2 C_5 L_2 L_3 R_3 - C_2 C_5 L_2 L_3 R_3 -$ 

10.741 INVALID-ORDER-741 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1}, \ \infty\right)$$

10.742 INVALID-ORDER-742 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \ \infty, \ L_5s+R_5+\frac{1}{C_5s}, \ \infty\right)$$

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_m + C_2 C_3 C_5 L_2 L_3 R_2 R_3 R_5 - C_2 C_3 C_5 L_2 L_3 R_2 R_3 R_5 - C_2 C_3 C_5 L_2 L_3 R_2 R_3 R_5 + C_2$ 

10.743 INVALID-ORDER-743 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \ \infty, \ \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \ \infty\right)$$

 $H(s) = \frac{1}{2R_2R_3R_5g_m + R_2R_5 + 4R_3R_5 + s^6\left(2C_2C_3C_5L_2L_3L_5R_2R_3R_5g_m + C_2C_3C_5L_2L_3L_5R_2R_5 + 4C_2C_3C_5L_2L_3L_5R_2R_3R_5\right) + s^5\left(4C_2C_3C_5L_3L_5R_2R_3g_m + C_2C_3L_2L_3L_5R_2R_3g_m + C_2C_3L_2L_3L_5R_3g_m + C_2C_3L_2L_3L_5R_2R_3g_m + C_2C_3L_2L_3L_5R_2R_3g_m + C_2C_3L_2L_3L_5R_2R_3g_m + C_2C_3L_2L_3L_5R_2R_3g_m + C_2C_3L_2L_3L_5R_2R_3g_m + C_2C_3L_2L_3L_5R_2R_3g_m + C_2C_3L_2L_3L_5R_3g_m + C_2C_3L_2L_3L_3R_3g_m + C_2C_3L_3L_3R_3g_m + C_2C_3L_3L_3R_$ 

10.744 INVALID-ORDER-744 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \ \infty, \ \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \ \infty\right)$$

 $H(s) = \frac{R_2 R_3 R_5 g_m - R_2 R_3 + R_3 R_5 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_3 R_5 + C_2 C_3 L_5 L_3 L_5 R_2 R_3 R_5 + C_2 C_3 L_2 L_3 L_5 R_2 R_3 R_5 + C_2 C_3 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_3 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_3 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_3 L_2 L_3 L_5 R_2 R_3 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_2 R_3 g_m$ 

10.745 INVALID-ORDER-745  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \infty\right)$ 

 $H(s) = \frac{1}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^6\left(2C_2C_3C_5L_2L_3L_5R_2R_3g_m + C_2C_3C_5L_2L_3L_5R_2 + 4C_2C_3C_5L_2L_3L_5R_3 + C_2C_3C_5L_2L_3R_2R_3R_5g_m + C_2C_3C_5L_2L_3R_2R_5g_m + C_2C_3C_5L_2L_3R_2R_3R_5g_m + C_2C_3C_5L_2L_3R_3R_5g_m + C_2C_3C_5L_2L_3R_5g_m + C_2C_3C$ 

10.746 INVALID-ORDER-746  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5, \infty\right)$ 

 $H(s) = \frac{C_2C_3L_3R_2R_3R_5s^3 + C_2R_2R_3R_5s + R_2R_3R_5g_m - R_2R_3 + R_3R_5 + s^4\left(C_2C_3L_2L_3R_2R_3R_5g_m - C_2C_3L_2L_3R_2R_3 + C_2C_3L_2L_3R_3R_5\right) + s^2\left(C_2L_2R_2R_3R_5g_m + R_2R_3g_m + R_2R_5g_m +$ 

10.747 INVALID-ORDER-747  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{1}{C_5s}, \ \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2L_3R_2R_3s^5 + R_2R_3g_m + R_3 + s^4\left(C_2C_3L_2L_3R_2g_m + C_2C_3L_2L_3R_3\right) + s^3\left(C_2C_3L_2R_2R_3 - C_3C_5L_2R_2R_3 - C_3C_5L_2R_2R_3\right) + s^3\left(C_2C_3L_2R_2R_3g_m + C_2C_3L_2R_3g_m + C_$ 

