

Filter Summary Report: CG,TIA,simple,Z1,Z3,Z4

Generated by MacAnalog-Symbolix

January 16, 2025

Contents

1 Examined $H(z)$ for CG TIA simple Z1 Z3 Z4: $\frac{Z_1 Z_3 Z_4 g_m}{2Z_1 Z_3 g_m + Z_1 Z_4 g_m + 2Z_3 + Z_4}$

$$H(z) = \frac{Z_1 Z_3 Z_4 g_m}{2Z_1 Z_3 g_m + Z_1 Z_4 g_m + 2Z_3 + Z_4}$$

2 HP

3 BP

3.1 BP-1 $Z(s) = \left(R_1, \infty, R_3, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{L_4 R_1 R_3 g_m s}{2R_1 R_3 g_m + 2R_3 + s^2 (2C_4 L_4 R_1 R_3 g_m + 2C_4 L_4 R_3) + s (L_4 R_1 g_m + L_4)}$$

Parameters:

Q: $2C_4 R_3 \sqrt{\frac{1}{C_4 L_4}}$
 wo: $\sqrt{\frac{1}{C_4 L_4}}$
 bandwidth: $\frac{1}{2C_4 R_3}$
 K-LP: 0
 K-HP: 0
 K-BP: $\frac{R_1 R_3 g_m}{R_1 g_m + 1}$
 Qz: 0
 Wz: None

3.2 BP-2 $Z(s) = \left(R_1, \infty, R_3, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{L_4 R_1 R_3 R_4 g_m s}{2R_1 R_3 R_4 g_m + 2R_3 R_4 + s^2 (2C_4 L_4 R_1 R_3 R_4 g_m + 2C_4 L_4 R_3 R_4) + s (2L_4 R_1 R_3 g_m + L_4 R_1 R_4 g_m + 2L_4 R_3 + L_4 R_4)}$$

Parameters:

Q: $\frac{2C_4 R_3 R_4 \sqrt{\frac{1}{C_4 L_4}}}{2R_3 + R_4}$
 wo: $\sqrt{\frac{1}{C_4 L_4}}$
 bandwidth: $\frac{2R_3 + R_4}{2C_4 R_3 R_4}$
 K-LP: 0
 K-HP: 0
 K-BP: $\frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}$
 Qz: 0
 Wz: None

3.3 BP-3 $Z(s) = \left(R_1, \infty, \frac{1}{C_3 s}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{L_4 R_1 R_4 g_m s}{2R_1 R_4 g_m + 2R_4 + s^2 (C_3 L_4 R_1 R_4 g_m + C_3 L_4 R_4 + 2C_4 L_4 R_1 R_4 g_m + 2C_4 L_4 R_4) + s (2L_4 R_1 g_m + 2L_4)}$$

Parameters:

Q: $\frac{\sqrt{2} C_3 R_4 \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}}}{2} + \sqrt{2} C_4 R_4 \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}}$
 wo: $\sqrt{2} \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}}$
 bandwidth: $\frac{\sqrt{2} \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}}}{\frac{\sqrt{2} C_3 R_4 \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}}}{2} + \sqrt{2} C_4 R_4 \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}}}$
 K-LP: 0
 K-HP: 0

K-BP: $\frac{R_1 R_4 g_m}{2R_1 g_m + 2}$
Qz: 0
Wz: None

3.4 BP-4 $Z(s) = \left(R_1, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{L_4 R_1 R_3 g_m s}{2R_1 R_3 g_m + 2R_3 + s^2 (C_3 L_4 R_1 R_3 g_m + C_3 L_4 R_3 + 2C_4 L_4 R_1 R_3 g_m + 2C_4 L_4 R_3) + s (L_4 R_1 g_m + L_4)}$$

Parameters:

Q: $\sqrt{2}C_3 R_3 \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}} + 2\sqrt{2}C_4 R_3 \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}}$

wo: $\sqrt{2} \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}}$

bandwidth: $\frac{\sqrt{2} \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}}}{\sqrt{2}C_3 R_3 \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}} + 2\sqrt{2}C_4 R_3 \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}}}$

K-LP: 0

K-HP: 0

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

Qz: 0

Wz: None

3.5 BP-5 $Z(s) = \left(R_1, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{L_4 R_1 R_3 R_4 g_m s}{2R_1 R_3 R_4 g_m + 2R_3 R_4 + s^2 (C_3 L_4 R_1 R_3 R_4 g_m + C_3 L_4 R_3 R_4 + 2C_4 L_4 R_1 R_3 R_4 g_m + 2C_4 L_4 R_3 R_4) + s (2L_4 R_1 R_3 g_m + L_4 R_1 R_4 g_m + 2L_4 R_3 + L_4 R_4)}$$

Parameters:

Q: $\frac{\sqrt{2}C_3 R_3 R_4 \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}} + 2\sqrt{2}C_4 R_3 R_4 \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}}}{2R_3 + R_4}$

wo: $\sqrt{2} \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}}$

bandwidth: $\frac{\sqrt{2}(2R_3 + R_4) \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}}}{\sqrt{2}C_3 R_3 R_4 \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}} + 2\sqrt{2}C_4 R_3 R_4 \sqrt{\frac{1}{C_3 L_4 + 2C_4 L_4}}}$

K-LP: 0

K-HP: 0

K-BP: $\frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}$

Qz: 0

Wz: None

3.6 BP-6 $Z(s) = \left(R_1, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, R_4, \infty, \infty \right)$

$$H(s) = \frac{L_3 R_1 R_4 g_m s}{R_1 R_4 g_m + R_4 + s^2 (C_3 L_3 R_1 R_4 g_m + C_3 L_3 R_4) + s (2L_3 R_1 g_m + 2L_3)}$$

Parameters:

Q: $\frac{C_3 R_4 \sqrt{\frac{1}{C_3 L_3}}}{2}$

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

bandwidth: $\frac{2}{C_3 R_4}$

K-LP: 0

K-HP: 0

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

Qz: 0

Wz: None

3.7 BP-7 $Z(s) = \left(R_1, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{L_3 R_1 R_4 g_m s}{R_1 R_4 g_m + R_4 + s^2 (C_3 L_3 R_1 R_4 g_m + C_3 L_3 R_4 + 2C_4 L_3 R_1 R_4 g_m + 2C_4 L_3 R_4) + s (2L_3 R_1 g_m + 2L_3)}$$

Parameters:

Q: $\frac{C_3 R_4 \sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}}}{2} + C_4 R_4 \sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}}$
wo: $\sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}}$
bandwidth: $\frac{\sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}}}{\frac{C_3 R_4 \sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}}}{2} + C_4 R_4 \sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}}}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1 R_4 g_m}{2R_1 g_m + 2}$
Qz: 0
Wz: None

3.8 BP-8 $Z(s) = \left(R_1, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{L_3 L_4 R_1 R_4 g_m s}{2L_3 R_1 R_4 g_m + 2L_3 R_4 + L_4 R_1 R_4 g_m + L_4 R_4 + s^2 (C_3 L_3 L_4 R_1 R_4 g_m + C_3 L_3 L_4 R_4 + 2C_4 L_3 L_4 R_1 R_4 g_m + 2C_4 L_3 L_4 R_4) + s (2L_3 L_4 R_1 g_m + 2L_3 L_4)}$$

Parameters:

Q: $\frac{C_3 R_4 \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}}}{2} + C_4 R_4 \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}}$
wo: $\sqrt{\frac{2L_3 + L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}}$
bandwidth: $\frac{\sqrt{\frac{2L_3 + L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}}}{\frac{C_3 R_4 \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}}}{2} + C_4 R_4 \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}}}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1 R_4 g_m \sqrt{\frac{2}{C_3 L_4 + 2C_4 L_4} + \frac{1}{C_3 L_3 + 2C_4 L_3}}}{2R_1 g_m \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}} + 2\sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}}}$
Qz: 0
Wz: None

3.9 BP-9 $Z(s) = \left(R_1, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, R_4, \infty, \infty \right)$

$$H(s) = \frac{L_3 R_1 R_3 R_4 g_m s}{R_1 R_3 R_4 g_m + R_3 R_4 + s^2 (C_3 L_3 R_1 R_3 R_4 g_m + C_3 L_3 R_3 R_4) + s (2L_3 R_1 R_3 g_m + L_3 R_1 R_4 g_m + 2L_3 R_3 + L_3 R_4)}$$

Parameters:

Q: $\frac{C_3 R_3 R_4 \sqrt{\frac{1}{C_3 L_3}}}{2R_3 + R_4}$
wo: $\sqrt{\frac{1}{C_3 L_3}}$
bandwidth: $\frac{2R_3 + R_4}{C_3 R_3 R_4}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}$
Qz: 0
Wz: None

3.10 BP-10 $Z(s) = \left(R_1, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{L_3 R_1 R_3 g_m s}{R_1 R_3 g_m + R_3 + s^2 (C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_3 + 2C_4 L_3 R_1 R_3 g_m + 2C_4 L_3 R_3) + s (L_3 R_1 g_m + L_3)}$$

Parameters:

Q: $C_3 R_3 \sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}} + 2C_4 R_3 \sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}}$
wo: $\sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}}$
bandwidth: $\frac{\sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}}}{C_3 R_3 \sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}} + 2C_4 R_3 \sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}}}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1 R_3 g_m}{R_1 g_m + 1}$
Qz: 0
Wz: None

3.11 BP-11 $Z(s) = \left(R_1, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{L_3 R_1 R_3 R_4 g_m s}{R_1 R_3 R_4 g_m + R_3 R_4 + s^2 (C_3 L_3 R_1 R_3 R_4 g_m + C_3 L_3 R_3 R_4 + 2C_4 L_3 R_1 R_3 R_4 g_m + 2C_4 L_3 R_3 R_4) + s (2L_3 R_1 R_3 g_m + L_3 R_1 R_4 g_m + 2L_3 R_3 + L_3 R_4)}$$

Parameters:

Q: $\frac{C_3 R_3 R_4 \sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}} + 2C_4 R_3 R_4 \sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}}}{2R_3 + R_4}$
wo: $\sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}}$
bandwidth: $\frac{(2R_3 + R_4) \sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}}}{C_3 R_3 R_4 \sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}} + 2C_4 R_3 R_4 \sqrt{\frac{1}{C_3 L_3 + 2C_4 L_3}}}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}$
Qz: 0
Wz: None

3.12 BP-12 $Z(s) = \left(R_1, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{L_3 L_4 R_1 R_3 g_m s}{2L_3 R_1 R_3 g_m + 2L_3 R_3 + L_4 R_1 R_3 g_m + L_4 R_3 + s^2 (C_3 L_3 L_4 R_1 R_3 g_m + C_3 L_3 L_4 R_3 + 2C_4 L_3 L_4 R_1 R_3 g_m + 2C_4 L_3 L_4 R_3) + s (L_3 L_4 R_1 g_m + L_3 L_4)}$$

Parameters:

Q: $C_3 R_3 \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4}} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + 2C_4 R_3 \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4}} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}$
wo: $\sqrt{\frac{2L_3 + L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}}$
bandwidth: $\frac{\sqrt{\frac{2L_3 + L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}}}{C_3 R_3 \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4}} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + 2C_4 R_3 \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4}} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1 R_3 g_m \sqrt{\frac{2}{C_3 L_4 + 2C_4 L_4}} + \frac{1}{C_3 L_3 + 2C_4 L_3}}{R_1 g_m \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4}} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4}} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}}$
Qz: 0
Wz: None

3.13 BP-13 $Z(s) = \left(R_1, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{L_3 L_4 R_1 R_3 R_4 g_m s}{2L_3 R_1 R_3 R_4 g_m + 2L_3 R_3 R_4 + L_4 R_1 R_3 R_4 g_m + L_4 R_3 R_4 + s^2 (C_3 L_3 L_4 R_1 R_3 R_4 g_m + C_3 L_3 L_4 R_3 R_4 + 2C_4 L_3 L_4 R_1 R_3 R_4 g_m + 2C_4 L_3 L_4 R_3 R_4) + s (2L_3 L_4 R_1 R_3 g_m + L_3 L_4 R_1 R_4 g_m + 2L_3 L_4 R_3 + L_3 L_4 R_4)}$$

Parameters:

Q: $\frac{C_3 R_3 R_4 \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}} + 2C_4 R_3 R_4 \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}}}{2R_3 + R_4}$

wo: $\sqrt{\frac{2L_3 + L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}}$

bandwidth: $\frac{\sqrt{\frac{2L_3 + L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}} (2R_3 + R_4)}{C_3 R_3 R_4 \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}} + 2C_4 R_3 R_4 \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}}}$

K-LP: 0

K-HP: 0

K-BP: $\frac{R_1 R_3 R_4 g_m \sqrt{\frac{2}{C_3 L_4 + 2C_4 L_4} + \frac{1}{C_3 L_3 + 2C_4 L_3}}}{2R_1 R_3 g_m \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}} + R_1 R_4 g_m \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}} + 2R_3 \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}} + R_4 \sqrt{\frac{2L_3}{C_3 L_3 L_4 + 2C_4 L_3 L_4} + \frac{L_4}{C_3 L_3 L_4 + 2C_4 L_3 L_4}}}$

Qz: 0

Wz: None

3.14 BP-14 $Z(s) = \left(L_1 s, \infty, R_3, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{L_1 R_3 g_m s}{2C_4 L_1 R_3 g_m s^2 + s (2C_4 R_3 + L_1 g_m) + 1}$$

Parameters:

Q: $\frac{\sqrt{2} C_4 L_1 R_3 g_m \sqrt{\frac{1}{C_4 L_1 R_3 g_m}}}{2C_4 R_3 + L_1 g_m}$

wo: $\frac{\sqrt{2} \sqrt{\frac{1}{C_4 L_1 R_3 g_m}}}{2}$

bandwidth: $\frac{2C_4 R_3 + L_1 g_m}{2C_4 L_1 R_3 g_m}$

K-LP: 0

K-HP: 0

K-BP: $\frac{L_1 R_3 g_m}{2C_4 R_3 + L_1 g_m}$

Qz: 0

Wz: None

3.15 BP-15 $Z(s) = \left(L_1 s, \infty, R_3, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{L_1 R_3 R_4 g_m s}{2C_4 L_1 R_3 R_4 g_m s^2 + 2R_3 + R_4 + s (2C_4 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

Parameters:

Q: $\frac{\sqrt{2} C_4 L_1 R_3 R_4 g_m \sqrt{\frac{2}{C_4 L_1 R_4 g_m} + \frac{1}{C_4 L_1 R_3 g_m}}}{2C_4 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m}$

wo: $\frac{\sqrt{2} \sqrt{\frac{2R_3 + R_4}{C_4 L_1 R_3 R_4 g_m}}}{2}$

bandwidth: $\frac{\sqrt{\frac{2R_3 + R_4}{C_4 L_1 R_3 R_4 g_m}} (2C_4 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}{2C_4 L_1 R_3 R_4 g_m \sqrt{\frac{2}{C_4 L_1 R_4 g_m} + \frac{1}{C_4 L_1 R_3 g_m}}}$

K-LP: 0

K-HP: 0

K-BP: $\frac{L_1 R_3 R_4 g_m}{2C_4 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m}$

Qz: 0

Wz: None

3.16 BP-16 $Z(s) = \left(L_1 s, \infty, \frac{1}{C_3 s}, R_4, \infty, \infty \right)$

Parameters:

Q: $\frac{\sqrt{2} C_3 L_1 R_4 g_m \sqrt{\frac{1}{C_3 L_1 R_4 g_m}}}{C_3 R_4 + 2 L_1 g_m}$
wo: $\sqrt{2} \sqrt{\frac{1}{C_3 L_1 R_4 g_m}}$
bandwidth: $\frac{C_3 R_4 + 2 L_1 g_m}{C_3 L_1 R_4 g_m}$
K-LP: 0
K-HP: 0
K-BP: $\frac{L_1 R_4 g_m}{C_3 R_4 + 2 L_1 g_m}$
Qz: 0
Wz: None

$$H(s) = \frac{L_1 R_4 g_m s}{C_3 L_1 R_4 g_m s^2 + s (C_3 R_4 + 2 L_1 g_m) + 2}$$

3.17 BP-17 $Z(s) = \left(L_1 s, \infty, \frac{1}{C_3 s}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

Parameters:

Q: $\frac{\sqrt{2} C_3 L_1 R_4 g_m \sqrt{\frac{1}{C_3 L_1 R_4 g_m + 2 C_4 L_1 R_4 g_m}} + 2 \sqrt{2} C_4 L_1 R_4 g_m \sqrt{\frac{1}{C_3 L_1 R_4 g_m + 2 C_4 L_1 R_4 g_m}}}{C_3 R_4 + 2 C_4 R_4 + 2 L_1 g_m}$
wo: $\sqrt{2} \sqrt{\frac{1}{C_3 L_1 R_4 g_m + 2 C_4 L_1 R_4 g_m}}$
bandwidth: $\frac{\sqrt{2} (C_3 R_4 + 2 C_4 R_4 + 2 L_1 g_m) \sqrt{\frac{1}{C_3 L_1 R_4 g_m + 2 C_4 L_1 R_4 g_m}}}{\sqrt{2} C_3 L_1 R_4 g_m \sqrt{\frac{1}{C_3 L_1 R_4 g_m + 2 C_4 L_1 R_4 g_m}} + 2 \sqrt{2} C_4 L_1 R_4 g_m \sqrt{\frac{1}{C_3 L_1 R_4 g_m + 2 C_4 L_1 R_4 g_m}}}$
K-LP: 0
K-HP: 0
K-BP: $\frac{L_1 R_4 g_m}{C_3 R_4 + 2 C_4 R_4 + 2 L_1 g_m}$
Qz: 0
Wz: None

$$H(s) = \frac{L_1 R_4 g_m s}{s^2 (C_3 L_1 R_4 g_m + 2 C_4 L_1 R_4 g_m) + s (C_3 R_4 + 2 C_4 R_4 + 2 L_1 g_m) + 2}$$

3.18 BP-18 $Z(s) = \left(L_1 s, \infty, \frac{R_3}{C_3 R_3 s + 1}, R_4, \infty, \infty \right)$

Parameters:

Q: $\frac{C_3 L_1 R_3 R_4 g_m \sqrt{\frac{2}{C_3 L_1 R_4 g_m} + \frac{1}{C_3 L_1 R_3 g_m}}}{C_3 R_3 R_4 + 2 L_1 R_3 g_m + L_1 R_4 g_m}$
wo: $\sqrt{\frac{2 R_3 + R_4}{C_3 L_1 R_3 R_4 g_m}}$
bandwidth: $\frac{\sqrt{\frac{2 R_3 + R_4}{C_3 L_1 R_3 R_4 g_m}} (C_3 R_3 R_4 + 2 L_1 R_3 g_m + L_1 R_4 g_m)}{C_3 L_1 R_3 R_4 g_m \sqrt{\frac{2}{C_3 L_1 R_4 g_m} + \frac{1}{C_3 L_1 R_3 g_m}}}$
K-LP: 0
K-HP: 0
K-BP: $\frac{L_1 R_3 R_4 g_m}{C_3 R_3 R_4 + 2 L_1 R_3 g_m + L_1 R_4 g_m}$
Qz: 0
Wz: None

$$H(s) = \frac{L_1 R_3 R_4 g_m s}{C_3 L_1 R_3 R_4 g_m s^2 + 2 R_3 + R_4 + s (C_3 R_3 R_4 + 2 L_1 R_3 g_m + L_1 R_4 g_m)}$$

3.19 BP-19 $Z(s) = \left(L_1 s, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{1}{C_4 s}, \infty, \infty \right)$

Parameters:

$$H(s) = \frac{L_1 R_3 g_m s}{s^2 (C_3 L_1 R_3 g_m + 2 C_4 L_1 R_3 g_m) + s (C_3 R_3 + 2 C_4 R_3 + L_1 g_m) + 1}$$

Q: $\frac{C_3 L_1 R_3 g_m \sqrt{\frac{1}{C_3 L_1 R_3 g_m + 2C_4 L_1 R_3 g_m}} + 2C_4 L_1 R_3 g_m \sqrt{\frac{1}{C_3 L_1 R_3 g_m + 2C_4 L_1 R_3 g_m}}}{C_3 R_3 + 2C_4 R_3 + L_1 g_m}$

wo: $\sqrt{\frac{1}{C_3 L_1 R_3 g_m + 2C_4 L_1 R_3 g_m}}$

bandwidth: $\frac{(C_3 R_3 + 2C_4 R_3 + L_1 g_m) \sqrt{\frac{1}{C_3 L_1 R_3 g_m + 2C_4 L_1 R_3 g_m}}}{C_3 L_1 R_3 g_m \sqrt{\frac{1}{C_3 L_1 R_3 g_m + 2C_4 L_1 R_3 g_m}} + 2C_4 L_1 R_3 g_m \sqrt{\frac{1}{C_3 L_1 R_3 g_m + 2C_4 L_1 R_3 g_m}}}$

K-LP: 0

K-HP: 0

K-BP: $\frac{L_1 R_3 g_m}{C_3 R_3 + 2C_4 R_3 + L_1 g_m}$

Qz: 0

Wz: None

3.20 BP-20 $Z(s) = \left(L_1 s, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{L_1 R_3 R_4 g_m s}{2R_3 + R_4 + s^2 (C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m) + s (C_3 R_3 R_4 + 2C_4 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

Parameters:

Q: $\frac{C_3 L_1 R_3 R_4 g_m \sqrt{\frac{2R_3}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m}} + \frac{R_4}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m} + 2C_4 L_1 R_3 R_4 g_m \sqrt{\frac{2R_3}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m}} + \frac{R_4}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m}}{C_3 R_3 R_4 + 2C_4 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m}$

wo: $\sqrt{\frac{2R_3 + R_4}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m}}$

bandwidth: $\frac{\sqrt{\frac{2R_3 + R_4}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m}} (C_3 R_3 R_4 + 2C_4 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}{C_3 L_1 R_3 R_4 g_m \sqrt{\frac{2R_3}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m}} + \frac{R_4}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m} + 2C_4 L_1 R_3 R_4 g_m \sqrt{\frac{2R_3}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m}} + \frac{R_4}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m}}$

K-LP: 0

K-HP: 0

K-BP: $\frac{L_1 R_3 R_4 g_m \sqrt{\frac{2}{C_3 L_1 R_4 g_m + 2C_4 L_1 R_4 g_m}} + \frac{1}{C_3 L_1 R_3 g_m + 2C_4 L_1 R_3 g_m}}{C_3 R_3 R_4 \sqrt{\frac{2R_3}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m}} + \frac{R_4}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m} + 2C_4 R_3 R_4 \sqrt{\frac{2R_3}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m}} + \frac{R_4}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m} + 2L_1 R_3 g_m \sqrt{\frac{2R_3}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m}} + \frac{R_4}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m} + L_1 R_4 g_m \sqrt{\frac{2R_3}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m}} + \frac{R_4}{C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m}}$

Qz: 0

Wz: None

3.21 BP-21 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, R_3, R_4, \infty, \infty \right)$

$$H(s) = \frac{L_1 R_3 R_4 g_m s}{2R_3 + R_4 + s^2 (2C_1 L_1 R_3 + C_1 L_1 R_4) + s (2L_1 R_3 g_m + L_1 R_4 g_m)}$$

Parameters:

Q: $\frac{C_1 \sqrt{\frac{1}{C_1 L_1}}}{g_m}$

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

bandwidth: $\frac{g_m}{C_1}$

K-LP: 0

K-HP: 0

K-BP: $\frac{R_3 R_4}{2R_3 + R_4}$

Qz: 0

Wz: None

3.22 BP-22 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, R_3, R_4, \infty, \infty \right)$

$$H(s) = \frac{L_1 R_1 R_3 R_4 g_m s}{2R_1 R_3 + R_1 R_4 + s^2 (2C_1 L_1 R_1 R_3 + C_1 L_1 R_1 R_4) + s (2L_1 R_1 R_3 g_m + L_1 R_1 R_4 g_m + 2L_1 R_3 + L_1 R_4)}$$

Parameters:

Q: $\frac{C_1 R_1 \sqrt{\frac{1}{C_1 L_1}}}{R_1 g_m + 1}$

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

bandwidth: $\frac{R_1 g_m + 1}{C_1 R_1}$

K-LP: 0

K-HP: 0

K-BP: $\frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}$
Qz: 0
Wz: None

4 LP

4.1 LP-1 $Z(s) = \left(\frac{1}{C_1 s}, \infty, R_3, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{R_3 g_m}{2C_1 C_4 R_3 s^2 + g_m + s(C_1 + 2C_4 R_3 g_m)}$$

Parameters:

Q: $\frac{\sqrt{2} C_1 C_4 R_3 \sqrt{\frac{g_m}{C_1 C_4 R_3}}}{C_1 + 2C_4 R_3 g_m}$
wo: $\frac{\sqrt{2} \sqrt{\frac{g_m}{C_1 C_4 R_3}}}{2}$
bandwidth: $\frac{C_1 + 2C_4 R_3 g_m}{2C_1 C_4 R_3}$
K-LP: R_3
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.2 LP-2 $Z(s) = \left(\frac{1}{C_1 s}, \infty, R_3, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{R_3 R_4 g_m}{2C_1 C_4 R_3 R_4 s^2 + 2R_3 g_m + R_4 g_m + s(2C_1 R_3 + C_1 R_4 + 2C_4 R_3 R_4 g_m)}$$

Parameters:

Q: $\frac{\sqrt{2} C_1 C_4 R_3 R_4 \sqrt{\frac{2g_m}{C_1 C_4 R_4} + \frac{g_m}{C_1 C_4 R_3}}}{2C_1 R_3 + C_1 R_4 + 2C_4 R_3 R_4 g_m}$
wo: $\frac{\sqrt{2} \sqrt{\frac{2R_3 g_m + R_4 g_m}{C_1 C_4 R_3 R_4}}}{2}$
bandwidth: $\frac{\sqrt{\frac{2R_3 g_m + R_4 g_m}{C_1 C_4 R_3 R_4}} (2C_1 R_3 + C_1 R_4 + 2C_4 R_3 R_4 g_m)}{2C_1 C_4 R_3 R_4 \sqrt{\frac{2g_m}{C_1 C_4 R_4} + \frac{g_m}{C_1 C_4 R_3}}}$
K-LP: $\frac{R_3 R_4}{2R_3 + R_4}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.3 LP-3 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, R_4, \infty, \infty \right)$

$$H(s) = \frac{R_4 g_m}{C_1 C_3 R_4 s^2 + 2g_m + s(2C_1 + C_3 R_4 g_m)}$$

Parameters:

Q: $\frac{\sqrt{2} C_1 C_3 R_4 \sqrt{\frac{g_m}{C_1 C_3 R_4}}}{2C_1 + C_3 R_4 g_m}$
wo: $\sqrt{2} \sqrt{\frac{g_m}{C_1 C_3 R_4}}$
bandwidth: $\frac{2C_1 + C_3 R_4 g_m}{C_1 C_3 R_4}$
K-LP: $\frac{R_4}{2}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.4 LP-4 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

Parameters:

Q: $\frac{\sqrt{2} C_1 C_3 R_4 \sqrt{\frac{g_m}{C_1 C_3 R_4 + 2 C_1 C_4 R_4}} + 2 \sqrt{2} C_1 C_4 R_4 \sqrt{\frac{g_m}{C_1 C_3 R_4 + 2 C_1 C_4 R_4}}}{2 C_1 + C_3 R_4 g_m + 2 C_4 R_4 g_m}$
wo: $\sqrt{2} \sqrt{\frac{g_m}{C_1 C_3 R_4 + 2 C_1 C_4 R_4}}$
bandwidth: $\frac{\sqrt{2} \sqrt{\frac{g_m}{C_1 C_3 R_4 + 2 C_1 C_4 R_4}} (2 C_1 + C_3 R_4 g_m + 2 C_4 R_4 g_m)}{\sqrt{2} C_1 C_3 R_4 \sqrt{\frac{g_m}{C_1 C_3 R_4 + 2 C_1 C_4 R_4}} + 2 \sqrt{2} C_1 C_4 R_4 \sqrt{\frac{g_m}{C_1 C_3 R_4 + 2 C_1 C_4 R_4}}}$
K-LP: $\frac{R_4}{2}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.5 LP-5 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \frac{R_3}{C_3 R_3 s + 1}, R_4, \infty, \infty \right)$

Parameters:

Q: $\frac{C_1 C_3 R_3 R_4 \sqrt{\frac{2 g_m}{C_1 C_3 R_4} + \frac{g_m}{C_1 C_3 R_3}}}{2 C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m}$
wo: $\sqrt{\frac{2 R_3 g_m + R_4 g_m}{C_1 C_3 R_3 R_4}}$
bandwidth: $\frac{\sqrt{\frac{2 R_3 g_m + R_4 g_m}{C_1 C_3 R_3 R_4}} (2 C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m)}{C_1 C_3 R_3 R_4 \sqrt{\frac{2 g_m}{C_1 C_3 R_4} + \frac{g_m}{C_1 C_3 R_3}}}$
K-LP: $\frac{R_3 R_4}{2 R_3 + R_4}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.6 LP-6 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{1}{C_4 s}, \infty, \infty \right)$

Parameters:

Q: $\frac{C_1 C_3 R_3 \sqrt{\frac{g_m}{C_1 C_3 R_3 + 2 C_1 C_4 R_3}} + 2 C_1 C_4 R_3 \sqrt{\frac{g_m}{C_1 C_3 R_3 + 2 C_1 C_4 R_3}}}{C_1 + C_3 R_3 g_m + 2 C_4 R_3 g_m}$
wo: $\sqrt{\frac{g_m}{C_1 C_3 R_3 + 2 C_1 C_4 R_3}}$
bandwidth: $\frac{\sqrt{\frac{g_m}{C_1 C_3 R_3 + 2 C_1 C_4 R_3}} (C_1 + C_3 R_3 g_m + 2 C_4 R_3 g_m)}{C_1 C_3 R_3 \sqrt{\frac{g_m}{C_1 C_3 R_3 + 2 C_1 C_4 R_3}} + 2 C_1 C_4 R_3 \sqrt{\frac{g_m}{C_1 C_3 R_3 + 2 C_1 C_4 R_3}}}$
K-LP: R_3
K-HP: 0
K-BP: 0
Qz: None
Wz: None

$$H(s) = \frac{R_4 g_m}{2 g_m + s^2 (C_1 C_3 R_4 + 2 C_1 C_4 R_4) + s (2 C_1 + C_3 R_4 g_m + 2 C_4 R_4 g_m)}$$

$$H(s) = \frac{R_3 R_4 g_m}{C_1 C_3 R_3 R_4 s^2 + 2 R_3 g_m + R_4 g_m + s (2 C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m)}$$

$$H(s) = \frac{R_3 g_m}{g_m + s^2 (C_1 C_3 R_3 + 2 C_1 C_4 R_3) + s (C_1 + C_3 R_3 g_m + 2 C_4 R_3 g_m)}$$

4.7 LP-7 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{R_3 R_4 g_m}{2R_3 g_m + R_4 g_m + s^2 (C_1 C_3 R_3 R_4 + 2C_1 C_4 R_3 R_4) + s (2C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m + 2C_4 R_3 R_4 g_m)}$$

Parameters:

Q: $\frac{C_1 C_3 R_3 R_4 \sqrt{\frac{2R_3 g_m}{C_1 C_3 R_3 R_4 + 2C_1 C_4 R_3 R_4} + \frac{R_4 g_m}{C_1 C_3 R_3 R_4 + 2C_1 C_4 R_3 R_4}} + 2C_1 C_4 R_3 R_4 \sqrt{\frac{2R_3 g_m}{C_1 C_3 R_3 R_4 + 2C_1 C_4 R_3 R_4} + \frac{R_4 g_m}{C_1 C_3 R_3 R_4 + 2C_1 C_4 R_3 R_4}}}{2C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m + 2C_4 R_3 R_4 g_m}$

wo: $\sqrt{\frac{2R_3 g_m + R_4 g_m}{C_1 C_3 R_3 R_4 + 2C_1 C_4 R_3 R_4}}$

bandwidth: $\frac{\sqrt{\frac{2R_3 g_m + R_4 g_m}{C_1 C_3 R_3 R_4 + 2C_1 C_4 R_3 R_4}} (2C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m + 2C_4 R_3 R_4 g_m)}{C_1 C_3 R_3 R_4 \sqrt{\frac{2R_3 g_m}{C_1 C_3 R_3 R_4 + 2C_1 C_4 R_3 R_4} + \frac{R_4 g_m}{C_1 C_3 R_3 R_4 + 2C_1 C_4 R_3 R_4}} + 2C_1 C_4 R_3 R_4 \sqrt{\frac{2R_3 g_m}{C_1 C_3 R_3 R_4 + 2C_1 C_4 R_3 R_4} + \frac{R_4 g_m}{C_1 C_3 R_3 R_4 + 2C_1 C_4 R_3 R_4}}}$

K-LP: $\frac{R_3 R_4}{2R_3 + R_4}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.8 LP-8 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, R_3, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{R_1 R_3 g_m}{2C_1 C_4 R_1 R_3 s^2 + R_1 g_m + s (C_1 R_1 + 2C_4 R_1 R_3 g_m + 2C_4 R_3) + 1}$$

Parameters:

Q: $\frac{\sqrt{2} C_1 C_4 R_1 R_3 \sqrt{\frac{g_m}{C_1 C_4 R_3} + \frac{1}{C_1 C_4 R_1 R_3}}}{C_1 R_1 + 2C_4 R_1 R_3 g_m + 2C_4 R_3}$

wo: $\frac{\sqrt{2} \sqrt{\frac{R_1 g_m + 1}{C_1 C_4 R_1 R_3}}}{2}$

bandwidth: $\frac{\sqrt{\frac{R_1 g_m + 1}{C_1 C_4 R_1 R_3}} (C_1 R_1 + 2C_4 R_1 R_3 g_m + 2C_4 R_3)}{2C_1 C_4 R_1 R_3 \sqrt{\frac{g_m}{C_1 C_4 R_3} + \frac{1}{C_1 C_4 R_1 R_3}}}$

K-LP: $\frac{R_1 R_3 g_m}{R_1 g_m + 1}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.9 LP-9 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, R_3, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{R_1 R_3 R_4 g_m}{2C_1 C_4 R_1 R_3 R_4 s^2 + 2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s (2C_1 R_1 R_3 + C_1 R_1 R_4 + 2C_4 R_1 R_3 R_4 g_m + 2C_4 R_3 R_4)}$$

Parameters:

Q: $\frac{\sqrt{2} C_1 C_4 R_1 R_3 R_4 \sqrt{\frac{2g_m}{C_1 C_4 R_4} + \frac{g_m}{C_1 C_4 R_3} + \frac{2}{C_1 C_4 R_1 R_4} + \frac{1}{C_1 C_4 R_1 R_3}}}{2C_1 R_1 R_3 + C_1 R_1 R_4 + 2C_4 R_1 R_3 R_4 g_m + 2C_4 R_3 R_4}$

wo: $\frac{\sqrt{2} \sqrt{\frac{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}{C_1 C_4 R_1 R_3 R_4}}}{2}$

bandwidth: $\frac{\sqrt{\frac{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}{C_1 C_4 R_1 R_3 R_4}} (2C_1 R_1 R_3 + C_1 R_1 R_4 + 2C_4 R_1 R_3 R_4 g_m + 2C_4 R_3 R_4)}{2C_1 C_4 R_1 R_3 R_4 \sqrt{\frac{2g_m}{C_1 C_4 R_4} + \frac{g_m}{C_1 C_4 R_3} + \frac{2}{C_1 C_4 R_1 R_4} + \frac{1}{C_1 C_4 R_1 R_3}}}$

K-LP: $\frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}$
K-HP: 0
K-BP: 0
Qz: None
Wz: None

4.10 LP-10 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \frac{1}{C_3 s}, R_4, \infty, \infty \right)$

$$H(s) = \frac{R_1 R_4 g_m}{C_1 C_3 R_1 R_4 s^2 + 2R_1 g_m + s(2C_1 R_1 + C_3 R_1 R_4 g_m + C_3 R_4) + 2}$$

Parameters:

Q: $\frac{\sqrt{2}C_1 C_3 R_1 R_4 \sqrt{\frac{g_m}{C_1 C_3 R_4} + \frac{1}{C_1 C_3 R_1 R_4}}}{2C_1 R_1 + C_3 R_1 R_4 g_m + C_3 R_4}$
 wo: $\sqrt{\frac{2R_1 g_m + 2}{C_1 C_3 R_1 R_4}}$
 bandwidth: $\frac{\sqrt{2} \sqrt{\frac{2R_1 g_m + 2}{C_1 C_3 R_1 R_4}} (2C_1 R_1 + C_3 R_1 R_4 g_m + C_3 R_4)}{2C_1 C_3 R_1 R_4 \sqrt{\frac{g_m}{C_1 C_3 R_4} + \frac{1}{C_1 C_3 R_1 R_4}}}$
 K-LP: $\frac{R_1 R_4 g_m}{2R_1 g_m + 2}$
 K-HP: 0
 K-BP: 0
 Qz: None
 Wz: None

4.11 LP-11 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \frac{1}{C_3 s}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{R_1 R_4 g_m}{2R_1 g_m + s^2 (C_1 C_3 R_1 R_4 + 2C_1 C_4 R_1 R_4) + s(2C_1 R_1 + C_3 R_1 R_4 g_m + C_3 R_4 + 2C_4 R_1 R_4 g_m + 2C_4 R_4) + 2}$$

Parameters:

Q: $\frac{\sqrt{2}C_1 C_3 R_1 R_4 \sqrt{\frac{R_1 g_m}{C_1 C_3 R_1 R_4 + 2C_1 C_4 R_1 R_4} + \frac{1}{C_1 C_3 R_1 R_4 + 2C_1 C_4 R_1 R_4}} + 2\sqrt{2}C_1 C_4 R_1 R_4 \sqrt{\frac{R_1 g_m}{C_1 C_3 R_1 R_4 + 2C_1 C_4 R_1 R_4} + \frac{1}{C_1 C_3 R_1 R_4 + 2C_1 C_4 R_1 R_4}}}{2C_1 R_1 + C_3 R_1 R_4 g_m + C_3 R_4 + 2C_4 R_1 R_4 g_m + 2C_4 R_4}$
 wo: $\sqrt{\frac{2R_1 g_m + 2}{C_1 C_3 R_1 R_4 + 2C_1 C_4 R_1 R_4}}$
 bandwidth: $\frac{\sqrt{\frac{2R_1 g_m + 2}{C_1 C_3 R_1 R_4 + 2C_1 C_4 R_1 R_4}} (2C_1 R_1 + C_3 R_1 R_4 g_m + C_3 R_4 + 2C_4 R_1 R_4 g_m + 2C_4 R_4)}{\sqrt{2}C_1 C_3 R_1 R_4 \sqrt{\frac{R_1 g_m}{C_1 C_3 R_1 R_4 + 2C_1 C_4 R_1 R_4} + \frac{1}{C_1 C_3 R_1 R_4 + 2C_1 C_4 R_1 R_4}} + 2\sqrt{2}C_1 C_4 R_1 R_4 \sqrt{\frac{R_1 g_m}{C_1 C_3 R_1 R_4 + 2C_1 C_4 R_1 R_4} + \frac{1}{C_1 C_3 R_1 R_4 + 2C_1 C_4 R_1 R_4}}}$
 K-LP: $\frac{R_1 R_4 g_m}{2R_1 g_m + 2}$
 K-HP: 0
 K-BP: 0
 Qz: None
 Wz: None

4.12 LP-12 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \frac{R_3}{C_3 R_3 s + 1}, R_4, \infty, \infty \right)$

$$H(s) = \frac{R_1 R_3 R_4 g_m}{C_1 C_3 R_1 R_3 R_4 s^2 + 2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s(2C_1 R_1 R_3 + C_1 R_1 R_4 + C_3 R_1 R_3 R_4 g_m + C_3 R_3 R_4)}$$

Parameters:

Q: $\frac{C_1 C_3 R_1 R_3 R_4 \sqrt{\frac{2g_m}{C_1 C_3 R_4} + \frac{g_m}{C_1 C_3 R_3} + \frac{2}{C_1 C_3 R_1 R_4} + \frac{1}{C_1 C_3 R_1 R_3}}}{2C_1 R_1 R_3 + C_1 R_1 R_4 + C_3 R_1 R_3 R_4 g_m + C_3 R_3 R_4}$
 wo: $\sqrt{\frac{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}{C_1 C_3 R_1 R_3 R_4}}$
 bandwidth: $\frac{\sqrt{\frac{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}{C_1 C_3 R_1 R_3 R_4}} (2C_1 R_1 R_3 + C_1 R_1 R_4 + C_3 R_1 R_3 R_4 g_m + C_3 R_3 R_4)}{C_1 C_3 R_1 R_3 R_4 \sqrt{\frac{2g_m}{C_1 C_3 R_4} + \frac{g_m}{C_1 C_3 R_3} + \frac{2}{C_1 C_3 R_1 R_4} + \frac{1}{C_1 C_3 R_1 R_3}}}$
 K-LP: $\frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}$
 K-HP: 0
 K-BP: 0
 Qz: None
 Wz: None

4.13 LP-13 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{R_1 R_3 g_m}{R_1 g_m + s^2 (C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3) + s (C_1 R_1 + C_3 R_1 R_3 g_m + C_3 R_3 + 2C_4 R_1 R_3 g_m + 2C_4 R_3) + 1}$$

Parameters:

Q: $\frac{C_1 C_3 R_1 R_3 \sqrt{\frac{R_1 g_m}{C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3} + \frac{1}{C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3}} + 2C_1 C_4 R_1 R_3 \sqrt{\frac{R_1 g_m}{C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3} + \frac{1}{C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3}}}{C_1 R_1 + C_3 R_1 R_3 g_m + C_3 R_3 + 2C_4 R_1 R_3 g_m + 2C_4 R_3}$

wo: $\sqrt{\frac{R_1 g_m + 1}{C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3}}$

bandwidth: $\frac{\sqrt{\frac{R_1 g_m + 1}{C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3}} (C_1 R_1 + C_3 R_1 R_3 g_m + C_3 R_3 + 2C_4 R_1 R_3 g_m + 2C_4 R_3)}{C_1 C_3 R_1 R_3 \sqrt{\frac{R_1 g_m}{C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3} + \frac{1}{C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3}} + 2C_1 C_4 R_1 R_3 \sqrt{\frac{R_1 g_m}{C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3} + \frac{1}{C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3}}}$

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

K-HP: 0

K-BP: 0

Qz: None

Wz: None

4.14 LP-14 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^2 (C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4) + s (2C_1 R_1 R_3 + C_1 R_1 R_4 + C_3 R_1 R_3 R_4 g_m + C_3 R_3 R_4 + 2C_4 R_1 R_3 R_4 g_m + 2C_4 R_3 R_4)}$$

Parameters:

Q: $\frac{C_1 C_3 R_1 R_3 R_4 \sqrt{\frac{2R_1 R_3 g_m}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4} + \frac{R_1 R_4 g_m}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4} + \frac{2R_3}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4} + \frac{R_4}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4}} + 2C_1 C_4 R_1 R_3 R_4 \sqrt{\frac{2R_1 R_3 g_m}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4} + \frac{R_1 R_4 g_m}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4} + \frac{2R_3}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4} + \frac{R_4}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4}}}{2C_1 R_1 R_3 + C_1 R_1 R_4 + C_3 R_1 R_3 R_4 g_m + C_3 R_3 R_4 + 2C_4 R_1 R_3 R_4 g_m + 2C_4 R_3 R_4}$

wo: $\sqrt{\frac{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4}}$

bandwidth: $\frac{\sqrt{\frac{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4}} (2C_1 R_1 R_3 + C_1 R_1 R_4 + C_3 R_1 R_3 R_4 g_m + C_3 R_3 R_4 + 2C_4 R_1 R_3 R_4 g_m + 2C_4 R_3 R_4)}{C_1 C_3 R_1 R_3 R_4 \sqrt{\frac{2R_1 R_3 g_m}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4} + \frac{R_1 R_4 g_m}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4} + \frac{2R_3}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4} + \frac{R_4}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4}} + 2C_1 C_4 R_1 R_3 R_4 \sqrt{\frac{2R_1 R_3 g_m}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4} + \frac{R_1 R_4 g_m}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4} + \frac{2R_3}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4} + \frac{R_4}{C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4}}}$

K-LP: $\frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}$

K-HP: 0

K-BP: 0

Qz: None

Wz: None

4.15 LP-15 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \frac{1}{C_3 s}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{L_1 g_m}{C_3 + 2C_4 + s^2 (C_1 C_3 L_1 + 2C_1 C_4 L_1) + s (C_3 L_1 g_m + 2C_4 L_1 g_m)}$$

Parameters:

Q: $\frac{C_1 \sqrt{\frac{1}{C_1 L_1}}}{\frac{g_m}{C_1 L_1}}$

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

bandwidth: $\frac{g_m}{C_1}$

K-LP: $\frac{L_1 g_m}{C_3 + 2C_4}$

K-HP: 0

K-BP: 0

Qz: None

Wz: None

4.16 LP-16 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \frac{1}{C_3 s}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{L_1 R_1 g_m}{C_3 R_1 + 2C_4 R_1 + s^2 (C_1 C_3 L_1 R_1 + 2C_1 C_4 L_1 R_1) + s (C_3 L_1 R_1 g_m + C_3 L_1 + 2C_4 L_1 R_1 g_m + 2C_4 L_1)}$$

Parameters:

Q: $\frac{C_1 R_1 \sqrt{\frac{1}{C_1 L_1}}}{R_1 g_m + 1}$
 wo: $\sqrt{\frac{1}{C_1 L_1}}$
 bandwidth: $\frac{R_1 g_m + 1}{C_1 R_1}$
 K-LP: $\frac{L_1 g_m}{C_3 + 2C_4}$
 K-HP: 0
 K-BP: 0
 Qz: None
 Wz: None

5 BS

5.1 BS-1 $Z(s) = \left(R_1, \infty, R_3, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_4 R_1 R_3 g_m s^2 + R_1 R_3 g_m}{R_1 g_m + s^2 (C_4 L_4 R_1 g_m + C_4 L_4) + s (2C_4 R_1 R_3 g_m + 2C_4 R_3) + 1}$$

Parameters:

Q: $\frac{L_4 \sqrt{\frac{1}{C_4 L_4}}}{2R_3}$
 wo: $\sqrt{\frac{1}{C_4 L_4}}$
 bandwidth: $\frac{2R_3}{L_4}$
 K-LP: $\frac{R_1 R_3 g_m}{R_1 g_m + 1}$
 K-HP: $\frac{R_1 R_3 g_m}{R_1 g_m + 1}$
 K-BP: 0
 Qz: None
 Wz: $\sqrt{\frac{1}{C_4 L_4}}$

5.2 BS-2 $Z(s) = \left(R_1, \infty, R_3, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_4 R_1 R_3 R_4 g_m s^2 + R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^2 (2C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_1 R_4 g_m + 2C_4 L_4 R_3 + C_4 L_4 R_4) + s (2C_4 R_1 R_3 R_4 g_m + 2C_4 R_3 R_4)}$$

Parameters:

Q: $\frac{2L_4 R_3 \sqrt{\frac{1}{C_4 L_4}} + L_4 R_4 \sqrt{\frac{1}{C_4 L_4}}}{2R_3 R_4}$
 wo: $\sqrt{\frac{1}{C_4 L_4}}$
 bandwidth: $\frac{2R_3 R_4 \sqrt{\frac{1}{C_4 L_4}}}{2L_4 R_3 \sqrt{\frac{1}{C_4 L_4}} + L_4 R_4 \sqrt{\frac{1}{C_4 L_4}}}$
 K-LP: $\frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}$
 K-HP: $\frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}$
 K-BP: 0
 Qz: None
 Wz: $\sqrt{\frac{1}{C_4 L_4}}$

5.3 BS-3 $Z(s) = \left(R_1, \infty, L_3 s + \frac{1}{C_3 s}, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_3 R_1 R_4 g_m s^2 + R_1 R_4 g_m}{2R_1 g_m + s^2 (2C_3 L_3 R_1 g_m + 2C_3 L_3) + s (C_3 R_1 R_4 g_m + C_3 R_4) + 2}$$

Parameters:

Q: $\frac{2L_3 \sqrt{\frac{1}{C_3 L_3}}}{R_4}$

wo: $\sqrt{\frac{1}{C_3 L_3}}$
 bandwidth: $\frac{R_4}{2L_3}$
 K-LP: $\frac{R_1 R_4 g_m}{2R_1 g_m + 2}$
 K-HP: $\frac{R_1 R_4 g_m}{2R_1 g_m + 2}$
 K-BP: 0
 Qz: None
 Wz: $\sqrt{\frac{1}{C_3 L_3}}$

5.4 BS-4 $Z(s) = \left(R_1, \infty, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_3 R_1 R_3 R_4 g_m s^2 + R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^2 (2C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_1 R_4 g_m + 2C_3 L_3 R_3 + C_3 L_3 R_4) + s (C_3 R_1 R_3 R_4 g_m + C_3 R_3 R_4)}$$

Parameters:

Q: $\frac{2L_3 R_3 \sqrt{\frac{1}{C_3 L_3}} + L_3 R_4 \sqrt{\frac{1}{C_3 L_3}}}{R_3 R_4}$
 wo: $\sqrt{\frac{1}{C_3 L_3}}$
 bandwidth: $\frac{R_3 R_4 \sqrt{\frac{1}{C_3 L_3}}}{2L_3 R_3 \sqrt{\frac{1}{C_3 L_3}} + L_3 R_4 \sqrt{\frac{1}{C_3 L_3}}}$
 K-LP: $\frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}$
 K-HP: $\frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}$
 K-BP: 0
 Qz: None
 Wz: $\sqrt{\frac{1}{C_3 L_3}}$

5.5 BS-5 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, R_3, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 R_3 R_4 g_m s^2 + R_3 R_4 g_m}{2R_3 g_m + R_4 g_m + s^2 (2C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m) + s (2C_1 R_3 + C_1 R_4)}$$

Parameters:

Q: $L_1 g_m \sqrt{\frac{1}{C_1 L_1}}$
 wo: $\sqrt{\frac{1}{C_1 L_1}}$
 bandwidth: $\frac{1}{L_1 g_m}$
 K-LP: $\frac{R_3 R_4}{2R_3 + R_4}$
 K-HP: $\frac{R_3 R_4}{2R_3 + R_4}$
 K-BP: 0
 Qz: None
 Wz: $\sqrt{\frac{1}{C_1 L_1}}$

5.6 BS-6 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, R_3, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 R_1 R_3 R_4 g_m s^2 + R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^2 (2C_1 L_1 R_1 R_3 g_m + C_1 L_1 R_1 R_4 g_m + 2C_1 L_1 R_3 + C_1 L_1 R_4) + s (2C_1 R_1 R_3 + C_1 R_1 R_4)}$$

Parameters:

Q: $\frac{L_1 R_1 g_m \sqrt{\frac{1}{C_1 L_1}} + L_1 \sqrt{\frac{1}{C_1 L_1}}}{R_1}$
 wo: $\sqrt{\frac{1}{C_1 L_1}}$
 bandwidth: $\frac{R_1 \sqrt{\frac{1}{C_1 L_1}}}{L_1 R_1 g_m \sqrt{\frac{1}{C_1 L_1}} + L_1 \sqrt{\frac{1}{C_1 L_1}}}$
 K-LP: $\frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}$

$$\begin{aligned} \text{K-HP: } & \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4} \\ \text{K-BP: } & 0 \\ \text{Qz: } & \text{None} \\ \text{Wz: } & \sqrt{\frac{1}{C_1 L_1}} \end{aligned}$$

6 GE

$$\mathbf{6.1 \quad GE-1} \quad Z(s) = \left(R_1, \infty, R_3, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 R_3 g_m s^2 + C_4 R_1 R_3 R_4 g_m s + R_1 R_3 g_m}{R_1 g_m + s^2 (C_4 L_4 R_1 g_m + C_4 L_4) + s (2C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2C_4 R_3 + C_4 R_4) + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{L_4 \sqrt{\frac{1}{C_4 L_4}}}{2R_3 + R_4} \\ \text{wo: } & \sqrt{\frac{1}{C_4 L_4}} \\ \text{bandwidth: } & \frac{2R_3 + R_4}{L_4} \\ \text{K-LP: } & \frac{R_1 R_3 g_m}{R_1 g_m + 1} \\ \text{K-HP: } & \frac{R_1 R_3 g_m}{R_1 g_m + 1} \\ \text{K-BP: } & \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4} \\ \text{Qz: } & \frac{L_4 \sqrt{\frac{1}{C_4 L_4}}}{R_4} \\ \text{Wz: } & \sqrt{\frac{1}{C_4 L_4}} \end{aligned}$$

$$\mathbf{6.2 \quad GE-2} \quad Z(s) = \left(R_1, \infty, R_3, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 R_3 R_4 g_m s^2 + L_4 R_1 R_3 g_m s + R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^2 (2C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_1 R_4 g_m + 2C_4 L_4 R_3 + C_4 L_4 R_4) + s (L_4 R_1 g_m + L_4)}$$

Parameters:

$$\begin{aligned} \text{Q: } & 2C_4 R_3 \sqrt{\frac{1}{C_4 L_4}} + C_4 R_4 \sqrt{\frac{1}{C_4 L_4}} \\ \text{wo: } & \sqrt{\frac{1}{C_4 L_4}} \\ \text{bandwidth: } & \frac{\sqrt{\frac{1}{C_4 L_4}}}{2C_4 R_3 \sqrt{\frac{1}{C_4 L_4}} + C_4 R_4 \sqrt{\frac{1}{C_4 L_4}}} \\ \text{K-LP: } & \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4} \\ \text{K-HP: } & \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4} \\ \text{K-BP: } & \frac{R_1 R_3 g_m}{R_1 g_m + 1} \\ \text{Qz: } & C_4 R_4 \sqrt{\frac{1}{C_4 L_4}} \\ \text{Wz: } & \sqrt{\frac{1}{C_4 L_4}} \end{aligned}$$

$$\mathbf{6.3 \quad GE-3} \quad Z(s) = \left(R_1, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, R_4, \infty, \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 R_4 g_m s^2 + C_3 R_1 R_3 R_4 g_m s + R_1 R_4 g_m}{2R_1 g_m + s^2 (2C_3 L_3 R_1 g_m + 2C_3 L_3) + s (2C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2C_3 R_3 + C_3 R_4) + 2}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{2L_3 \sqrt{\frac{1}{C_3 L_3}}}{2R_3 + R_4} \\ \text{wo: } & \sqrt{\frac{1}{C_3 L_3}} \\ \text{bandwidth: } & \frac{2R_3 + R_4}{2L_3} \\ \text{K-LP: } & \frac{R_1 R_4 g_m}{2R_1 g_m + 2} \end{aligned}$$

$$\begin{aligned}
\text{K-HP: } & \frac{R_1 R_4 g_m}{2R_1 g_m + 2} \\
\text{K-BP: } & \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4} \\
\text{QZ: } & \frac{L_3 \sqrt{\frac{1}{C_3 L_3}}}{R_3} \\
\text{WZ: } & \sqrt{\frac{1}{C_3 L_3}}
\end{aligned}$$

$$\mathbf{6.4 \quad GE-4} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 R_3 R_4 g_m s^2 + L_3 R_1 R_4 g_m s + R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^2 (2C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_1 R_4 g_m + 2C_3 L_3 R_3 + C_3 L_3 R_4) + s (2L_3 R_1 g_m + 2L_3)}$$

Parameters:

$$\begin{aligned}
\text{Q: } & C_3 R_3 \sqrt{\frac{1}{C_3 L_3}} + \frac{C_3 R_4 \sqrt{\frac{1}{C_3 L_3}}}{2} \\
\text{wo: } & \sqrt{\frac{1}{C_3 L_3}} \\
\text{bandwidth: } & \frac{\sqrt{\frac{1}{C_3 L_3}}}{C_3 R_3 \sqrt{\frac{1}{C_3 L_3}} + \frac{C_3 R_4 \sqrt{\frac{1}{C_3 L_3}}}{2}} \\
\text{K-LP: } & \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4} \\
\text{K-HP: } & \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4} \\
\text{K-BP: } & \frac{R_1 R_4 g_m}{2R_1 g_m + 2} \\
\text{QZ: } & C_3 R_3 \sqrt{\frac{1}{C_3 L_3}} \\
\text{WZ: } & \sqrt{\frac{1}{C_3 L_3}}
\end{aligned}$$

$$\mathbf{6.5 \quad GE-5} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_3 R_4 g_m s^2 + C_1 R_1 R_3 R_4 g_m s + R_3 R_4 g_m}{2R_3 g_m + R_4 g_m + s^2 (2C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m) + s (2C_1 R_1 R_3 g_m + C_1 R_1 R_4 g_m + 2C_1 R_3 + C_1 R_4)}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{L_1 g_m \sqrt{\frac{1}{C_1 L_1}}}{R_1 g_m + 1} \\
\text{wo: } & \sqrt{\frac{1}{C_1 L_1}} \\
\text{bandwidth: } & \frac{R_1 g_m + 1}{L_1 g_m} \\
\text{K-LP: } & \frac{R_3 R_4}{2R_3 + R_4} \\
\text{K-HP: } & \frac{R_3 R_4}{2R_3 + R_4} \\
\text{K-BP: } & \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4} \\
\text{QZ: } & \frac{L_1 \sqrt{\frac{1}{C_1 L_1}}}{R_1} \\
\text{WZ: } & \sqrt{\frac{1}{C_1 L_1}}
\end{aligned}$$

$$\mathbf{6.6 \quad GE-6} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad R_3, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_1 R_3 R_4 g_m s^2 + L_1 R_3 R_4 g_m s + R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^2 (2C_1 L_1 R_1 R_3 g_m + C_1 L_1 R_1 R_4 g_m + 2C_1 L_1 R_3 + C_1 L_1 R_4) + s (2L_1 R_3 g_m + L_1 R_4 g_m)}$$

Parameters:

$$\begin{aligned}
\text{Q: } & \frac{C_1 R_1 g_m \sqrt{\frac{1}{C_1 L_1}} + C_1 \sqrt{\frac{1}{C_1 L_1}}}{g_m} \\
\text{wo: } & \sqrt{\frac{1}{C_1 L_1}} \\
\text{bandwidth: } & \frac{g_m \sqrt{\frac{1}{C_1 L_1}}}{C_1 R_1 g_m \sqrt{\frac{1}{C_1 L_1}} + C_1 \sqrt{\frac{1}{C_1 L_1}}} \\
\text{K-LP: } & \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4} \\
\text{K-HP: } & \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}
\end{aligned}$$

$$\begin{aligned} \text{K-BP: } & \frac{R_3 R_4}{2R_3 + R_4} \\ \text{Qz: } & C_1 R_1 \sqrt{\frac{1}{C_1 L_1}} \\ \text{Wz: } & \sqrt{\frac{1}{C_1 L_1}} \end{aligned}$$

7 AP

8 INVALID-NUMER

$$8.1 \quad \text{INVALID-NUMER-1} \quad Z(s) = \left(R_1, \infty, \frac{R_3}{C_3 R_3 s + 1}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$$

$$H(s) = \frac{C_4 R_1 R_3 R_4 g_m s + R_1 R_3 g_m}{R_1 g_m + s^2 (C_3 C_4 R_1 R_3 R_4 g_m + C_3 C_4 R_3 R_4) + s (C_3 R_1 R_3 g_m + C_3 R_3 + 2C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2C_4 R_3 + C_4 R_4) + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{C_3 C_4 R_3 R_4 \sqrt{\frac{1}{C_3 C_4 R_3 R_4}}}{C_3 R_3 + 2C_4 R_3 + C_4 R_4} \\ \text{wo: } & \sqrt{\frac{1}{C_3 C_4 R_3 R_4}} \\ \text{bandwidth: } & \frac{C_3 R_3 + 2C_4 R_3 + C_4 R_4}{C_3 C_4 R_3 R_4} \\ \text{K-LP: } & \frac{R_1 R_3 g_m}{R_1 g_m + 1} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & \frac{C_4 R_1 R_3 R_4 g_m}{C_3 R_1 R_3 g_m + C_3 R_3 + 2C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2C_4 R_3 + C_4 R_4} \\ \text{Qz: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

$$8.2 \quad \text{INVALID-NUMER-2} \quad Z(s) = \left(R_1, \infty, R_3 + \frac{1}{C_3 s}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$$

$$H(s) = \frac{C_3 R_1 R_3 R_4 g_m s + R_1 R_4 g_m}{2R_1 g_m + s^2 (2C_3 C_4 R_1 R_3 R_4 g_m + 2C_3 C_4 R_3 R_4) + s (2C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2C_3 R_3 + C_3 R_4 + 2C_4 R_1 R_4 g_m + 2C_4 R_4) + 2}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{2C_3 C_4 R_3 R_4 \sqrt{\frac{1}{C_3 C_4 R_3 R_4}}}{2C_3 R_3 + C_3 R_4 + 2C_4 R_4} \\ \text{wo: } & \sqrt{\frac{1}{C_3 C_4 R_3 R_4}} \\ \text{bandwidth: } & \frac{2C_3 R_3 + C_3 R_4 + 2C_4 R_4}{2C_3 C_4 R_3 R_4} \\ \text{K-LP: } & \frac{R_1 R_4 g_m}{2R_1 g_m + 2} \\ \text{K-HP: } & 0 \\ \text{K-BP: } & \frac{C_3 R_1 R_3 R_4 g_m}{2C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2C_3 R_3 + C_3 R_4 + 2C_4 R_1 R_4 g_m + 2C_4 R_4} \\ \text{Qz: } & 0 \\ \text{Wz: } & \text{None} \end{aligned}$$

$$8.3 \quad \text{INVALID-NUMER-3} \quad Z(s) = \left(L_1 s, \infty, R_3, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$$

$$H(s) = \frac{C_4 L_1 R_3 R_4 g_m s^2 + L_1 R_3 g_m s}{s^2 (2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m) + s (2C_4 R_3 + C_4 R_4 + L_1 g_m) + 1}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{2C_4 L_1 R_3 g_m \sqrt{\frac{1}{2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m}} + C_4 L_1 R_4 g_m \sqrt{\frac{1}{2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m}}}{2C_4 R_3 + C_4 R_4 + L_1 g_m} \\ \text{wo: } & \sqrt{\frac{1}{2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m}} \\ \text{bandwidth: } & \frac{(2C_4 R_3 + C_4 R_4 + L_1 g_m) \sqrt{\frac{1}{2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m}}}{2C_4 L_1 R_3 g_m \sqrt{\frac{1}{2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m}} + C_4 L_1 R_4 g_m \sqrt{\frac{1}{2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m}}} \\ \text{K-LP: } & 0 \\ \text{K-HP: } & \frac{R_3 R_4}{2R_3 + R_4} \end{aligned}$$

K-BP: $\frac{L_1 R_3 g_m}{2C_4 R_3 + C_4 R_4 + L_1 g_m}$
QZ: $C_4 R_4 \sqrt{\frac{1}{2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m}}$
Wz: None

8.4 INVALID-NUMER-4 $Z(s) = \left(L_1 s, \infty, \frac{1}{C_3 s}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_1 R_4 g_m s + L_1 g_m}{C_3 C_4 L_1 R_4 g_m s^2 + C_3 + 2C_4 + s(C_3 C_4 R_4 + C_3 L_1 g_m + 2C_4 L_1 g_m)}$$

Parameters:

Q: $\frac{C_3 C_4 L_1 R_4 g_m \sqrt{\frac{1}{C_4 L_1 R_4 g_m} + \frac{2}{C_3 L_1 R_4 g_m}}}{C_3 C_4 R_4 + C_3 L_1 g_m + 2C_4 L_1 g_m}$
wo: $\sqrt{\frac{C_3 + 2C_4}{C_3 C_4 L_1 R_4 g_m}}$
bandwidth: $\frac{\sqrt{\frac{C_3 + 2C_4}{C_3 C_4 L_1 R_4 g_m}} (C_3 C_4 R_4 + C_3 L_1 g_m + 2C_4 L_1 g_m)}{C_3 C_4 L_1 R_4 g_m \sqrt{\frac{1}{C_4 L_1 R_4 g_m} + \frac{2}{C_3 L_1 R_4 g_m}}}$
K-LP: $\frac{L_1 g_m}{C_3 + 2C_4}$
K-HP: 0
K-BP: $\frac{C_4 L_1 R_4 g_m}{C_3 C_4 R_4 + C_3 L_1 g_m + 2C_4 L_1 g_m}$
QZ: 0
Wz: None

8.5 INVALID-NUMER-5 $Z(s) = \left(L_1 s, \infty, R_3 + \frac{1}{C_3 s}, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_1 R_3 R_4 g_m s^2 + L_1 R_4 g_m s}{s^2 (2C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m) + s(2C_3 R_3 + C_3 R_4 + 2L_1 g_m) + 2}$$

Parameters:

Q: $\frac{2\sqrt{2}C_3 L_1 R_3 g_m \sqrt{\frac{1}{2C_3 L_1 R_3 g_m} + \frac{1}{C_3 L_1 R_4 g_m}} + \sqrt{2}C_3 L_1 R_4 g_m \sqrt{\frac{1}{2C_3 L_1 R_3 g_m} + \frac{1}{C_3 L_1 R_4 g_m}}}{2C_3 R_3 + C_3 R_4 + 2L_1 g_m}$
wo: $\sqrt{2} \sqrt{\frac{1}{2C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m}}$
bandwidth: $\frac{\sqrt{2}(2C_3 R_3 + C_3 R_4 + 2L_1 g_m) \sqrt{\frac{1}{2C_3 L_1 R_3 g_m} + \frac{1}{C_3 L_1 R_4 g_m}}}{2\sqrt{2}C_3 L_1 R_3 g_m \sqrt{\frac{1}{2C_3 L_1 R_3 g_m} + \frac{1}{C_3 L_1 R_4 g_m}} + \sqrt{2}C_3 L_1 R_4 g_m \sqrt{\frac{1}{2C_3 L_1 R_3 g_m} + \frac{1}{C_3 L_1 R_4 g_m}}}$
K-LP: 0
K-HP: $\frac{R_3 R_4}{2R_3 + R_4}$
K-BP: $\frac{L_1 R_4 g_m}{2C_3 R_3 + C_3 R_4 + 2L_1 g_m}$
QZ: $\sqrt{2}C_3 R_3 \sqrt{\frac{1}{2C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m}}$
Wz: None

8.6 INVALID-NUMER-6 $Z(s) = \left(L_1 s, \infty, R_3 + \frac{1}{C_3 s}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_1 R_3 g_m s + L_1 g_m}{2C_3 C_4 L_1 R_3 g_m s^2 + C_3 + 2C_4 + s(2C_3 C_4 R_3 + C_3 L_1 g_m + 2C_4 L_1 g_m)}$$

Parameters:

Q: $\frac{\sqrt{2}C_3 C_4 L_1 R_3 g_m \sqrt{\frac{1}{C_4 L_1 R_3 g_m} + \frac{2}{C_3 L_1 R_3 g_m}}}{2C_3 C_4 R_3 + C_3 L_1 g_m + 2C_4 L_1 g_m}$
wo: $\frac{\sqrt{2} \sqrt{\frac{C_3 + 2C_4}{C_3 C_4 L_1 R_3 g_m}}}{2}$
bandwidth: $\frac{\sqrt{\frac{C_3 + 2C_4}{C_3 C_4 L_1 R_3 g_m}} (2C_3 C_4 R_3 + C_3 L_1 g_m + 2C_4 L_1 g_m)}{2C_3 C_4 L_1 R_3 g_m \sqrt{\frac{1}{C_4 L_1 R_3 g_m} + \frac{2}{C_3 L_1 R_3 g_m}}}$
K-LP: $\frac{L_1 g_m}{C_3 + 2C_4}$
K-HP: 0
K-BP: $\frac{C_3 L_1 R_3 g_m}{2C_3 C_4 R_3 + C_3 L_1 g_m + 2C_4 L_1 g_m}$
QZ: 0
Wz: None

8.7 INVALID-NUMER-7 $Z(s) = \left(\frac{1}{C_1 s}, \infty, R_3, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_4 R_3 R_4 g_m s + R_3 g_m}{g_m + s^2 (2C_1 C_4 R_3 + C_1 C_4 R_4) + s (C_1 + 2C_4 R_3 g_m + C_4 R_4 g_m)}$$

Parameters:

Q: $\frac{2C_1 C_4 R_3 \sqrt{\frac{g_m}{2C_1 C_4 R_3 + C_1 C_4 R_4}} + C_1 C_4 R_4 \sqrt{\frac{g_m}{2C_1 C_4 R_3 + C_1 C_4 R_4}}}{C_1 + 2C_4 R_3 g_m + C_4 R_4 g_m}$

wo: $\sqrt{\frac{g_m}{2C_1 C_4 R_3 + C_1 C_4 R_4}}$

bandwidth: $\frac{\sqrt{\frac{g_m}{2C_1 C_4 R_3 + C_1 C_4 R_4}} (C_1 + 2C_4 R_3 g_m + C_4 R_4 g_m)}{2C_1 C_4 R_3 \sqrt{\frac{g_m}{2C_1 C_4 R_3 + C_1 C_4 R_4}} + C_1 C_4 R_4 \sqrt{\frac{g_m}{2C_1 C_4 R_3 + C_1 C_4 R_4}}}$

K-LP: R_3

K-HP: 0

K-BP: $\frac{C_4 R_3 R_4 g_m}{C_1 + 2C_4 R_3 g_m + C_4 R_4 g_m}$

Qz: 0

Wz: None

8.8 INVALID-NUMER-8 $Z(s) = \left(\frac{1}{C_1 s}, \infty, R_3 + \frac{1}{C_3 s}, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_3 R_3 R_4 g_m s + R_4 g_m}{2g_m + s^2 (2C_1 C_3 R_3 + C_1 C_3 R_4) + s (2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m)}$$

Parameters:

Q: $\frac{2\sqrt{2}C_1 C_3 R_3 \sqrt{\frac{g_m}{2C_1 C_3 R_3 + C_1 C_3 R_4}} + \sqrt{2}C_1 C_3 R_4 \sqrt{\frac{g_m}{2C_1 C_3 R_3 + C_1 C_3 R_4}}}{2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m}$

wo: $\sqrt{2} \sqrt{\frac{g_m}{2C_1 C_3 R_3 + C_1 C_3 R_4}}$

bandwidth: $\frac{\sqrt{2} \sqrt{\frac{g_m}{2C_1 C_3 R_3 + C_1 C_3 R_4}} (2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m)}{2\sqrt{2}C_1 C_3 R_3 \sqrt{\frac{g_m}{2C_1 C_3 R_3 + C_1 C_3 R_4}} + \sqrt{2}C_1 C_3 R_4 \sqrt{\frac{g_m}{2C_1 C_3 R_3 + C_1 C_3 R_4}}}$

K-LP: $\frac{R_4}{2}$

K-HP: 0

K-BP: $\frac{C_3 R_3 R_4 g_m}{2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m}$

Qz: 0

Wz: None

8.9 INVALID-NUMER-9 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, R_3, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_4 R_1 R_3 R_4 g_m s + R_1 R_3 g_m}{R_1 g_m + s^2 (2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4) + s (C_1 R_1 + 2C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2C_4 R_3 + C_4 R_4) + 1}$$

Parameters:

Q: $\frac{2C_1 C_4 R_1 R_3 \sqrt{\frac{R_1 g_m}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4}} + \frac{1}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4} + C_1 C_4 R_1 R_4 \sqrt{\frac{R_1 g_m}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4}} + \frac{1}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4}}{C_1 R_1 + 2C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2C_4 R_3 + C_4 R_4}$

wo: $\sqrt{\frac{R_1 g_m + 1}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4}}$

bandwidth: $\frac{\sqrt{\frac{R_1 g_m + 1}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4}} (C_1 R_1 + 2C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2C_4 R_3 + C_4 R_4)}{2C_1 C_4 R_1 R_3 \sqrt{\frac{R_1 g_m}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4}} + \frac{1}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4} + C_1 C_4 R_1 R_4 \sqrt{\frac{R_1 g_m}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4}} + \frac{1}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4}}$

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

K-HP: 0

K-BP: $\frac{C_4 R_1 R_3 R_4 g_m \sqrt{\frac{g_m}{2C_1 C_4 R_3 + C_1 C_4 R_4}} + \frac{1}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4}}{C_1 R_1 \sqrt{\frac{R_1 g_m}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4}} + \frac{1}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4} + 2C_4 R_1 R_3 g_m \sqrt{\frac{R_1 g_m}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4}} + \frac{1}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4} + C_4 R_1 R_4 g_m \sqrt{\frac{R_1 g_m}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4}} + \frac{1}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4} + 2C_4 R_3 \sqrt{\frac{R_1 g_m}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4}} + \frac{1}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4} + C_4 R_4 \sqrt{\frac{R_1 g_m}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4}} + \frac{1}{2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4}}$

Qz: 0

Wz: None

8.10 INVALID-NUMER-10 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, R_3 + \frac{1}{C_3 s}, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_3 R_1 R_3 R_4 g_m s + R_1 R_4 g_m}{2 R_1 g_m + s^2 (2 C_1 C_3 R_1 R_3 + C_1 C_3 R_1 R_4) + s (2 C_1 R_1 + 2 C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2 C_3 R_3 + C_3 R_4) + 2}$$

Parameters:

$$\text{Q: } \frac{2\sqrt{2}C_1C_3R_1R_3\sqrt{\frac{R_1g_m}{2C_1C_3R_1R_3+C_1C_3R_1R_4}+\frac{1}{2C_1C_3R_1R_3+C_1C_3R_1R_4}}+\sqrt{2}C_1C_3R_1R_4\sqrt{\frac{R_1g_m}{2C_1C_3R_1R_3+C_1C_3R_1R_4}+\frac{1}{2C_1C_3R_1R_3+C_1C_3R_1R_4}}}{2C_1R_1+2C_3R_1R_3g_m+C_3R_1R_4g_m+2C_3R_3+C_3R_4}$$

$$\text{wo: } \sqrt{\frac{2R_1g_m+2}{2C_1C_3R_1R_3+C_1C_3R_1R_4}}$$

$$\text{bandwidth: } \frac{\sqrt{\frac{2R_1g_m+2}{2C_1C_3R_1R_3+C_1C_3R_1R_4}}(2C_1R_1+2C_3R_1R_3g_m+C_3R_1R_4g_m+2C_3R_3+C_3R_4)}{2\sqrt{2}C_1C_3R_1R_3\sqrt{\frac{R_1g_m}{2C_1C_3R_1R_3+C_1C_3R_1R_4}+\frac{1}{2C_1C_3R_1R_3+C_1C_3R_1R_4}}+\sqrt{2}C_1C_3R_1R_4\sqrt{\frac{R_1g_m}{2C_1C_3R_1R_3+C_1C_3R_1R_4}+\frac{1}{2C_1C_3R_1R_3+C_1C_3R_1R_4}}}$$

$$\text{K-LP: } \frac{R_1R_4g_m}{2R_1g_m+2}$$

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

$$\text{K-BP: } \frac{C_3R_1R_3R_4g_m\sqrt{\frac{g_m}{2C_1C_3R_3+C_1C_3R_4}+\frac{1}{2C_1C_3R_1R_3+C_1C_3R_1R_4}}}{2C_1R_1\sqrt{\frac{R_1g_m}{2C_1C_3R_1R_3+C_1C_3R_1R_4}+\frac{1}{2C_1C_3R_1R_3+C_1C_3R_1R_4}}+2C_3R_1R_3g_m\sqrt{\frac{R_1g_m}{2C_1C_3R_1R_3+C_1C_3R_1R_4}+\frac{1}{2C_1C_3R_1R_3+C_1C_3R_1R_4}}+C_3R_1R_4g_m\sqrt{\frac{R_1g_m}{2C_1C_3R_1R_3+C_1C_3R_1R_4}+\frac{1}{2C_1C_3R_1R_3+C_1C_3R_1R_4}}+2C_3R_3\sqrt{\frac{R_1g_m}{2C_1C_3R_1R_3+C_1C_3R_1R_4}+\frac{1}{2C_1C_3R_1R_3+C_1C_3R_1R_4}}+C_3R_4\sqrt{\frac{R_1g_m}{2C_1C_3R_1R_3+C_1C_3R_1R_4}+\frac{1}{2C_1C_3R_1R_3+C_1C_3R_1R_4}}}$$

$$\text{Qz: } 0$$

$$\text{Wz: None}$$

8.11 INVALID-NUMER-11 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, R_3, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 R_1 R_3 g_m s + R_3 g_m}{g_m + s^2 (2 C_1 C_4 R_1 R_3 g_m + 2 C_1 C_4 R_3) + s (C_1 R_1 g_m + C_1 + 2 C_4 R_3 g_m)}$$

Parameters:

$$\text{Q: } \frac{\sqrt{2}C_1C_4R_1R_3g_m\sqrt{\frac{g_m}{C_1C_4R_1R_3g_m+C_1C_4R_3}}+\sqrt{2}C_1C_4R_3\sqrt{\frac{g_m}{C_1C_4R_1R_3g_m+C_1C_4R_3}}}{C_1R_1g_m+C_1+2C_4R_3g_m}$$

$$\text{wo: } \sqrt{\frac{g_m}{2C_1C_4R_1R_3g_m+2C_1C_4R_3}}$$

$$\text{bandwidth: } \frac{\sqrt{\frac{g_m}{2C_1C_4R_1R_3g_m+2C_1C_4R_3}}(C_1R_1g_m+C_1+2C_4R_3g_m)}{\sqrt{2}C_1C_4R_1R_3g_m\sqrt{\frac{g_m}{C_1C_4R_1R_3g_m+C_1C_4R_3}}+\sqrt{2}C_1C_4R_3\sqrt{\frac{g_m}{C_1C_4R_1R_3g_m+C_1C_4R_3}}}$$

$$\text{K-LP: } R_3$$

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

$$\text{K-BP: } \frac{C_1R_1R_3g_m}{C_1R_1g_m+C_1+2C_4R_3g_m}$$

$$\text{Qz: } 0$$

$$\text{Wz: None}$$

8.12 INVALID-NUMER-12 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, R_3, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 R_1 R_3 R_4 g_m s + R_3 R_4 g_m}{2 R_3 g_m + R_4 g_m + s^2 (2 C_1 C_4 R_1 R_3 R_4 g_m + 2 C_1 C_4 R_3 R_4) + s (2 C_1 R_1 R_3 g_m + C_1 R_1 R_4 g_m + 2 C_1 R_3 + C_1 R_4 + 2 C_4 R_3 R_4 g_m)}$$

Parameters:

$$\text{Q: } \frac{\sqrt{2}C_1C_4R_1R_3R_4g_m\sqrt{\frac{2R_3g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}+\frac{R_4g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}}+\sqrt{2}C_1C_4R_3R_4\sqrt{\frac{2R_3g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}+\frac{R_4g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}}}{2C_1R_1R_3g_m+C_1R_1R_4g_m+2C_1R_3+C_1R_4+2C_4R_3R_4g_m}$$

$$\text{wo: } \sqrt{\frac{2R_3g_m+R_4g_m}{2C_1C_4R_1R_3R_4g_m+2C_1C_4R_3R_4}}$$

$$\text{bandwidth: } \frac{\sqrt{\frac{2R_3g_m+R_4g_m}{2C_1C_4R_1R_3R_4g_m+2C_1C_4R_3R_4}}(2C_1R_1R_3g_m+C_1R_1R_4g_m+2C_1R_3+C_1R_4+2C_4R_3R_4g_m)}{\sqrt{2}C_1C_4R_1R_3R_4g_m\sqrt{\frac{2R_3g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}+\frac{R_4g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}}+\sqrt{2}C_1C_4R_3R_4\sqrt{\frac{2R_3g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}+\frac{R_4g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}}}$$

$$\text{K-LP: } \frac{R_3R_4}{2R_3+R_4}$$

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

$$\text{K-BP: } \frac{C_1R_1R_3R_4g_m\sqrt{\frac{2g_m}{C_1C_4R_1R_4g_m+C_1C_4R_4}+\frac{g_m}{C_1C_4R_1R_3g_m+C_1C_4R_3}}}{2C_1R_1R_3g_m\sqrt{\frac{2R_3g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}+\frac{R_4g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}}+C_1R_1R_4g_m\sqrt{\frac{2R_3g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}+\frac{R_4g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}}+2C_1R_3\sqrt{\frac{2R_3g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}+\frac{R_4g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}}+C_1R_4\sqrt{\frac{2R_3g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}+\frac{R_4g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}}+2C_4R_3R_4g_m\sqrt{\frac{2R_3g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}+\frac{R_4g_m}{C_1C_4R_1R_3R_4g_m+C_1C_4R_3R_4}}}$$

$$\text{Qz: } 0$$

$$\text{Wz: None}$$

8.13 INVALID-NUMER-13 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_1 R_1 R_4 g_m s + R_4 g_m}{2g_m + s^2 (C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4) + s (2C_1 R_1 g_m + 2C_1 + C_3 R_4 g_m)}$$

Parameters:

Q: $\frac{\sqrt{2} C_1 C_3 R_1 R_4 g_m \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4}} + \sqrt{2} C_1 C_3 R_4 \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4}}}{2C_1 R_1 g_m + 2C_1 + C_3 R_4 g_m}$

wo: $\sqrt{2} \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4}}$

bandwidth: $\frac{\sqrt{2} \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4}} (2C_1 R_1 g_m + 2C_1 + C_3 R_4 g_m)}{\sqrt{2} C_1 C_3 R_1 R_4 g_m \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4}} + \sqrt{2} C_1 C_3 R_4 \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4}}}$

K-LP: $\frac{R_4}{2}$

K-HP: 0

K-BP: $\frac{C_1 R_1 R_4 g_m}{2C_1 R_1 g_m + 2C_1 + C_3 R_4 g_m}$

Qz: 0

Wz: None

8.14 INVALID-NUMER-14 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 R_1 R_4 g_m s + R_4 g_m}{2g_m + s^2 (C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_4) + s (2C_1 R_1 g_m + 2C_1 + C_3 R_4 g_m + 2C_4 R_4 g_m)}$$

Parameters:

Q: $\frac{\sqrt{2} C_1 C_3 R_1 R_4 g_m \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_4}} + \sqrt{2} C_1 C_3 R_4 \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_4}} + 2\sqrt{2} C_1 C_4 R_1 R_4 g_m \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_4}} + 2\sqrt{2} C_1 C_4 R_4 \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_4}}}{2C_1 R_1 g_m + 2C_1 + C_3 R_4 g_m + 2C_4 R_4 g_m}$

wo: $\sqrt{2} \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_4}}$

bandwidth: $\frac{\sqrt{2} \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_4}} (2C_1 R_1 g_m + 2C_1 + C_3 R_4 g_m + 2C_4 R_4 g_m)}{\sqrt{2} C_1 C_3 R_1 R_4 g_m \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_4}} + \sqrt{2} C_1 C_3 R_4 \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_4}} + 2\sqrt{2} C_1 C_4 R_1 R_4 g_m \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_4}} + 2\sqrt{2} C_1 C_4 R_4 \sqrt{\frac{g_m}{C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_4}}}$

K-LP: $\frac{R_4}{2}$

K-HP: 0

K-BP: $\frac{C_1 R_1 R_4 g_m}{2C_1 R_1 g_m + 2C_1 + C_3 R_4 g_m + 2C_4 R_4 g_m}$

Qz: 0

Wz: None

8.15 INVALID-NUMER-15 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \frac{R_3}{C_3 R_3 s + 1}, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_1 R_1 R_3 R_4 g_m s + R_3 R_4 g_m}{2R_3 g_m + R_4 g_m + s^2 (C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4) + s (2C_1 R_1 R_3 g_m + C_1 R_1 R_4 g_m + 2C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m)}$$