10.748 INVALID-ORDER-748  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5}{C_5R_5s+1}, \ \infty\right)$ 

 $-C_2C_3C_5L_2L_3R_2R_3R_5s^\circ + R_2R_3S_5s^\circ + R_2$ 

10.749 INVALID-ORDER-749  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, R_5 + \frac{1}{C_5s}, \infty\right)$ 

 $R_{2}R_{3}g_{m}+R_{3}+s^{5}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{2}R_{3}R_{5}g_{m}-C_{2}C_{3}C_{5}L_{2}L_{3}R_{2}R_{3}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{2}R_{3}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{2}R_{3}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{2}R_{3}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{2}R_{3}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{2}R_{3}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{2}R_{3}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{2}R_{3}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{2}R_{3}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{2}R_{3}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{2}R_{3}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{3}R_{5}+C_{2}C_{3}C_{5}L_{2}L_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{5}+C_{2}C_{5}L_{2}L_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{5}+C_{2}C_{5}L_{2}L_{3}R_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{5}+C_{2}C_{5}L_{5}L_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{2}L_{3}R_{5}+C_{2}C_{5}L_{5}L_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{5}L_{5}+C_{2}C_{5}L_{5}L_{5}L_{5}\right)+s^{4}\left(C_{2}C_{3}C_{5}L_{5}L_{5}+C_{2}C_{5}L_{5}L_{5}\right)+s^{4}\left(C_{2}C_{5}L_{5}L_{5}+C_{2}C_{5}L_{5}L_{5}\right)+s^{4}\left(C_{2}C_{5}L_{5}L_{5}+C_{2}C_{5}L_{5}L_{5}\right)+s^{4}\left(C_{2}C_{5}L_{5}L_{5}+C_{2}C_{5}L_{5}L_{5}\right)+s^{4}\left(C_{2}C_{5}L_{5}L_{5}+C_{2}C_{5}L_{5}L_{5}\right)+s^{4}\left(C_{2}C_{5}L_{5}L_{5}+C_{2}C_{5}L_{5}L_{5}\right)+s^{4}\left(C_{2}C_{5}L_{5}L_{5}+C_{2}C_{5}L_{5}\right)+s^{4}\left(C_{2}C_{5}L$  $H(s) = \frac{R_2 R_3 g_m + R_3 + s^5 \left(C_2 C_3 C_5 L_2 L_3 R_2 R_3 R_5 g_m - C_2 C_3 C_5 L_2 L_3 R_2 R_3 + C_2 C_3 C_5 L_2 L_3 R_3 R_5\right) + s^4 \left(C_2 C_3 C_5 L_2 L_3 R_2 R_3 + C_2 C_3 C_5 L_2 R_3 R_5 + C_2 C_3 C_5 L_2 R_5 R_5 + C_2 C_3 C_5$ 

10.750 INVALID-ORDER-750  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s + \frac{1}{C_5s}, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^6 \left(C_2 C_3 C_5 L_2 L_3 L_5 R_2 g_3 g_m + C_2 C_3 C_5 L_2 L_3 L_5 R_3\right) + s^5 \left(-C_2 C_3 C_5 L_2 L_3 R_2 R_3 + C_2 C_3 C_5 L_2 L_3 R_3 R_3 R_3 R_3 R_3 R_$ 

10.751 INVALID-ORDER-751  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{L_5s}{C_5L_5s^2+1}, \ \infty\right)$ 

 $H(s) = \frac{-C_2C_3C_5L_2L_3L_5R_2R_3s^\circ - R_2R_3 + C_2C_3C_5L_2L_3L_5R_2R_3g_m + C_2C_3C_5L_2L_3L_5R_2R_3 + C_2C_3C_5L_2L_3L_5R_2R_3 + C_2C_3L_2L_3L_5R_2R_3 + C_2C_3L_2L_3R_2R_3R_3 + C_2C_3L_2L_3R_3R_3 + C_2C_3L_2L_3R_3 + C_2C_3L_2L_3$ 