Parameters:

Q: $\frac{C_1 C_3 R_1 R_3 R_4 g_m \sqrt{\frac{2R_3 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4} + \frac{R_4 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4}} + C_1 C_3 R_3 R_4 \sqrt{\frac{2R_3 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4} + \frac{R_4 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4}}}{2C_1 R_1 R_3 g_m + C_1 R_1 R_4 g_m + 2C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m}$

wo: $\sqrt{\frac{2R_3 g_m + R_4 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4}}$

bandwidth: $\frac{\sqrt{\frac{2R_3 g_m + R_4 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4}} (2C_1 R_1 R_3 g_m + C_1 R_1 R_4 g_m + 2C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m)}{C_1 C_3 R_1 R_3 R_4 g_m \sqrt{\frac{2R_3 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4} + \frac{R_4 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4}} + C_1 C_3 R_3 R_4 \sqrt{\frac{2R_3 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4} + \frac{R_4 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4}}}$

K-LP: $\frac{R_3 R_4}{2R_3 + R_4}$

K-HP: 0

K-BP: $\frac{C_1 R_1 R_3 R_4 g_m \sqrt{\frac{2g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_4} + \frac{g_m}{C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_3}}}{2C_1 R_1 R_3 g_m \sqrt{\frac{2R_3 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4} + \frac{R_4 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4}} + C_1 R_1 R_4 g_m \sqrt{\frac{2R_3 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4} + \frac{R_4 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4}} + 2C_1 R_3 \sqrt{\frac{2R_3 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4} + \frac{R_4 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4}} + C_1 R_4 \sqrt{\frac{2R_3 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4} + \frac{R_4 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4}} + C_3 R_3 R_4 g_m \sqrt{\frac{2R_3 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4} + \frac{R_4 g_m}{C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4}}}$

Qz: 0

Wz: None

9.2 INVALID-WZ-2 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, R_3, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 R_1 R_3 R_4 g_m s^2 + R_3 g_m + s (C_1 R_1 R_3 g_m + C_4 R_3 R_4 g_m)}{g_m + s^2 (2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4) + s (C_1 R_1 g_m + C_1 + 2C_4 R_3 g_m + C_4 R_4 g_m)}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{2C_1 C_4 R_1 R_3 g_m \sqrt{\frac{g_m}{2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4}} + C_1 C_4 R_1 R_4 g_m \sqrt{\frac{g_m}{2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4}} + 2C_1 C_4 R_3 \sqrt{\frac{g_m}{2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4}} + C_1 C_4 R_4 \sqrt{\frac{g_m}{2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4}}}{C_1 R_1 g_m + C_1 + 2C_4 R_3 g_m + C_4 R_4 g_m} \\ \text{wo: } & \sqrt{\frac{g_m}{2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4}} \\ \text{bandwidth: } & \frac{\sqrt{\frac{g_m}{2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4}} (C_1 R_1 g_m + C_1 + 2C_4 R_3 g_m + C_4 R_4 g_m)}{2C_1 C_4 R_1 R_3 g_m \sqrt{\frac{g_m}{2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4}} + C_1 C_4 R_1 R_4 g_m \sqrt{\frac{g_m}{2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4}} + 2C_1 C_4 R_3 \sqrt{\frac{g_m}{2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4}} + C_1 C_4 R_4 \sqrt{\frac{g_m}{2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4}}} \\ \text{K-LP: } & R_3 \\ \text{K-HP: } & \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4} \\ \text{K-BP: } & \frac{C_1 R_1 R_3 g_m + C_4 R_3 R_4 g_m}{C_1 R_1 g_m + C_1 + 2C_4 R_3 g_m + C_4 R_4 g_m} \\ \text{QZ: } & \frac{C_1 C_4 R_1 R_4 \sqrt{\frac{g_m}{2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4}}}{C_1 R_1 + C_4 R_4} \\ \text{WZ: } & \sqrt{\frac{1}{C_1 C_4 R_1 R_4}} \end{aligned}$$

9.3 INVALID-WZ-3 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, R_3 + \frac{1}{C_3 s}, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 R_1 R_3 R_4 g_m s^2 + R_4 g_m + s (C_1 R_1 R_4 g_m + C_3 R_3 R_4 g_m)}{2g_m + s^2 (2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4) + s (2C_1 R_1 g_m + 2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m)}$$

Parameters:

$$\begin{aligned} \text{Q: } & \frac{2\sqrt{2}C_1 C_3 R_1 R_3 g_m \sqrt{\frac{g_m}{2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4}} + \sqrt{2}C_1 C_3 R_1 R_4 g_m \sqrt{\frac{g_m}{2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4}} + 2\sqrt{2}C_1 C_3 R_3 \sqrt{\frac{g_m}{2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4}} + \sqrt{2}C_1 C_3 R_4 \sqrt{\frac{g_m}{2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4}}}{2C_1 R_1 g_m + 2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m} \\ \text{wo: } & \sqrt{2} \sqrt{\frac{g_m}{2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4}} \\ \text{bandwidth: } & \frac{\sqrt{2} \sqrt{\frac{g_m}{2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4}} (2C_1 R_1 g_m + 2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m)}{2\sqrt{2}C_1 C_3 R_1 R_3 g_m \sqrt{\frac{g_m}{2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4}} + \sqrt{2}C_1 C_3 R_1 R_4 g_m \sqrt{\frac{g_m}{2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4}} + 2\sqrt{2}C_1 C_3 R_3 \sqrt{\frac{g_m}{2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4}} + \sqrt{2}C_1 C_3 R_4 \sqrt{\frac{g_m}{2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4}}} \\ \text{K-LP: } & \frac{R_4}{2} \\ \text{K-HP: } & \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4} \\ \text{K-BP: } & \frac{C_1 R_1 R_4 g_m + C_3 R_3 R_4 g_m}{2C_1 R_1 g_m + 2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m} \\ \text{QZ: } & \frac{\sqrt{2}C_1 C_3 R_1 R_3 \sqrt{\frac{g_m}{2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4}}}{C_1 R_1 + C_3 R_3} \\ \text{WZ: } & \sqrt{\frac{1}{C_1 C_3 R_1 R_3}} \end{aligned}$$

10 INVALID-ORDER

10.1 INVALID-ORDER-1 $Z(s) = (R_1, \infty, R_3, R_4, \infty, \infty)$

$$H(s) = \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4}$$

10.2 INVALID-ORDER-2 $Z(s) = \left(R_1, \infty, R_3, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{R_1 R_3 g_m}{R_1 g_m + s (2C_4 R_1 R_3 g_m + 2C_4 R_3) + 1}$$

10.3 INVALID-ORDER-3 $Z(s) = \left(R_1, \infty, R_3, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s (2C_4 R_1 R_3 R_4 g_m + 2C_4 R_3 R_4)}$$

$$10.4 \quad \text{INVALID-ORDER-4} \quad Z(s) = \left(R_1, \infty, R_3, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$$

$$H(s) = \frac{C_4 R_1 R_3 R_4 g_m s + R_1 R_3 g_m}{R_1 g_m + s(2C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2C_4 R_3 + C_4 R_4) + 1}$$

$$10.5 \quad \text{INVALID-ORDER-5} \quad Z(s) = \left(R_1, \infty, \frac{1}{C_3 s}, R_4, \infty, \infty \right)$$

$$H(s) = \frac{R_1 R_4 g_m}{2R_1 g_m + s(C_3 R_1 R_4 g_m + C_3 R_4) + 2}$$

$$10.6 \quad \text{INVALID-ORDER-6} \quad Z(s) = \left(R_1, \infty, \frac{1}{C_3 s}, \frac{1}{C_4 s}, \infty, \infty \right)$$

$$H(s) = \frac{R_1 g_m}{s(C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4)}$$

$$10.7 \quad \text{INVALID-ORDER-7} \quad Z(s) = \left(R_1, \infty, \frac{1}{C_3 s}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$$

$$H(s) = \frac{R_1 R_4 g_m}{2R_1 g_m + s(C_3 R_1 R_4 g_m + C_3 R_4 + 2C_4 R_1 R_4 g_m + 2C_4 R_4) + 2}$$

$$10.8 \quad \text{INVALID-ORDER-8} \quad Z(s) = \left(R_1, \infty, \frac{1}{C_3 s}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$$

$$H(s) = \frac{C_4 R_1 R_4 g_m s + R_1 g_m}{s^2(C_3 C_4 R_1 R_4 g_m + C_3 C_4 R_4) + s(C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4)}$$

$$10.9 \quad \text{INVALID-ORDER-9} \quad Z(s) = \left(R_1, \infty, \frac{1}{C_3 s}, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 g_m s^2 + R_1 g_m}{s^3(C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s(C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4)}$$

$$10.10 \quad \text{INVALID-ORDER-10} \quad Z(s) = \left(R_1, \infty, \frac{1}{C_3 s}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$$

$$H(s) = \frac{L_4 R_1 g_m s}{2R_1 g_m + s^2(C_3 L_4 R_1 g_m + C_3 L_4 + 2C_4 L_4 R_1 g_m + 2C_4 L_4) + 2}$$

$$10.11 \quad \text{INVALID-ORDER-11} \quad Z(s) = \left(R_1, \infty, \frac{1}{C_3 s}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 g_m s^2 + C_4 R_1 R_4 g_m s + R_1 g_m}{s^3(C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2(C_3 C_4 R_1 R_4 g_m + C_3 C_4 R_4) + s(C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4)}$$

$$10.12 \quad \text{INVALID-ORDER-12} \quad Z(s) = \left(R_1, \infty, \frac{1}{C_3 s}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 R_4 g_m s^2 + L_4 R_1 g_m s + R_1 R_4 g_m}{2R_1 g_m + s^3(C_3 C_4 L_4 R_1 R_4 g_m + C_3 C_4 L_4 R_4) + s^2(C_3 L_4 R_1 g_m + C_3 L_4 + 2C_4 L_4 R_1 g_m + 2C_4 L_4) + s(C_3 R_1 R_4 g_m + C_3 R_4) + 2}$$

$$10.13 \quad \text{INVALID-ORDER-13} \quad Z(s) = \left(R_1, \infty, \frac{1}{C_3 s}, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 R_4 g_m s^2 + R_1 R_4 g_m}{2R_1 g_m + s^3(C_3 C_4 L_4 R_1 R_4 g_m + C_3 C_4 L_4 R_4) + s^2(2C_4 L_4 R_1 g_m + 2C_4 L_4) + s(C_3 R_1 R_4 g_m + C_3 R_4 + 2C_4 R_1 R_4 g_m + 2C_4 R_4) + 2}$$

10.14 INVALID-ORDER-14 $Z(s) = \left(R_1, \infty, \frac{R_3}{C_3 R_3 s + 1}, R_4, \infty, \infty \right)$

$$H(s) = \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s(C_3 R_1 R_3 R_4 g_m + C_3 R_3 R_4)}$$

10.15 INVALID-ORDER-15 $Z(s) = \left(R_1, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{R_1 R_3 g_m}{R_1 g_m + s(C_3 R_1 R_3 g_m + C_3 R_3 + 2C_4 R_1 R_3 g_m + 2C_4 R_3) + 1}$$

10.16 INVALID-ORDER-16 $Z(s) = \left(R_1, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s(C_3 R_1 R_3 R_4 g_m + C_3 R_3 R_4 + 2C_4 R_1 R_3 R_4 g_m + 2C_4 R_3 R_4)}$$

10.17 INVALID-ORDER-17 $Z(s) = \left(R_1, \infty, \frac{R_3}{C_3 R_3 s + 1}, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_4 R_1 R_3 g_m s^2 + R_1 R_3 g_m}{R_1 g_m + s^3(C_3 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_4 R_3) + s^2(C_4 L_4 R_1 g_m + C_4 L_4) + s(C_3 R_1 R_3 g_m + C_3 R_3 + 2C_4 R_1 R_3 g_m + 2C_4 R_3) + 1}$$

10.18 INVALID-ORDER-18 $Z(s) = \left(R_1, \infty, \frac{R_3}{C_3 R_3 s + 1}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_4 R_1 R_3 g_m s^2 + C_4 R_1 R_3 R_4 g_m s + R_1 R_3 g_m}{R_1 g_m + s^3(C_3 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_4 R_3) + s^2(C_3 C_4 R_1 R_3 R_4 g_m + C_3 C_4 R_3 R_4 + C_4 L_4 R_1 g_m + C_4 L_4) + s(C_3 R_1 R_3 g_m + C_3 R_3 + 2C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2C_4 R_3 + C_4 R_4) + 1}$$

10.19 INVALID-ORDER-19 $Z(s) = \left(R_1, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_4 R_1 R_3 R_4 g_m s^2 + L_4 R_1 R_3 g_m s + R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^3(C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_3 C_4 L_4 R_3 R_4) + s^2(C_3 L_4 R_1 R_3 g_m + C_3 L_4 R_3 + 2C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_1 R_4 g_m + 2C_4 L_4 R_3 + C_4 L_4 R_4) + s(C_3 R_1 R_3 R_4 g_m + C_3 R_3 R_4 + L_4 R_1 g_m + L_4)}$$

10.20 INVALID-ORDER-20 $Z(s) = \left(R_1, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_4 R_1 R_3 R_4 g_m s^2 + R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^3(C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_3 C_4 L_4 R_3 R_4) + s^2(2C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_1 R_4 g_m + 2C_4 L_4 R_3 + C_4 L_4 R_4) + s(C_3 R_1 R_3 R_4 g_m + C_3 R_3 R_4 + 2C_4 R_1 R_3 R_4 g_m + 2C_4 R_3 R_4)}$$

10.21 INVALID-ORDER-21 $Z(s) = \left(R_1, \infty, R_3 + \frac{1}{C_3 s}, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_3 R_1 R_3 R_4 g_m s + R_1 R_4 g_m}{2R_1 g_m + s(2C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2C_3 R_3 + C_3 R_4) + 2}$$

10.22 INVALID-ORDER-22 $Z(s) = \left(R_1, \infty, R_3 + \frac{1}{C_3 s}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 R_1 R_3 g_m s + R_1 g_m}{s^2(2C_3 C_4 R_1 R_3 g_m + 2C_3 C_4 R_3) + s(C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4)}$$

10.23 INVALID-ORDER-23 $Z(s) = \left(R_1, \infty, R_3 + \frac{1}{C_3 s}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 R_1 R_3 R_4 g_m s^2 + R_1 g_m + s(C_3 R_1 R_3 g_m + C_4 R_1 R_4 g_m)}{s^2(2C_3 C_4 R_1 R_3 g_m + C_3 C_4 R_1 R_4 g_m + 2C_3 C_4 R_3 + C_3 C_4 R_4) + s(C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4)}$$

10.24 INVALID-ORDER-24 $Z(s) = \left(R_1, \infty, R_3 + \frac{1}{C_3 s}, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 L_4 R_1 R_3 g_m s^3 + C_3 R_1 R_3 g_m s + C_4 L_4 R_1 g_m s^2 + R_1 g_m}{s^3 (C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2 (2C_3 C_4 R_1 R_3 g_m + 2C_3 C_4 R_3) + s (C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4)}$$

10.25 INVALID-ORDER-25 $Z(s) = \left(R_1, \infty, R_3 + \frac{1}{C_3 s}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_4 R_1 R_3 g_m s^2 + L_4 R_1 g_m s}{2R_1 g_m + s^3 (2C_3 C_4 L_4 R_1 R_3 g_m + 2C_3 C_4 L_4 R_3) + s^2 (C_3 L_4 R_1 g_m + C_3 L_4 + 2C_4 L_4 R_1 g_m + 2C_4 L_4) + s (2C_3 R_1 R_3 g_m + 2C_3 R_3) + 2}$$

10.26 INVALID-ORDER-26 $Z(s) = \left(R_1, \infty, R_3 + \frac{1}{C_3 s}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 L_4 R_1 R_3 g_m s^3 + R_1 g_m + s^2 (C_3 C_4 R_1 R_3 R_4 g_m + C_4 L_4 R_1 g_m) + s (C_3 R_1 R_3 g_m + C_4 R_1 R_4 g_m)}{s^3 (C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2 (2C_3 C_4 R_1 R_3 g_m + C_3 C_4 R_1 R_4 g_m + 2C_3 C_4 R_3 + C_3 C_4 R_4) + s (C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4)}$$

10.27 INVALID-ORDER-27 $Z(s) = \left(R_1, \infty, R_3 + \frac{1}{C_3 s}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_4 R_1 R_3 R_4 g_m s^2 + L_4 R_1 R_4 g_m s}{2R_1 R_4 g_m + 2R_4 + s^3 (2C_3 C_4 L_4 R_1 R_3 R_4 g_m + 2C_3 C_4 L_4 R_3 R_4) + s^2 (2C_3 L_4 R_1 R_3 g_m + C_3 L_4 R_1 R_4 g_m + 2C_3 L_4 R_3 + C_3 L_4 R_4 + 2C_4 L_4 R_1 R_4 g_m + 2C_4 L_4 R_4) + s (2C_3 R_1 R_3 R_4 g_m + 2C_3 R_3 R_4 + 2L_4 R_1 g_m + 2L_4)}$$

10.28 INVALID-ORDER-28 $Z(s) = \left(R_1, \infty, R_3 + \frac{1}{C_3 s}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 L_4 R_1 R_3 R_4 g_m s^3 + R_1 R_4 g_m + s^2 (C_3 L_4 R_1 R_3 g_m + C_4 L_4 R_1 R_4 g_m) + s (C_3 R_1 R_3 R_4 g_m + L_4 R_1 g_m)}{2R_1 g_m + s^3 (2C_3 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_4 R_1 R_4 g_m + 2C_3 C_4 L_4 R_3 + C_3 C_4 L_4 R_4) + s^2 (C_3 L_4 R_1 g_m + C_3 L_4 + 2C_4 L_4 R_1 g_m + 2C_4 L_4) + s (2C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2C_3 R_3 + C_3 R_4) + 2}$$

10.29 INVALID-ORDER-29 $Z(s) = \left(R_1, \infty, R_3 + \frac{1}{C_3 s}, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 L_4 R_1 R_3 R_4 g_m s^3 + C_3 R_1 R_3 R_4 g_m s + C_4 L_4 R_1 R_4 g_m s^2 + R_1 R_4 g_m}{2R_1 g_m + s^3 (2C_3 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_4 R_1 R_4 g_m + 2C_3 C_4 L_4 R_3 + C_3 C_4 L_4 R_4) + s^2 (2C_3 C_4 R_1 R_3 R_4 g_m + 2C_3 C_4 R_3 R_4 + 2C_4 L_4 R_1 g_m + 2C_4 L_4) + s (2C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2C_3 R_3 + C_3 R_4 + 2C_4 R_1 R_4 g_m + 2C_4 R_4) + 2}$$

10.30 INVALID-ORDER-30 $Z(s) = \left(R_1, \infty, L_3 s + \frac{1}{C_3 s}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_3 R_1 g_m s^2 + R_1 g_m}{s^3 (2C_3 C_4 L_3 R_1 g_m + 2C_3 C_4 L_3) + s (C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4)}$$

10.31 INVALID-ORDER-31 $Z(s) = \left(R_1, \infty, L_3 s + \frac{1}{C_3 s}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_3 R_1 R_4 g_m s^2 + R_1 R_4 g_m}{2R_1 g_m + s^3 (2C_3 C_4 L_3 R_1 R_4 g_m + 2C_3 C_4 L_3 R_4) + s^2 (2C_3 L_3 R_1 g_m + 2C_3 L_3) + s (C_3 R_1 R_4 g_m + C_3 R_4 + 2C_4 R_1 R_4 g_m + 2C_4 R_4) + 2}$$

10.32 INVALID-ORDER-32 $Z(s) = \left(R_1, \infty, L_3 s + \frac{1}{C_3 s}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 L_3 R_1 R_4 g_m s^3 + C_3 L_3 R_1 g_m s^2 + C_4 R_1 R_4 g_m s + R_1 g_m}{s^3 (2C_3 C_4 L_3 R_1 g_m + 2C_3 C_4 L_3) + s^2 (C_3 C_4 R_1 R_4 g_m + C_3 C_4 R_4) + s (C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4)}$$

10.33 INVALID-ORDER-33 $Z(s) = \left(R_1, \infty, L_3s + \frac{1}{C_3s}, L_4s + \frac{1}{C_4s}, \infty, \infty \right)$

$$H(s) = \frac{C_3C_4L_3L_4R_1g_ms^4 + R_1g_m + s^2(C_3L_3R_1g_m + C_4L_4R_1g_m)}{s^3(2C_3C_4L_3R_1g_m + 2C_3C_4L_3 + C_3C_4L_4R_1g_m + C_3C_4L_4) + s(C_3R_1g_m + C_3 + 2C_4R_1g_m + 2C_4)}$$

10.34 INVALID-ORDER-34 $Z(s) = \left(R_1, \infty, L_3s + \frac{1}{C_3s}, \frac{L_4s}{C_4L_4s^2+1}, \infty, \infty \right)$

$$H(s) = \frac{C_3L_3L_4R_1g_ms^3 + L_4R_1g_ms}{2R_1g_m + s^4(2C_3C_4L_3L_4R_1g_m + 2C_3C_4L_3L_4) + s^2(2C_3L_3R_1g_m + 2C_3L_3 + C_3L_4R_1g_m + C_3L_4 + 2C_4L_4R_1g_m + 2C_4L_4) + 2}$$

10.35 INVALID-ORDER-35 $Z(s) = \left(R_1, \infty, L_3s + \frac{1}{C_3s}, L_4s + R_4 + \frac{1}{C_4s}, \infty, \infty \right)$

$$H(s) = \frac{C_3C_4L_3L_4R_1g_ms^4 + C_3C_4L_3R_1R_4g_ms^3 + C_4R_1R_4g_ms + R_1g_m + s^2(C_3L_3R_1g_m + C_4L_4R_1g_m)}{s^3(2C_3C_4L_3R_1g_m + 2C_3C_4L_3 + C_3C_4L_4R_1g_m + C_3C_4L_4) + s^2(C_3C_4R_1R_4g_m + C_3C_4R_4) + s(C_3R_1g_m + C_3 + 2C_4R_1g_m + 2C_4)}$$

10.36 INVALID-ORDER-36 $Z(s) = \left(R_1, \infty, L_3s + \frac{1}{C_3s}, \frac{L_4R_4s}{C_4L_4R_4s^2+L_4s+R_4}, \infty, \infty \right)$

$$H(s) = \frac{C_3L_3L_4R_1R_4g_ms^3 + L_4R_1R_4g_ms}{2R_1R_4g_m + 2R_4 + s^4(2C_3C_4L_3L_4R_1R_4g_m + 2C_3C_4L_3L_4R_4) + s^3(2C_3L_3L_4R_1g_m + 2C_3L_3L_4) + s^2(2C_3L_3R_1R_4g_m + 2C_3L_3R_4 + C_3L_4R_1R_4g_m + C_3L_4R_4 + 2C_4L_4R_1R_4g_m + 2C_4L_4R_4) + s(2L_4R_1g_m + 2L_4)}$$

10.37 INVALID-ORDER-37 $Z(s) = \left(R_1, \infty, L_3s + \frac{1}{C_3s}, \frac{C_4L_4R_4s^2+L_4s+R_4}{C_4L_4s^2+1}, \infty, \infty \right)$

$$H(s) = \frac{C_3C_4L_3L_4R_1R_4g_ms^4 + C_3L_3L_4R_1g_ms^3 + L_4R_1g_ms + R_1R_4g_m + s^2(C_3L_3R_1R_4g_m + C_4L_4R_1R_4g_m)}{2R_1g_m + s^4(2C_3C_4L_3L_4R_1g_m + 2C_3C_4L_3L_4) + s^3(C_3C_4L_4R_1R_4g_m + C_3C_4L_4R_4) + s^2(2C_3L_3R_1g_m + 2C_3L_3 + C_3L_4R_1g_m + C_3L_4 + 2C_4L_4R_1g_m + 2C_4L_4) + s(C_3R_1R_4g_m + C_3R_4) + 2}$$

10.38 INVALID-ORDER-38 $Z(s) = \left(R_1, \infty, L_3s + \frac{1}{C_3s}, \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, \infty, \infty \right)$

$$H(s) = \frac{C_3C_4L_3L_4R_1R_4g_ms^4 + R_1R_4g_m + s^2(C_3L_3R_1R_4g_m + C_4L_4R_1R_4g_m)}{2R_1g_m + s^4(2C_3C_4L_3L_4R_1g_m + 2C_3C_4L_3L_4) + s^3(2C_3C_4L_3R_1R_4g_m + 2C_3C_4L_3R_4 + C_3C_4L_4R_1R_4g_m + C_3C_4L_4R_4) + s^2(2C_3L_3R_1g_m + 2C_3L_3 + 2C_4L_4R_1g_m + 2C_4L_4) + s(C_3R_1R_4g_m + C_3R_4 + 2C_4R_1R_4g_m + 2C_4R_4) + 2}$$

10.39 INVALID-ORDER-39 $Z(s) = \left(R_1, \infty, \frac{L_3s}{C_3L_3s^2+1}, \frac{1}{C_4s}, \infty, \infty \right)$

$$H(s) = \frac{L_3R_1g_ms}{R_1g_m + s^2(C_3L_3R_1g_m + C_3L_3 + 2C_4L_3R_1g_m + 2C_4L_3) + 1}$$

10.40 INVALID-ORDER-40 $Z(s) = \left(R_1, \infty, \frac{L_3s}{C_3L_3s^2+1}, R_4 + \frac{1}{C_4s}, \infty, \infty \right)$

$$H(s) = \frac{C_4L_3R_1R_4g_ms^2 + L_3R_1g_ms}{R_1g_m + s^3(C_3C_4L_3R_1R_4g_m + C_3C_4L_3R_4) + s^2(C_3L_3R_1g_m + C_3L_3 + 2C_4L_3R_1g_m + 2C_4L_3) + s(C_4R_1R_4g_m + C_4R_4) + 1}$$

10.41 INVALID-ORDER-41 $Z(s) = \left(R_1, \infty, \frac{L_3s}{C_3L_3s^2+1}, L_4s + \frac{1}{C_4s}, \infty, \infty \right)$

$$H(s) = \frac{C_4L_3L_4R_1g_ms^3 + L_3R_1g_ms}{R_1g_m + s^4(C_3C_4L_3L_4R_1g_m + C_3C_4L_3L_4) + s^2(C_3L_3R_1g_m + C_3L_3 + 2C_4L_3R_1g_m + 2C_4L_3 + C_4L_4R_1g_m + C_4L_4) + 1}$$

10.42 INVALID-ORDER-42 $Z(s) = \left(R_1, \infty, \frac{L_3s}{C_3L_3s^2+1}, \frac{L_4s}{C_4L_4s^2+1}, \infty, \infty \right)$

$$H(s) = \frac{L_3L_4R_1g_ms}{2L_3R_1g_m + 2L_3 + L_4R_1g_m + L_4 + s^2(C_3L_3L_4R_1g_m + C_3L_3L_4 + 2C_4L_3L_4R_1g_m + 2C_4L_3L_4)}$$

10.43 INVALID-ORDER-43 $Z(s) = \left(R_1, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_3 L_4 R_1 g_m s^3 + C_4 L_3 R_1 R_4 g_m s^2 + L_3 R_1 g_m s}{R_1 g_m + s^4 (C_3 C_4 L_3 L_4 R_1 g_m + C_3 C_4 L_3 L_4) + s^3 (C_3 C_4 L_3 R_1 R_4 g_m + C_3 C_4 L_3 R_4) + s^2 (C_3 L_3 R_1 g_m + C_3 L_3 + 2 C_4 L_3 R_1 g_m + 2 C_4 L_3 + C_4 L_4 R_1 g_m + C_4 L_4) + s (C_4 R_1 R_4 g_m + C_4 R_4) + 1}$$

10.44 INVALID-ORDER-44 $Z(s) = \left(R_1, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_3 L_4 R_1 R_4 g_m s^3 + L_3 L_4 R_1 g_m s^2 + L_3 R_1 R_4 g_m s}{R_1 R_4 g_m + R_4 + s^4 (C_3 C_4 L_3 L_4 R_1 R_4 g_m + C_3 C_4 L_3 L_4 R_4) + s^3 (C_3 L_3 L_4 R_1 g_m + C_3 L_3 L_4 + 2 C_4 L_3 L_4 R_1 g_m + 2 C_4 L_3 L_4) + s^2 (C_3 L_3 R_1 R_4 g_m + C_3 L_3 R_4 + C_4 L_4 R_1 R_4 g_m + C_4 L_4 R_4) + s (2 L_3 R_1 g_m + 2 L_3 + L_4 R_1 g_m + L_4)}$$

10.45 INVALID-ORDER-45 $Z(s) = \left(R_1, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_3 L_4 R_1 R_4 g_m s^3 + L_3 R_1 R_4 g_m s}{R_1 R_4 g_m + R_4 + s^4 (C_3 C_4 L_3 L_4 R_1 R_4 g_m + C_3 C_4 L_3 L_4 R_4) + s^3 (2 C_4 L_3 L_4 R_1 g_m + 2 C_4 L_3 L_4) + s^2 (C_3 L_3 R_1 R_4 g_m + C_3 L_3 R_4 + 2 C_4 L_3 R_1 R_4 g_m + 2 C_4 L_3 R_4 + C_4 L_4 R_1 R_4 g_m + C_4 L_4 R_4) + s (2 L_3 R_1 g_m + 2 L_3)}$$

10.46 INVALID-ORDER-46 $Z(s) = \left(R_1, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_3 R_1 g_m s^2 + C_3 R_1 R_3 g_m s + R_1 g_m}{s^3 (2 C_3 C_4 L_3 R_1 g_m + 2 C_3 C_4 L_3) + s^2 (2 C_3 C_4 R_1 R_3 g_m + 2 C_3 C_4 R_3) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

10.47 INVALID-ORDER-47 $Z(s) = \left(R_1, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_3 R_1 R_4 g_m s^2 + C_3 R_1 R_3 R_4 g_m s + R_1 R_4 g_m}{2 R_1 g_m + s^3 (2 C_3 C_4 L_3 R_1 R_4 g_m + 2 C_3 C_4 L_3 R_4) + s^2 (2 C_3 C_4 R_1 R_3 R_4 g_m + 2 C_3 C_4 R_3 R_4 + 2 C_3 L_3 R_1 g_m + 2 C_3 L_3) + s (2 C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2 C_3 R_3 + C_3 R_4 + 2 C_4 R_1 R_4 g_m + 2 C_4 R_4) + 2}$$

10.48 INVALID-ORDER-48 $Z(s) = \left(R_1, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 L_3 R_1 R_4 g_m s^3 + R_1 g_m + s^2 (C_3 C_4 R_1 R_3 R_4 g_m + C_3 L_3 R_1 g_m) + s (C_3 R_1 R_3 g_m + C_4 R_1 R_4 g_m)}{s^3 (2 C_3 C_4 L_3 R_1 g_m + 2 C_3 C_4 L_3) + s^2 (2 C_3 C_4 R_1 R_3 g_m + C_3 C_4 R_1 R_4 g_m + 2 C_3 C_4 R_3 + C_3 C_4 R_4) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

10.49 INVALID-ORDER-49 $Z(s) = \left(R_1, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 g_m s^4 + C_3 C_4 L_4 R_1 R_3 g_m s^3 + C_3 R_1 R_3 g_m s + R_1 g_m + s^2 (C_3 L_3 R_1 g_m + C_4 L_4 R_1 g_m)}{s^3 (2 C_3 C_4 L_3 R_1 g_m + 2 C_3 C_4 L_3 + C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2 (2 C_3 C_4 R_1 R_3 g_m + 2 C_3 C_4 R_3) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

10.50 INVALID-ORDER-50 $Z(s) = \left(R_1, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_3 L_4 R_1 g_m s^3 + C_3 L_4 R_1 R_3 g_m s^2 + L_4 R_1 g_m s}{2 R_1 g_m + s^4 (2 C_3 C_4 L_3 L_4 R_1 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (2 C_3 C_4 L_4 R_1 R_3 g_m + 2 C_3 C_4 L_4 R_3) + s^2 (2 C_3 L_3 R_1 g_m + 2 C_3 L_3 + C_3 L_4 R_1 g_m + C_3 L_4 + 2 C_4 L_4 R_1 g_m + 2 C_4 L_4) + s (2 C_3 R_1 R_3 g_m + 2 C_3 R_3) + 2}$$

10.51 INVALID-ORDER-51 $Z(s) = \left(R_1, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 g_m s^4 + R_1 g_m + s^3 (C_3 C_4 L_3 R_1 R_4 g_m + C_3 C_4 L_4 R_1 R_3 g_m) + s^2 (C_3 C_4 R_1 R_3 R_4 g_m + C_3 L_3 R_1 g_m + C_4 L_4 R_1 g_m) + s (C_3 R_1 R_3 g_m + C_4 R_1 R_4 g_m)}{s^3 (2 C_3 C_4 L_3 R_1 g_m + 2 C_3 C_4 L_3 + C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2 (2 C_3 C_4 R_1 R_3 g_m + C_3 C_4 R_1 R_4 g_m + 2 C_3 C_4 R_3 + C_3 C_4 R_4) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.52 \quad INVALID-ORDER-52} \quad Z(s) = \left(R_1, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_1 R_4 g_m s^3 + C_3 L_4 R_1 R_3 R_4 g_m s^2 + L_4 R_1 R_4 g_m s}{2 R_1 R_4 g_m + 2 R_4 + s^4 (2 C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2 C_3 C_4 L_3 L_4 R_4) + s^3 (2 C_3 C_4 L_4 R_1 R_3 R_4 g_m + 2 C_3 C_4 L_4 R_3 R_4 + 2 C_3 L_3 L_4 R_1 g_m + 2 C_3 L_3 L_4) + s^2 (2 C_3 L_3 R_1 R_4 g_m + 2 C_3 L_3 R_4 + 2 C_3 L_4 R_1 R_3 g_m + C_3 L_4 R_1 R_4 g_m + 2 C_3 L_4 R_3 + C_3 L_4 R_4 + 2 C_4 L_4 R_1 R_4 g_m + 2 C_4 L_4 R_4) + s (2 C_3 R_1 R_3 R_4 g_m + L_4 R_1 g_m) + 2}$$

$$\mathbf{10.53 \quad INVALID-ORDER-53} \quad Z(s) = \left(R_1, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_4 g_m s^4 + R_1 R_4 g_m + s^3 (C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_3 L_3 L_4 R_1 g_m) + s^2 (C_3 L_3 R_1 R_4 g_m + C_3 L_4 R_1 R_3 g_m + C_4 L_4 R_1 R_4 g_m) + s (C_3 R_1 R_3 R_4 g_m + L_4 R_1 g_m)}{2 R_1 g_m + s^4 (2 C_3 C_4 L_3 L_4 R_1 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (2 C_3 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_4 R_1 R_4 g_m + 2 C_3 C_4 L_4 R_3 + C_3 C_4 L_4 R_4) + s^2 (2 C_3 L_3 R_1 g_m + 2 C_3 L_3 + C_3 L_4 R_1 g_m + C_3 L_4 + 2 C_4 L_4 R_1 g_m + 2 C_4 L_4) + s (2 C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2 C_3 R_3 + C_3 R_4) + 2}$$

$$\mathbf{10.54 \quad INVALID-ORDER-54} \quad Z(s) = \left(R_1, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_4 g_m s^4 + C_3 C_4 L_4 R_1 R_3 R_4 g_m s^3 + C_3 R_1 R_3 R_4 g_m s + R_1 R_4 g_m + s^2 (C_3 L_3 R_1 R_4 g_m + C_4 L_4 R_1 R_4 g_m)}{2 R_1 g_m + s^4 (2 C_3 C_4 L_3 L_4 R_1 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (2 C_3 C_4 L_3 R_1 R_4 g_m + 2 C_3 C_4 L_3 R_4 + 2 C_3 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_4 R_1 R_4 g_m + 2 C_3 C_4 L_4 R_3 + C_3 C_4 L_4 R_4) + s^2 (2 C_3 C_4 R_1 R_3 R_4 g_m + 2 C_3 C_4 R_3 R_4 + 2 C_3 L_3 R_1 g_m + 2 C_3 L_3 + 2 C_4 L_4 R_1 g_m + 2 C_4 L_4) + s (2 C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2 C_3 R_3 + C_3 R_4) + 2}$$

$$\mathbf{10.55 \quad INVALID-ORDER-55} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 R_1 R_3 R_4 g_m s^2 + L_3 R_1 R_3 g_m s}{R_1 R_3 g_m + R_3 + s^3 (C_3 C_4 L_3 R_1 R_3 R_4 g_m + C_3 C_4 L_3 R_3 R_4) + s^2 (C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_3 + 2 C_4 L_3 R_1 R_3 g_m + C_4 L_3 R_1 R_4 g_m + 2 C_4 L_3 R_3 + C_4 L_3 R_4) + s (C_4 R_1 R_3 R_4 g_m + C_4 R_3 R_4 + L_3 R_1 g_m + L_3)}$$

$$\mathbf{10.56 \quad INVALID-ORDER-56} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_1 R_3 g_m s^3 + L_3 R_1 R_3 g_m s}{R_1 R_3 g_m + R_3 + s^4 (C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_3 C_4 L_3 L_4 R_3) + s^3 (C_4 L_3 L_4 R_1 g_m + C_4 L_3 L_4) + s^2 (C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_3 + 2 C_4 L_3 R_1 R_3 g_m + 2 C_4 L_3 R_3 + C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_3) + s (L_3 R_1 g_m + L_3)}$$

$$\mathbf{10.57 \quad INVALID-ORDER-57} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_1 R_3 g_m s^3 + C_4 L_3 R_1 R_3 R_4 g_m s^2 + L_3 R_1 R_3 g_m s}{R_1 R_3 g_m + R_3 + s^4 (C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_3 C_4 L_3 L_4 R_3) + s^3 (C_3 C_4 L_3 R_1 R_3 R_4 g_m + C_3 C_4 L_3 R_3 R_4 + C_4 L_3 L_4 R_1 g_m + C_4 L_3 L_4) + s^2 (C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_3 + 2 C_4 L_3 R_1 R_3 g_m + C_4 L_3 R_1 R_4 g_m + 2 C_4 L_3 R_3 + C_4 L_3 R_4 + C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_3) + s (C_4 R_1 R_3 R_4 g_m + L_3 R_1 g_m + L_3)}$$

$$\mathbf{10.58 \quad INVALID-ORDER-58} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_1 R_3 R_4 g_m s^3 + L_3 L_4 R_1 R_3 g_m s^2 + L_3 R_1 R_3 R_4 g_m s}{R_1 R_3 R_4 g_m + R_3 R_4 + s^4 (C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m + C_3 C_4 L_3 L_4 R_3 R_4) + s^3 (C_3 L_3 L_4 R_1 R_3 g_m + C_3 L_3 L_4 R_3 + 2 C_4 L_3 L_4 R_1 R_3 g_m + C_4 L_3 L_4 R_1 R_4 g_m + 2 C_4 L_3 L_4 R_3 + C_4 L_3 L_4 R_4) + s^2 (C_3 L_3 R_1 R_3 R_4 g_m + C_3 L_3 R_3 R_4 + C_4 L_4 R_1 R_3 R_4 g_m + C_4 L_4 R_3 R_4 + L_3 L_4 R_1 g_m + L_3 L_4 R_3) + s (2 C_3 R_1 R_3 R_4 g_m + L_3 R_1 g_m + L_3 R_3)}$$

$$\mathbf{10.59 \quad INVALID-ORDER-59} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_1 R_3 R_4 g_m s^3 + L_3 R_1 R_3 R_4 g_m s}{R_1 R_3 R_4 g_m + R_3 R_4 + s^4 (C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m + C_3 C_4 L_3 L_4 R_3 R_4) + s^3 (2 C_4 L_3 L_4 R_1 R_3 g_m + C_4 L_3 L_4 R_1 R_4 g_m + 2 C_4 L_3 L_4 R_3 + C_4 L_3 L_4 R_4) + s^2 (C_3 L_3 R_1 R_3 R_4 g_m + C_3 L_3 R_3 R_4 + 2 C_4 L_3 R_1 R_3 R_4 g_m + 2 C_4 L_3 R_3 R_4 + C_4 L_4 R_1 R_3 R_4 g_m + C_4 L_4 R_3 R_4) + s (2 L_3 R_1 R_3 R_4 g_m + L_3 R_1 g_m + L_3 R_3)}$$

$$\mathbf{10.60 \quad INVALID-ORDER-60} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 R_3 g_m s^2 + L_3 R_1 g_m s + R_1 R_3 g_m}{R_1 g_m + s^3 (2 C_3 C_4 L_3 R_1 R_3 g_m + 2 C_3 C_4 L_3 R_3) + s^2 (C_3 L_3 R_1 g_m + C_3 L_3 + 2 C_4 L_3 R_1 g_m + 2 C_4 L_3) + s (2 C_4 R_1 R_3 g_m + 2 C_4 R_3) + 1}$$

$$10.61 \quad \text{INVALID-ORDER-61} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 R_3 R_4 g_m s^2 + L_3 R_1 R_4 g_m s + R_1 R_3 R_4 g_m}{2 R_1 R_3 g_m + R_1 R_4 g_m + 2 R_3 + R_4 + s^3 (2 C_3 C_4 L_3 R_1 R_3 R_4 g_m + 2 C_3 C_4 L_3 R_3 R_4) + s^2 (2 C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_1 R_4 g_m + 2 C_3 L_3 R_3 + C_3 L_3 R_4 + 2 C_4 L_3 R_1 R_4 g_m + 2 C_4 L_3 R_4) + s (2 C_4 R_1 R_3 R_4 g_m + 2 C_4 R_3 R_4 + 2 L_3 R_1 g_m + 2 L_3)}$$

$$10.62 \quad \text{INVALID-ORDER-62} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 R_1 R_3 R_4 g_m s^3 + R_1 R_3 g_m + s^2 (C_3 L_3 R_1 R_3 g_m + C_4 L_3 R_1 R_4 g_m) + s (C_4 R_1 R_3 R_4 g_m + L_3 R_1 g_m)}{R_1 g_m + s^3 (2 C_3 C_4 L_3 R_1 R_3 g_m + C_3 C_4 L_3 R_1 R_4 g_m + 2 C_3 C_4 L_3 R_3 + C_3 C_4 L_3 R_4) + s^2 (C_3 L_3 R_1 g_m + C_3 L_3 + 2 C_4 L_3 R_1 g_m + 2 C_4 L_3) + s (2 C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2 C_4 R_3 + C_4 R_4) + 1}$$

$$10.63 \quad \text{INVALID-ORDER-63} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_3 g_m s^4 + C_4 L_3 L_4 R_1 g_m s^3 + L_3 R_1 g_m s + R_1 R_3 g_m + s^2 (C_3 L_3 R_1 R_3 g_m + C_4 L_4 R_1 R_3 g_m)}{R_1 g_m + s^4 (C_3 C_4 L_3 L_4 R_1 g_m + C_3 C_4 L_3 L_4) + s^3 (2 C_3 C_4 L_3 R_1 R_3 g_m + 2 C_3 C_4 L_3 R_3) + s^2 (C_3 L_3 R_1 g_m + C_3 L_3 + 2 C_4 L_3 R_1 g_m + 2 C_4 L_3 + C_4 L_4 R_1 g_m + C_4 L_4) + s (2 C_4 R_1 R_3 g_m + 2 C_4 R_3) + 1}$$

$$10.64 \quad \text{INVALID-ORDER-64} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_1 R_3 g_m s^3 + L_3 L_4 R_1 g_m s^2 + L_4 R_1 R_3 g_m s}{2 R_1 R_3 g_m + 2 R_3 + s^4 (2 C_3 C_4 L_3 L_4 R_1 R_3 g_m + 2 C_3 C_4 L_3 L_4 R_3) + s^3 (C_3 L_3 L_4 R_1 g_m + C_3 L_3 L_4 + 2 C_4 L_3 L_4 R_1 g_m + 2 C_4 L_3 L_4) + s^2 (2 C_3 L_3 R_1 R_3 g_m + 2 C_3 L_3 R_3 + 2 C_4 L_4 R_1 R_3 g_m + 2 C_4 L_4 R_3) + s (2 L_3 R_1 g_m + 2 L_3 + L_4 R_1 g_m + L_4)}$$

$$10.65 \quad \text{INVALID-ORDER-65} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_3 g_m s^4 + R_1 R_3 g_m + s^3 (C_3 C_4 L_3 R_1 R_3 R_4 g_m + C_4 L_3 L_4 R_1 g_m) + s^2 (C_3 L_3 R_1 R_3 g_m + C_4 L_3 R_1 R_4 g_m + C_4 L_4 R_1 R_3 g_m) + s (C_4 R_1 R_3 R_4 g_m + L_3 R_1 g_m)}{R_1 g_m + s^4 (C_3 C_4 L_3 L_4 R_1 g_m + C_3 C_4 L_3 L_4) + s^3 (2 C_3 C_4 L_3 R_1 R_3 g_m + C_3 C_4 L_3 R_1 R_4 g_m + 2 C_3 C_4 L_3 R_3 + C_3 C_4 L_3 R_4) + s^2 (C_3 L_3 R_1 g_m + C_3 L_3 + 2 C_4 L_3 R_1 g_m + 2 C_4 L_3 + C_4 L_4 R_1 g_m + C_4 L_4) + s (2 C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2 C_4 R_3 + C_4 R_4) + 1}$$

$$10.66 \quad \text{INVALID-ORDER-66} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_1 R_3 R_4 g_m s^3 + L_3 L_4 R_1 R_4 g_m s^2 + L_4 R_1 R_3 R_4 g_m s}{2 R_1 R_3 R_4 g_m + 2 R_3 R_4 + s^4 (2 C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m + 2 C_3 C_4 L_3 L_4 R_3 R_4) + s^3 (2 C_3 L_3 L_4 R_1 R_3 g_m + C_3 L_3 L_4 R_1 R_4 g_m + 2 C_3 L_3 L_4 R_3 + C_3 L_3 L_4 R_4 + 2 C_4 L_3 L_4 R_1 R_4 g_m + 2 C_4 L_3 L_4 R_4) + s^2 (2 C_3 L_3 R_1 R_3 R_4 g_m + 2 C_3 L_3 R_3 R_4 + 2 C_4 L_4 R_1 R_3 R_4 g_m + 2 C_4 L_4 R_3 R_4 + 2 L_3 R_1 g_m + 2 L_3 + L_4 R_1 g_m + L_4)}$$

$$10.67 \quad \text{INVALID-ORDER-67} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m s^4 + R_1 R_3 R_4 g_m + s^3 (C_3 L_3 L_4 R_1 R_3 g_m + C_4 L_3 L_4 R_1 R_4 g_m) + s^2 (C_3 L_3 R_1 R_3 R_4 g_m + C_4 L_4 R_1 R_3 R_4 g_m + L_3 L_4 R_1 g_m) + s (L_3 R_1 R_4 g_m + L_4 R_1 R_3 g_m)}{2 R_1 R_3 g_m + R_1 R_4 g_m + 2 R_3 + R_4 + s^4 (2 C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2 C_3 C_4 L_3 L_4 R_3 + C_3 C_4 L_3 L_4 R_4) + s^3 (C_3 L_3 L_4 R_1 g_m + C_3 L_3 L_4 + 2 C_4 L_3 L_4 R_1 g_m + 2 C_4 L_3 L_4) + s^2 (2 C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_1 R_4 g_m + 2 C_3 L_3 R_3 + C_3 L_3 R_4 + 2 C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_1 R_4 g_m + 2 C_4 L_4 R_3 + C_4 L_4 R_4) + s (2 C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2 C_4 R_3 + C_4 R_4) + 1}$$

$$10.68 \quad \text{INVALID-ORDER-68} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m s^4 + C_4 L_3 L_4 R_1 R_4 g_m s^3 + L_3 R_1 R_4 g_m s + R_1 R_3 R_4 g_m + s^2 (C_3 L_3 R_1 R_3 R_4 g_m + C_4 L_4 R_1 R_3 R_4 g_m)}{2 R_1 R_3 g_m + R_1 R_4 g_m + 2 R_3 + R_4 + s^4 (2 C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2 C_3 C_4 L_3 L_4 R_3 + C_3 C_4 L_3 L_4 R_4) + s^3 (2 C_3 C_4 L_3 R_1 R_3 R_4 g_m + 2 C_3 C_4 L_3 R_3 R_4 + 2 C_4 L_3 L_4 R_1 g_m + 2 C_4 L_3 L_4) + s^2 (2 C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_1 R_4 g_m + 2 C_3 L_3 R_3 + C_3 L_3 R_4 + 2 C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_1 R_4 g_m + 2 C_4 L_4 R_3 + C_4 L_4 R_4) + s (2 C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2 C_4 R_3 + C_4 R_4) + 1}$$

$$10.69 \quad \text{INVALID-ORDER-69} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 R_3 g_m s^2 + R_1 R_3 g_m}{R_1 g_m + s^3 (2 C_3 C_4 L_3 R_1 R_3 g_m + 2 C_3 C_4 L_3 R_3) + s^2 (C_3 L_3 R_1 g_m + C_3 L_3) + s (C_3 R_1 R_3 g_m + C_3 R_3 + 2 C_4 R_1 R_3 g_m + 2 C_4 R_3) + 1}$$

$$\mathbf{10.70 \quad INVALID-ORDER-70} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad \frac{R_4}{C_4R_4s+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3L_3R_1R_3R_4g_ms^2 + R_1R_3R_4g_m}{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^3(2C_3C_4L_3R_1R_3R_4g_m + 2C_3C_4L_3R_3R_4) + s^2(2C_3L_3R_1R_3g_m + C_3L_3R_1R_4g_m + 2C_3L_3R_3 + C_3L_3R_4) + s(C_3R_1R_3R_4g_m + C_3R_3R_4 + 2C_4R_1R_3R_4g_m + 2C_4R_3R_4)}$$

$$\mathbf{10.71 \quad INVALID-ORDER-71} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad R_4 + \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3C_4L_3R_1R_3R_4g_ms^3 + C_3L_3R_1R_3g_ms^2 + C_4R_1R_3R_4g_ms + R_1R_3g_m}{R_1g_m + s^3(2C_3C_4L_3R_1R_3g_m + C_3C_4L_3R_1R_4g_m + 2C_3C_4L_3R_3 + C_3C_4L_3R_4) + s^2(C_3C_4R_1R_3R_4g_m + C_3C_4R_3R_4 + C_3L_3R_1g_m + C_3L_3) + s(C_3R_1R_3g_m + C_3R_3 + 2C_4R_1R_3g_m + C_4R_1R_4g_m + 2C_4R_3 + C_4R_4) + 1}$$

$$\mathbf{10.72 \quad INVALID-ORDER-72} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad L_4s + \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3C_4L_3L_4R_1R_3g_ms^4 + R_1R_3g_m + s^2(C_3L_3R_1R_3g_m + C_4L_4R_1R_3g_m)}{R_1g_m + s^4(C_3C_4L_3L_4R_1g_m + C_3C_4L_3L_4) + s^3(2C_3C_4L_3R_1R_3g_m + 2C_3C_4L_3R_3 + C_3C_4L_4R_1R_3g_m + C_3C_4L_4R_3) + s^2(C_3L_3R_1g_m + C_3L_3 + C_4L_4R_1g_m + C_4L_4) + s(C_3R_1R_3g_m + C_3R_3 + 2C_4R_1R_3g_m + 2C_4R_3) + 1}$$

$$\mathbf{10.73 \quad INVALID-ORDER-73} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad \frac{L_4s}{C_4L_4s^2+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3L_3L_4R_1R_3g_ms^3 + L_4R_1R_3g_ms}{2R_1R_3g_m + 2R_3 + s^4(2C_3C_4L_3L_4R_1R_3g_m + 2C_3C_4L_3L_4R_3) + s^3(C_3L_3L_4R_1g_m + C_3L_3L_4) + s^2(2C_3L_3R_1R_3g_m + 2C_3L_3R_3 + C_3L_4R_1R_3g_m + C_3L_4R_3 + 2C_4L_4R_1R_3g_m + 2C_4L_4R_3) + s(L_4R_1g_m + L_4)}$$

$$\mathbf{10.74 \quad INVALID-ORDER-74} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad L_4s + R_4 + \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3C_4L_3L_4R_1R_3g_ms^4 + C_3C_4L_3R_1R_3R_4g_ms^3 + C_4R_1R_3R_4g_ms + R_1R_3g_m + s^2(C_3L_3R_1R_3g_m + C_4L_4R_1R_3g_m)}{R_1g_m + s^4(C_3C_4L_3L_4R_1g_m + C_3C_4L_3L_4) + s^3(2C_3C_4L_3R_1R_3g_m + C_3C_4L_3R_1R_4g_m + 2C_3C_4L_3R_3 + C_3C_4L_3R_4 + C_3C_4L_4R_1R_3g_m + C_3C_4L_4R_3) + s^2(C_3C_4R_1R_3R_4g_m + C_3C_4R_3R_4 + C_3L_3R_1g_m + C_3L_3 + C_4L_4R_1g_m + C_4L_4) + s(C_3R_1R_3g_m + C_3R_3 + 2C_4R_1R_3g_m + 2C_4R_3)}$$

$$\mathbf{10.75 \quad INVALID-ORDER-75} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad \frac{L_4R_4s}{C_4L_4R_4s^2+L_4s+R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3L_3L_4R_1R_3R_4g_ms^3 + L_4R_1R_3R_4g_ms}{2R_1R_3R_4g_m + 2R_3R_4 + s^4(2C_3C_4L_3L_4R_1R_3R_4g_m + 2C_3C_4L_3L_4R_3R_4) + s^3(2C_3L_3L_4R_1R_3g_m + C_3L_3L_4R_1R_4g_m + 2C_3L_3L_4R_3 + C_3L_3L_4R_4) + s^2(2C_3L_3R_1R_3R_4g_m + 2C_3L_3R_3R_4 + C_3L_4R_1R_3R_4g_m + C_3L_4R_3R_4 + 2C_4L_4R_1R_3R_4g_m + 2C_4L_4R_3R_4) + s(2L_4R_1R_3R_4g_m + L_4R_1R_3R_4)}$$

$$\mathbf{10.76 \quad INVALID-ORDER-76} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad \frac{C_4L_4R_4s^2+L_4s+R_4}{C_4L_4s^2+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3C_4L_3L_4R_1R_3R_4g_ms^4 + C_3L_3L_4R_1R_3g_ms^3 + L_4R_1R_3R_4g_ms + R_1R_3R_4g_m + s^2(C_3L_3R_1R_3R_4g_m + C_4L_4R_1R_3R_4g_m)}{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^4(2C_3C_4L_3L_4R_1R_3g_m + C_3C_4L_3L_4R_1R_4g_m + 2C_3C_4L_3L_4R_3 + C_3C_4L_3L_4R_4) + s^3(C_3C_4L_4R_1R_3R_4g_m + C_3C_4L_4R_3R_4 + C_3L_3L_4R_1g_m + C_3L_3L_4) + s^2(2C_3L_3R_1R_3g_m + C_3L_3R_1R_4g_m + 2C_3L_3R_3 + C_3L_3R_4 + C_3L_4R_1R_3R_4g_m + C_3L_4R_3R_4)}$$

$$\mathbf{10.77 \quad INVALID-ORDER-77} \quad Z(s) = \left(R_1, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3C_4L_3L_4R_1R_3R_4g_ms^4 + R_1R_3R_4g_m + s^2(C_3L_3R_1R_3R_4g_m + C_4L_4R_1R_3R_4g_m)}{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^4(2C_3C_4L_3L_4R_1R_3g_m + C_3C_4L_3L_4R_1R_4g_m + 2C_3C_4L_3L_4R_3 + C_3C_4L_3L_4R_4) + s^3(2C_3C_4L_3R_1R_3R_4g_m + 2C_3C_4L_3R_3R_4 + C_3C_4L_4R_1R_3R_4g_m + C_3C_4L_4R_3R_4) + s^2(2C_3L_3R_1R_3g_m + C_3L_3R_1R_4g_m + 2C_3L_3R_3 + C_3L_3R_4)}$$

$$\mathbf{10.78 \quad INVALID-ORDER-78} \quad Z(s) = (L_1s, \quad \infty, \quad R_3, \quad R_4, \quad \infty, \quad \infty)$$

$$H(s) = \frac{L_1R_3R_4g_ms}{2R_3 + R_4 + s(2L_1R_3g_m + L_1R_4g_m)}$$

$$10.79 \quad \text{INVALID-ORDER-79} \quad Z(s) = \left(L_1 s, \quad \infty, \quad R_3, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_3 g_m s^3 + L_1 R_3 g_m s}{C_4 L_1 L_4 g_m s^3 + s^2 (2C_4 L_1 R_3 g_m + C_4 L_4) + s (2C_4 R_3 + L_1 g_m) + 1}$$

$$10.80 \quad \text{INVALID-ORDER-80} \quad Z(s) = \left(L_1 s, \quad \infty, \quad R_3, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_3 g_m s^2}{2C_4 L_1 L_4 R_3 g_m s^3 + 2R_3 + s^2 (2C_4 L_4 R_3 + L_1 L_4 g_m) + s (2L_1 R_3 g_m + L_4)}$$

$$10.81 \quad \text{INVALID-ORDER-81} \quad Z(s) = \left(L_1 s, \quad \infty, \quad R_3, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_3 g_m s^3 + C_4 L_1 R_3 R_4 g_m s^2 + L_1 R_3 g_m s}{C_4 L_1 L_4 g_m s^3 + s^2 (2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m + C_4 L_4) + s (2C_4 R_3 + C_4 R_4 + L_1 g_m) + 1}$$

$$10.82 \quad \text{INVALID-ORDER-82} \quad Z(s) = \left(L_1 s, \quad \infty, \quad R_3, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_3 R_4 g_m s^2}{2C_4 L_1 L_4 R_3 R_4 g_m s^3 + 2R_3 R_4 + s^2 (2C_4 L_4 R_3 R_4 + 2L_1 L_4 R_3 g_m + L_1 L_4 R_4 g_m) + s (2L_1 R_3 R_4 g_m + 2L_4 R_3 + L_4 R_4)}$$

$$10.83 \quad \text{INVALID-ORDER-83} \quad Z(s) = \left(L_1 s, \quad \infty, \quad R_3, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_3 R_4 g_m s^3 + L_1 L_4 R_3 g_m s^2 + L_1 R_3 R_4 g_m s}{2R_3 + R_4 + s^3 (2C_4 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (2C_4 L_4 R_3 + C_4 L_4 R_4 + L_1 L_4 g_m) + s (2L_1 R_3 g_m + L_1 R_4 g_m + L_4)}$$

$$10.84 \quad \text{INVALID-ORDER-84} \quad Z(s) = \left(L_1 s, \quad \infty, \quad R_3, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_3 R_4 g_m s^3 + L_1 R_3 R_4 g_m s}{2R_3 + R_4 + s^3 (2C_4 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (2C_4 L_1 R_3 R_4 g_m + 2C_4 L_4 R_3 + C_4 L_4 R_4) + s (2C_4 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$10.85 \quad \text{INVALID-ORDER-85} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 g_m}{C_3 + 2C_4 + s (C_3 L_1 g_m + 2C_4 L_1 g_m)}$$

$$10.86 \quad \text{INVALID-ORDER-86} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 g_m s^2 + L_1 g_m}{C_3 C_4 L_1 L_4 g_m s^3 + C_3 C_4 L_4 s^2 + C_3 + 2C_4 + s (C_3 L_1 g_m + 2C_4 L_1 g_m)}$$

$$10.87 \quad \text{INVALID-ORDER-87} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 g_m s^2}{2L_1 g_m s + s^3 (C_3 L_1 L_4 g_m + 2C_4 L_1 L_4 g_m) + s^2 (C_3 L_4 + 2C_4 L_4) + 2}$$

$$10.88 \quad \text{INVALID-ORDER-88} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 g_m s^2 + C_4 L_1 R_4 g_m s + L_1 g_m}{C_3 C_4 L_1 L_4 g_m s^3 + C_3 + 2C_4 + s^2 (C_3 C_4 L_1 R_4 g_m + C_3 C_4 L_4) + s (C_3 C_4 R_4 + C_3 L_1 g_m + 2C_4 L_1 g_m)}$$

10.89 INVALID-ORDER-89 $Z(s) = \left(L_1 s, \infty, \frac{1}{C_3 s}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{L_1 L_4 R_4 g_m s^2}{2R_4 + s^3 (C_3 L_1 L_4 R_4 g_m + 2C_4 L_1 L_4 R_4 g_m) + s^2 (C_3 L_4 R_4 + 2C_4 L_4 R_4 + 2L_1 L_4 g_m) + s (2L_1 R_4 g_m + 2L_4)}$$

10.90 INVALID-ORDER-90 $Z(s) = \left(L_1 s, \infty, \frac{1}{C_3 s}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_1 L_4 R_4 g_m s^3 + L_1 L_4 g_m s^2 + L_1 R_4 g_m s}{C_3 C_4 L_1 L_4 R_4 g_m s^4 + s^3 (C_3 C_4 L_4 R_4 + C_3 L_1 L_4 g_m + 2C_4 L_1 L_4 g_m) + s^2 (C_3 L_1 R_4 g_m + C_3 L_4 + 2C_4 L_4) + s (C_3 R_4 + 2L_1 g_m) + 2}$$

10.91 INVALID-ORDER-91 $Z(s) = \left(L_1 s, \infty, \frac{1}{C_3 s}, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_1 L_4 R_4 g_m s^3 + L_1 R_4 g_m s}{C_3 C_4 L_1 L_4 R_4 g_m s^4 + s^3 (C_3 C_4 L_4 R_4 + 2C_4 L_1 L_4 g_m) + s^2 (C_3 L_1 R_4 g_m + 2C_4 L_1 R_4 g_m + 2C_4 L_4) + s (C_3 R_4 + 2C_4 R_4 + 2L_1 g_m) + 2}$$

10.92 INVALID-ORDER-92 $Z(s) = \left(L_1 s, \infty, \frac{R_3}{C_3 R_3 s + 1}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_1 R_3 R_4 g_m s^2 + L_1 R_3 g_m s}{C_3 C_4 L_1 R_3 R_4 g_m s^3 + s^2 (C_3 C_4 R_3 R_4 + C_3 L_1 R_3 g_m + 2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m) + s (C_3 R_3 + 2C_4 R_3 + C_4 R_4 + L_1 g_m) + 1}$$

10.93 INVALID-ORDER-93 $Z(s) = \left(L_1 s, \infty, \frac{R_3}{C_3 R_3 s + 1}, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_1 L_4 R_3 g_m s^3 + L_1 R_3 g_m s}{C_3 C_4 L_1 L_4 R_3 g_m s^4 + s^3 (C_3 C_4 L_4 R_3 + C_4 L_1 L_4 g_m) + s^2 (C_3 L_1 R_3 g_m + 2C_4 L_1 R_3 g_m + C_4 L_4) + s (C_3 R_3 + 2C_4 R_3 + L_1 g_m) + 1}$$

10.94 INVALID-ORDER-94 $Z(s) = \left(L_1 s, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{L_1 L_4 R_3 g_m s^2}{2R_3 + s^3 (C_3 L_1 L_4 R_3 g_m + 2C_4 L_1 L_4 R_3 g_m) + s^2 (C_3 L_4 R_3 + 2C_4 L_4 R_3 + L_1 L_4 g_m) + s (2L_1 R_3 g_m + L_4)}$$

10.95 INVALID-ORDER-95 $Z(s) = \left(L_1 s, \infty, \frac{R_3}{C_3 R_3 s + 1}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_1 L_4 R_3 g_m s^3 + C_4 L_1 R_3 R_4 g_m s^2 + L_1 R_3 g_m s}{C_3 C_4 L_1 L_4 R_3 g_m s^4 + s^3 (C_3 C_4 L_1 R_3 R_4 g_m + C_3 C_4 L_4 R_3 + C_4 L_1 L_4 g_m) + s^2 (C_3 C_4 R_3 R_4 + C_3 L_1 R_3 g_m + 2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m + C_4 L_4) + s (C_3 R_3 + 2C_4 R_3 + C_4 R_4 + L_1 g_m) + 1}$$

10.96 INVALID-ORDER-96 $Z(s) = \left(L_1 s, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{L_1 L_4 R_3 R_4 g_m s^2}{2R_3 R_4 + s^3 (C_3 L_1 L_4 R_3 R_4 g_m + 2C_4 L_1 L_4 R_3 R_4 g_m) + s^2 (C_3 L_4 R_3 R_4 + 2C_4 L_4 R_3 R_4 + 2L_1 L_4 R_3 g_m + L_1 L_4 R_4 g_m) + s (2L_1 R_3 R_4 g_m + 2L_4 R_3 + L_4 R_4)}$$

10.97 INVALID-ORDER-97 $Z(s) = \left(L_1 s, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_1 L_4 R_3 R_4 g_m s^3 + L_1 L_4 R_3 g_m s^2 + L_1 R_3 R_4 g_m s}{C_3 C_4 L_1 L_4 R_3 R_4 g_m s^4 + 2R_3 + R_4 + s^3 (C_3 C_4 L_4 R_3 R_4 + C_3 L_1 L_4 R_3 g_m + 2C_4 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (C_3 L_1 R_3 R_4 g_m + C_3 L_4 R_3 + 2C_4 L_4 R_3 + C_4 L_4 R_4 + L_1 L_4 g_m) + s (C_3 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m + L_4)}$$

$$10.98 \quad \text{INVALID-ORDER-98} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_3 R_4 g_m s^3 + L_1 R_3 R_4 g_m s}{C_3 C_4 L_1 L_4 R_3 R_4 g_m s^4 + 2 R_3 + R_4 + s^3 (C_3 C_4 L_4 R_3 R_4 + 2 C_4 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (C_3 L_1 R_3 R_4 g_m + 2 C_4 L_1 R_3 R_4 g_m + 2 C_4 L_4 R_3 + C_4 L_4 R_4) + s (C_3 R_3 R_4 + 2 C_4 R_3 R_4 + 2 L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$10.99 \quad \text{INVALID-ORDER-99} \quad Z(s) = \left(L_1 s, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 R_3 R_4 g_m s^2 + L_1 R_4 g_m s}{2 C_3 C_4 L_1 R_3 R_4 g_m s^3 + s^2 (2 C_3 C_4 R_3 R_4 + 2 C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m + 2 C_4 L_1 R_4 g_m) + s (2 C_3 R_3 + C_3 R_4 + 2 C_4 R_4 + 2 L_1 g_m) + 2}$$

$$10.100 \quad \text{INVALID-ORDER-100} \quad Z(s) = \left(L_1 s, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_4 R_3 g_m s^3 + C_3 L_1 R_3 g_m s + C_4 L_1 L_4 g_m s^2 + L_1 g_m}{C_3 C_4 L_1 L_4 g_m s^3 + C_3 + 2 C_4 + s^2 (2 C_3 C_4 L_1 R_3 g_m + C_3 C_4 L_4) + s (2 C_3 C_4 R_3 + C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$10.101 \quad \text{INVALID-ORDER-101} \quad Z(s) = \left(L_1 s, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_4 R_3 g_m s^3 + L_1 L_4 g_m s^2}{2 C_3 C_4 L_1 L_4 R_3 g_m s^4 + s^3 (2 C_3 C_4 L_4 R_3 + C_3 L_1 L_4 g_m + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_3 L_1 R_3 g_m + C_3 L_4 + 2 C_4 L_4) + s (2 C_3 R_3 + 2 L_1 g_m) + 2}$$

$$10.102 \quad \text{INVALID-ORDER-102} \quad Z(s) = \left(L_1 s, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_4 R_3 g_m s^3 + L_1 g_m + s^2 (C_3 C_4 L_1 R_3 R_4 g_m + C_4 L_1 L_4 g_m) + s (C_3 L_1 R_3 g_m + C_4 L_1 R_4 g_m)}{C_3 C_4 L_1 L_4 g_m s^3 + C_3 + 2 C_4 + s^2 (2 C_3 C_4 L_1 R_3 g_m + C_3 C_4 L_1 R_4 g_m + C_3 C_4 L_4) + s (2 C_3 C_4 R_3 + C_3 C_4 R_4 + C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$10.103 \quad \text{INVALID-ORDER-103} \quad Z(s) = \left(L_1 s, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_4 R_3 R_4 g_m s^3 + L_1 L_4 R_4 g_m s^2}{2 C_3 C_4 L_1 L_4 R_3 R_4 g_m s^4 + 2 R_4 + s^3 (2 C_3 C_4 L_4 R_3 R_4 + 2 C_3 L_1 L_4 R_3 g_m + C_3 L_1 L_4 R_4 g_m + 2 C_4 L_1 L_4 R_4 g_m) + s^2 (2 C_3 L_1 R_3 R_4 g_m + 2 C_3 L_4 R_3 + C_3 L_4 R_4 + 2 C_4 L_4 R_4 + 2 L_1 L_4 g_m) + s (2 C_3 R_3 R_4 + 2 L_1 R_4 g_m + 2 L_4)}$$

$$10.104 \quad \text{INVALID-ORDER-104} \quad Z(s) = \left(L_1 s, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_4 R_3 R_4 g_m s^4 + L_1 R_4 g_m s + s^3 (C_3 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (C_3 L_1 R_3 R_4 g_m + L_1 L_4 g_m)}{s^4 (2 C_3 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_1 L_4 R_4 g_m) + s^3 (2 C_3 C_4 L_4 R_3 + C_3 C_4 L_4 R_4 + C_3 L_1 L_4 g_m + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m + C_3 L_4 + 2 C_4 L_4) + s (2 C_3 R_3 + C_3 R_4 + 2 L_1 g_m) + 2}$$

$$10.105 \quad \text{INVALID-ORDER-105} \quad Z(s) = \left(L_1 s, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_4 R_3 R_4 g_m s^4 + C_3 L_1 R_3 R_4 g_m s^2 + C_4 L_1 L_4 R_4 g_m s^3 + L_1 R_4 g_m s}{s^4 (2 C_3 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_1 L_4 R_4 g_m) + s^3 (2 C_3 C_4 L_1 R_3 R_4 g_m + 2 C_3 C_4 L_4 R_3 + C_3 C_4 L_4 R_4 + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_3 C_4 R_3 R_4 + 2 C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m + 2 C_4 L_1 R_4 g_m + 2 C_4 L_4) + s (2 C_3 R_3 + C_3 R_4 + 2 C_4 R_4 + 2 L_1 g_m) + 2}$$

$$10.106 \quad \text{INVALID-ORDER-106} \quad Z(s) = \left(L_1 s, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_4 g_m s^3 + L_1 R_4 g_m s}{2 C_3 L_1 L_3 g_m s^3 + s^2 (C_3 L_1 R_4 g_m + 2 C_3 L_3) + s (C_3 R_4 + 2 L_1 g_m) + 2}$$

10.107 INVALID-ORDER-107 $Z(s) = \left(L_1 s, \infty, L_3 s + \frac{1}{C_3 s}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_1 L_3 g_m s^2 + L_1 g_m}{2C_3 C_4 L_1 L_3 g_m s^3 + 2C_3 C_4 L_3 s^2 + C_3 + 2C_4 + s(C_3 L_1 g_m + 2C_4 L_1 g_m)}$$

10.108 INVALID-ORDER-108 $Z(s) = \left(L_1 s, \infty, L_3 s + \frac{1}{C_3 s}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_1 L_3 R_4 g_m s^3 + L_1 R_4 g_m s}{2C_3 C_4 L_1 L_3 R_4 g_m s^4 + s^3(2C_3 C_4 L_3 R_4 + 2C_3 L_1 L_3 g_m) + s^2(C_3 L_1 R_4 g_m + 2C_3 L_3 + 2C_4 L_1 R_4 g_m) + s(C_3 R_4 + 2C_4 R_4 + 2L_1 g_m) + 2}$$

10.109 INVALID-ORDER-109 $Z(s) = \left(L_1 s, \infty, L_3 s + \frac{1}{C_3 s}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 L_1 L_3 R_4 g_m s^3 + C_3 L_1 L_3 g_m s^2 + C_4 L_1 R_4 g_m s + L_1 g_m}{2C_3 C_4 L_1 L_3 g_m s^3 + C_3 + 2C_4 + s^2(C_3 C_4 L_1 R_4 g_m + 2C_3 C_4 L_3) + s(C_3 C_4 R_4 + C_3 L_1 g_m + 2C_4 L_1 g_m)}$$

10.110 INVALID-ORDER-110 $Z(s) = \left(L_1 s, \infty, L_3 s + \frac{1}{C_3 s}, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 g_m s^4 + L_1 g_m + s^2(C_3 L_1 L_3 g_m + C_4 L_1 L_4 g_m)}{C_3 + 2C_4 + s^3(2C_3 C_4 L_1 L_3 g_m + C_3 C_4 L_1 L_4 g_m) + s^2(2C_3 C_4 L_3 + C_3 C_4 L_4) + s(C_3 L_1 g_m + 2C_4 L_1 g_m)}$$

10.111 INVALID-ORDER-111 $Z(s) = \left(L_1 s, \infty, L_3 s + \frac{1}{C_3 s}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_1 L_3 L_4 g_m s^4 + L_1 L_4 g_m s^2}{2C_3 C_4 L_1 L_3 L_4 g_m s^5 + 2C_3 C_4 L_3 L_4 s^4 + 2L_1 g_m s + s^3(2C_3 L_1 L_3 g_m + C_3 L_1 L_4 g_m + 2C_4 L_1 L_4 g_m) + s^2(2C_3 L_3 + C_3 L_4 + 2C_4 L_4) + 2}$$

10.112 INVALID-ORDER-112 $Z(s) = \left(L_1 s, \infty, L_3 s + \frac{1}{C_3 s}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 g_m s^4 + C_3 C_4 L_1 L_3 R_4 g_m s^3 + C_4 L_1 R_4 g_m s + L_1 g_m + s^2(C_3 L_1 L_3 g_m + C_4 L_1 L_4 g_m)}{C_3 + 2C_4 + s^3(2C_3 C_4 L_1 L_3 g_m + C_3 C_4 L_1 L_4 g_m) + s^2(C_3 C_4 L_1 R_4 g_m + 2C_3 C_4 L_3 + C_3 C_4 L_4) + s(C_3 C_4 R_4 + C_3 L_1 g_m + 2C_4 L_1 g_m)}$$

10.113 INVALID-ORDER-113 $Z(s) = \left(L_1 s, \infty, L_3 s + \frac{1}{C_3 s}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_1 L_3 L_4 R_4 g_m s^4 + L_1 L_4 R_4 g_m s^2}{2C_3 C_4 L_1 L_3 L_4 R_4 g_m s^5 + 2R_4 + s^4(2C_3 C_4 L_3 L_4 R_4 + 2C_3 L_1 L_3 L_4 g_m) + s^3(2C_3 L_1 L_3 R_4 g_m + C_3 L_1 L_4 R_4 g_m + 2C_3 L_3 L_4 + 2C_4 L_1 L_4 R_4 g_m) + s^2(2C_3 L_3 R_4 + C_3 L_4 R_4 + 2C_4 L_4 R_4 + 2L_1 L_4 g_m) + s(2L_1 R_4 g_m + 2L_4)}$$

10.114 INVALID-ORDER-114 $Z(s) = \left(L_1 s, \infty, L_3 s + \frac{1}{C_3 s}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_4 g_m s^5 + C_3 L_1 L_3 L_4 g_m s^4 + L_1 L_4 g_m s^2 + L_1 R_4 g_m s + s^3(C_3 L_1 L_3 R_4 g_m + C_4 L_1 L_4 R_4 g_m)}{2C_3 C_4 L_1 L_3 L_4 g_m s^5 + s^4(C_3 C_4 L_1 L_4 R_4 g_m + 2C_3 C_4 L_3 L_4) + s^3(C_3 C_4 L_4 R_4 + 2C_3 L_1 L_3 g_m + C_3 L_1 L_4 g_m + 2C_4 L_1 L_4 g_m) + s^2(C_3 L_1 R_4 g_m + 2C_3 L_3 + C_3 L_4 + 2C_4 L_4) + s(C_3 R_4 + 2L_1 g_m) + 2}$$

10.115 INVALID-ORDER-115 $Z(s) = \left(L_1 s, \infty, L_3 s + \frac{1}{C_3 s}, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_4 g_m s^5 + L_1 R_4 g_m s + s^3(C_3 L_1 L_3 R_4 g_m + C_4 L_1 L_4 R_4 g_m)}{2C_3 C_4 L_1 L_3 L_4 g_m s^5 + s^4(2C_3 C_4 L_1 L_3 R_4 g_m + C_3 C_4 L_1 L_4 R_4 g_m + 2C_3 C_4 L_3 L_4) + s^3(2C_3 C_4 L_3 R_4 + C_3 C_4 L_4 R_4 + 2C_3 L_1 L_3 g_m + 2C_4 L_1 L_4 g_m) + s^2(C_3 L_1 R_4 g_m + 2C_3 L_3 + 2C_4 L_1 R_4 g_m + 2C_4 L_4) + s(C_3 R_4 + 2C_4 R_4 + 2L_1 g_m) + 2}$$

$$10.116 \quad \text{INVALID-ORDER-116} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 R_4 g_m s^2}{C_3 L_1 L_3 R_4 g_m s^3 + R_4 + s^2 (C_3 L_3 R_4 + 2 L_1 L_3 g_m) + s (L_1 R_4 g_m + 2 L_3)}$$

$$10.117 \quad \text{INVALID-ORDER-117} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 g_m s^2}{L_1 g_m s + s^3 (C_3 L_1 L_3 g_m + 2 C_4 L_1 L_3 g_m) + s^2 (C_3 L_3 + 2 C_4 L_3) + 1}$$

$$10.118 \quad \text{INVALID-ORDER-118} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 R_4 g_m s^2}{R_4 + s^3 (C_3 L_1 L_3 R_4 g_m + 2 C_4 L_1 L_3 R_4 g_m) + s^2 (C_3 L_3 R_4 + 2 C_4 L_3 R_4 + 2 L_1 L_3 g_m) + s (L_1 R_4 g_m + 2 L_3)}$$

$$10.119 \quad \text{INVALID-ORDER-119} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 R_4 g_m s^3 + L_1 L_3 g_m s^2}{C_3 C_4 L_1 L_3 R_4 g_m s^4 + s^3 (C_3 C_4 L_3 R_4 + C_3 L_1 L_3 g_m + 2 C_4 L_1 L_3 g_m) + s^2 (C_3 L_3 + C_4 L_1 R_4 g_m + 2 C_4 L_3) + s (C_4 R_4 + L_1 g_m) + 1}$$

$$10.120 \quad \text{INVALID-ORDER-120} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 g_m s^4 + L_1 L_3 g_m s^2}{C_3 C_4 L_1 L_3 L_4 g_m s^5 + C_3 C_4 L_3 L_4 s^4 + L_1 g_m s + s^3 (C_3 L_1 L_3 g_m + 2 C_4 L_1 L_3 g_m + C_4 L_1 L_4 g_m) + s^2 (C_3 L_3 + 2 C_4 L_3 + C_4 L_4) + 1}$$

$$10.121 \quad \text{INVALID-ORDER-121} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 L_4 g_m s^2}{2 L_3 + L_4 + s^3 (C_3 L_1 L_3 L_4 g_m + 2 C_4 L_1 L_3 L_4 g_m) + s^2 (C_3 L_3 L_4 + 2 C_4 L_3 L_4) + s (2 L_1 L_3 g_m + L_1 L_4 g_m)}$$

$$10.122 \quad \text{INVALID-ORDER-122} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 g_m s^4 + C_4 L_1 L_3 R_4 g_m s^3 + L_1 L_3 g_m s^2}{C_3 C_4 L_1 L_3 L_4 g_m s^5 + s^4 (C_3 C_4 L_1 L_3 R_4 g_m + C_3 C_4 L_3 L_4) + s^3 (C_3 C_4 L_3 R_4 + C_3 L_1 L_3 g_m + 2 C_4 L_1 L_3 g_m + C_4 L_1 L_4 g_m) + s^2 (C_3 L_3 + C_4 L_1 R_4 g_m + 2 C_4 L_3 + C_4 L_4) + s (C_4 R_4 + L_1 g_m) + 1}$$

$$10.123 \quad \text{INVALID-ORDER-123} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 L_4 R_4 g_m s^2}{2 L_3 R_4 + L_4 R_4 + s^3 (C_3 L_1 L_3 L_4 R_4 g_m + 2 C_4 L_1 L_3 L_4 R_4 g_m) + s^2 (C_3 L_3 L_4 R_4 + 2 C_4 L_3 L_4 R_4 + 2 L_1 L_3 L_4 g_m) + s (2 L_1 L_3 R_4 g_m + L_1 L_4 R_4 g_m + 2 L_3 L_4)}$$

$$10.124 \quad \text{INVALID-ORDER-124} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 R_4 g_m s^4 + L_1 L_3 L_4 g_m s^3 + L_1 L_3 R_4 g_m s^2}{C_3 C_4 L_1 L_3 L_4 R_4 g_m s^5 + R_4 + s^4 (C_3 C_4 L_3 L_4 R_4 + C_3 L_1 L_3 L_4 g_m + 2 C_4 L_1 L_3 L_4 g_m) + s^3 (C_3 L_1 L_3 R_4 g_m + C_3 L_3 L_4 + C_4 L_1 L_4 R_4 g_m + 2 C_4 L_3 L_4) + s^2 (C_3 L_3 R_4 + C_4 L_4 R_4 + 2 L_1 L_3 g_m + L_1 L_4 g_m) + s (L_1 R_4 g_m + 2 L_3 + L_4)}$$

$$10.125 \quad \text{INVALID-ORDER-125} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 R_4 g_m s^4 + L_1 L_3 R_4 g_m s^2}{C_3 C_4 L_1 L_3 L_4 R_4 g_m s^5 + R_4 + s^4 (C_3 C_4 L_3 L_4 R_4 + 2 C_4 L_1 L_3 L_4 g_m) + s^3 (C_3 L_1 L_3 R_4 g_m + 2 C_4 L_1 L_3 R_4 g_m + C_4 L_1 L_4 R_4 g_m + 2 C_4 L_3 L_4) + s^2 (C_3 L_3 R_4 + 2 C_4 L_3 R_4 + C_4 L_4 R_4 + 2 L_1 L_3 g_m) + s (L_1 R_4 g_m + 2 L_3)}$$

$$\mathbf{10.126 \quad INVALID-ORDER-126} \quad Z(s) = \left(L_1 s, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_4 g_m s^3 + C_3 L_1 R_3 R_4 g_m s^2 + L_1 R_4 g_m s}{2 C_3 L_1 L_3 g_m s^3 + s^2 (2 C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m + 2 C_3 L_3) + s (2 C_3 R_3 + C_3 R_4 + 2 L_1 g_m) + 2}$$