10.752 INVALID-ORDER-752  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, L_5s+R_5+\frac{1}{C_5s}, \infty\right)$ 

 $R_2R_3g_m + R_3 + s^6\left(C_2C_3C_5L_2L_3L_5R_2R_3g_m + C_2C_3C_5L_2L_3L_5R_3\right) + s^5$ 

 $\frac{R_2R_3g_m + R_3 + s^{\circ}\left(C_2C_3C_5L_2L_3L_5R_2g_m + C_2C_3C_5L_2L_3L_5R_2g_m + C_2C_3C_5L_2L_3L_5R_3g_m + C_2C_3C_5L_2L_3R_2g_m + C_2C_3C_5L_2L_3R$ 

10.753 INVALID-ORDER-753  $Z(s) = \left(\infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \frac{L_5R_5s}{C_5L_5R_5s^2+L_5s+R_5}, \infty\right)$ 

 $H(s) = \frac{1}{2R_2R_3R_5g_m + R_2R_5 + 4R_3R_5 + s^6\left(2C_2C_3C_5L_2L_3L_5R_2R_3R_5g_m + C_2C_3C_5L_2L_3L_5R_2R_5 + 4C_2C_3C_5L_2L_5R_2R_3R_5 + 4C_2C_3C_5L_2L_3L_5R_2R_3R_5 + 4C_2C_3C_5L_2L_3L_5R_3R_5 + 4C_2C_3C_5L_3L_5R_2R_3R_5 + 4C_2C_3C_5L_3L_5R_3R_5 + 4C_2C_3C_5L_3L_5R_5R_5 + 4C_2C_3C_5L_3L_5R_5 + 4C_2C_3C_5L_3L_5R_5 + 4C_2C_3C_5L_3L_5R_5 + 4C_2C_3C_5L_5L_5R_5 + 4C_2C_5C_5L_5L_5R_5 + 4C_2C_5C_5L_5L_5R_$ 

10.754 INVALID-ORDER-754  $Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{C_5L_5R_5s^2+L_5s+R_5}{C_5L_5s^2+1}, \ \infty\right)$ 

 $H(s) = \frac{1}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^6\left(2C_2C_3C_5L_2L_3L_5R_2R_3g_m + C_2C_3C_5L_2L_3L_5R_2 + 4C_2C_3C_5L_2L_3L_5R_3 + C_2C_3C_5L_2L_3L_5R_3 + C_2C_3C_5L_3L_5R_3 + C_2C_3C_5L_5L_5R_3 + C_2C_3C_5L_5L_5R_3 + C_2C_3C$ 

10.755 INVALID-ORDER-755 
$$Z(s) = \left(\infty, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \ \infty, \ \frac{R_5\left(C_5L_5s^2+1\right)}{C_5L_5s^2+C_5R_5s+1}, \ \infty\right)$$

 $H(s) = \frac{1}{2R_2R_3g_m + R_2R_5g_m + R_2 + 4R_3 + R_5 + s^6\left(2C_2C_3C_5L_2L_3L_5R_2R_3g_m + C_2C_3C_5L_2L_3L_5R_2 + 4C_2C_3C_5L_2L_3L_5R_3 + C_2C_3C_5L_2L_3L_5R_3 + C_2C_3C_5L_2L_3L_5R_3 + C_2C_3C_5L_2L_3R_2R_3R_5g_m + C_2C_3C_5L_2L_3R_3R_5g_m + C_2C_3C_5L_2L_3R_5g_m + C_2C_3C_5L_3L_3G$ 

## 11 PolynomialError