$$\mathbf{10.127 \quad INVALID-ORDER-127} \quad Z(s) = \left(L_1 s, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 g_m s^2 + C_3 L_1 R_3 g_m s + L_1 g_m}{2 C_3 C_4 L_1 L_3 g_m s^3 + C_3 + 2 C_4 + s^2 (2 C_3 C_4 L_1 R_3 g_m + 2 C_3 C_4 L_3) + s (2 C_3 C_4 R_3 + C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$\mathbf{10.128 \quad INVALID-ORDER-128} \quad Z(s) = \left(L_1 s, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_4 g_m s^3 + C_3 L_1 R_3 R_4 g_m s^2 + L_1 R_4 g_m s}{2 C_3 C_4 L_1 L_3 R_4 g_m s^4 + s^3 (2 C_3 C_4 L_1 R_3 R_4 g_m + 2 C_3 C_4 L_3 R_4 + 2 C_3 L_1 L_3 g_m) + s^2 (2 C_3 C_4 R_3 R_4 + 2 C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m + 2 C_3 L_3 + 2 C_4 L_1 R_4 g_m) + s (2 C_3 R_3 + C_3 R_4 + 2 C_4 R_4 + 2 L_1 g_m) + 2}$$

$$\mathbf{10.129 \quad INVALID-ORDER-129} \quad Z(s) = \left(L_1 s, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 R_4 g_m s^3 + L_1 g_m + s^2 (C_3 C_4 L_1 R_3 R_4 g_m + C_3 L_1 L_3 g_m) + s (C_3 L_1 R_3 g_m + C_4 L_1 R_4 g_m)}{2 C_3 C_4 L_1 L_3 g_m s^3 + C_3 + 2 C_4 + s^2 (2 C_3 C_4 L_1 R_3 g_m + C_3 C_4 L_1 R_4 g_m + 2 C_3 C_4 L_3) + s (2 C_3 C_4 R_3 + C_3 C_4 R_4 + C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$\mathbf{10.130 \quad INVALID-ORDER-130} \quad Z(s) = \left(L_1 s, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 g_m s^4 + C_3 C_4 L_1 L_4 R_3 g_m s^3 + C_3 L_1 R_3 g_m s + L_1 g_m + s^2 (C_3 L_1 L_3 g_m + C_4 L_1 L_4 g_m)}{C_3 + 2 C_4 + s^3 (2 C_3 C_4 L_1 L_3 g_m + C_3 C_4 L_1 L_4 g_m) + s^2 (2 C_3 C_4 L_1 R_3 g_m + 2 C_3 C_4 L_3 + C_3 C_4 L_4) + s (2 C_3 C_4 R_3 + C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$\mathbf{10.131 \quad INVALID-ORDER-131} \quad Z(s) = \left(L_1 s, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 L_4 g_m s^4 + C_3 L_1 L_4 R_3 g_m s^3 + L_1 L_4 g_m s^2}{2 C_3 C_4 L_1 L_3 L_4 g_m s^5 + s^4 (2 C_3 C_4 L_1 L_4 R_3 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (2 C_3 C_4 L_4 R_3 + 2 C_3 L_1 L_3 g_m + C_3 L_1 L_4 g_m + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_3 L_1 R_3 g_m + 2 C_3 L_3 + C_3 L_4 + 2 C_4 L_4) + s (2 C_3 R_3 + 2 L_1 g_m) + 2}$$

$$\mathbf{10.132 \quad INVALID-ORDER-132} \quad Z(s) = \left(L_1 s, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 g_m s^4 + L_1 g_m + s^3 (C_3 C_4 L_1 L_3 R_4 g_m + C_3 C_4 L_1 L_4 R_3 g_m) + s^2 (C_3 C_4 L_1 R_3 R_4 g_m + C_3 L_1 L_3 g_m + C_4 L_1 L_4 g_m) + s (C_3 L_1 R_3 g_m + C_4 L_1 R_4 g_m)}{C_3 + 2 C_4 + s^3 (2 C_3 C_4 L_1 L_3 g_m + C_3 C_4 L_1 L_4 g_m) + s^2 (2 C_3 C_4 L_1 R_3 g_m + C_3 C_4 L_1 R_4 g_m + 2 C_3 C_4 L_3 + C_3 C_4 L_4) + s (2 C_3 C_4 R_3 + C_3 C_4 R_4 + C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$\mathbf{10.133 \quad INVALID-ORDER-133} \quad Z(s) = \left(L_1 s, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 L_4 R_4 g_m s^4 + C_3 L_1 L_4 R_3 R_4 g_m s^3 + L_1 L_4 R_4 g_m s^2}{2 C_3 C_4 L_1 L_3 L_4 R_4 g_m s^5 + 2 R_4 + s^4 (2 C_3 C_4 L_1 L_4 R_3 R_4 g_m + 2 C_3 C_4 L_3 L_4 R_4 + 2 C_3 L_1 L_3 L_4 g_m) + s^3 (2 C_3 C_4 L_4 R_3 R_4 + 2 C_3 L_1 L_3 R_4 g_m + 2 C_3 L_1 L_4 R_3 g_m + C_3 L_1 L_4 R_4 g_m + 2 C_3 L_3 L_4 + 2 C_4 L_1 L_4 R_4 g_m) + s^2 (2 C_3 L_1 R_3 R_4 g_m + 2 C_3 L_3 R_4 + 2 C_3 L_4 R_3 + C_3 L_4 R_4 + 2 C_4 L_4)}$$

$$\mathbf{10.134 \quad INVALID-ORDER-134} \quad Z(s) = \left(L_1 s, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_4 g_m s^5 + L_1 R_4 g_m s + s^4 (C_3 C_4 L_1 L_4 R_3 R_4 g_m + C_3 L_1 L_3 L_4 g_m) + s^3 (C_3 L_1 L_3 R_4 g_m + C_3 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (C_3 L_1 R_3 R_4 g_m + L_1 L_4 g_m)}{2 C_3 C_4 L_1 L_3 L_4 g_m s^5 + s^4 (2 C_3 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_1 L_4 R_4 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (2 C_3 C_4 L_4 R_3 + C_3 C_4 L_4 R_4 + 2 C_3 L_1 L_3 g_m + C_3 L_1 L_4 g_m + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m + 2 C_3 L_3 + C_3 L_4 + 2 C_4 L_4) + s (2 C_3 R_3 + C_3 R_4 + 2 L_1 g_m) + 2}$$

$$\mathbf{10.135 \quad INVALID-ORDER-135} \quad Z(s) = \left(L_1 s, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_4 g_m s^5 + C_3 C_4 L_1 L_4 R_3 R_4 g_m s^4 + C_3 L_1 R_3 R_4 g_m s^2 + L_1 R_4 g_m s + s^3 (C_3 L_1 L_3 R_4 g_m + C_4 L_1 L_4 R_4 g_m)}{2 C_3 C_4 L_1 L_3 L_4 g_m s^5 + s^4 (2 C_3 C_4 L_1 L_3 R_4 g_m + 2 C_3 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_1 L_4 R_4 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (2 C_3 C_4 L_1 R_3 R_4 g_m + 2 C_3 C_4 L_3 R_4 + 2 C_3 C_4 L_4 R_3 + C_3 C_4 L_4 R_4 + 2 C_3 L_1 L_3 g_m + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_3 C_4 R_3 R_4 + 2 C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m + 2 C_3 L_3 + 2 C_4 L_4)}$$

$$\mathbf{10.136 \quad INVALID-ORDER-136} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 R_3 R_4 g_m s^2}{C_3 L_1 L_3 R_3 R_4 g_m s^3 + R_3 R_4 + s^2 (C_3 L_3 R_3 R_4 + 2 L_1 L_3 R_3 g_m + L_1 L_3 R_4 g_m) + s (L_1 R_3 R_4 g_m + 2 L_3 R_3 + L_3 R_4)}$$

$$\mathbf{10.137 \quad INVALID-ORDER-137} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 R_3 g_m s^2}{R_3 + s^3 (C_3 L_1 L_3 R_3 g_m + 2 C_4 L_1 L_3 R_3 g_m) + s^2 (C_3 L_3 R_3 + 2 C_4 L_3 R_3 + L_1 L_3 g_m) + s (L_1 R_3 g_m + L_3)}$$

$$\mathbf{10.138 \quad INVALID-ORDER-138} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 R_3 R_4 g_m s^2}{R_3 R_4 + s^3 (C_3 L_1 L_3 R_3 R_4 g_m + 2 C_4 L_1 L_3 R_3 R_4 g_m) + s^2 (C_3 L_3 R_3 R_4 + 2 C_4 L_3 R_3 R_4 + 2 L_1 L_3 R_3 g_m + L_1 L_3 R_4 g_m) + s (L_1 R_3 R_4 g_m + 2 L_3 R_3 + L_3 R_4)}$$

$$\mathbf{10.139 \quad INVALID-ORDER-139} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 R_3 R_4 g_m s^3 + L_1 L_3 R_3 g_m s^2}{C_3 C_4 L_1 L_3 R_3 R_4 g_m s^4 + R_3 + s^3 (C_3 C_4 L_3 R_3 R_4 + C_3 L_1 L_3 R_3 g_m + 2 C_4 L_1 L_3 R_3 g_m + C_4 L_1 L_3 R_4 g_m) + s^2 (C_3 L_3 R_3 + C_4 L_1 R_3 R_4 g_m + 2 C_4 L_3 R_3 + C_4 L_3 R_4 + L_1 L_3 g_m) + s (C_4 R_3 R_4 + L_1 R_3 g_m + L_3)}$$

$$\mathbf{10.140 \quad INVALID-ORDER-140} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 R_3 g_m s^4 + L_1 L_3 R_3 g_m s^2}{C_3 C_4 L_1 L_3 L_4 R_3 g_m s^5 + R_3 + s^4 (C_3 C_4 L_3 L_4 R_3 + C_4 L_1 L_3 L_4 g_m) + s^3 (C_3 L_1 L_3 R_3 g_m + 2 C_4 L_1 L_3 R_3 g_m + C_4 L_1 L_4 R_3 g_m + C_4 L_3 L_4) + s^2 (C_3 L_3 R_3 + 2 C_4 L_3 R_3 + C_4 L_4 R_3 + L_1 L_3 g_m) + s (L_1 R_3 g_m + L_3)}$$

$$\mathbf{10.141 \quad INVALID-ORDER-141} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 L_4 R_3 g_m s^2}{2 L_3 R_3 + L_4 R_3 + s^3 (C_3 L_1 L_3 L_4 R_3 g_m + 2 C_4 L_1 L_3 L_4 R_3 g_m) + s^2 (C_3 L_3 L_4 R_3 + 2 C_4 L_3 L_4 R_3 + L_1 L_3 L_4 g_m) + s (2 L_1 L_3 R_3 g_m + L_1 L_4 R_3 g_m + L_3 L_4)}$$

$$\mathbf{10.142 \quad INVALID-ORDER-142} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 R_3 g_m s^4 + C_4 L_1 L_3 R_3 R_4 g_m s^3 + L_1 L_3 R_3 g_m s^2}{C_3 C_4 L_1 L_3 L_4 R_3 g_m s^5 + R_3 + s^4 (C_3 C_4 L_1 L_3 R_3 R_4 g_m + C_3 C_4 L_3 L_4 R_3 + C_4 L_1 L_3 L_4 g_m) + s^3 (C_3 C_4 L_3 R_3 R_4 + C_3 L_1 L_3 R_3 g_m + 2 C_4 L_1 L_3 R_3 g_m + C_4 L_1 L_3 R_4 g_m + C_4 L_1 L_4 R_3 g_m + C_4 L_3 L_4) + s^2 (C_3 L_3 R_3 + C_4 L_1 R_3 R_4 g_m + 2 C_4 L_3 R_3 + C_4 L_3 R_4 + C_4 L_4 R_3 + L_1 L_3 g_m)}$$

$$\mathbf{10.143 \quad INVALID-ORDER-143} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 L_4 R_3 R_4 g_m s^2}{2 L_3 R_3 R_4 + L_4 R_3 R_4 + s^3 (C_3 L_1 L_3 L_4 R_3 R_4 g_m + 2 C_4 L_1 L_3 L_4 R_3 R_4 g_m) + s^2 (C_3 L_3 L_4 R_3 R_4 + 2 C_4 L_3 L_4 R_3 R_4 + 2 L_1 L_3 L_4 R_3 g_m + L_1 L_3 L_4 R_4 g_m) + s (2 L_1 L_3 R_3 R_4 g_m + L_1 L_4 R_3 R_4 g_m + 2 L_3 L_4 R_3 + L_3 L_4 R_4)}$$

$$\mathbf{10.144 \quad INVALID-ORDER-144} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 R_3 R_4 g_m s^4 + L_1 L_3 L_4 R_3 g_m s^3 + L_1 L_3 R_3 R_4 g_m s^2}{C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^5 + R_3 R_4 + s^4 (C_3 C_4 L_3 L_4 R_3 R_4 + C_3 L_1 L_3 L_4 R_3 g_m + 2 C_4 L_1 L_3 L_4 R_3 g_m + C_4 L_1 L_3 L_4 R_4 g_m) + s^3 (C_3 L_1 L_3 R_3 R_4 g_m + C_3 L_3 L_4 R_3 + C_4 L_1 L_4 R_3 R_4 g_m + 2 C_4 L_3 L_4 R_3 + C_4 L_3 L_4 R_4 + L_1 L_3 L_4 g_m) + s^2 (C_3 L_3 R_3 R_4 + C_4 L_4 R_3 R_4 + 2 L_1 L_3 R_3 g_m)}$$

$$\mathbf{10.145 \quad INVALID-ORDER-145} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 R_3 R_4 g_m s^4 + L_1 L_3 R_3 R_4 g_m s^2}{C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^5 + R_3 R_4 + s^4 (C_3 C_4 L_3 L_4 R_3 R_4 + 2 C_4 L_1 L_3 L_4 R_3 g_m + C_4 L_1 L_3 L_4 R_4 g_m) + s^3 (C_3 L_1 L_3 R_3 R_4 g_m + 2 C_4 L_1 L_3 R_3 R_4 g_m + C_4 L_1 L_4 R_3 R_4 g_m + 2 C_4 L_3 L_4 R_3 + C_4 L_3 L_4 R_4) + s^2 (C_3 L_3 R_3 R_4 + 2 C_4 L_3 R_3 R_4 + C_4 L_4 R_3 R_4 + 2 L_1 L_3 R_3 g_m + L_1 L_3 R_4 g_m)}$$

$$10.146 \quad \text{INVALID-ORDER-146} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_3 R_4 g_m s^3 + L_1 L_3 R_4 g_m s^2 + L_1 R_3 R_4 g_m s}{2R_3 + R_4 + s^3 (2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_3 R_4 g_m) + s^2 (2C_3 L_3 R_3 + C_3 L_3 R_4 + 2L_1 L_3 g_m) + s (2L_1 R_3 g_m + L_1 R_4 g_m + 2L_3)}$$

$$10.147 \quad \text{INVALID-ORDER-147} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_3 g_m s^3 + L_1 L_3 g_m s^2 + L_1 R_3 g_m s}{2C_3 C_4 L_1 L_3 R_3 g_m s^4 + s^3 (2C_3 C_4 L_3 R_3 + C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m) + s^2 (C_3 L_3 + 2C_4 L_1 R_3 g_m + 2C_4 L_3) + s (2C_4 R_3 + L_1 g_m) + 1}$$

$$10.148 \quad \text{INVALID-ORDER-148} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_3 R_4 g_m s^3 + L_1 L_3 R_4 g_m s^2 + L_1 R_3 R_4 g_m s}{2C_3 C_4 L_1 L_3 R_3 R_4 g_m s^4 + 2R_3 + R_4 + s^3 (2C_3 C_4 L_3 R_3 R_4 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_3 R_4 g_m + 2C_4 L_1 L_3 R_4 g_m) + s^2 (2C_3 L_3 R_3 + C_3 L_3 R_4 + 2C_4 L_1 R_3 g_m + 2C_4 L_3 R_4 + 2L_1 L_3 g_m) + s (2C_4 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m + 2L_3)}$$

$$10.149 \quad \text{INVALID-ORDER-149} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 R_3 R_4 g_m s^4 + L_1 R_3 g_m s + s^3 (C_3 L_1 L_3 R_3 g_m + C_4 L_1 L_3 R_4 g_m) + s^2 (C_4 L_1 R_3 R_4 g_m + L_1 L_3 g_m)}{s^4 (2C_3 C_4 L_1 L_3 R_3 g_m + C_3 C_4 L_1 L_3 R_4 g_m) + s^3 (2C_3 C_4 L_3 R_3 + C_3 C_4 L_3 R_4 + C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m) + s^2 (C_3 L_3 + 2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m + 2C_4 L_3) + s (2C_4 R_3 + C_4 R_4 + L_1 g_m) + 1}$$

$$10.150 \quad \text{INVALID-ORDER-150} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_3 g_m s^5 + C_4 L_1 L_3 L_4 g_m s^4 + L_1 L_3 g_m s^2 + L_1 R_3 g_m s + s^3 (C_3 L_1 L_3 R_3 g_m + C_4 L_1 L_4 R_3 g_m)}{C_3 C_4 L_1 L_3 L_4 g_m s^5 + s^4 (2C_3 C_4 L_1 L_3 R_3 g_m + C_3 C_4 L_3 L_4) + s^3 (2C_3 C_4 L_3 R_3 + C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_4 g_m) + s^2 (C_3 L_3 + 2C_4 L_1 R_3 g_m + 2C_4 L_3 + C_4 L_4) + s (2C_4 R_3 + L_1 g_m) + 1}$$

$$10.151 \quad \text{INVALID-ORDER-151} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 L_4 R_3 g_m s^4 + L_1 L_3 L_4 g_m s^3 + L_1 L_4 R_3 g_m s^2}{2C_3 C_4 L_1 L_3 L_4 R_3 g_m s^5 + 2R_3 + s^4 (2C_3 C_4 L_3 L_4 R_3 + C_3 L_1 L_3 L_4 g_m + 2C_4 L_1 L_3 L_4 g_m) + s^3 (2C_3 L_1 L_3 R_3 g_m + C_3 L_3 L_4 + 2C_4 L_1 L_4 R_3 g_m + 2C_4 L_3 L_4) + s^2 (2C_3 L_3 R_3 + 2C_4 L_4 R_3 + 2L_1 L_3 g_m + L_1 L_4 g_m) + s (2L_1 R_3 g_m + 2L_3 + L_4)}$$

$$10.152 \quad \text{INVALID-ORDER-152} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_3 g_m s^5 + L_1 R_3 g_m s + s^4 (C_3 C_4 L_1 L_3 R_3 R_4 g_m + C_4 L_1 L_3 L_4 g_m) + s^3 (C_3 L_1 L_3 R_3 g_m + C_4 L_1 L_3 R_4 g_m + C_4 L_1 L_4 R_3 g_m) + s^2 (C_4 L_1 R_3 R_4 g_m + L_1 L_3 g_m)}{C_3 C_4 L_1 L_3 L_4 g_m s^5 + s^4 (2C_3 C_4 L_1 L_3 R_3 g_m + C_3 C_4 L_1 L_3 R_4 g_m + C_3 C_4 L_3 L_4) + s^3 (2C_3 C_4 L_3 R_3 + C_3 C_4 L_3 R_4 + C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_4 g_m) + s^2 (C_3 L_3 + 2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m + 2C_4 L_3 + C_4 L_4) + s (2C_4 R_3 + C_4 R_4 + L_1 g_m) + 1}$$

$$10.153 \quad \text{INVALID-ORDER-153} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 L_4 R_3 R_4 g_m s^4 + L_1 L_3 L_4 R_4 g_m s^3 + L_1 L_4 R_3 R_4 g_m s^2}{2C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^5 + 2R_3 R_4 + s^4 (2C_3 C_4 L_3 L_4 R_3 R_4 + 2C_3 L_1 L_3 L_4 R_3 g_m + C_3 L_1 L_3 L_4 R_4 g_m + 2C_4 L_1 L_3 L_4 R_4 g_m) + s^3 (2C_3 L_1 L_3 R_3 R_4 g_m + 2C_3 L_3 L_4 R_3 + C_3 L_3 L_4 R_4 + 2C_4 L_1 L_4 R_3 R_4 g_m + 2C_4 L_3 L_4 R_4 + 2L_1 L_3 L_4 g_m) + s^2 (2C_3 L_3 R_3 R_4 + 2C_4 L_4 R_3 R_4 + 2L_1 L_3 R_3 R_4 + L_1 L_4 R_3 R_4) + s (2L_1 R_3 R_4 + 2L_3 + L_4)}$$

$$10.154 \quad \text{INVALID-ORDER-154} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^5 + L_1 R_3 R_4 g_m s + s^4 (C_3 L_1 L_3 L_4 R_3 g_m + C_4 L_1 L_3 L_4 R_4 g_m) + s^3 (C_3 L_1 L_3 R_3 R_4 g_m + C_4 L_1 L_4 R_3 R_4 g_m + L_1 L_3 L_4 g_m) + s^2 (L_1 L_3 R_4 g_m + L_1 L_4 R_3 g_m)}{2R_3 + R_4 + s^5 (2C_3 C_4 L_1 L_3 L_4 R_3 g_m + C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (2C_3 C_4 L_3 L_4 R_3 + C_3 C_4 L_3 L_4 R_4 + C_3 L_1 L_3 L_4 g_m + 2C_4 L_1 L_3 L_4 g_m) + s^3 (2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_3 R_4 g_m + C_3 L_3 L_4 + 2C_4 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m + 2C_4 L_3 L_4) + s^2 (2C_3 L_3 R_3 + C_3 L_3 R_4 + 2C_4 L_3 R_3 + 2C_4 L_3 R_4 + 2L_1 L_3 g_m) + s (2L_1 R_3 + 2L_3 + L_4)}$$

$$10.155 \quad \text{INVALID-ORDER-155} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^5 + C_4 L_1 L_3 L_4 R_4 g_m s^4 + L_1 L_3 R_4 g_m s^2 + L_1 R_3 R_4 g_m s + s^3 (C_3 L_1 L_3 R_3 R_4 g_m + C_4 L_1 L_4 R_3 R_4 g_m)}{2R_3 + R_4 + s^5 (2C_3 C_4 L_1 L_3 L_4 R_3 g_m + C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (2C_3 C_4 L_1 L_3 R_3 R_4 g_m + 2C_3 C_4 L_3 L_4 R_3 + C_3 C_4 L_3 L_4 R_4 + 2C_4 L_1 L_3 L_4 g_m) + s^3 (2C_3 C_4 L_3 R_3 R_4 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_3 R_4 g_m + 2C_4 L_1 L_3 R_4 g_m + 2C_4 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m + 2C_4 L_3 L_4) + s^2 (2C_3 L_3 R_3 + C_3 L_3 R_4 + 2C_4 L_3 R_3 + 2C_4 L_3 R_4 + 2L_1 L_3 g_m) + s (2L_1 R_3 + 2L_3 + L_4)}$$

$$10.156 \quad \text{INVALID-ORDER-156} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_3 R_4 g_m s^3 + L_1 R_3 R_4 g_m s}{2R_3 + R_4 + s^3 (2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_3 R_4 g_m) + s^2 (C_3 L_1 R_3 R_4 g_m + 2C_3 L_3 R_3 + C_3 L_3 R_4) + s (C_3 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$10.157 \quad \text{INVALID-ORDER-157} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_3 g_m s^3 + L_1 R_3 g_m s}{2C_3 C_4 L_1 L_3 R_3 g_m s^4 + s^3 (2C_3 C_4 L_3 R_3 + C_3 L_1 L_3 g_m) + s^2 (C_3 L_1 R_3 g_m + C_3 L_3 + 2C_4 L_1 R_3 g_m) + s (C_3 R_3 + 2C_4 R_3 + L_1 g_m) + 1}$$

$$10.158 \quad \text{INVALID-ORDER-158} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_3 R_4 g_m s^3 + L_1 R_3 R_4 g_m s}{2C_3 C_4 L_1 L_3 R_3 R_4 g_m s^4 + 2R_3 + R_4 + s^3 (2C_3 C_4 L_3 R_3 R_4 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_3 R_4 g_m) + s^2 (C_3 L_1 R_3 R_4 g_m + 2C_3 L_3 R_3 + C_3 L_3 R_4 + 2C_4 L_1 R_3 R_4 g_m) + s (C_3 R_3 R_4 + 2C_4 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$10.159 \quad \text{INVALID-ORDER-159} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 R_3 R_4 g_m s^4 + C_3 L_1 L_3 R_3 g_m s^3 + C_4 L_1 R_3 R_4 g_m s^2 + L_1 R_3 g_m s}{s^4 (2C_3 C_4 L_1 L_3 R_3 g_m + C_3 C_4 L_1 L_3 R_4 g_m) + s^3 (C_3 C_4 L_1 R_3 R_4 g_m + 2C_3 C_4 L_3 R_3 + C_3 C_4 L_3 R_4 + C_3 L_1 L_3 g_m) + s^2 (C_3 C_4 R_3 R_4 + C_3 L_1 R_3 g_m + C_3 L_3 + 2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m) + s (C_3 R_3 + 2C_4 R_3 + C_4 R_4 + L_1 g_m) + 1}$$

$$10.160 \quad \text{INVALID-ORDER-160} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_3 g_m s^5 + L_1 R_3 g_m s + s^3 (C_3 L_1 L_3 R_3 g_m + C_4 L_1 L_4 R_3 g_m)}{C_3 C_4 L_1 L_3 L_4 g_m s^5 + s^4 (2C_3 C_4 L_1 L_3 R_3 g_m + C_3 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_3 L_4) + s^3 (2C_3 C_4 L_3 R_3 + C_3 C_4 L_4 R_3 + C_3 L_1 L_3 g_m + C_4 L_1 L_4 g_m) + s^2 (C_3 L_1 R_3 g_m + C_3 L_3 + 2C_4 L_1 R_3 g_m + C_4 L_4) + s (C_3 R_3 + 2C_4 R_3 + L_1 g_m) + 1}$$

$$10.161 \quad \text{INVALID-ORDER-161} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 L_4 R_3 g_m s^4 + L_1 L_4 R_3 g_m s^2}{2C_3 C_4 L_1 L_3 L_4 R_3 g_m s^5 + 2R_3 + s^4 (2C_3 C_4 L_3 L_4 R_3 + C_3 L_1 L_3 L_4 g_m) + s^3 (2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_4 R_3 g_m + C_3 L_3 L_4 + 2C_4 L_1 L_4 R_3 g_m) + s^2 (2C_3 L_3 R_3 + C_3 L_4 R_3 + 2C_4 L_4 R_3 + L_1 L_4 g_m) + s (2L_1 R_3 g_m + L_4)}$$

$$10.162 \quad \text{INVALID-ORDER-162} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_3 g_m s^5 + C_3 C_4 L_1 L_3 R_3 R_4 g_m s^4 + C_4 L_1 R_3 R_4 g_m s^2 + L_1 R_3 g_m s + s^3 (C_3 L_1 L_3 R_3 g_m + C_4 L_1 L_4 R_3 g_m)}{C_3 C_4 L_1 L_3 L_4 g_m s^5 + s^4 (2C_3 C_4 L_1 L_3 R_3 g_m + C_3 C_4 L_1 L_3 R_4 g_m + C_3 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_3 L_4) + s^3 (C_3 C_4 L_1 R_3 R_4 g_m + 2C_3 C_4 L_3 R_3 + C_3 C_4 L_3 R_4 + C_3 C_4 L_4 R_3 + C_3 L_1 L_3 g_m + C_4 L_1 L_4 g_m) + s^2 (C_3 C_4 R_3 R_4 + C_3 L_1 R_3 g_m + C_3 L_3 + 2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m + C_4 R_4) + s (C_3 R_3 + 2C_4 R_3 + L_1 g_m) + 1}$$

$$10.163 \quad \text{INVALID-ORDER-163} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 L_4 R_3 R_4 g_m s^4 + L_1 L_4 R_3 R_4 g_m s^2}{2C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^5 + 2R_3 R_4 + s^4 (2C_3 C_4 L_3 L_4 R_3 R_4 + 2C_3 L_1 L_3 L_4 R_3 g_m + C_3 L_1 L_3 L_4 R_4 g_m) + s^3 (2C_3 L_1 L_3 R_3 R_4 g_m + C_3 L_1 L_4 R_3 R_4 g_m + 2C_3 L_3 L_4 R_3 + C_3 L_3 L_4 R_4 + 2C_4 L_1 L_4 R_3 R_4 g_m) + s^2 (2C_3 L_3 R_3 R_4 + C_3 L_4 R_3 R_4 + 2C_4 L_4 R_3 R_4 + 2L_1 L_4 R_3 g_m + L_1 L_4 R_4 g_m) + s (C_3 R_3 R_4 + L_1 R_4 g_m) + 1}$$

$$10.164 \quad \text{INVALID-ORDER-164} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^5 + C_3 L_1 L_3 L_4 R_3 g_m s^4 + L_1 L_4 R_3 g_m s^2 + L_1 R_3 R_4 g_m s + s^3 (C_3 L_1 L_3 R_3 R_4 g_m + C_4 L_1 L_4 R_3 R_4 g_m)}{2R_3 + R_4 + s^5 (2C_3 C_4 L_1 L_3 L_4 R_3 g_m + C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (C_3 C_4 L_1 L_4 R_3 R_4 g_m + 2C_3 C_4 L_3 L_4 R_3 + C_3 C_4 L_3 L_4 R_4 + C_3 L_1 L_3 L_4 g_m) + s^3 (C_3 C_4 L_4 R_3 R_4 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_3 R_4 g_m + C_3 L_1 L_4 R_3 g_m + C_3 L_3 L_4 + 2C_4 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (C_3 R_3 R_4 + L_1 R_4 g_m) + s (C_3 R_3 + 2C_4 R_3 + L_1 g_m) + 1}$$

$$10.165 \quad \text{INVALID-ORDER-165} \quad Z(s) = \left(L_1 s, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^5 + L_1 R_3 R_4 g_m s + s^3 (C_3 L_1 L_3 R_3 R_4 g_m + C_4 L_1 L_4 R_3 R_4 g_m)}{2 R_3 + R_4 + s^5 (2 C_3 C_4 L_1 L_3 L_4 R_3 g_m + C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (2 C_3 C_4 L_1 L_3 R_3 R_4 g_m + C_3 C_4 L_1 L_4 R_3 R_4 g_m + 2 C_3 C_4 L_3 L_4 R_3 + C_3 C_4 L_3 L_4 R_4) + s^3 (2 C_3 C_4 L_3 R_3 R_4 + C_3 C_4 L_4 R_3 R_4 + 2 C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_3 R_4 g_m + 2 C_4 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (C_3 L_1 L_3 R_3 R_4 + C_4 L_1 L_4 R_3 R_4) + s (C_3 L_1 L_3 R_3 + C_4 L_1 L_4 R_3 + C_3 L_1 L_3 R_4 + C_4 L_1 L_4 R_4) + C_3 L_1 L_3 + C_4 L_1 L_4}$$

$$10.166 \quad \text{INVALID-ORDER-166} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{R_3 R_4 g_m}{2 R_3 g_m + R_4 g_m + s (2 C_1 R_3 + C_1 R_4)}$$

$$10.167 \quad \text{INVALID-ORDER-167} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_3 g_m s^2 + R_3 g_m}{C_1 C_4 L_4 s^3 + g_m + s^2 (2 C_1 C_4 R_3 + C_4 L_4 g_m) + s (C_1 + 2 C_4 R_3 g_m)}$$

$$10.168 \quad \text{INVALID-ORDER-168} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_3 g_m s}{2 C_1 C_4 L_4 R_3 s^3 + 2 R_3 g_m + s^2 (C_1 L_4 + 2 C_4 L_4 R_3 g_m) + s (2 C_1 R_3 + L_4 g_m)}$$

$$10.169 \quad \text{INVALID-ORDER-169} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_3 g_m s^2 + C_4 R_3 R_4 g_m s + R_3 g_m}{C_1 C_4 L_4 s^3 + g_m + s^2 (2 C_1 C_4 R_3 + C_1 C_4 R_4 + C_4 L_4 g_m) + s (C_1 + 2 C_4 R_3 g_m + C_4 R_4 g_m)}$$

$$10.170 \quad \text{INVALID-ORDER-170} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_3 R_4 g_m s}{2 C_1 C_4 L_4 R_3 R_4 s^3 + 2 R_3 R_4 g_m + s^2 (2 C_1 L_4 R_3 + C_1 L_4 R_4 + 2 C_4 L_4 R_3 R_4 g_m) + s (2 C_1 R_3 R_4 + 2 L_4 R_3 g_m + L_4 R_4 g_m)}$$

$$10.171 \quad \text{INVALID-ORDER-171} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_3 R_4 g_m s^2 + L_4 R_3 g_m s + R_3 R_4 g_m}{2 R_3 g_m + R_4 g_m + s^3 (2 C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4) + s^2 (C_1 L_4 + 2 C_4 L_4 R_3 g_m + C_4 L_4 R_4 g_m) + s (2 C_1 R_3 + C_1 R_4 + L_4 g_m)}$$

$$10.172 \quad \text{INVALID-ORDER-172} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_3 R_4 g_m s^2 + R_3 R_4 g_m}{2 R_3 g_m + R_4 g_m + s^3 (2 C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4) + s^2 (2 C_1 C_4 R_3 R_4 + 2 C_4 L_4 R_3 g_m + C_4 L_4 R_4 g_m) + s (2 C_1 R_3 + C_1 R_4 + 2 C_4 R_3 R_4 g_m)}$$

$$10.173 \quad \text{INVALID-ORDER-173} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{g_m}{s^2 (C_1 C_3 + 2 C_1 C_4) + s (C_3 g_m + 2 C_4 g_m)}$$

$$10.174 \quad \text{INVALID-ORDER-174} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 R_4 g_m s + g_m}{C_1 C_3 C_4 R_4 s^3 + s^2 (C_1 C_3 + 2 C_1 C_4 + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

10.175 INVALID-ORDER-175 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_4 g_m s^2 + g_m}{C_1 C_3 C_4 L_4 s^4 + C_3 C_4 L_4 g_m s^3 + s^2 (C_1 C_3 + 2C_1 C_4) + s (C_3 g_m + 2C_4 g_m)}$$

10.176 INVALID-ORDER-176 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{L_4 g_m s}{2C_1 s + 2g_m + s^3 (C_1 C_3 L_4 + 2C_1 C_4 L_4) + s^2 (C_3 L_4 g_m + 2C_4 L_4 g_m)}$$

10.177 INVALID-ORDER-177 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_4 g_m s^2 + C_4 R_4 g_m s + g_m}{C_1 C_3 C_4 L_4 s^4 + s^3 (C_1 C_3 C_4 R_4 + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

10.178 INVALID-ORDER-178 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{L_4 R_4 g_m s}{2R_4 g_m + s^3 (C_1 C_3 L_4 R_4 + 2C_1 C_4 L_4 R_4) + s^2 (2C_1 L_4 + C_3 L_4 R_4 g_m + 2C_4 L_4 R_4 g_m) + s (2C_1 R_4 + 2L_4 g_m)}$$

10.179 INVALID-ORDER-179 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_4 R_4 g_m s^2 + L_4 g_m s + R_4 g_m}{C_1 C_3 C_4 L_4 R_4 s^4 + 2g_m + s^3 (C_1 C_3 L_4 + 2C_1 C_4 L_4 + C_3 C_4 L_4 R_4 g_m) + s^2 (C_1 C_3 R_4 + C_3 L_4 g_m + 2C_4 L_4 g_m) + s (2C_1 + C_3 R_4 g_m)}$$

10.180 INVALID-ORDER-180 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_4 R_4 g_m s^2 + R_4 g_m}{C_1 C_3 C_4 L_4 R_4 s^4 + 2g_m + s^3 (2C_1 C_4 L_4 + C_3 C_4 L_4 R_4 g_m) + s^2 (C_1 C_3 R_4 + 2C_1 C_4 R_4 + 2C_4 L_4 g_m) + s (2C_1 + C_3 R_4 g_m + 2C_4 R_4 g_m)}$$

10.181 INVALID-ORDER-181 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \frac{R_3}{C_3 R_3 s + 1}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_4 R_3 R_4 g_m s + R_3 g_m}{C_1 C_3 C_4 R_3 R_4 s^3 + g_m + s^2 (C_1 C_3 R_3 + 2C_1 C_4 R_3 + C_1 C_4 R_4 + C_3 C_4 R_3 R_4 g_m) + s (C_1 + C_3 R_3 g_m + 2C_4 R_3 g_m + C_4 R_4 g_m)}$$

10.182 INVALID-ORDER-182 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \frac{R_3}{C_3 R_3 s + 1}, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_4 R_3 g_m s^2 + R_3 g_m}{C_1 C_3 C_4 L_4 R_3 s^4 + g_m + s^3 (C_1 C_4 L_4 + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_3 + 2C_1 C_4 R_3 + C_4 L_4 g_m) + s (C_1 + C_3 R_3 g_m + 2C_4 R_3 g_m)}$$

10.183 INVALID-ORDER-183 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{L_4 R_3 g_m s}{2R_3 g_m + s^3 (C_1 C_3 L_4 R_3 + 2C_1 C_4 L_4 R_3) + s^2 (C_1 L_4 + C_3 L_4 R_3 g_m + 2C_4 L_4 R_3 g_m) + s (2C_1 R_3 + L_4 g_m)}$$

10.184 INVALID-ORDER-184 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \frac{R_3}{C_3 R_3 s + 1}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_4 L_4 R_3 g_m s^2 + C_4 R_3 R_4 g_m s + R_3 g_m}{C_1 C_3 C_4 L_4 R_3 s^4 + g_m + s^3 (C_1 C_3 C_4 R_3 R_4 + C_1 C_4 L_4 + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_3 + 2C_1 C_4 R_3 + C_1 C_4 R_4 + C_3 C_4 R_3 R_4 g_m + C_4 L_4 g_m) + s (C_1 + C_3 R_3 g_m + 2C_4 R_3 g_m + C_4 R_4 g_m)}$$

$$10.185 \quad \text{INVALID-ORDER-185} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_3 R_4 g_m s}{2 R_3 R_4 g_m + s^3 (C_1 C_3 L_4 R_3 R_4 + 2 C_1 C_4 L_4 R_3 R_4) + s^2 (2 C_1 L_4 R_3 + C_1 L_4 R_4 + C_3 L_4 R_3 R_4 g_m + 2 C_4 L_4 R_3 R_4 g_m) + s (2 C_1 R_3 R_4 + 2 L_4 R_3 g_m + L_4 R_4 g_m)}$$

$$10.186 \quad \text{INVALID-ORDER-186} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_3 R_4 g_m s^2 + L_4 R_3 g_m s + R_3 R_4 g_m}{C_1 C_3 C_4 L_4 R_3 R_4 s^4 + 2 R_3 g_m + R_4 g_m + s^3 (C_1 C_3 L_4 R_3 + 2 C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4 + C_3 C_4 L_4 R_3 R_4 g_m) + s^2 (C_1 C_3 R_3 R_4 + C_1 L_4 + C_3 L_4 R_3 g_m + 2 C_4 L_4 R_3 g_m + C_4 L_4 R_4 g_m) + s (2 C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m + L_4 g_m)}$$

$$10.187 \quad \text{INVALID-ORDER-187} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_3 R_4 g_m s^2 + R_3 R_4 g_m}{C_1 C_3 C_4 L_4 R_3 R_4 s^4 + 2 R_3 g_m + R_4 g_m + s^3 (2 C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4 + C_3 C_4 L_4 R_3 R_4 g_m) + s^2 (C_1 C_3 R_3 R_4 + 2 C_1 C_4 R_3 R_4 + 2 C_4 L_4 R_3 g_m + C_4 L_4 R_4 g_m) + s (2 C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m + 2 C_4 R_3 R_4 g_m)}$$

$$10.188 \quad \text{INVALID-ORDER-188} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 R_3 g_m s + g_m}{2 C_1 C_3 C_4 R_3 s^3 + s^2 (C_1 C_3 + 2 C_1 C_4 + 2 C_3 C_4 R_3 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

$$10.189 \quad \text{INVALID-ORDER-189} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 R_3 R_4 g_m s + R_4 g_m}{2 C_1 C_3 C_4 R_3 R_4 s^3 + 2 g_m + s^2 (2 C_1 C_3 R_3 + C_1 C_3 R_4 + 2 C_1 C_4 R_4 + 2 C_3 C_4 R_3 R_4 g_m) + s (2 C_1 + 2 C_3 R_3 g_m + C_3 R_4 g_m + 2 C_4 R_4 g_m)}$$

$$10.190 \quad \text{INVALID-ORDER-190} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 R_3 R_4 g_m s^2 + g_m + s (C_3 R_3 g_m + C_4 R_4 g_m)}{s^3 (2 C_1 C_3 C_4 R_3 + C_1 C_3 C_4 R_4) + s^2 (C_1 C_3 + 2 C_1 C_4 + 2 C_3 C_4 R_3 g_m + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

$$10.191 \quad \text{INVALID-ORDER-191} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_4 R_3 g_m s^3 + C_3 R_3 g_m s + C_4 L_4 g_m s^2 + g_m}{C_1 C_3 C_4 L_4 s^4 + s^3 (2 C_1 C_3 C_4 R_3 + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 + 2 C_1 C_4 + 2 C_3 C_4 R_3 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

$$10.192 \quad \text{INVALID-ORDER-192} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_4 R_3 g_m s^2 + L_4 g_m s}{2 C_1 C_3 C_4 L_4 R_3 s^4 + 2 g_m + s^3 (C_1 C_3 L_4 + 2 C_1 C_4 L_4 + 2 C_3 C_4 L_4 R_3 g_m) + s^2 (2 C_1 C_3 R_3 + C_3 L_4 g_m + 2 C_4 L_4 g_m) + s (2 C_1 + 2 C_3 R_3 g_m)}$$

$$10.193 \quad \text{INVALID-ORDER-193} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_4 R_3 g_m s^3 + g_m + s^2 (C_3 C_4 R_3 R_4 g_m + C_4 L_4 g_m) + s (C_3 R_3 g_m + C_4 R_4 g_m)}{C_1 C_3 C_4 L_4 s^4 + s^3 (2 C_1 C_3 C_4 R_3 + C_1 C_3 C_4 R_4 + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 + 2 C_1 C_4 + 2 C_3 C_4 R_3 g_m + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

$$10.194 \quad \text{INVALID-ORDER-194} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_4 R_3 R_4 g_m s^2 + L_4 R_4 g_m s}{2 C_1 C_3 C_4 L_4 R_3 R_4 s^4 + 2 R_4 g_m + s^3 (2 C_1 C_3 L_4 R_3 + C_1 C_3 L_4 R_4 + 2 C_1 C_4 L_4 R_4 + 2 C_3 C_4 L_4 R_3 R_4 g_m) + s^2 (2 C_1 C_3 R_3 R_4 + 2 C_1 L_4 + 2 C_3 L_4 R_3 g_m + C_3 L_4 R_4 g_m + 2 C_4 L_4 R_4 g_m) + s (2 C_1 R_4 + 2 C_3 R_3 R_4 g_m + 2 L_4 g_m)}$$

$$10.195 \quad \text{INVALID-ORDER-195} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_4 R_3 R_4 g_m s^3 + R_4 g_m + s^2 (C_3 L_4 R_3 g_m + C_4 L_4 R_4 g_m) + s (C_3 R_3 R_4 g_m + L_4 g_m)}{2g_m + s^4 (2C_1 C_3 C_4 L_4 R_3 + C_1 C_3 C_4 L_4 R_4) + s^3 (C_1 C_3 L_4 + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m + C_3 C_4 L_4 R_4 g_m) + s^2 (2C_1 C_3 R_3 + C_1 C_3 R_4 + C_3 L_4 g_m + 2C_4 L_4 g_m) + s (2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m)}$$

$$10.196 \quad \text{INVALID-ORDER-196} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_4 R_3 R_4 g_m s^3 + C_3 R_3 R_4 g_m s + C_4 L_4 R_4 g_m s^2 + R_4 g_m}{2g_m + s^4 (2C_1 C_3 C_4 L_4 R_3 + C_1 C_3 C_4 L_4 R_4) + s^3 (2C_1 C_3 C_4 R_3 R_4 + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m + C_3 C_4 L_4 R_4 g_m) + s^2 (2C_1 C_3 R_3 + C_1 C_3 R_4 + 2C_1 C_4 R_4 + 2C_3 C_4 R_3 R_4 g_m + 2C_4 L_4 g_m) + s (2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m + 2C_4 R_4 g_m)}$$

$$10.197 \quad \text{INVALID-ORDER-197} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_4 g_m s^2 + R_4 g_m}{2C_1 C_3 L_3 s^3 + 2g_m + s^2 (C_1 C_3 R_4 + 2C_3 L_3 g_m) + s (2C_1 + C_3 R_4 g_m)}$$

$$10.198 \quad \text{INVALID-ORDER-198} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 g_m s^2 + g_m}{2C_1 C_3 C_4 L_3 s^4 + 2C_3 C_4 L_3 g_m s^3 + s^2 (C_1 C_3 + 2C_1 C_4) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.199 \quad \text{INVALID-ORDER-199} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_4 g_m s^2 + R_4 g_m}{2C_1 C_3 C_4 L_3 R_4 s^4 + 2g_m + s^3 (2C_1 C_3 L_3 + 2C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_3 R_4 + 2C_1 C_4 R_4 + 2C_3 L_3 g_m) + s (2C_1 + C_3 R_4 g_m + 2C_4 R_4 g_m)}$$

$$10.200 \quad \text{INVALID-ORDER-200} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 R_4 g_m s^3 + C_3 L_3 g_m s^2 + C_4 R_4 g_m s + g_m}{2C_1 C_3 C_4 L_3 s^4 + s^3 (C_1 C_3 C_4 R_4 + 2C_3 C_4 L_3 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.201 \quad \text{INVALID-ORDER-201} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 g_m s^4 + g_m + s^2 (C_3 L_3 g_m + C_4 L_4 g_m)}{s^4 (2C_1 C_3 C_4 L_3 + C_1 C_3 C_4 L_4) + s^3 (2C_3 C_4 L_3 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 + 2C_1 C_4) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.202 \quad \text{INVALID-ORDER-202} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 g_m s^3 + L_4 g_m s}{2C_1 C_3 C_4 L_3 L_4 s^5 + 2C_1 s + 2C_3 C_4 L_3 L_4 g_m s^4 + 2g_m + s^3 (2C_1 C_3 L_3 + C_1 C_3 L_4 + 2C_1 C_4 L_4) + s^2 (2C_3 L_3 g_m + C_3 L_4 g_m + 2C_4 L_4 g_m)}$$

$$10.203 \quad \text{INVALID-ORDER-203} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 g_m s^4 + C_3 C_4 L_3 R_4 g_m s^3 + C_4 R_4 g_m s + g_m + s^2 (C_3 L_3 g_m + C_4 L_4 g_m)}{s^4 (2C_1 C_3 C_4 L_3 + C_1 C_3 C_4 L_4) + s^3 (C_1 C_3 C_4 R_4 + 2C_3 C_4 L_3 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.204 \quad \text{INVALID-ORDER-204} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_4 g_m s^3 + L_4 R_4 g_m s}{2C_1 C_3 C_4 L_3 L_4 R_4 s^5 + 2R_4 g_m + s^4 (2C_1 C_3 L_3 L_4 + 2C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (2C_1 C_3 L_3 R_4 + C_1 C_3 L_4 R_4 + 2C_1 C_4 L_4 R_4 + 2C_3 L_3 L_4 g_m) + s^2 (2C_1 L_4 + 2C_3 L_3 R_4 g_m + C_3 L_4 R_4 g_m + 2C_4 L_4 R_4 g_m) + s (2C_1 R_4 + 2L_4 g_m)}$$

$$10.205 \quad \text{INVALID-ORDER-205} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_4 g_m s^4 + C_3 L_3 L_4 g_m s^3 + L_4 g_m s + R_4 g_m + s^2 (C_3 L_3 R_4 g_m + C_4 L_4 R_4 g_m)}{2C_1 C_3 C_4 L_3 L_4 s^5 + 2g_m + s^4 (C_1 C_3 C_4 L_4 R_4 + 2C_3 C_4 L_3 L_4 g_m) + s^3 (2C_1 C_3 L_3 + C_1 C_3 L_4 + 2C_1 C_4 L_4 + C_3 C_4 L_4 R_4 g_m) + s^2 (C_1 C_3 R_4 + 2C_3 L_3 g_m + C_3 L_4 g_m + 2C_4 L_4 g_m) + s (2C_1 + C_3 R_4 g_m)}$$

$$10.206 \quad \text{INVALID-ORDER-206} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_4 g_m s^4 + R_4 g_m + s^2 (C_3 L_3 R_4 g_m + C_4 L_4 R_4 g_m)}{2C_1 C_3 C_4 L_3 L_4 s^5 + 2g_m + s^4 (2C_1 C_3 C_4 L_3 R_4 + C_1 C_3 C_4 L_4 R_4 + 2C_3 C_4 L_3 L_4 g_m) + s^3 (2C_1 C_3 L_3 + 2C_1 C_4 L_4 + 2C_3 C_4 L_3 R_4 g_m + C_3 C_4 L_4 R_4 g_m) + s^2 (C_1 C_3 R_4 + 2C_1 C_4 R_4 + 2C_3 L_3 g_m + 2C_4 L_4 g_m) + s (2C_1 + C_3 R_4 g_m + 2C_4 R_4 g_m)}$$

$$10.207 \quad \text{INVALID-ORDER-207} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 R_4 g_m s}{C_1 C_3 L_3 R_4 s^3 + R_4 g_m + s^2 (2C_1 L_3 + C_3 L_3 R_4 g_m) + s (C_1 R_4 + 2L_3 g_m)}$$

$$10.208 \quad \text{INVALID-ORDER-208} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 g_m s}{C_1 s + g_m + s^3 (C_1 C_3 L_3 + 2C_1 C_4 L_3) + s^2 (C_3 L_3 g_m + 2C_4 L_3 g_m)}$$

$$10.209 \quad \text{INVALID-ORDER-209} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 R_4 g_m s}{R_4 g_m + s^3 (C_1 C_3 L_3 R_4 + 2C_1 C_4 L_3 R_4) + s^2 (2C_1 L_3 + C_3 L_3 R_4 g_m + 2C_4 L_3 R_4 g_m) + s (C_1 R_4 + 2L_3 g_m)}$$

$$10.210 \quad \text{INVALID-ORDER-210} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 R_4 g_m s^2 + L_3 g_m s}{C_1 C_3 C_4 L_3 R_4 s^4 + g_m + s^3 (C_1 C_3 L_3 + 2C_1 C_4 L_3 + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_4 R_4 + C_3 L_3 g_m + 2C_4 L_3 g_m) + s (C_1 + C_4 R_4 g_m)}$$

$$10.211 \quad \text{INVALID-ORDER-211} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 g_m s^3 + L_3 g_m s}{C_1 C_3 C_4 L_3 L_4 s^5 + C_1 s + C_3 C_4 L_3 L_4 g_m s^4 + g_m + s^3 (C_1 C_3 L_3 + 2C_1 C_4 L_3 + C_1 C_4 L_4) + s^2 (C_3 L_3 g_m + 2C_4 L_3 g_m + C_4 L_4 g_m)}$$

$$10.212 \quad \text{INVALID-ORDER-212} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 L_4 g_m s}{2L_3 g_m + L_4 g_m + s^3 (C_1 C_3 L_3 L_4 + 2C_1 C_4 L_3 L_4) + s^2 (C_3 L_3 L_4 g_m + 2C_4 L_3 L_4 g_m) + s (2C_1 L_3 + C_1 L_4)}$$

$$10.213 \quad \text{INVALID-ORDER-213} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 g_m s^3 + C_4 L_3 R_4 g_m s^2 + L_3 g_m s}{C_1 C_3 C_4 L_3 L_4 s^5 + g_m + s^4 (C_1 C_3 C_4 L_3 R_4 + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 + 2C_1 C_4 L_3 + C_1 C_4 L_4 + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_4 R_4 + C_3 L_3 g_m + 2C_4 L_3 g_m + C_4 L_4 g_m) + s (C_1 + C_4 R_4 g_m)}$$

$$10.214 \quad \text{INVALID-ORDER-214} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 L_4 R_4 g_m s}{2L_3 R_4 g_m + L_4 R_4 g_m + s^3 (C_1 C_3 L_3 L_4 R_4 + 2C_1 C_4 L_3 L_4 R_4) + s^2 (2C_1 L_3 L_4 + C_3 L_3 L_4 R_4 g_m + 2C_4 L_3 L_4 R_4 g_m) + s (2C_1 L_3 R_4 + C_1 L_4 R_4 + 2L_3 L_4 g_m)}$$

$$10.215 \quad \text{INVALID-ORDER-215} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_4 g_m s^3 + L_3 L_4 g_m s^2 + L_3 R_4 g_m s}{C_1 C_3 C_4 L_3 L_4 R_4 s^5 + R_4 g_m + s^4 (C_1 C_3 L_3 L_4 + 2C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (C_1 C_3 L_3 R_4 + C_1 C_4 L_4 R_4 + C_3 L_3 L_4 g_m + 2C_4 L_3 L_4 g_m) + s^2 (2C_1 L_3 + C_1 L_4 + C_3 L_3 R_4 g_m + C_4 L_4 R_4 g_m) + s (C_1 R_4 + 2L_3 g_m + L_4 g_m)}$$

$$10.216 \quad \text{INVALID-ORDER-216} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_4 g_m s^3 + L_3 R_4 g_m s}{C_1 C_3 C_4 L_3 L_4 R_4 s^5 + R_4 g_m + s^4 (2C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (C_1 C_3 L_3 R_4 + 2C_1 C_4 L_3 R_4 + C_1 C_4 L_4 R_4 + 2C_4 L_3 L_4 g_m) + s^2 (2C_1 L_3 + C_3 L_3 R_4 g_m + 2C_4 L_3 R_4 g_m + C_4 L_4 R_4 g_m) + s (C_1 R_4 + 2L_3 g_m)}$$

$$10.217 \quad \text{INVALID-ORDER-217} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_4 g_m s^2 + C_3 R_3 R_4 g_m s + R_4 g_m}{2C_1 C_3 L_3 s^3 + 2g_m + s^2 (2C_1 C_3 R_3 + C_1 C_3 R_4 + 2C_3 L_3 g_m) + s (2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m)}$$

$$10.218 \quad \text{INVALID-ORDER-218} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 g_m s^2 + C_3 R_3 g_m s + g_m}{2C_1 C_3 C_4 L_3 s^4 + s^3 (2C_1 C_3 C_4 R_3 + 2C_3 C_4 L_3 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + 2C_3 C_4 R_3 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.219 \quad \text{INVALID-ORDER-219} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_4 g_m s^2 + C_3 R_3 R_4 g_m s + R_4 g_m}{2C_1 C_3 C_4 L_3 R_4 s^4 + 2g_m + s^3 (2C_1 C_3 C_4 R_3 R_4 + 2C_1 C_3 L_3 + 2C_3 C_4 L_3 R_4 g_m) + s^2 (2C_1 C_3 R_3 + C_1 C_3 R_4 + 2C_1 C_4 R_4 + 2C_3 C_4 R_3 R_4 g_m + 2C_3 L_3 g_m) + s (2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m + 2C_4 R_4 g_m)}$$

$$10.220 \quad \text{INVALID-ORDER-220} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 R_4 g_m s^3 + g_m + s^2 (C_3 C_4 R_3 R_4 g_m + C_3 L_3 g_m) + s (C_3 R_3 g_m + C_4 R_4 g_m)}{2C_1 C_3 C_4 L_3 s^4 + s^3 (2C_1 C_3 C_4 R_3 + C_1 C_3 C_4 R_4 + 2C_3 C_4 L_3 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + 2C_3 C_4 R_3 g_m + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.221 \quad \text{INVALID-ORDER-221} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 g_m s^4 + C_3 C_4 L_4 R_3 g_m s^3 + C_3 R_3 g_m s + g_m + s^2 (C_3 L_3 g_m + C_4 L_4 g_m)}{s^4 (2C_1 C_3 C_4 L_3 + C_1 C_3 C_4 L_4) + s^3 (2C_1 C_3 C_4 R_3 + 2C_3 C_4 L_3 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + 2C_3 C_4 R_3 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.222 \quad \text{INVALID-ORDER-222} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 g_m s^3 + C_3 L_4 R_3 g_m s^2 + L_4 g_m s}{2C_1 C_3 C_4 L_3 L_4 s^5 + 2g_m + s^4 (2C_1 C_3 C_4 L_4 R_3 + 2C_3 C_4 L_3 L_4 g_m) + s^3 (2C_1 C_3 L_3 + C_1 C_3 L_4 + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m) + s^2 (2C_1 C_3 R_3 + 2C_3 L_3 g_m + C_3 L_4 g_m + 2C_4 L_4 g_m) + s (2C_1 + 2C_3 R_3 g_m)}$$

$$10.223 \quad \text{INVALID-ORDER-223} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 g_m s^4 + g_m + s^3 (C_3 C_4 L_3 R_4 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_3 C_4 R_3 R_4 g_m + C_3 L_3 g_m + C_4 L_4 g_m) + s (C_3 R_3 g_m + C_4 R_4 g_m)}{s^4 (2C_1 C_3 C_4 L_3 + C_1 C_3 C_4 L_4) + s^3 (2C_1 C_3 C_4 R_3 + C_1 C_3 C_4 R_4 + 2C_3 C_4 L_3 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + 2C_3 C_4 R_3 g_m + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.224 \quad INVALID-ORDER-224} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_4 g_m s^3 + C_3 L_4 R_3 R_4 g_m s^2 + L_4 R_4 g_m s}{2C_1 C_3 C_4 L_3 L_4 R_4 s^5 + 2R_4 g_m + s^4 (2C_1 C_3 C_4 L_4 R_3 R_4 + 2C_1 C_3 L_3 L_4 + 2C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (2C_1 C_3 L_3 R_4 + 2C_1 C_3 L_4 R_3 + C_1 C_3 L_4 R_4 + 2C_1 C_4 L_4 R_4 + 2C_3 C_4 L_4 R_3 R_4 g_m + 2C_3 L_3 L_4 g_m) + s^2 (2C_1 C_3 R_3 R_4 + 2C_1 L_4 + 2C_3 L_3 R_4 g_m + 2C_3 L_4 R_3 g_m + C_3 L_4 R_4 g_m) + s (C_1 R_3 R_4 + L_4 g_m)}$$

$$\mathbf{10.225 \quad INVALID-ORDER-225} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_4 g_m s^4 + R_4 g_m + s^3 (C_3 C_4 L_4 R_3 R_4 g_m + C_3 L_3 L_4 g_m) + s^2 (C_3 L_3 R_4 g_m + C_3 L_4 R_3 g_m + C_4 L_4 R_4 g_m) + s (C_3 R_3 R_4 g_m + L_4 g_m)}{2C_1 C_3 C_4 L_3 L_4 s^5 + 2g_m + s^4 (2C_1 C_3 C_4 L_4 R_3 + C_1 C_3 C_4 L_4 R_4 + 2C_3 C_4 L_3 L_4 g_m) + s^3 (2C_1 C_3 L_3 + C_1 C_3 L_4 + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m + C_3 C_4 L_4 R_4 g_m) + s^2 (2C_1 C_3 R_3 + C_1 C_3 R_4 + 2C_3 L_3 g_m + C_3 L_4 g_m + 2C_4 L_4 g_m) + s (2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m)}$$

$$\mathbf{10.226 \quad INVALID-ORDER-226} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_4 g_m s^4 + C_3 C_4 L_4 R_3 R_4 g_m s^3 + C_3 R_3 R_4 g_m s + R_4 g_m + s^2 (C_3 L_3 R_4 g_m + C_4 L_4 R_4 g_m)}{2C_1 C_3 C_4 L_3 L_4 s^5 + 2g_m + s^4 (2C_1 C_3 C_4 L_3 R_4 + 2C_1 C_3 C_4 L_4 R_3 + C_1 C_3 C_4 L_4 R_4 + 2C_3 C_4 L_3 L_4 g_m) + s^3 (2C_1 C_3 C_4 R_3 R_4 + 2C_1 C_3 L_3 + 2C_1 C_4 L_4 + 2C_3 C_4 L_3 R_4 g_m + 2C_3 C_4 L_4 R_3 g_m + C_3 C_4 L_4 R_4 g_m) + s^2 (2C_1 C_3 R_3 + C_1 C_3 R_4 + 2C_1 C_4 R_4 + 2C_3 C_4 R_3 R_4 g_m + 2C_3 L_3 g_m) + s (C_1 R_3 R_4 + 2L_3 R_3 g_m + L_3 R_4 g_m)}$$

$$\mathbf{10.227 \quad INVALID-ORDER-227} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 R_3 R_4 g_m s}{C_1 C_3 L_3 R_3 R_4 s^3 + R_3 R_4 g_m + s^2 (2C_1 L_3 R_3 + C_1 L_3 R_4 + C_3 L_3 R_3 R_4 g_m) + s (C_1 R_3 R_4 + 2L_3 R_3 g_m + L_3 R_4 g_m)}$$

$$\mathbf{10.228 \quad INVALID-ORDER-228} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 R_3 g_m s}{R_3 g_m + s^3 (C_1 C_3 L_3 R_3 + 2C_1 C_4 L_3 R_3) + s^2 (C_1 L_3 + C_3 L_3 R_3 g_m + 2C_4 L_3 R_3 g_m) + s (C_1 R_3 + L_3 g_m)}$$

$$\mathbf{10.229 \quad INVALID-ORDER-229} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 R_3 R_4 g_m s}{R_3 R_4 g_m + s^3 (C_1 C_3 L_3 R_3 R_4 + 2C_1 C_4 L_3 R_3 R_4) + s^2 (2C_1 L_3 R_3 + C_1 L_3 R_4 + C_3 L_3 R_3 R_4 g_m + 2C_4 L_3 R_3 R_4 g_m) + s (C_1 R_3 R_4 + 2L_3 R_3 g_m + L_3 R_4 g_m)}$$

$$\mathbf{10.230 \quad INVALID-ORDER-230} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 R_3 R_4 g_m s^2 + L_3 R_3 g_m s}{C_1 C_3 C_4 L_3 R_3 R_4 s^4 + R_3 g_m + s^3 (C_1 C_3 L_3 R_3 + 2C_1 C_4 L_3 R_3 + C_1 C_4 L_3 R_4 + C_3 C_4 L_3 R_3 R_4 g_m) + s^2 (C_1 C_4 R_3 R_4 + C_1 L_3 + C_3 L_3 R_3 g_m + 2C_4 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_1 R_3 + C_4 R_3 R_4 g_m + L_3 g_m)}$$

$$\mathbf{10.231 \quad INVALID-ORDER-231} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_3 g_m s^3 + L_3 R_3 g_m s}{C_1 C_3 C_4 L_3 L_4 R_3 s^5 + R_3 g_m + s^4 (C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (C_1 C_3 L_3 R_3 + 2C_1 C_4 L_3 R_3 + C_1 C_4 L_4 R_3 + C_4 L_3 L_4 g_m) + s^2 (C_1 L_3 + C_3 L_3 R_3 g_m + 2C_4 L_3 R_3 g_m + C_4 L_4 R_3 g_m) + s (C_1 R_3 + L_3 g_m)}$$

$$\mathbf{10.232 \quad INVALID-ORDER-232} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 L_4 R_3 g_m s}{2L_3 R_3 g_m + L_4 R_3 g_m + s^3 (C_1 C_3 L_3 L_4 R_3 + 2C_1 C_4 L_3 L_4 R_3) + s^2 (C_1 L_3 L_4 + C_3 L_3 L_4 R_3 g_m + 2C_4 L_3 L_4 R_3 g_m) + s (2C_1 L_3 R_3 + C_1 L_4 R_3 + L_3 L_4 g_m)}$$

$$\mathbf{10.233 \quad INVALID-ORDER-233} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_3 g_m s^3 + C_4 L_3 R_3 R_4 g_m s^2 + L_3 R_3 g_m s}{C_1 C_3 C_4 L_3 L_4 R_3 s^5 + R_3 g_m + s^4 (C_1 C_3 C_4 L_3 R_3 R_4 + C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (C_1 C_3 L_3 R_3 + 2C_1 C_4 L_3 R_3 + C_1 C_4 L_3 R_4 + C_1 C_4 L_4 R_3 + C_3 C_4 L_3 R_3 R_4 g_m + C_4 L_3 L_4 g_m) + s^2 (C_1 C_4 R_3 R_4 + C_1 L_3 + C_3 L_3 R_3 g_m + 2C_4 L_3 R_3 g_m + C_4 L_3 R_4 g_m + C_4 L_4 R_3 g_m) + s (C_1 R_3 + L_3 g_m)}$$

$$\mathbf{10.234 \quad INVALID-ORDER-234} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 L_4 R_3 R_4 g_m s}{2L_3 R_3 R_4 g_m + L_4 R_3 R_4 g_m + s^3 (C_1 C_3 L_3 L_4 R_3 R_4 + 2C_1 C_4 L_3 L_4 R_3 R_4) + s^2 (2C_1 L_3 L_4 R_3 + C_1 L_3 L_4 R_4 + C_3 L_3 L_4 R_3 R_4 g_m + 2C_4 L_3 L_4 R_3 R_4 g_m) + s (2C_1 L_3 R_3 R_4 + C_1 L_4 R_3 R_4 + 2L_3 L_4 R_3 g_m + L_3 L_4 R_4 g_m)}$$

$$\mathbf{10.235 \quad INVALID-ORDER-235} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_3 R_4 g_m s^3 + L_3 L_4 R_3 g_m s^2 + L_3 R_3 R_4 g_m s}{C_1 C_3 C_4 L_3 L_4 R_3 R_4 s^5 + R_3 R_4 g_m + s^4 (C_1 C_3 L_3 L_4 R_3 + 2C_1 C_4 L_3 L_4 R_3 + C_1 C_4 L_3 L_4 R_4 + C_3 C_4 L_3 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_3 R_3 R_4 + C_1 C_4 L_4 R_3 R_4 + C_1 L_3 L_4 + C_3 L_3 L_4 R_3 g_m + 2C_4 L_3 L_4 R_3 g_m + C_4 L_3 L_4 R_4 g_m) + s^2 (2C_1 L_3 R_3 + C_1 L_3 R_4 + C_1 L_4 R_3 + C_3 L_3 R_3 R_4 g_m)}$$

$$\mathbf{10.236 \quad INVALID-ORDER-236} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_3 R_4 g_m s^3 + L_3 R_3 R_4 g_m s}{C_1 C_3 C_4 L_3 L_4 R_3 R_4 s^5 + R_3 R_4 g_m + s^4 (2C_1 C_4 L_3 L_4 R_3 + C_1 C_4 L_3 L_4 R_4 + C_3 C_4 L_3 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_3 R_3 R_4 + 2C_1 C_4 L_3 R_3 R_4 + C_1 C_4 L_4 R_3 R_4 + 2C_4 L_3 L_4 R_3 g_m + C_4 L_3 L_4 R_4 g_m) + s^2 (2C_1 L_3 R_3 + C_1 L_3 R_4 + C_3 L_3 R_3 R_4 g_m + 2C_4 L_3 R_3 R_4 g_m + C_4 L_4 R_3 R_4 g_m)}$$

$$\mathbf{10.237 \quad INVALID-ORDER-237} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_3 R_4 g_m s^2 + L_3 R_4 g_m s + R_3 R_4 g_m}{2R_3 g_m + R_4 g_m + s^3 (2C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4) + s^2 (2C_1 L_3 + 2C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m) + s (2C_1 R_3 + C_1 R_4 + 2L_3 g_m)}$$

$$\mathbf{10.238 \quad INVALID-ORDER-238} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_3 g_m s^2 + L_3 g_m s + R_3 g_m}{2C_1 C_3 C_4 L_3 R_3 s^4 + g_m + s^3 (C_1 C_3 L_3 + 2C_1 C_4 L_3 + 2C_3 C_4 L_3 R_3 g_m) + s^2 (2C_1 C_4 R_3 + C_3 L_3 g_m + 2C_4 L_3 g_m) + s (C_1 + 2C_4 R_3 g_m)}$$

$$\mathbf{10.239 \quad INVALID-ORDER-239} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_3 R_4 g_m s^2 + L_3 R_4 g_m s + R_3 R_4 g_m}{2C_1 C_3 C_4 L_3 R_3 R_4 s^4 + 2R_3 g_m + R_4 g_m + s^3 (2C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4 + 2C_1 C_4 L_3 R_4 + 2C_3 C_4 L_3 R_3 R_4 g_m) + s^2 (2C_1 C_4 R_3 R_4 + 2C_1 L_3 + 2C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m + 2C_4 L_3 R_4 g_m) + s (2C_1 R_3 + C_1 R_4 + 2C_4 R_3 R_4 g_m + 2L_3 g_m)}$$

$$\mathbf{10.240 \quad INVALID-ORDER-240} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 R_3 R_4 g_m s^3 + R_3 g_m + s^2 (C_3 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_4 R_3 R_4 g_m + L_3 g_m)}{g_m + s^4 (2C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_3 R_4) + s^3 (C_1 C_3 L_3 + 2C_1 C_4 L_3 + 2C_3 C_4 L_3 R_3 g_m + C_3 C_4 L_3 R_4 g_m) + s^2 (2C_1 C_4 R_3 + C_1 C_4 R_4 + C_3 L_3 g_m + 2C_4 L_3 g_m) + s (C_1 + 2C_4 R_3 g_m + C_4 R_4 g_m)}$$

$$\mathbf{10.241 \quad INVALID-ORDER-241} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_3 g_m s^4 + C_4 L_3 L_4 g_m s^3 + L_3 g_m s + R_3 g_m + s^2 (C_3 L_3 R_3 g_m + C_4 L_4 R_3 g_m)}{C_1 C_3 C_4 L_3 L_4 s^5 + g_m + s^4 (2C_1 C_3 C_4 L_3 R_3 + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 + 2C_1 C_4 L_3 + C_1 C_4 L_4 + 2C_3 C_4 L_3 R_3 g_m) + s^2 (2C_1 C_4 R_3 + C_3 L_3 g_m + 2C_4 L_3 g_m + C_4 L_4 g_m) + s (C_1 + 2C_4 R_3 g_m)}$$

$$\mathbf{10.242 \quad INVALID-ORDER-242} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_3 g_m s^3 + L_3 L_4 g_m s^2 + L_4 R_3 g_m s}{2C_1 C_3 C_4 L_3 L_4 R_3 s^5 + 2R_3 g_m + s^4 (C_1 C_3 L_3 L_4 + 2C_1 C_4 L_3 L_4 + 2C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (2C_1 C_3 L_3 R_3 + 2C_1 C_4 L_4 R_3 + C_3 L_3 L_4 g_m + 2C_4 L_3 L_4 g_m) + s^2 (2C_1 L_3 + C_1 L_4 + 2C_3 L_3 R_3 g_m + 2C_4 L_4 R_3 g_m) + s (2C_1 R_3 + 2L_3 g_m + L_4 g_m)}$$

$$\mathbf{10.243 \quad INVALID-ORDER-243} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_3 g_m s^4 + R_3 g_m + s^3 (C_3 C_4 L_3 R_3 R_4 g_m + C_4 L_3 L_4 g_m) + s^2 (C_3 L_3 R_3 g_m + C_4 L_3 R_4 g_m + C_4 L_4 R_3 g_m) + s (C_4 R_3 R_4 g_m + L_3 g_m)}{C_1 C_3 C_4 L_3 L_4 s^5 + g_m + s^4 (2C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_3 R_4 + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 + 2C_1 C_4 L_3 + C_1 C_4 L_4 + 2C_3 C_4 L_3 R_3 g_m + C_3 C_4 L_3 R_4 g_m) + s^2 (2C_1 C_4 R_3 + C_1 C_4 R_4 + C_3 L_3 g_m + 2C_4 L_3 g_m + C_4 L_4 g_m) + s (C_1 + 2C_4 R_3 g_m + C_4 R_4 g_m)}$$

$$\mathbf{10.244 \quad INVALID-ORDER-244} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_3 R_4 g_m s^3 + L_3 L_4 R_4 g_m s^2 + L_4 R_3 R_4 g_m s}{2C_1 C_3 C_4 L_3 L_4 R_3 R_4 s^5 + 2R_3 R_4 g_m + s^4 (2C_1 C_3 L_3 L_4 R_3 + C_1 C_3 L_3 L_4 R_4 + 2C_1 C_4 L_3 L_4 R_4 + 2C_3 C_4 L_3 L_4 R_3 R_4 g_m) + s^3 (2C_1 C_3 L_3 R_3 R_4 + 2C_1 C_4 L_4 R_3 R_4 + 2C_1 L_3 L_4 + 2C_3 L_3 L_4 R_3 g_m + C_3 L_3 L_4 R_4 g_m + 2C_4 L_3 L_4 R_4 g_m) + s^2 (2C_1 L_3 R_4 + 2C_1 L_4 R_3 + C_1 L_4 R_4 + 2C_3 L_3 R_3 R_4 g_m + C_3 L_3 R_4 R_3 g_m + C_4 L_3 L_4 R_3 g_m) + s (L_3 R_4 g_m + L_4 R_3 g_m)}$$

$$\mathbf{10.245 \quad INVALID-ORDER-245} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_3 R_4 g_m s^4 + R_3 R_4 g_m + s^3 (C_3 L_3 L_4 R_3 g_m + C_4 L_3 L_4 R_4 g_m) + s^2 (C_3 L_3 R_3 R_4 g_m + C_4 L_4 R_3 R_4 g_m + L_3 L_4 g_m) + s (L_3 R_4 g_m + L_4 R_3 g_m)}{2R_3 g_m + R_4 g_m + s^5 (2C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_3 C_4 L_3 L_4 R_4) + s^4 (C_1 C_3 L_3 L_4 + 2C_1 C_4 L_3 L_4 + 2C_3 C_4 L_3 L_4 R_3 g_m + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (2C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4 + 2C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4 + C_3 L_3 L_4 g_m + 2C_4 L_3 L_4 g_m) + s^2 (2C_1 L_3 + C_1 L_4 + 2C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m + C_4 L_3 L_4 R_3 g_m) + s (L_3 R_4 g_m + L_4 R_3 g_m)}$$

$$\mathbf{10.246 \quad INVALID-ORDER-246} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_3 R_4 g_m s^4 + C_4 L_3 L_4 R_4 g_m s^3 + L_3 R_4 g_m s + R_3 R_4 g_m + s^2 (C_3 L_3 R_3 R_4 g_m + C_4 L_4 R_3 R_4 g_m)}{2R_3 g_m + R_4 g_m + s^5 (2C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_3 C_4 L_3 L_4 R_4) + s^4 (2C_1 C_3 C_4 L_3 R_3 R_4 + 2C_1 C_4 L_3 L_4 + 2C_3 C_4 L_3 L_4 R_3 g_m + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (2C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4 + 2C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4 + C_3 L_3 L_4 g_m + 2C_4 L_3 L_4 g_m) + s^2 (2C_1 L_3 + C_1 L_4 + 2C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m + C_4 L_3 L_4 R_3 g_m) + s (L_3 R_4 g_m + L_4 R_3 g_m)}$$

$$\mathbf{10.247 \quad INVALID-ORDER-247} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_3 R_4 g_m s^2 + R_3 R_4 g_m}{2R_3 g_m + R_4 g_m + s^3 (2C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4) + s^2 (C_1 C_3 R_3 R_4 + 2C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m) + s (2C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m)}$$

$$\mathbf{10.248 \quad INVALID-ORDER-248} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_3 g_m s^2 + R_3 g_m}{2C_1 C_3 C_4 L_3 R_3 s^4 + g_m + s^3 (C_1 C_3 L_3 + 2C_3 C_4 L_3 R_3 g_m) + s^2 (C_1 C_3 R_3 + 2C_1 C_4 R_3 + C_3 L_3 g_m) + s (C_1 + C_3 R_3 g_m + 2C_4 R_3 g_m)}$$

$$\mathbf{10.249 \quad INVALID-ORDER-249} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_3 R_4 g_m s^2 + R_3 R_4 g_m}{2C_1 C_3 C_4 L_3 R_3 R_4 s^4 + 2R_3 g_m + R_4 g_m + s^3 (2C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4 + 2C_3 C_4 L_3 R_3 R_4 g_m) + s^2 (C_1 C_3 R_3 R_4 + 2C_1 C_4 R_3 R_4 + 2C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m) + s (2C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m + 2C_4 R_3 R_4 g_m)}$$

$$\mathbf{10.250 \quad INVALID-ORDER-250} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 R_3 R_4 g_m s^3 + C_3 L_3 R_3 g_m s^2 + C_4 R_3 R_4 g_m s + R_3 g_m}{g_m + s^4 (2C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_3 R_4) + s^3 (C_1 C_3 C_4 R_3 R_4 + C_1 C_3 L_3 + 2C_3 C_4 L_3 R_3 g_m + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_3 R_3 + 2C_1 C_4 R_3 + C_1 C_4 R_4 + C_3 C_4 R_3 R_4 g_m + C_3 L_3 g_m) + s (C_1 + C_3 R_3 g_m + 2C_4 R_3 g_m + C_4 R_4 g_m)}$$

$$\mathbf{10.251 \quad INVALID-ORDER-251} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_3 g_m s^4 + R_3 g_m + s^2 (C_3 L_3 R_3 g_m + C_4 L_4 R_3 g_m)}{C_1 C_3 C_4 L_3 L_4 s^5 + g_m + s^4 (2C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_4 R_3 + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 + C_1 C_4 L_4 + 2C_3 C_4 L_3 R_3 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_3 + 2C_1 C_4 R_3 + C_3 L_3 g_m + C_4 L_4 g_m) + s (C_1 + C_3 R_3 g_m + 2C_4 R_3 g_m)}$$

$$\mathbf{10.252 \quad INVALID-ORDER-252} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_3 g_m s^3 + L_4 R_3 g_m s}{2C_1 C_3 C_4 L_3 L_4 R_3 s^5 + 2R_3 g_m + s^4 (C_1 C_3 L_3 L_4 + 2C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (2C_1 C_3 L_3 R_3 + C_1 C_3 L_4 R_3 + 2C_1 C_4 L_4 R_3 + C_3 L_3 L_4 g_m) + s^2 (C_1 L_4 + 2C_3 L_3 R_3 g_m + C_3 L_4 R_3 g_m + 2C_4 L_4 R_3 g_m) + s (2C_1 R_3 + L_4 g_m)}$$

$$\mathbf{10.253 \quad INVALID-ORDER-253} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_3 g_m s^4 + C_3 C_4 L_3 R_3 R_4 g_m s^3 + C_4 R_3 R_4 g_m s + R_3 g_m + s^2 (C_3 L_3 R_3 g_m + C_4 L_4 R_3 g_m)}{C_1 C_3 C_4 L_3 L_4 s^5 + g_m + s^4 (2C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_3 R_4 + C_1 C_3 C_4 L_4 R_3 + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 C_4 R_3 R_4 + C_1 C_3 L_3 + C_1 C_4 L_4 + 2C_3 C_4 L_3 R_3 g_m + C_3 C_4 L_3 R_4 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_3 + 2C_1 C_4 R_3 + C_1 C_4 R_4 + C_3 C_4 R_3 R_4 g_m + C_3 L_3 g_m + C_4 L_4 g_m)}$$

$$\mathbf{10.254 \quad INVALID-ORDER-254} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_3 R_4 g_m s^3 + L_4 R_3 R_4 g_m s}{2C_1 C_3 C_4 L_3 L_4 R_3 R_4 s^5 + 2R_3 R_4 g_m + s^4 (2C_1 C_3 L_3 L_4 R_3 + C_1 C_3 L_3 L_4 R_4 + 2C_3 C_4 L_3 L_4 R_3 R_4 g_m) + s^3 (2C_1 C_3 L_3 R_3 R_4 + C_1 C_3 L_4 R_3 R_4 + 2C_1 C_4 L_4 R_3 R_4 + 2C_3 L_3 L_4 R_3 g_m + C_3 L_3 L_4 R_4 g_m) + s^2 (2C_1 L_4 R_3 + C_1 L_4 R_4 + 2C_3 L_3 R_3 R_4 g_m + C_3 L_4 R_3 R_4 g_m + 2C_4 L_4 R_3 R_4 g_m)}$$

$$\mathbf{10.255 \quad INVALID-ORDER-255} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_3 R_4 g_m s^4 + C_3 L_3 L_4 R_3 g_m s^3 + L_4 R_3 g_m s + R_3 R_4 g_m + s^2 (C_3 L_3 R_3 R_4 g_m + C_4 L_4 R_3 R_4 g_m)}{2R_3 g_m + R_4 g_m + s^5 (2C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_3 C_4 L_3 L_4 R_4) + s^4 (C_1 C_3 C_4 L_4 R_3 R_4 + C_1 C_3 L_3 L_4 + 2C_3 C_4 L_3 L_4 R_3 g_m + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (2C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4 + C_1 C_3 L_4 R_3 + 2C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4 + C_3 C_4 L_4 R_3 R_4 g_m + C_3 L_3 L_4 g_m) + s^2 (C_1 C_3 R_3 R_4)}$$

$$\mathbf{10.256 \quad INVALID-ORDER-256} \quad Z(s) = \left(\frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_3 R_4 g_m s^4 + R_3 R_4 g_m + s^2 (C_3 L_3 R_3 R_4 g_m + C_4 L_4 R_3 R_4 g_m)}{2R_3 g_m + R_4 g_m + s^5 (2C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_3 C_4 L_3 L_4 R_4) + s^4 (2C_1 C_3 C_4 L_3 R_3 R_4 + C_1 C_3 C_4 L_4 R_3 R_4 + 2C_3 C_4 L_3 L_4 R_3 g_m + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (2C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4 + 2C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4 + 2C_3 C_4 L_3 R_3 R_4 g_m + C_3 C_4 L_4 R_3 R_4 g_m) + s^2 (C_1 C_3 R_3 R_4)}$$

$$\mathbf{10.257 \quad INVALID-ORDER-257} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s (2C_1 R_1 R_3 + C_1 R_1 R_4)}$$

$$\mathbf{10.258 \quad INVALID-ORDER-258} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 R_3 g_m s^2 + R_1 R_3 g_m}{C_1 C_4 L_4 R_1 s^3 + R_1 g_m + s^2 (2C_1 C_4 R_1 R_3 + C_4 L_4 R_1 g_m + C_4 L_4) + s (C_1 R_1 + 2C_4 R_1 R_3 g_m + 2C_4 R_3) + 1}$$

$$\mathbf{10.259 \quad INVALID-ORDER-259} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_3 g_m s}{2C_1 C_4 L_4 R_1 R_3 s^3 + 2R_1 R_3 g_m + 2R_3 + s^2 (C_1 L_4 R_1 + 2C_4 L_4 R_1 R_3 g_m + 2C_4 L_4 R_3) + s (2C_1 R_1 R_3 + L_4 R_1 g_m + L_4)}$$

$$\mathbf{10.260 \quad INVALID-ORDER-260} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 R_3 g_m s^2 + C_4 R_1 R_3 R_4 g_m s + R_1 R_3 g_m}{C_1 C_4 L_4 R_1 s^3 + R_1 g_m + s^2 (2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4 + C_4 L_4 R_1 g_m + C_4 L_4) + s (C_1 R_1 + 2C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2C_4 R_3 + C_4 R_4) + 1}$$

$$\mathbf{10.261 \quad INVALID-ORDER-261} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_3 R_4 g_m s}{2C_1 C_4 L_4 R_1 R_3 R_4 s^3 + 2R_1 R_3 R_4 g_m + 2R_3 R_4 + s^2 (2C_1 L_4 R_1 R_3 + C_1 L_4 R_1 R_4 + 2C_4 L_4 R_1 R_3 R_4 g_m + 2C_4 L_4 R_3 R_4) + s (2C_1 R_1 R_3 R_4 + 2L_4 R_1 R_3 g_m + L_4 R_1 R_4 g_m + 2L_4 R_3 + L_4 R_4)}$$

$$10.262 \quad \text{INVALID-ORDER-262} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 R_3 R_4 g_m s^2 + L_4 R_1 R_3 g_m s + R_1 R_3 R_4 g_m}{2 R_1 R_3 g_m + R_1 R_4 g_m + 2 R_3 + R_4 + s^3 (2 C_1 C_4 L_4 R_1 R_3 + C_1 C_4 L_4 R_1 R_4) + s^2 (C_1 L_4 R_1 + 2 C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_1 R_4 g_m + 2 C_4 L_4 R_3 + C_4 L_4 R_4) + s (2 C_1 R_1 R_3 + C_1 R_1 R_4 + L_4 R_1 g_m + L_4)}$$

$$10.263 \quad \text{INVALID-ORDER-263} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 R_3 R_4 g_m s^2 + R_1 R_3 R_4 g_m}{2 R_1 R_3 g_m + R_1 R_4 g_m + 2 R_3 + R_4 + s^3 (2 C_1 C_4 L_4 R_1 R_3 + C_1 C_4 L_4 R_1 R_4) + s^2 (2 C_1 C_4 R_1 R_3 R_4 + 2 C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_1 R_4 g_m + 2 C_4 L_4 R_3 + C_4 L_4 R_4) + s (2 C_1 R_1 R_3 + C_1 R_1 R_4 + 2 C_4 R_1 R_3 R_4 g_m + 2 C_4 R_3 R_4)}$$

$$10.264 \quad \text{INVALID-ORDER-264} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{R_1 g_m}{s^2 (C_1 C_3 R_1 + 2 C_1 C_4 R_1) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$10.265 \quad \text{INVALID-ORDER-265} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 R_1 R_4 g_m s + R_1 g_m}{C_1 C_3 C_4 R_1 R_4 s^3 + s^2 (C_1 C_3 R_1 + 2 C_1 C_4 R_1 + C_3 C_4 R_1 R_4 g_m + C_3 C_4 R_4) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$10.266 \quad \text{INVALID-ORDER-266} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 g_m s^2 + R_1 g_m}{C_1 C_3 C_4 L_4 R_1 s^4 + s^3 (C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2 (C_1 C_3 R_1 + 2 C_1 C_4 R_1) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$10.267 \quad \text{INVALID-ORDER-267} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 g_m s}{2 C_1 R_1 s + 2 R_1 g_m + s^3 (C_1 C_3 L_4 R_1 + 2 C_1 C_4 L_4 R_1) + s^2 (C_3 L_4 R_1 g_m + C_3 L_4 + 2 C_4 L_4 R_1 g_m + 2 C_4 L_4) + 2}$$

$$10.268 \quad \text{INVALID-ORDER-268} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 g_m s^2 + C_4 R_1 R_4 g_m s + R_1 g_m}{C_1 C_3 C_4 L_4 R_1 s^4 + s^3 (C_1 C_3 C_4 R_1 R_4 + C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2 (C_1 C_3 R_1 + 2 C_1 C_4 R_1 + C_3 C_4 R_1 R_4 g_m + C_3 C_4 R_4) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$10.269 \quad \text{INVALID-ORDER-269} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_4 g_m s}{2 R_1 R_4 g_m + 2 R_4 + s^3 (C_1 C_3 L_4 R_1 R_4 + 2 C_1 C_4 L_4 R_1 R_4) + s^2 (2 C_1 L_4 R_1 + C_3 L_4 R_1 R_4 g_m + C_3 L_4 R_4 + 2 C_4 L_4 R_1 R_4 g_m + 2 C_4 L_4 R_4) + s (2 C_1 R_1 R_4 + 2 L_4 R_1 g_m + 2 L_4)}$$

$$10.270 \quad \text{INVALID-ORDER-270} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 R_4 g_m s^2 + L_4 R_1 g_m s + R_1 R_4 g_m}{C_1 C_3 C_4 L_4 R_1 R_4 s^4 + 2 R_1 g_m + s^3 (C_1 C_3 L_4 R_1 + 2 C_1 C_4 L_4 R_1 + C_3 C_4 L_4 R_1 R_4 g_m + C_3 C_4 L_4 R_4) + s^2 (C_1 C_3 R_1 R_4 + C_3 L_4 R_1 g_m + C_3 L_4 + 2 C_4 L_4 R_1 g_m + 2 C_4 L_4) + s (2 C_1 R_1 + C_3 R_1 R_4 g_m + C_3 R_4) + 2}$$

$$10.271 \quad \text{INVALID-ORDER-271} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 R_4 g_m s^2 + R_1 R_4 g_m}{C_1 C_3 C_4 L_4 R_1 R_4 s^4 + 2 R_1 g_m + s^3 (2 C_1 C_4 L_4 R_1 + C_3 C_4 L_4 R_1 R_4 g_m + C_3 C_4 L_4 R_4) + s^2 (C_1 C_3 R_1 R_4 + 2 C_1 C_4 R_1 R_4 + 2 C_4 L_4 R_1 g_m + 2 C_4 L_4) + s (2 C_1 R_1 + C_3 R_1 R_4 g_m + C_3 R_4 + 2 C_4 R_1 R_4 g_m + 2 C_4 R_4) + 2}$$

$$\mathbf{10.272 \quad INVALID-ORDER-272} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 R_1 R_3 R_4 g_m s + R_1 R_3 g_m}{C_1 C_3 C_4 R_1 R_3 R_4 s^3 + R_1 g_m + s^2 (C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4 + C_3 C_4 R_1 R_3 R_4 g_m + C_3 C_4 R_3 R_4) + s (C_1 R_1 + C_3 R_1 R_3 g_m + C_3 R_3 + 2C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2C_4 R_3 + C_4 R_4) + 1}$$

$$\mathbf{10.273 \quad INVALID-ORDER-273} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 R_3 g_m s^2 + R_1 R_3 g_m}{C_1 C_3 C_4 L_4 R_1 R_3 s^4 + R_1 g_m + s^3 (C_1 C_4 L_4 R_1 + C_3 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_4 R_3) + s^2 (C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3 + C_4 L_4 R_1 g_m + C_4 L_4) + s (C_1 R_1 + C_3 R_1 R_3 g_m + C_3 R_3 + 2C_4 R_1 R_3 g_m + 2C_4 R_3) + 1}$$

$$\mathbf{10.274 \quad INVALID-ORDER-274} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_3 g_m s}{2R_1 R_3 g_m + 2R_3 + s^3 (C_1 C_3 L_4 R_1 R_3 + 2C_1 C_4 L_4 R_1 R_3) + s^2 (C_1 L_4 R_1 + C_3 L_4 R_1 R_3 g_m + C_3 L_4 R_3 + 2C_4 L_4 R_1 R_3 g_m + 2C_4 L_4 R_3) + s (2C_1 R_1 R_3 + L_4 R_1 g_m + L_4)}$$

$$\mathbf{10.275 \quad INVALID-ORDER-275} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 R_3 g_m s^2 + C_4 R_1 R_3 R_4 g_m s + R_1 R_3 g_m}{C_1 C_3 C_4 L_4 R_1 R_3 s^4 + R_1 g_m + s^3 (C_1 C_3 C_4 R_1 R_3 R_4 + C_1 C_4 L_4 R_1 + C_3 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_4 R_3) + s^2 (C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4 + C_3 C_4 R_1 R_3 R_4 g_m + C_3 C_4 R_3 R_4 + C_4 L_4 R_1 g_m + C_4 L_4) + s (C_1 R_1 + C_3 R_1 R_3 g_m + C_3 R_3 + 2C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2C_4 R_3 + C_4 R_4) + 1}$$

$$\mathbf{10.276 \quad INVALID-ORDER-276} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_4 R_1 R_3 R_4 g_m s}{2R_1 R_3 R_4 g_m + 2R_3 R_4 + s^3 (C_1 C_3 L_4 R_1 R_3 R_4 + 2C_1 C_4 L_4 R_1 R_3 R_4) + s^2 (2C_1 L_4 R_1 R_3 + C_1 L_4 R_1 R_4 + C_3 L_4 R_1 R_3 R_4 g_m + C_3 L_4 R_3 R_4 + 2C_4 L_4 R_1 R_3 R_4 g_m + 2C_4 L_4 R_3 R_4) + s (2C_1 R_1 R_3 R_4 + 2L_4 R_1 R_3 g_m + L_4 R_1 R_4 g_m + 2L_4 R_3 + L_4 R_4)}$$

$$\mathbf{10.277 \quad INVALID-ORDER-277} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 R_3 R_4 g_m s^2 + L_4 R_1 R_3 g_m s + R_1 R_3 R_4 g_m}{C_1 C_3 C_4 L_4 R_1 R_3 R_4 s^4 + 2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^3 (C_1 C_3 L_4 R_1 R_3 + 2C_1 C_4 L_4 R_1 R_3 + C_1 C_4 L_4 R_1 R_4 + C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_3 C_4 L_4 R_3 R_4) + s^2 (C_1 C_3 R_1 R_3 R_4 + C_1 L_4 R_1 + C_3 L_4 R_1 R_3 g_m + C_3 L_4 R_3 + 2C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_1 R_4 g_m + 2C_4 L_4 R_3 + C_4 R_4) + s (2C_1 R_1 R_3 R_4 + 2L_4 R_1 R_3 g_m + L_4 R_1 R_4 g_m + 2L_4 R_3 + L_4 R_4)}$$

$$\mathbf{10.278 \quad INVALID-ORDER-278} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_4 R_1 R_3 R_4 g_m s^2 + R_1 R_3 R_4 g_m}{C_1 C_3 C_4 L_4 R_1 R_3 R_4 s^4 + 2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^3 (2C_1 C_4 L_4 R_1 R_3 + C_1 C_4 L_4 R_1 R_4 + C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_3 C_4 L_4 R_3 R_4) + s^2 (C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4 + 2C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_1 R_4 g_m + 2C_4 L_4 R_3 + C_4 L_4 R_4) + s (2C_1 R_1 R_3 + C_1 R_1 R_4 + C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2C_4 R_1 R_3 g_m + 2C_4 R_1 R_4 g_m + 2C_4 R_3 + C_4 R_4)}$$

$$\mathbf{10.279 \quad INVALID-ORDER-279} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 R_1 R_3 g_m s + R_1 g_m}{2C_1 C_3 C_4 R_1 R_3 s^3 + s^2 (C_1 C_3 R_1 + 2C_1 C_4 R_1 + 2C_3 C_4 R_1 R_3 g_m + 2C_3 C_4 R_3) + s (C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4)}$$

$$\mathbf{10.280 \quad INVALID-ORDER-280} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 R_1 R_3 R_4 g_m s + R_1 R_4 g_m}{2C_1 C_3 C_4 R_1 R_3 R_4 s^3 + 2R_1 g_m + s^2 (2C_1 C_3 R_1 R_3 + C_1 C_3 R_1 R_4 + 2C_1 C_4 R_1 R_4 + 2C_3 C_4 R_1 R_3 R_4 g_m + 2C_3 C_4 R_3 R_4) + s (2C_1 R_1 + 2C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2C_3 R_3 + C_3 R_4 + 2C_4 R_1 R_4 g_m + 2C_4 R_4) + 2}$$

$$\mathbf{10.281 \quad INVALID-ORDER-281} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 R_1 R_3 R_4 g_m s^2 + R_1 g_m + s (C_3 R_1 R_3 g_m + C_4 R_1 R_4 g_m)}{s^3 (2C_1 C_3 C_4 R_1 R_3 + C_1 C_3 C_4 R_1 R_4) + s^2 (C_1 C_3 R_1 + 2C_1 C_4 R_1 + 2C_3 C_4 R_1 R_3 g_m + C_3 C_4 R_1 R_4 g_m + 2C_3 C_4 R_3 + C_3 C_4 R_4) + s (C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4)}$$

$$\mathbf{10.282 \quad INVALID-ORDER-282} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_4 R_1 R_3 g_m s^3 + C_3 R_1 R_3 g_m s + C_4 L_4 R_1 g_m s^2 + R_1 g_m}{C_1 C_3 C_4 L_4 R_1 s^4 + s^3 (2C_1 C_3 C_4 R_1 R_3 + C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2 (C_1 C_3 R_1 + 2C_1 C_4 R_1 + 2C_3 C_4 R_1 R_3 g_m + 2C_3 C_4 R_3) + s (C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4) + 2}$$

$$\mathbf{10.283 \quad INVALID-ORDER-283} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_4 R_1 R_3 g_m s^2 + L_4 R_1 g_m s}{2C_1 C_3 C_4 L_4 R_1 R_3 s^4 + 2R_1 g_m + s^3 (C_1 C_3 L_4 R_1 + 2C_1 C_4 L_4 R_1 + 2C_3 C_4 L_4 R_1 R_3 g_m + 2C_3 C_4 L_4 R_3) + s^2 (2C_1 C_3 R_1 R_3 + C_3 L_4 R_1 g_m + C_3 L_4 + 2C_4 L_4 R_1 g_m + 2C_4 L_4) + s (2C_1 R_1 + 2C_3 R_1 R_3 g_m + 2C_3 R_3) + 2}$$

$$\mathbf{10.284 \quad INVALID-ORDER-284} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_4 R_1 R_3 g_m s^3 + R_1 g_m + s^2 (C_3 C_4 R_1 R_3 R_4 g_m + C_4 L_4 R_1 g_m) + s (C_3 R_1 R_3 g_m + C_4 R_1 R_4 g_m)}{C_1 C_3 C_4 L_4 R_1 s^4 + s^3 (2C_1 C_3 C_4 R_1 R_3 + C_1 C_3 C_4 R_1 R_4 + C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2 (C_1 C_3 R_1 + 2C_1 C_4 R_1 + 2C_3 C_4 R_1 R_3 g_m + C_3 C_4 R_1 R_4 g_m + 2C_3 C_4 R_3 + C_3 C_4 R_4) + s (C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4) + 2}$$

$$\mathbf{10.285 \quad INVALID-ORDER-285} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_4 R_1 R_3 R_4 g_m s^2 + L_4 R_1 R_4 g_m s}{2C_1 C_3 C_4 L_4 R_1 R_3 R_4 s^4 + 2R_1 R_4 g_m + 2R_4 + s^3 (2C_1 C_3 L_4 R_1 R_3 + C_1 C_3 L_4 R_1 R_4 + 2C_1 C_4 L_4 R_1 R_4 + 2C_3 C_4 L_4 R_1 R_3 R_4 g_m + 2C_3 C_4 L_4 R_3 R_4) + s^2 (2C_1 C_3 R_1 R_3 R_4 + 2C_1 L_4 R_1 + 2C_3 L_4 R_1 R_3 g_m + C_3 L_4 R_1 R_4 g_m + 2C_3 L_4 R_3 + C_3 L_4 R_4 + 2C_4 L_4 R_1 R_4 g_m + 2C_4 L_4 R_4) + s (2C_1 R_1 + 2C_3 R_1 R_3 g_m + 2C_3 R_3) + 2}$$

$$\mathbf{10.286 \quad INVALID-ORDER-286} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_4 R_1 R_3 R_4 g_m s^3 + R_1 R_4 g_m + s^2 (C_3 L_4 R_1 R_3 g_m + C_4 L_4 R_1 R_4 g_m) + s (C_3 R_1 R_3 R_4 g_m + L_4 R_1 g_m)}{2R_1 g_m + s^4 (2C_1 C_3 C_4 L_4 R_1 R_3 + C_1 C_3 C_4 L_4 R_1 R_4) + s^3 (C_1 C_3 L_4 R_1 + 2C_1 C_4 L_4 R_1 + 2C_3 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_4 R_1 R_4 g_m + 2C_3 C_4 L_4 R_3 + C_3 C_4 L_4 R_4) + s^2 (2C_1 C_3 R_1 R_3 + C_1 C_3 R_1 R_4 + C_3 L_4 R_1 g_m + C_3 L_4 + 2C_4 L_4 R_1 g_m + 2C_4 L_4) + s (2C_1 R_1 + 2C_3 R_1 R_3 g_m + 2C_3 R_3) + 2}$$

$$\mathbf{10.287 \quad INVALID-ORDER-287} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_4 R_1 R_3 R_4 g_m s^3 + C_3 R_1 R_3 R_4 g_m s + C_4 L_4 R_1 R_4 g_m s^2 + R_1 R_4 g_m}{2R_1 g_m + s^4 (2C_1 C_3 C_4 L_4 R_1 R_3 + C_1 C_3 C_4 L_4 R_1 R_4) + s^3 (2C_1 C_3 C_4 R_1 R_3 R_4 + 2C_1 C_4 L_4 R_1 + 2C_3 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_4 R_1 R_4 g_m + 2C_3 C_4 L_4 R_3 + C_3 C_4 L_4 R_4) + s^2 (2C_1 C_3 R_1 R_3 + C_1 C_3 R_1 R_4 + 2C_1 C_4 R_1 R_4 + 2C_3 C_4 R_1 R_3 R_4 g_m + 2C_3 C_4 R_3 R_4 + 2C_4 L_4 R_1 g_m + 2C_4 L_4) + s (2C_1 R_1 + 2C_3 R_1 R_3 g_m + 2C_3 R_3) + 2}$$

$$\mathbf{10.288 \quad INVALID-ORDER-288} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 R_4 g_m s^2 + R_1 R_4 g_m}{2C_1 C_3 L_3 R_1 s^3 + 2R_1 g_m + s^2 (C_1 C_3 R_1 R_4 + 2C_3 L_3 R_1 g_m + 2C_3 L_3) + s (2C_1 R_1 + C_3 R_1 R_4 g_m + C_3 R_4) + 2}$$

$$\mathbf{10.289 \quad INVALID-ORDER-289} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 g_m s^2 + R_1 g_m}{2C_1 C_3 C_4 L_3 R_1 s^4 + s^3 (2C_3 C_4 L_3 R_1 g_m + 2C_3 C_4 L_3) + s^2 (C_1 C_3 R_1 + 2C_1 C_4 R_1) + s (C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4) + 2}$$

$$\mathbf{10.290 \quad INVALID-ORDER-290} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 R_4 g_m s^2 + R_1 R_4 g_m}{2C_1 C_3 C_4 L_3 R_1 R_4 s^4 + 2R_1 g_m + s^3 (2C_1 C_3 L_3 R_1 + 2C_3 C_4 L_3 R_1 R_4 g_m + 2C_3 C_4 L_3 R_4) + s^2 (C_1 C_3 R_1 R_4 + 2C_1 C_4 R_1 R_4 + 2C_3 L_3 R_1 g_m + 2C_3 L_3) + s (2C_1 R_1 + C_3 R_1 R_4 g_m + C_3 R_4 + 2C_4 R_1 R_4 g_m + 2C_4 R_4) + 2}$$

$$\mathbf{10.291 \quad INVALID-ORDER-291} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 R_1 R_4 g_m s^3 + C_3 L_3 R_1 g_m s^2 + C_4 R_1 R_4 g_m s + R_1 g_m}{2 C_1 C_3 C_4 L_3 R_1 s^4 + s^3 (C_1 C_3 C_4 R_1 R_4 + 2 C_3 C_4 L_3 R_1 g_m + 2 C_3 C_4 L_3) + s^2 (C_1 C_3 R_1 + 2 C_1 C_4 R_1 + C_3 C_4 R_1 R_4 g_m + C_3 C_4 R_4) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.292 \quad INVALID-ORDER-292} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 g_m s^4 + R_1 g_m + s^2 (C_3 L_3 R_1 g_m + C_4 L_4 R_1 g_m)}{s^4 (2 C_1 C_3 C_4 L_3 R_1 + C_1 C_3 C_4 L_4 R_1) + s^3 (2 C_3 C_4 L_3 R_1 g_m + 2 C_3 C_4 L_3 + C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2 (C_1 C_3 R_1 + 2 C_1 C_4 R_1) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.293 \quad INVALID-ORDER-293} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_1 g_m s^3 + L_4 R_1 g_m s}{2 C_1 C_3 C_4 L_3 L_4 R_1 s^5 + 2 C_1 R_1 s + 2 R_1 g_m + s^4 (2 C_3 C_4 L_3 L_4 R_1 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (2 C_1 C_3 L_3 R_1 + C_1 C_3 L_4 R_1 + 2 C_1 C_4 L_4 R_1) + s^2 (2 C_3 L_3 R_1 g_m + 2 C_3 L_3 + C_3 L_4 R_1 g_m + C_3 L_4 + 2 C_4 L_4 R_1 g_m + 2 C_4 L_4) + 2}$$

$$\mathbf{10.294 \quad INVALID-ORDER-294} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 g_m s^4 + C_3 C_4 L_3 R_1 R_4 g_m s^3 + C_4 R_1 R_4 g_m s + R_1 g_m + s^2 (C_3 L_3 R_1 g_m + C_4 L_4 R_1 g_m)}{s^4 (2 C_1 C_3 C_4 L_3 R_1 + C_1 C_3 C_4 L_4 R_1) + s^3 (C_1 C_3 C_4 R_1 R_4 + 2 C_3 C_4 L_3 R_1 g_m + 2 C_3 C_4 L_3 + C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2 (C_1 C_3 R_1 + 2 C_1 C_4 R_1 + C_3 C_4 R_1 R_4 g_m + C_3 C_4 R_4) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.295 \quad INVALID-ORDER-295} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_1 R_4 g_m s^3 + L_4 R_1 R_4 g_m s}{2 C_1 C_3 C_4 L_3 L_4 R_1 R_4 s^5 + 2 R_1 R_4 g_m + 2 R_4 + s^4 (2 C_1 C_3 L_3 L_4 R_1 + 2 C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2 C_3 C_4 L_3 L_4 R_4) + s^3 (2 C_1 C_3 L_3 R_1 R_4 + C_1 C_3 L_4 R_1 R_4 + 2 C_1 C_4 L_4 R_1 R_4 + 2 C_3 L_3 L_4 R_1 g_m + 2 C_3 L_3 L_4) + s^2 (2 C_1 L_4 R_1 + 2 C_3 L_3 R_1 R_4 g_m + 2 C_3 L_3 R_4 + C_3 L_4 R_1 R_4 g_m + C_3 L_4 R_4) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.296 \quad INVALID-ORDER-296} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_4 g_m s^4 + C_3 L_3 L_4 R_1 g_m s^3 + L_4 R_1 g_m s + R_1 R_4 g_m + s^2 (C_3 L_3 R_1 R_4 g_m + C_4 L_4 R_1 R_4 g_m)}{2 C_1 C_3 C_4 L_3 L_4 R_1 s^5 + 2 R_1 g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_4 + 2 C_3 C_4 L_3 L_4 R_1 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (2 C_1 C_3 L_3 R_1 + C_1 C_3 L_4 R_1 + 2 C_1 C_4 L_4 R_1 + C_3 C_4 L_4 R_1 R_4 g_m + C_3 C_4 L_4 R_4) + s^2 (C_1 C_3 R_1 R_4 + 2 C_3 L_3 R_1 g_m + 2 C_3 L_3 + C_3 L_4 R_1 g_m + C_3 L_4 + 2 C_4 L_4 R_1 g_m + 2 C_4 L_4) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.297 \quad INVALID-ORDER-297} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_4 g_m s^4 + R_1 R_4 g_m + s^2 (C_3 L_3 R_1 R_4 g_m + C_4 L_4 R_1 R_4 g_m)}{2 C_1 C_3 C_4 L_3 L_4 R_1 s^5 + 2 R_1 g_m + s^4 (2 C_1 C_3 C_4 L_3 R_1 R_4 + C_1 C_3 C_4 L_4 R_1 R_4 + 2 C_3 C_4 L_3 L_4 R_1 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (2 C_1 C_3 L_3 R_1 + 2 C_1 C_4 L_4 R_1 + 2 C_3 C_4 L_3 R_1 R_4 g_m + 2 C_3 C_4 L_3 R_4 + C_3 C_4 L_4 R_1 R_4 g_m + C_3 C_4 L_4 R_4) + s^2 (C_1 C_3 R_1 R_4 + 2 C_1 C_4 R_1 R_4 + 2 C_3 L_3 R_1 g_m + 2 C_3 L_3 + C_3 L_4 R_1 g_m + C_3 L_4 + 2 C_4 L_4 R_1 g_m + 2 C_4 L_4) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.298 \quad INVALID-ORDER-298} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 R_1 R_4 g_m s}{C_1 C_3 L_3 R_1 R_4 s^3 + R_1 R_4 g_m + R_4 + s^2 (2 C_1 L_3 R_1 + C_3 L_3 R_1 R_4 g_m + C_3 L_3 R_4) + s (C_1 R_1 R_4 + 2 L_3 R_1 g_m + 2 L_3)}$$

$$\mathbf{10.299 \quad INVALID-ORDER-299} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 R_1 g_m s}{C_1 R_1 s + R_1 g_m + s^3 (C_1 C_3 L_3 R_1 + 2 C_1 C_4 L_3 R_1) + s^2 (C_3 L_3 R_1 g_m + C_3 L_3 + 2 C_4 L_3 R_1 g_m + 2 C_4 L_3) + 1}$$

$$\mathbf{10.300 \quad INVALID-ORDER-300} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 R_1 R_4 g_m s}{R_1 R_4 g_m + R_4 + s^3 (C_1 C_3 L_3 R_1 R_4 + 2 C_1 C_4 L_3 R_1 R_4) + s^2 (2 C_1 L_3 R_1 + C_3 L_3 R_1 R_4 g_m + C_3 L_3 R_4 + 2 C_4 L_3 R_1 R_4 g_m + 2 C_4 L_3 R_4) + s (C_1 R_1 R_4 + 2 L_3 R_1 g_m + 2 L_3)}$$

$$\mathbf{10.301 \quad INVALID-ORDER-301} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 R_1 R_4 g_m s^2 + L_3 R_1 g_m s}{C_1 C_3 C_4 L_3 R_1 R_4 s^4 + R_1 g_m + s^3 (C_1 C_3 L_3 R_1 + 2C_1 C_4 L_3 R_1 + C_3 C_4 L_3 R_1 R_4 g_m + C_3 C_4 L_3 R_4) + s^2 (C_1 C_4 R_1 R_4 + C_3 L_3 R_1 g_m + C_3 L_3 + 2C_4 L_3 R_1 g_m + 2C_4 L_3) + s (C_1 R_1 + C_4 R_1 R_4 g_m + C_4 R_4) + 1}$$

$$\mathbf{10.302 \quad INVALID-ORDER-302} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_1 g_m s^3 + L_3 R_1 g_m s}{C_1 C_3 C_4 L_3 L_4 R_1 s^5 + C_1 R_1 s + R_1 g_m + s^4 (C_3 C_4 L_3 L_4 R_1 g_m + C_3 C_4 L_3 L_4) + s^3 (C_1 C_3 L_3 R_1 + 2C_1 C_4 L_3 R_1 + C_1 C_4 L_4 R_1) + s^2 (C_3 L_3 R_1 g_m + C_3 L_3 + 2C_4 L_3 R_1 g_m + 2C_4 L_3 + C_4 L_4 R_1 g_m + C_4 L_4) + 1}$$

$$\mathbf{10.303 \quad INVALID-ORDER-303} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 L_4 R_1 g_m s}{2L_3 R_1 g_m + 2L_3 + L_4 R_1 g_m + L_4 + s^3 (C_1 C_3 L_3 L_4 R_1 + 2C_1 C_4 L_3 L_4 R_1) + s^2 (C_3 L_3 L_4 R_1 g_m + C_3 L_3 L_4 + 2C_4 L_3 L_4 R_1 g_m + 2C_4 L_3 L_4) + s (2C_1 L_3 R_1 + C_1 L_4 R_1)}$$

$$\mathbf{10.304 \quad INVALID-ORDER-304} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_1 g_m s^3 + C_4 L_3 R_1 R_4 g_m s^2 + L_3 R_1 g_m s}{C_1 C_3 C_4 L_3 L_4 R_1 s^5 + R_1 g_m + s^4 (C_1 C_3 C_4 L_3 R_1 R_4 + C_3 C_4 L_3 L_4 R_1 g_m + C_3 C_4 L_3 L_4) + s^3 (C_1 C_3 L_3 R_1 + 2C_1 C_4 L_3 R_1 + C_1 C_4 L_4 R_1 + C_3 C_4 L_3 R_1 R_4 g_m + C_3 C_4 L_3 R_4) + s^2 (C_1 C_4 R_1 R_4 + C_3 L_3 R_1 g_m + C_3 L_3 + 2C_4 L_3 R_1 g_m + 2C_4 L_3 + C_4 L_4 R_1 g_m + C_4 L_4) + s (C_1 R_1 + C_4 R_1 R_4 g_m + C_4 R_4) + 1}$$

$$\mathbf{10.305 \quad INVALID-ORDER-305} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 L_4 R_1 R_4 g_m s}{2L_3 R_1 R_4 g_m + 2L_3 R_4 + L_4 R_1 R_4 g_m + L_4 R_4 + s^3 (C_1 C_3 L_3 L_4 R_1 R_4 + 2C_1 C_4 L_3 L_4 R_1 R_4) + s^2 (2C_1 L_3 L_4 R_1 + C_3 L_3 L_4 R_1 R_4 g_m + C_3 L_3 L_4 R_4 + 2C_4 L_3 L_4 R_1 R_4 g_m + 2C_4 L_3 L_4 R_4) + s (2C_1 L_3 R_1 R_4 + C_1 L_4 R_1 R_4 + 2L_3 L_4 R_1 g_m + 2L_3 L_4)}$$

$$\mathbf{10.306 \quad INVALID-ORDER-306} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_1 R_4 g_m s^3 + L_3 L_4 R_1 g_m s^2 + L_3 R_1 R_4 g_m s}{C_1 C_3 C_4 L_3 L_4 R_1 R_4 s^5 + R_1 R_4 g_m + R_4 + s^4 (C_1 C_3 L_3 L_4 R_1 + 2C_1 C_4 L_3 L_4 R_1 + C_3 C_4 L_3 L_4 R_1 R_4 g_m + C_3 C_4 L_3 L_4 R_4) + s^3 (C_1 C_3 L_3 R_1 R_4 + C_1 C_4 L_4 R_1 R_4 + C_3 L_3 L_4 R_1 g_m + C_3 L_3 L_4 + 2C_4 L_3 L_4 R_1 g_m + 2C_4 L_3 L_4) + s^2 (2C_1 L_3 R_1 + C_1 L_4 R_1 + C_3 L_3 R_1 R_4 g_m + C_3 L_3 R_4) + s (2C_1 L_3 R_1 R_4 + C_1 L_4 R_1 R_4 + 2L_3 L_4 R_1 g_m + 2L_3 L_4)}$$

$$\mathbf{10.307 \quad INVALID-ORDER-307} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_1 R_4 g_m s^3 + L_3 R_1 R_4 g_m s}{C_1 C_3 C_4 L_3 L_4 R_1 R_4 s^5 + R_1 R_4 g_m + R_4 + s^4 (2C_1 C_4 L_3 L_4 R_1 + C_3 C_4 L_3 L_4 R_1 R_4 g_m + C_3 C_4 L_3 L_4 R_4) + s^3 (C_1 C_3 L_3 R_1 R_4 + 2C_1 C_4 L_3 R_1 R_4 + C_1 C_4 L_4 R_1 R_4 + 2C_4 L_3 L_4 R_1 g_m + 2C_4 L_3 L_4) + s^2 (2C_1 L_3 R_1 + C_3 L_3 R_1 R_4 g_m + C_3 L_3 R_4 + 2C_4 L_3 R_1 R_4 g_m + 2C_4 L_3 R_4 + C_4 L_4 R_1 g_m + C_4 L_4 R_4) + s (2C_1 L_3 R_1 R_4 + C_1 L_4 R_1 R_4 + 2L_3 L_4 R_1 g_m + 2L_3 L_4)}$$

$$\mathbf{10.308 \quad INVALID-ORDER-308} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 R_4 g_m s^2 + C_3 R_1 R_3 R_4 g_m s + R_1 R_4 g_m}{2C_1 C_3 L_3 R_1 s^3 + 2R_1 g_m + s^2 (2C_1 C_3 R_1 R_3 + C_1 C_3 R_1 R_4 + 2C_3 L_3 R_1 g_m + 2C_3 L_3) + s (2C_1 R_1 + 2C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2C_3 R_3 + C_3 R_4) + 2}$$

$$\mathbf{10.309 \quad INVALID-ORDER-309} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 g_m s^2 + C_3 R_1 R_3 g_m s + R_1 g_m}{2C_1 C_3 C_4 L_3 R_1 s^4 + s^3 (2C_1 C_3 C_4 R_1 R_3 + 2C_3 C_4 L_3 R_1 g_m + 2C_3 C_4 L_3) + s^2 (C_1 C_3 R_1 + 2C_1 C_4 R_1 + 2C_3 C_4 R_1 R_3 g_m + 2C_3 C_4 R_3) + s (C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4)}$$

$$\mathbf{10.310 \quad INVALID-ORDER-310} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 R_4 g_m s^2 + C_3 R_1 R_3 R_4 g_m s + R_1 R_4 g_m}{2C_1 C_3 C_4 L_3 R_1 R_4 s^4 + 2R_1 g_m + s^3 (2C_1 C_3 C_4 R_1 R_3 R_4 + 2C_1 C_3 L_3 R_1 + 2C_3 C_4 L_3 R_1 R_4 g_m + 2C_3 C_4 L_3 R_4) + s^2 (2C_1 C_3 R_1 R_3 + C_1 C_3 R_1 R_4 + 2C_1 C_4 R_1 R_4 + 2C_3 C_4 R_1 R_3 R_4 g_m + 2C_3 C_4 R_3 R_4 + 2C_3 L_3 R_1 g_m + 2C_3 L_3) + s (2C_1 R_1 + 2C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2C_3 R_3 + C_3 R_4)}$$

$$\mathbf{10.311 \quad INVALID-ORDER-311} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 R_1 R_4 g_m s^3 + R_1 g_m + s^2 (C_3 C_4 R_1 R_3 R_4 g_m + C_3 L_3 R_1 g_m) + s (C_3 R_1 R_3 g_m + C_4 R_1 R_4 g_m)}{2 C_1 C_3 C_4 L_3 R_1 s^4 + s^3 (2 C_1 C_3 C_4 R_1 R_3 + C_1 C_3 C_4 R_1 R_4 + 2 C_3 C_4 L_3 R_1 g_m + 2 C_3 C_4 L_3) + s^2 (C_1 C_3 R_1 + 2 C_1 C_4 R_1 + 2 C_3 C_4 R_1 R_3 g_m + C_3 C_4 R_1 R_4 g_m + 2 C_3 C_4 R_3 + C_3 C_4 R_4) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.312 \quad INVALID-ORDER-312} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 g_m s^4 + C_3 C_4 L_4 R_1 R_3 g_m s^3 + C_3 R_1 R_3 g_m s + R_1 g_m + s^2 (C_3 L_3 R_1 g_m + C_4 L_4 R_1 g_m)}{s^4 (2 C_1 C_3 C_4 L_3 R_1 + C_1 C_3 C_4 L_4 R_1) + s^3 (2 C_1 C_3 C_4 R_1 R_3 + 2 C_3 C_4 L_3 R_1 g_m + 2 C_3 C_4 L_3 + C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2 (C_1 C_3 R_1 + 2 C_1 C_4 R_1 + 2 C_3 C_4 R_1 R_3 g_m + 2 C_3 C_4 R_3) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.313 \quad INVALID-ORDER-313} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_1 g_m s^3 + C_3 L_4 R_1 R_3 g_m s^2 + L_4 R_1 g_m s}{2 C_1 C_3 C_4 L_3 L_4 R_1 s^5 + 2 R_1 g_m + s^4 (2 C_1 C_3 C_4 L_4 R_1 R_3 + 2 C_3 C_4 L_3 L_4 R_1 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (2 C_1 C_3 L_3 R_1 + C_1 C_3 L_4 R_1 + 2 C_1 C_4 L_4 R_1 + 2 C_3 C_4 L_4 R_1 R_3 g_m + 2 C_3 C_4 L_4 R_3) + s^2 (2 C_1 C_3 R_1 R_3 + 2 C_3 L_3 R_1 g_m + 2 C_3 L_3 + C_3 L_4 R_1 g_m + C_3 L_4 + 2 C_4 L_4 R_1 g_m + 2 C_4 L_4 R_1 R_3 g_m + 2 C_4 L_4 R_3) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.314 \quad INVALID-ORDER-314} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 g_m s^4 + R_1 g_m + s^3 (C_3 C_4 L_3 R_1 R_4 g_m + C_3 C_4 L_4 R_1 R_3 g_m) + s^2 (C_3 C_4 R_1 R_3 R_4 g_m + C_3 L_3 R_1 g_m + C_4 L_4 R_1 g_m) + s (C_3 R_1 R_3 g_m + C_4 R_1 R_4 g_m)}{s^4 (2 C_1 C_3 C_4 L_3 R_1 + C_1 C_3 C_4 L_4 R_1) + s^3 (2 C_1 C_3 C_4 R_1 R_3 + C_1 C_3 C_4 R_1 R_4 + 2 C_3 C_4 L_3 R_1 g_m + 2 C_3 C_4 L_3 + C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2 (C_1 C_3 R_1 + 2 C_1 C_4 R_1 + 2 C_3 C_4 R_1 R_3 g_m + C_3 C_4 R_1 R_4 g_m + 2 C_3 C_4 R_3 + C_3 C_4 R_4) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.315 \quad INVALID-ORDER-315} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_1 R_4 g_m s^3 + C_3 L_4 R_1 R_3 R_4 g_m s^2 + L_4 R_1 g_m s}{2 C_1 C_3 C_4 L_3 L_4 R_1 R_4 s^5 + 2 R_1 R_4 g_m + 2 R_4 + s^4 (2 C_1 C_3 C_4 L_4 R_1 R_3 R_4 + 2 C_1 C_3 L_3 L_4 R_1 + 2 C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2 C_3 C_4 L_3 L_4 R_4) + s^3 (2 C_1 C_3 L_3 R_1 R_4 + 2 C_1 C_3 L_4 R_1 R_3 + C_1 C_3 L_4 R_1 R_4 + 2 C_1 C_4 L_4 R_1 R_4 + 2 C_3 C_4 L_4 R_1 R_3 R_4 g_m + 2 C_3 C_4 L_4 R_3 R_4 + 2 C_3 L_3 L_4 R_1 g_m + 2 C_3 L_3 L_4 R_4) + s^2 (2 C_1 C_3 R_1 R_3 R_4 + 2 C_3 L_3 R_1 R_4 g_m + 2 C_3 L_3 R_4 + C_3 L_4 R_1 R_3 g_m + C_3 L_4 R_1 R_4 g_m + C_4 L_4 R_1 R_4 g_m) + s (C_3 R_1 R_3 R_4 + C_3 L_3 R_1 R_4 g_m + C_3 L_3 R_4 + C_3 L_4 R_1 R_3 g_m + C_3 L_4 R_1 R_4 g_m + C_4 L_4 R_1 R_4 g_m) + s^2 (2 C_1 C_3 R_1 R_3 + C_1 C_3 R_1 R_4 + 2 C_3 L_3 R_1 g_m + 2 C_3 L_3 R_4 + C_3 L_4 R_1 g_m + C_3 L_4 R_4) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.316 \quad INVALID-ORDER-316} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_4 g_m s^4 + R_1 R_4 g_m + s^3 (C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_3 L_3 L_4 R_1 g_m) + s^2 (C_3 L_3 R_1 R_4 g_m + C_3 L_4 R_1 R_3 g_m + C_4 L_4 R_1 R_4 g_m) + s (C_3 R_1 R_3 R_4 + C_3 L_3 R_1 R_4 g_m + C_3 L_3 R_4 + C_3 L_4 R_1 R_3 g_m + C_3 L_4 R_1 R_4 g_m + C_4 L_4 R_1 R_4 g_m) + s^2 (2 C_1 C_3 R_1 R_3 + C_1 C_3 R_1 R_4 + 2 C_3 L_3 R_1 g_m + 2 C_3 L_3 R_4 + C_3 L_4 R_1 g_m + C_3 L_4 R_4) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.317 \quad INVALID-ORDER-317} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_4 g_m s^4 + C_3 C_4 L_4 R_1 R_3 R_4 g_m s^3 + C_3 R_1 R_3 R_4 g_m s}{2 C_1 C_3 C_4 L_3 L_4 R_1 s^5 + 2 R_1 g_m + s^4 (2 C_1 C_3 C_4 L_3 R_1 R_4 + 2 C_1 C_3 C_4 L_4 R_1 R_3 + C_1 C_3 C_4 L_4 R_1 R_4 + 2 C_3 C_4 L_3 L_4 R_1 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (2 C_1 C_3 C_4 R_1 R_3 R_4 + 2 C_1 C_3 L_3 R_1 + 2 C_1 C_4 L_4 R_1 + 2 C_3 C_4 L_3 R_1 R_4 g_m + 2 C_3 C_4 L_3 R_4 + 2 C_3 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_4 R_1 R_4 g_m + 2 C_3 C_4 L_4 R_3 + C_3 C_4 L_4 R_4) + s^2 (2 C_1 C_3 R_1 R_3 + C_1 C_3 R_1 R_4 + 2 C_3 L_3 R_1 g_m + 2 C_3 L_3 R_4 + C_3 L_4 R_1 g_m + C_3 L_4 R_4) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.318 \quad INVALID-ORDER-318} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 R_1 R_3 R_4 g_m s}{C_1 C_3 L_3 R_1 R_3 R_4 s^3 + R_1 R_3 R_4 g_m + R_3 R_4 + s^2 (2 C_1 L_3 R_1 R_3 + C_1 L_3 R_1 R_4 + C_3 L_3 R_1 R_3 R_4 g_m + C_3 L_3 R_3 R_4) + s (C_1 R_1 R_3 R_4 + 2 L_3 R_1 R_3 g_m + L_3 R_1 R_4 g_m + 2 L_3 R_3 + L_3 R_4)}$$

$$\mathbf{10.319 \quad INVALID-ORDER-319} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 R_1 R_3 g_m s}{R_1 R_3 g_m + R_3 + s^3 (C_1 C_3 L_3 R_1 R_3 + 2 C_1 C_4 L_3 R_1 R_3) + s^2 (C_1 L_3 R_1 + C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_3 + 2 C_4 L_3 R_1 R_3 g_m + 2 C_4 L_3 R_3) + s (C_1 R_1 R_3 + L_3 R_1 g_m + L_3)}$$

$$\mathbf{10.320 \quad INVALID-ORDER-320} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 R_1 R_3 R_4 g_m s}{R_1 R_3 R_4 g_m + R_3 R_4 + s^3 (C_1 C_3 L_3 R_1 R_3 R_4 + 2 C_1 C_4 L_3 R_1 R_3 R_4) + s^2 (2 C_1 L_3 R_1 R_3 + C_1 L_3 R_1 R_4 + C_3 L_3 R_1 R_3 R_4 g_m + C_3 L_3 R_3 R_4 + 2 C_4 L_3 R_1 R_3 R_4 g_m + 2 C_4 L_3 R_3 R_4) + s (C_1 R_1 R_3 R_4 + 2 L_3 R_1 R_3 g_m + L_3 R_1 R_4 g_m + 2 L_3 R_3 + L_3 R_4)}$$

$$\mathbf{10.321 \quad INVALID-ORDER-321} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 R_1 R_3 R_4 g_m s^2 + L_3 R_1 R_3 g_m s}{C_1 C_3 C_4 L_3 R_1 R_3 R_4 s^4 + R_1 R_3 g_m + R_3 + s^3 (C_1 C_3 L_3 R_1 R_3 + 2C_1 C_4 L_3 R_1 R_3 + C_1 C_4 L_3 R_1 R_4 + C_3 C_4 L_3 R_1 R_3 R_4 g_m + C_3 C_4 L_3 R_3 R_4) + s^2 (C_1 C_4 R_1 R_3 R_4 + C_1 L_3 R_1 + C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_3 + 2C_4 L_3 R_1 R_3 g_m + C_4 L_3 R_1 R_4 g_m + 2C_4 L_3 R_3 + C_4 L_3 R_4) + s (C_1 R_1 R_3 R_4 + C_1 L_3 R_1 + C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_3 + 2C_4 L_3 R_1 R_3 g_m + C_4 L_3 R_1 R_4 g_m + 2C_4 L_3 R_3 + C_4 L_3 R_4)}$$

$$\mathbf{10.322 \quad INVALID-ORDER-322} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_1 R_3 g_m s^3 + L_3 R_1 R_3 g_m s}{C_1 C_3 C_4 L_3 L_4 R_1 R_3 s^5 + R_1 R_3 g_m + R_3 + s^4 (C_1 C_4 L_3 L_4 R_1 + C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_3 C_4 L_3 L_4 R_3) + s^3 (C_1 C_3 L_3 R_1 R_3 + 2C_1 C_4 L_3 R_1 R_3 + C_1 C_4 L_4 R_1 R_3 + C_4 L_3 L_4 R_1 g_m + C_4 L_3 L_4) + s^2 (C_1 L_3 R_1 + C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_3 + 2C_4 L_3 R_1 R_3 g_m + 2C_4 L_3 R_3 + C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_3) + s (C_1 L_3 R_1 + C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_3 + 2C_4 L_3 R_1 R_3 g_m + 2C_4 L_3 R_3 + C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_3)}$$

$$\mathbf{10.323 \quad INVALID-ORDER-323} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 L_4 R_1 R_3 g_m s}{2L_3 R_1 R_3 g_m + 2L_3 R_3 + L_4 R_1 R_3 g_m + L_4 R_3 + s^3 (C_1 C_3 L_3 L_4 R_1 R_3 + 2C_1 C_4 L_3 L_4 R_1 R_3) + s^2 (C_1 L_3 L_4 R_1 + C_3 L_3 L_4 R_1 R_3 g_m + C_3 L_3 L_4 R_3 + 2C_4 L_3 L_4 R_1 R_3 g_m + 2C_4 L_3 L_4 R_3) + s (2C_1 L_3 R_1 R_3 + C_1 L_4 R_1 R_3 + L_3 L_4 R_1 g_m + L_3 L_4)}$$

$$\mathbf{10.324 \quad INVALID-ORDER-324} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_1 R_3 g_m s^3 + C_4 L_3 R_1 R_3 R_4 g_m s^2 + L_3 R_1 R_3 g_m s}{C_1 C_3 C_4 L_3 L_4 R_1 R_3 s^5 + R_1 R_3 g_m + R_3 + s^4 (C_1 C_3 C_4 L_3 R_1 R_3 R_4 + C_1 C_4 L_3 L_4 R_1 + C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_3 C_4 L_3 L_4 R_3) + s^3 (C_1 C_3 L_3 R_1 R_3 + 2C_1 C_4 L_3 R_1 R_3 + C_1 C_4 L_3 R_1 R_4 + C_1 C_4 L_4 R_1 R_3 + C_3 C_4 L_3 R_1 R_3 R_4 g_m + C_3 C_4 L_3 R_3 R_4 + C_4 L_3 L_4 R_1 g_m + C_4 L_3 L_4) + s^2 (C_1 C_3 L_3 R_1 R_3 + 2C_1 C_4 L_3 R_1 R_3 + C_1 C_4 L_4 R_1 R_3 + C_4 L_3 L_4 R_1 g_m + C_4 L_3 L_4) + s (C_1 C_3 L_3 R_1 R_3 + 2C_1 C_4 L_3 R_1 R_3 + C_1 C_4 L_4 R_1 R_3 + C_4 L_3 L_4 R_1 g_m + C_4 L_3 L_4)}$$

$$\mathbf{10.325 \quad INVALID-ORDER-325} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_3 L_4 R_1 R_3 R_4 g_m s}{2L_3 R_1 R_3 R_4 g_m + 2L_3 R_3 R_4 + L_4 R_1 R_3 R_4 g_m + L_4 R_3 R_4 + s^3 (C_1 C_3 L_3 L_4 R_1 R_3 R_4 + 2C_1 C_4 L_3 L_4 R_1 R_3 R_4) + s^2 (2C_1 L_3 L_4 R_1 R_3 + C_1 L_3 L_4 R_1 R_4 + C_3 L_3 L_4 R_1 R_3 R_4 g_m + C_3 L_3 L_4 R_3 R_4 + 2C_4 L_3 L_4 R_1 R_3 R_4 g_m + 2C_4 L_3 L_4 R_3 R_4) + s (2C_1 L_3 R_1 R_3 R_4 + C_1 L_4 R_1 R_3 R_4 + C_3 L_3 R_1 R_3 R_4 g_m + C_3 L_3 R_3 R_4 + 2C_4 L_3 R_1 R_3 R_4 g_m + 2C_4 L_3 R_3 R_4)}$$

$$\mathbf{10.326 \quad INVALID-ORDER-326} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_1 R_3 R_4 g_m s^3 + C_4 L_3 R_1 R_3 R_4 g_m s^2 + L_3 R_1 R_3 g_m s}{C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 s^5 + R_1 R_3 R_4 g_m + R_3 R_4 + s^4 (C_1 C_3 L_3 L_4 R_1 R_3 + 2C_1 C_4 L_3 L_4 R_1 R_3 + C_1 C_4 L_3 L_4 R_1 R_4 + C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m + C_3 C_4 L_3 L_4 R_3 R_4) + s^3 (C_1 C_3 L_3 R_1 R_3 R_4 + C_1 C_4 L_4 R_1 R_3 R_4 + C_1 L_3 L_4 R_1 + C_3 L_3 L_4 R_1 R_3 g_m + C_3 L_3 L_4 R_3 + 2C_4 L_3 L_4 R_1 R_3 g_m + 2C_4 L_3 L_4 R_3 + C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_3) + s^2 (C_1 C_3 L_3 R_1 R_3 + 2C_1 C_4 L_3 R_1 R_3 + C_1 C_4 L_4 R_1 R_3 + C_4 L_3 L_4 R_1 g_m + C_4 L_3 L_4 R_1 R_4 g_m + 2C_4 L_3 L_4 R_1 R_3 g_m + 2C_4 L_3 L_4 R_3 + C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_3) + s (C_1 C_3 L_3 R_1 R_3 + 2C_1 C_4 L_3 R_1 R_3 + C_1 C_4 L_4 R_1 R_3 + C_4 L_3 L_4 R_1 g_m + C_4 L_3 L_4 R_1 R_4 g_m + 2C_4 L_3 L_4 R_1 R_3 g_m + 2C_4 L_3 L_4 R_3 + C_4 L_4 R_1 R_3 g_m + C_4 L_4 R_3)}$$

$$\mathbf{10.327 \quad INVALID-ORDER-327} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_3 L_4 R_1 R_3 R_4 g_m s^3 + L_3 R_1 R_3 R_4 g_m s}{C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 s^5 + R_1 R_3 R_4 g_m + R_3 R_4 + s^4 (2C_1 C_4 L_3 L_4 R_1 R_3 + C_1 C_4 L_3 L_4 R_1 R_4 + C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m + C_3 C_4 L_3 L_4 R_3 R_4) + s^3 (C_1 C_3 L_3 R_1 R_3 R_4 + 2C_1 C_4 L_3 R_1 R_3 R_4 + C_1 C_4 L_4 R_1 R_3 R_4 + 2C_4 L_3 L_4 R_1 R_3 g_m + C_4 L_3 L_4 R_1 R_4 g_m + 2C_4 L_3 L_4 R_3 + C_4 L_3 L_4 R_4) + s^2 (C_1 C_3 L_3 R_1 R_3 + 2C_1 C_4 L_3 R_1 R_3 + C_1 C_4 L_4 R_1 R_3 + C_4 L_3 L_4 R_1 g_m + C_4 L_3 L_4 R_1 R_4 g_m + 2C_4 L_3 L_4 R_1 R_3 g_m + 2C_4 L_3 L_4 R_3 + C_4 L_3 L_4 R_4) + s (C_1 C_3 L_3 R_1 R_3 + 2C_1 C_4 L_3 R_1 R_3 + C_1 C_4 L_4 R_1 R_3 + C_4 L_3 L_4 R_1 g_m + C_4 L_3 L_4 R_1 R_4 g_m + 2C_4 L_3 L_4 R_1 R_3 g_m + 2C_4 L_3 L_4 R_3 + C_4 L_3 L_4 R_4)}$$

$$\mathbf{10.328 \quad INVALID-ORDER-328} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 R_3 R_4 g_m s^2 + L_3 R_1 R_4 g_m s + R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^3 (2C_1 C_3 L_3 R_1 R_3 + C_1 C_3 L_3 R_1 R_4) + s^2 (2C_1 L_3 R_1 + 2C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_1 R_4 g_m + 2C_3 L_3 R_3 + C_3 L_3 R_4) + s (2C_1 R_1 R_3 + C_1 R_1 R_4 + 2L_3 R_1 g_m + 2L_3)}$$

$$\mathbf{10.329 \quad INVALID-ORDER-329} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 R_3 g_m s^2 + L_3 R_1 g_m s + R_1 R_3 g_m}{2C_1 C_3 C_4 L_3 R_1 R_3 s^4 + R_1 g_m + s^3 (C_1 C_3 L_3 R_1 + 2C_1 C_4 L_3 R_1 + 2C_3 C_4 L_3 R_1 R_3 g_m + 2C_3 C_4 L_3 R_3) + s^2 (2C_1 C_4 R_1 R_3 + C_3 L_3 R_1 g_m + C_3 L_3 + 2C_4 L_3 R_1 g_m + 2C_4 L_3) + s (C_1 R_1 + 2C_4 R_1 R_3 g_m + 2C_4 R_3) + 1}$$

$$\mathbf{10.330 \quad INVALID-ORDER-330} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 R_3 R_4 g_m s^2 + L_3 R_1 R_4 g_m s + R_1 R_3 R_4 g_m}{2C_1 C_3 C_4 L_3 R_1 R_3 R_4 s^4 + 2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^3 (2C_1 C_3 L_3 R_1 R_3 + C_1 C_3 L_3 R_1 R_4 + 2C_1 C_4 L_3 R_1 R_4 + 2C_3 C_4 L_3 R_1 R_3 R_4 g_m + 2C_3 C_4 L_3 R_3 R_4) + s^2 (2C_1 C_4 R_1 R_3 R_4 + 2C_1 L_3 R_1 + 2C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_1 R_4 g_m + 2C_3 L_3 R_3 + C_3 L_3 R_4 + 2C_4 L_3 R_1 R_3 g_m + 2C_4 L_3 R_3 + C_4 L_3 R_4) + s (2C_1 C_4 R_1 R_3 R_4 + 2C_1 L_3 R_1 + 2C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_1 R_4 g_m + 2C_3 L_3 R_3 + C_3 L_3 R_4 + 2C_4 L_3 R_1 R_3 g_m + 2C_4 L_3 R_3 + C_4 L_3 R_4)}$$

$$\mathbf{10.331 \quad INVALID-ORDER-331} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 R_1 R_3 R_4 g_m s^3 + R_1 R_3 g_m + s^2 (C_3 L_3 R_1 R_3 g_m + C_4 L_3 R_1 R_4 g_m) + s (C_4 R_1 R_3 R_4 g_m + L_3 R_1 g_m)}{R_1 g_m + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 + C_1 C_3 C_4 L_3 R_1 R_4) + s^3 (C_1 C_3 L_3 R_1 + 2C_1 C_4 L_3 R_1 + 2C_3 C_4 L_3 R_1 R_3 g_m + C_3 C_4 L_3 R_1 R_4 g_m + 2C_3 C_4 L_3 R_3 + C_3 C_4 L_3 R_4) + s^2 (2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4 + C_3 L_3 R_1 g_m + C_3 L_3 + 2C_4 L_3 R_1 g_m + 2C_4 L_3) + s (C_1 R_1 + 2C_4 R_1 R_3 g_m + C_4 R_1 R_4) + 1}$$

$$\mathbf{10.332 \quad INVALID-ORDER-332} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_3 g_m s^4 + C_4 L_3 L_4 R_1 g_m s^3 + L_3 R_1 g_m s + R_1 R_3 g_m + s^2 (C_3 L_3 R_1 R_3 g_m + C_4 L_4 R_1 R_3 g_m)}{C_1 C_3 C_4 L_3 L_4 R_1 s^5 + R_1 g_m + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 + C_3 C_4 L_3 L_4 R_1 g_m + C_3 C_4 L_3 L_4) + s^3 (C_1 C_3 L_3 R_1 + 2C_1 C_4 L_3 R_1 + C_1 C_4 L_4 R_1 + 2C_3 C_4 L_3 R_1 R_3 g_m + 2C_3 C_4 L_3 R_3) + s^2 (2C_1 C_4 R_1 R_3 + C_3 L_3 R_1 g_m + C_3 L_3 + 2C_4 L_3 R_1 g_m + 2C_4 L_3 + C_4 L_4 R_1 g_m + C_4 L_4) + s (C_1 R_1 + 2C_4 R_1 R_3 g_m + C_4 R_1 R_4) + 1}$$

$$\mathbf{10.333 \quad INVALID-ORDER-333} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_1 R_3 g_m s^3 + L_3 L_4 R_1 g_m s^2 + L_4 R_1 R_3 g_m s}{2C_1 C_3 C_4 L_3 L_4 R_1 R_3 s^5 + 2R_1 R_3 g_m + 2R_3 + s^4 (C_1 C_3 L_3 L_4 R_1 + 2C_1 C_4 L_3 L_4 R_1 + 2C_3 C_4 L_3 L_4 R_1 R_3 g_m + 2C_3 C_4 L_3 L_4 R_3) + s^3 (2C_1 C_3 L_3 R_1 R_3 + 2C_1 C_4 L_4 R_1 R_3 + C_3 L_3 L_4 R_1 g_m + C_3 L_3 L_4 + 2C_4 L_3 L_4 R_1 g_m + 2C_4 L_3 L_4) + s^2 (2C_1 L_3 R_1 + C_1 L_4 R_1 + 2C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_1 R_4) + s (C_1 R_1 + 2C_4 R_1 R_3 g_m + C_4 R_1 R_4) + 1}$$

$$\mathbf{10.334 \quad INVALID-ORDER-334} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_3 g_m s^4 + R_1 R_3 g_m + s^3 (C_3 C_4 L_3 R_1 R_3 R_4 g_m + C_4 L_3 L_4 R_1 g_m) + s^2 (C_3 L_3 R_1 R_3 g_m + C_4 L_3 R_1 R_4 g_m + C_4 L_4 R_1 R_3 g_m) + s (C_4 R_1 R_3 R_4 g_m + L_3 R_1 g_m) + R_1 R_3 g_m}{C_1 C_3 C_4 L_3 L_4 R_1 s^5 + R_1 g_m + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 + C_1 C_3 C_4 L_3 R_1 R_4 + C_3 C_4 L_3 L_4 R_1 g_m + C_3 C_4 L_3 L_4) + s^3 (C_1 C_3 L_3 R_1 + 2C_1 C_4 L_3 R_1 + C_1 C_4 L_4 R_1 + 2C_3 C_4 L_3 R_1 R_3 g_m + C_3 C_4 L_3 R_1 R_4 g_m + 2C_3 C_4 L_3 R_3 + C_3 C_4 L_3 R_4) + s^2 (2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4 + C_3 L_3 R_1 g_m + C_3 L_3 + 2C_4 L_3 R_1 g_m + 2C_4 L_3 + C_4 L_4 R_1 g_m + C_4 L_4) + s (C_1 R_1 + 2C_4 R_1 R_3 g_m + C_4 R_1 R_4) + 1}$$

$$\mathbf{10.335 \quad INVALID-ORDER-335} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_1 R_3 g_m s^3 + L_3 L_4 R_1 g_m s^2 + L_4 R_1 R_3 g_m s}{2C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 s^5 + 2R_1 R_3 R_4 g_m + 2R_3 R_4 + s^4 (2C_1 C_3 L_3 L_4 R_1 R_3 + C_1 C_3 L_3 L_4 R_1 R_4 + 2C_1 C_4 L_3 L_4 R_1 R_4 + 2C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m + 2C_3 C_4 L_3 L_4 R_3 R_4) + s^3 (2C_1 C_3 L_3 R_1 R_3 R_4 + 2C_1 C_4 L_4 R_1 R_3 R_4 + 2C_1 L_3 L_4 R_1 + 2C_3 L_3 L_4 R_1 R_3 g_m + C_3 L_3 L_4 R_1 R_4 g_m + C_3 L_3 L_4 R_3 R_4) + s^2 (2C_1 C_4 R_1 R_3 R_4 + C_1 C_4 L_4 R_1 R_3 R_4 + C_3 L_3 L_4 R_1 + 2C_3 L_3 L_4 R_1 R_3 g_m + C_3 L_3 L_4 R_3 R_4) + s (C_1 R_1 + 2C_4 R_1 R_3 R_4 g_m + C_4 R_1 R_4) + 1}$$

$$\mathbf{10.336 \quad INVALID-ORDER-336} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m s^4 + R_1 R_3 R_4 g_m + s^3 (C_3 L_3 L_4 R_1 R_3 g_m + C_4 L_3 L_4 R_1 R_4 g_m) + s^2 (C_3 L_3 R_1 R_3 g_m + C_4 L_3 R_1 R_4 g_m + C_4 L_4 R_1 R_3 g_m) + s (C_4 R_1 R_3 R_4 g_m + L_3 R_1 g_m) + R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^5 (2C_1 C_3 C_4 L_3 L_4 R_1 R_3 + C_1 C_3 C_4 L_3 L_4 R_1 R_4) + s^4 (C_1 C_3 L_3 L_4 R_1 + 2C_1 C_4 L_3 L_4 R_1 + 2C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2C_3 C_4 L_3 L_4 R_3 + C_3 C_4 L_3 L_4 R_4) + s^3 (2C_1 C_3 L_3 R_1 R_3 + C_1 C_3 L_3 R_1 R_4 + 2C_1 C_4 L_4 R_1 R_3 + C_1 C_4 L_4 R_1 R_4) + s^2 (2C_1 C_4 R_1 R_3 R_4 + C_1 C_4 L_4 R_1 R_3 R_4 + C_3 L_3 L_4 R_1 + 2C_3 L_3 L_4 R_1 R_3 g_m + C_3 L_3 L_4 R_3 R_4) + s (C_1 R_1 + 2C_4 R_1 R_3 R_4 g_m + C_4 R_1 R_4) + 1}$$

$$\mathbf{10.337 \quad INVALID-ORDER-337} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m s^4 + R_1 R_3 R_4 g_m + s^3 (C_3 L_3 L_4 R_1 R_3 g_m + C_4 L_3 L_4 R_1 R_4 g_m) + s^2 (C_3 L_3 R_1 R_3 g_m + C_4 L_3 R_1 R_4 g_m + C_4 L_4 R_1 R_3 g_m) + s (C_4 R_1 R_3 R_4 g_m + L_3 R_1 g_m) + R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^5 (2C_1 C_3 C_4 L_3 L_4 R_1 R_3 + C_1 C_3 C_4 L_3 L_4 R_1 R_4) + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 R_4 + 2C_1 C_4 L_3 L_4 R_1 + 2C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2C_3 C_4 L_3 L_4 R_3 + C_3 C_4 L_3 L_4 R_4) + s^3 (2C_1 C_3 L_3 R_1 R_3 + C_1 C_3 L_3 R_1 R_4 + 2C_1 C_4 L_4 R_1 R_3 + C_1 C_4 L_4 R_1 R_4) + s^2 (2C_1 C_4 R_1 R_3 R_4 + C_1 C_4 L_4 R_1 R_3 R_4 + C_3 L_3 L_4 R_1 + 2C_3 L_3 L_4 R_1 R_3 g_m + C_3 L_3 L_4 R_3 R_4) + s (C_1 R_1 + 2C_4 R_1 R_3 R_4 g_m + C_4 R_1 R_4) + 1}$$

$$\mathbf{10.338 \quad INVALID-ORDER-338} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 R_3 R_4 g_m s^2 + R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^3 (2C_1 C_3 L_3 R_1 R_3 + C_1 C_3 L_3 R_1 R_4) + s^2 (C_1 C_3 R_1 R_3 R_4 + 2C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_1 R_4 g_m + 2C_3 L_3 R_3 + C_3 L_3 R_4) + s (2C_1 R_1 R_3 + C_1 R_1 R_4 + C_3 R_1 R_3 R_4 g_m + C_3 R_3 R_4) + 1}$$

$$\mathbf{10.339 \quad INVALID-ORDER-339} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 R_3 g_m s^2 + R_1 R_3 g_m}{2C_1 C_3 C_4 L_3 R_1 R_3 s^4 + R_1 g_m + s^3 (C_1 C_3 L_3 R_1 + 2C_3 C_4 L_3 R_1 R_3 g_m + 2C_3 C_4 L_3 R_3) + s^2 (C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3 + C_3 L_3 R_1 g_m + C_3 L_3) + s (C_1 R_1 + C_3 R_1 R_3 g_m + C_3 R_3 + 2C_4 R_1 R_3 g_m + 2C_4 R_3) + 1}$$

$$\mathbf{10.340 \quad INVALID-ORDER-340} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 R_1 R_3 R_4 g_m s^2 + R_1 R_3 R_4 g_m}{2C_1 C_3 C_4 L_3 R_1 R_3 R_4 s^4 + 2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^3 (2C_1 C_3 L_3 R_1 R_3 + C_1 C_3 L_3 R_1 R_4 + 2C_3 C_4 L_3 R_1 R_3 R_4 g_m + 2C_3 C_4 L_3 R_3 R_4) + s^2 (C_1 C_3 R_1 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4 + 2C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_1 R_4 g_m + 2C_3 L_3 R_3 + C_3 L_3 R_4) + s (2C_1 R_1 R_3 + C_1 R_1 R_4 + 2C_3 R_3 + C_3 R_4)}$$

$$\mathbf{10.341 \quad INVALID-ORDER-341} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 R_1 R_3 R_4 g_m s^3 + C_3 L_3 R_1 R_3 g_m s^2 + C_4 R_1 R_3 R_4 g_m s + R_1 R_3 g_m}{R_1 g_m + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 + C_1 C_3 C_4 L_3 R_1 R_4) + s^3 (C_1 C_3 C_4 R_1 R_3 R_4 + C_1 C_3 L_3 R_1 + 2C_3 C_4 L_3 R_1 R_3 g_m + C_3 C_4 L_3 R_1 R_4 g_m + 2C_3 C_4 L_3 R_3 + C_3 C_4 L_3 R_4) + s^2 (C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4 + C_3 C_4 R_1 R_3 R_4 g_m + C_3 C_4 R_3 R_4 + C_3 L_3 R_1 g_m + C_3 L_3) + s (2C_1 R_1 R_3 + C_1 R_1 R_4 + 2C_3 R_3 + C_3 R_4)}$$

$$\mathbf{10.342 \quad INVALID-ORDER-342} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_3 g_m s^4 + R_1 R_3 g_m + s^2 (C_3 L_3 R_1 R_3 g_m + C_4 L_4 R_1 R_3 g_m)}{C_1 C_3 C_4 L_3 L_4 R_1 s^5 + R_1 g_m + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 + C_1 C_3 C_4 L_4 R_1 R_3 + C_3 C_4 L_3 L_4 R_1 g_m + C_3 C_4 L_3 L_4) + s^3 (C_1 C_3 L_3 R_1 + C_1 C_4 L_4 R_1 + 2C_3 C_4 L_3 R_1 R_3 g_m + 2C_3 C_4 L_3 R_3 + C_3 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_4 R_3) + s^2 (C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3 + C_3 L_3 R_1 g_m + C_3 L_3) + s (2C_1 R_1 R_3 + C_1 R_1 R_4 + 2C_3 R_3 + C_3 R_4)}$$

$$\mathbf{10.343 \quad INVALID-ORDER-343} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_1 R_3 g_m s^3 + L_4 R_1 R_3 g_m s}{2C_1 C_3 C_4 L_3 L_4 R_1 R_3 s^5 + 2R_1 R_3 g_m + 2R_3 + s^4 (C_1 C_3 L_3 L_4 R_1 + 2C_3 C_4 L_3 L_4 R_1 R_3 g_m + 2C_3 C_4 L_3 L_4 R_3) + s^3 (2C_1 C_3 L_3 R_1 R_3 + C_1 C_3 L_4 R_1 R_3 + 2C_1 C_4 L_4 R_1 R_3 + C_3 L_3 L_4 R_1 g_m + C_3 L_3 L_4) + s^2 (C_1 L_4 R_1 + 2C_3 L_3 R_1 R_3 g_m + 2C_3 L_3 R_3 + C_3 L_4 R_1 R_3 g_m + C_3 L_4 R_3) + s (2C_1 R_1 R_3 + C_1 R_1 R_4 + 2C_3 R_3 + C_3 R_4)}$$

$$\mathbf{10.344 \quad INVALID-ORDER-344} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_3 g_m s^4 + C_3 C_4 L_3 R_1 R_3 R_4 g_m s^3 + C_4 R_1 R_3 R_4 g_m s + R_1 R_3 g_m}{C_1 C_3 C_4 L_3 L_4 R_1 s^5 + R_1 g_m + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 + C_1 C_3 C_4 L_3 R_1 R_4 + C_1 C_3 C_4 L_4 R_1 R_3 + C_3 C_4 L_3 L_4 R_1 g_m + C_3 C_4 L_3 L_4) + s^3 (C_1 C_3 C_4 R_1 R_3 R_4 + C_1 C_3 L_3 R_1 + C_1 C_4 L_4 R_1 + 2C_3 C_4 L_3 R_1 R_3 g_m + C_3 C_4 L_3 R_1 R_4 g_m + 2C_3 C_4 L_3 R_3 + C_3 C_4 L_3 R_4 + C_3 C_4 L_4 R_1 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3 + C_3 L_3 R_1 g_m + C_3 L_3) + s (2C_1 R_1 R_3 + C_1 R_1 R_4 + 2C_3 R_3 + C_3 R_4)}$$

$$\mathbf{10.345 \quad INVALID-ORDER-345} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_3 L_4 R_1 R_3 R_4 g_m s^3 + L_4 R_1 R_3 R_4 g_m s}{2C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 s^5 + 2R_1 R_3 R_4 g_m + 2R_3 R_4 + s^4 (2C_1 C_3 L_3 L_4 R_1 R_3 + C_1 C_3 L_3 L_4 R_1 R_4 + 2C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m + 2C_3 C_4 L_3 L_4 R_3 R_4) + s^3 (2C_1 C_3 L_3 R_1 R_3 R_4 + C_1 C_3 L_4 R_1 R_3 R_4 + 2C_1 C_4 L_4 R_1 R_3 R_4 + 2C_3 L_3 L_4 R_1 R_3 g_m + C_3 L_3 L_4 R_1 R_4 g_m + 2C_3 L_3 L_4 R_3 + C_3 L_4 R_1 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3 + C_3 L_3 R_1 g_m + C_3 L_3) + s (2C_1 R_1 R_3 + C_1 R_1 R_4 + 2C_3 R_3 + C_3 R_4)}$$

$$\mathbf{10.346 \quad INVALID-ORDER-346} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m s^3 + L_4 R_1 R_3 R_4 g_m s}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^5 (2C_1 C_3 C_4 L_3 L_4 R_1 R_3 + C_1 C_3 C_4 L_3 L_4 R_1 R_4) + s^4 (C_1 C_3 C_4 L_4 R_1 R_3 R_4 + C_1 C_3 L_3 L_4 R_1 + 2C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2C_3 C_4 L_3 L_4 R_3 + C_3 C_4 L_3 L_4 R_4) + s^3 (2C_1 C_3 L_3 R_1 R_3 + C_1 C_3 L_3 R_1 R_4 + C_1 C_3 L_4 R_1 R_3 + 2C_3 L_3 L_4 R_1 R_3 g_m + C_3 L_3 L_4 R_1 R_4 g_m + 2C_3 L_3 L_4 R_3 + C_3 L_4 R_1 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3 + C_3 L_3 R_1 g_m + C_3 L_3) + s (2C_1 R_1 R_3 + C_1 R_1 R_4 + 2C_3 R_3 + C_3 R_4)}$$

$$\mathbf{10.347 \quad INVALID-ORDER-347} \quad Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m s^3 + L_4 R_1 R_3 R_4 g_m s}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^5 (2C_1 C_3 C_4 L_3 L_4 R_1 R_3 + C_1 C_3 C_4 L_3 L_4 R_1 R_4) + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 R_4 + C_1 C_3 C_4 L_4 R_1 R_3 R_4 + 2C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2C_3 C_4 L_3 L_4 R_3 + C_3 C_4 L_3 L_4 R_4) + s^3 (2C_1 C_3 L_3 R_1 R_3 + C_1 C_3 L_3 R_1 R_4 + 2C_1 C_4 L_4 R_1 R_3 + 2C_3 L_3 L_4 R_1 R_3 g_m + C_3 L_3 L_4 R_1 R_4 g_m + 2C_3 L_3 L_4 R_3 + C_3 L_4 R_1 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 + 2C_1 C_4 R_1 R_3 + C_3 L_3 R_1 g_m + C_3 L_3) + s (2C_1 R_1 R_3 + C_1 R_1 R_4 + 2C_3 R_3 + C_3 R_4)}$$

$$\mathbf{10.348 \quad INVALID-ORDER-348} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 R_1 R_3 R_4 g_m s + R_3 R_4 g_m}{2R_3 g_m + R_4 g_m + s (2C_1 R_1 R_3 g_m + C_1 R_1 R_4 g_m + 2C_1 R_3 + C_1 R_4)}$$

$$10.349 \quad \text{INVALID-ORDER-349} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_4 R_1 R_3 g_m s^3 + C_1 R_1 R_3 g_m s + C_4 L_4 R_3 g_m s^2 + R_3 g_m}{g_m + s^3 (C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4) + s^2 (2C_1 C_4 R_1 R_3 g_m + 2C_1 C_4 R_3 + C_4 L_4 g_m) + s (C_1 R_1 g_m + C_1 + 2C_4 R_3 g_m)}$$

$$10.350 \quad \text{INVALID-ORDER-350} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_4 R_1 R_3 g_m s^2 + L_4 R_3 g_m s}{2R_3 g_m + s^3 (2C_1 C_4 L_4 R_1 R_3 g_m + 2C_1 C_4 L_4 R_3) + s^2 (C_1 L_4 R_1 g_m + C_1 L_4 + 2C_4 L_4 R_3 g_m) + s (2C_1 R_1 R_3 g_m + 2C_1 R_3 + L_4 g_m)}$$

$$10.351 \quad \text{INVALID-ORDER-351} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_4 R_1 R_3 g_m s^3 + R_3 g_m + s^2 (C_1 C_4 R_1 R_3 R_4 g_m + C_4 L_4 R_3 g_m) + s (C_1 R_1 R_3 g_m + C_4 R_3 R_4 g_m)}{g_m + s^3 (C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4) + s^2 (2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4 + C_4 L_4 g_m) + s (C_1 R_1 g_m + C_1 + 2C_4 R_3 g_m + C_4 R_4 g_m)}$$

$$10.352 \quad \text{INVALID-ORDER-352} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_4 R_1 R_3 R_4 g_m s^2 + L_4 R_3 R_4 g_m s}{2R_3 R_4 g_m + s^3 (2C_1 C_4 L_4 R_1 R_3 R_4 g_m + 2C_1 C_4 L_4 R_3 R_4) + s^2 (2C_1 L_4 R_1 R_3 g_m + C_1 L_4 R_1 R_4 g_m + 2C_1 L_4 R_3 + C_1 L_4 R_4 + 2C_4 L_4 R_3 R_4 g_m) + s (2C_1 R_1 R_3 R_4 g_m + 2C_1 R_3 R_4 + 2L_4 R_3 g_m + L_4 R_4 g_m)}$$

$$10.353 \quad \text{INVALID-ORDER-353} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_4 R_1 R_3 R_4 g_m s^3 + R_3 R_4 g_m + s^2 (C_1 L_4 R_1 R_3 g_m + C_4 L_4 R_3 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + L_4 R_3 g_m)}{2R_3 g_m + R_4 g_m + s^3 (2C_1 C_4 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_4 g_m + 2C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4) + s^2 (C_1 L_4 R_1 g_m + C_1 L_4 + 2C_4 L_4 R_3 g_m + C_4 L_4 R_4 g_m) + s (2C_1 R_1 R_3 g_m + C_1 R_1 R_4 g_m + 2C_1 R_3 + C_1 R_4 + L_4 g_m)}$$

$$10.354 \quad \text{INVALID-ORDER-354} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_4 R_1 R_3 R_4 g_m s^3 + C_1 R_1 R_3 R_4 g_m s + C_4 L_4 R_3 R_4 g_m s^2 + R_3 R_4 g_m}{2R_3 g_m + R_4 g_m + s^3 (2C_1 C_4 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_4 g_m + 2C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4) + s^2 (2C_1 C_4 R_1 R_3 R_4 g_m + 2C_1 C_4 R_3 R_4 + 2C_4 L_4 R_3 g_m + C_4 L_4 R_4 g_m) + s (2C_1 R_1 R_3 g_m + C_1 R_1 R_4 g_m + 2C_1 R_3 + C_1 R_4 + 2C_4 R_3 R_4 g_m)}$$

$$10.355 \quad \text{INVALID-ORDER-355} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 R_1 g_m s + g_m}{s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2C_1 C_4 R_1 g_m + 2C_1 C_4) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.356 \quad \text{INVALID-ORDER-356} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 R_1 R_4 g_m s^2 + g_m + s (C_1 R_1 g_m + C_4 R_4 g_m)}{s^3 (C_1 C_3 C_4 R_1 R_4 g_m + C_1 C_3 C_4 R_4) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2C_1 C_4 R_1 g_m + 2C_1 C_4 + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.357 \quad \text{INVALID-ORDER-357} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_4 R_1 g_m s^3 + C_1 R_1 g_m s + C_4 L_4 g_m s^2 + g_m}{C_3 C_4 L_4 g_m s^3 + s^4 (C_1 C_3 C_4 L_4 R_1 g_m + C_1 C_3 C_4 L_4) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2C_1 C_4 R_1 g_m + 2C_1 C_4) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.358 \quad \text{INVALID-ORDER-358} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_4 R_1 g_m s^2 + L_4 g_m s}{2g_m + s^3 (C_1 C_3 L_4 R_1 g_m + C_1 C_3 L_4 + 2C_1 C_4 L_4 R_1 g_m + 2C_1 C_4 L_4) + s^2 (C_3 L_4 g_m + 2C_4 L_4 g_m) + s (2C_1 R_1 g_m + 2C_1)}$$

$$10.359 \quad \text{INVALID-ORDER-359} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_4 R_1 g_m s^3 + g_m + s^2 (C_1 C_4 R_1 R_4 g_m + C_4 L_4 g_m) + s (C_1 R_1 g_m + C_4 R_4 g_m)}{s^4 (C_1 C_3 C_4 L_4 R_1 g_m + C_1 C_3 C_4 L_4) + s^3 (C_1 C_3 C_4 R_1 R_4 g_m + C_1 C_3 C_4 R_4 + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2C_1 C_4 R_1 g_m + 2C_1 C_4 + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.360 \quad \text{INVALID-ORDER-360} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_4 R_1 R_4 g_m s^2 + L_4 R_4 g_m s}{2R_4 g_m + s^3 (C_1 C_3 L_4 R_1 R_4 g_m + C_1 C_3 L_4 R_4 + 2C_1 C_4 L_4 R_1 R_4 g_m + 2C_1 C_4 L_4 R_4) + s^2 (2C_1 L_4 R_1 g_m + 2C_1 L_4 + C_3 L_4 R_4 g_m + 2C_4 L_4 R_4 g_m) + s (2C_1 R_1 R_4 g_m + 2C_1 R_4 + 2L_4 g_m)}$$

$$10.361 \quad \text{INVALID-ORDER-361} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_4 R_1 R_4 g_m s^3 + R_4 g_m + s^2 (C_1 L_4 R_1 g_m + C_4 L_4 R_4 g_m) + s (C_1 R_1 R_4 g_m + L_4 g_m)}{2g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_4 g_m + C_1 C_3 C_4 L_4 R_4) + s^3 (C_1 C_3 L_4 R_1 g_m + C_1 C_3 L_4 + 2C_1 C_4 L_4 R_1 g_m + 2C_1 C_4 L_4 + C_3 C_4 L_4 R_4 g_m) + s^2 (C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + C_3 L_4 g_m + 2C_4 L_4 g_m) + s (2C_1 R_1 g_m + 2C_1 + C_3 R_4 g_m)}$$

$$10.362 \quad \text{INVALID-ORDER-362} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_4 R_1 R_4 g_m s^3 + C_1 R_1 R_4 g_m s + C_4 L_4 R_4 g_m s^2 + R_4 g_m}{2g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_4 g_m + C_1 C_3 C_4 L_4 R_4) + s^3 (2C_1 C_4 L_4 R_1 g_m + 2C_1 C_4 L_4 + C_3 C_4 L_4 R_4 g_m) + s^2 (C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_4 + 2C_4 L_4 g_m) + s (2C_1 R_1 g_m + 2C_1 + C_3 R_4 g_m + 2C_4 R_4 g_m)}$$

$$10.363 \quad \text{INVALID-ORDER-363} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 R_1 R_3 R_4 g_m s^2 + R_3 g_m + s (C_1 R_1 R_3 g_m + C_4 R_3 R_4 g_m)}{g_m + s^3 (C_1 C_3 C_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 R_3 R_4) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_3 + 2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4 + C_3 C_4 R_3 R_4 g_m) + s (C_1 R_1 g_m + C_1 + C_3 R_3 g_m + 2C_4 R_3 g_m + C_4 R_4 g_m)}$$

$$10.364 \quad \text{INVALID-ORDER-364} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_4 R_1 R_3 g_m s^3 + C_1 R_1 R_3 g_m s + C_4 L_4 R_3 g_m s^2 + R_3 g_m}{g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_4 R_3) + s^3 (C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4 + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_3 + 2C_1 C_4 R_1 R_3 g_m + 2C_1 C_4 R_3 + C_4 L_4 g_m) + s (C_1 R_1 g_m + C_1 + C_3 R_3 g_m + 2C_4 R_3 g_m)}$$

$$10.365 \quad \text{INVALID-ORDER-365} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_4 R_1 R_3 g_m s^2 + L_4 R_3 g_m s}{2R_3 g_m + s^3 (C_1 C_3 L_4 R_1 R_3 g_m + C_1 C_3 L_4 R_3 + 2C_1 C_4 L_4 R_1 R_3 g_m + 2C_1 C_4 L_4 R_3) + s^2 (C_1 L_4 R_1 g_m + C_1 L_4 + C_3 L_4 R_3 g_m + 2C_4 L_4 R_3 g_m) + s (2C_1 R_1 R_3 g_m + 2C_1 R_3 + L_4 g_m)}$$

$$10.366 \quad \text{INVALID-ORDER-366} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_4 R_1 R_3 g_m s^3 + R_3 g_m + s^2 (C_1 C_4 R_1 R_3 R_4 g_m + C_4 L_4 R_3 g_m) + s (C_1 R_1 R_3 g_m + C_4 R_3 R_4 g_m)}{g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_4 R_3) + s^3 (C_1 C_3 C_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 R_3 R_4 + C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4 + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_3 + 2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4 + C_3 C_4 R_3 R_4 g_m + C_4 L_4 g_m) + s (C_1 R_1 g_m + C_1 + C_3 R_3 g_m + 2C_4 R_3 g_m)}$$

$$10.367 \quad \text{INVALID-ORDER-367} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_4 R_1 R_3 R_4 g_m s^2 + L_4 R_3 R_4 g_m s}{2R_3 R_4 g_m + s^3 (C_1 C_3 L_4 R_1 R_3 R_4 g_m + C_1 C_3 L_4 R_3 R_4 + 2C_1 C_4 L_4 R_1 R_3 R_4 g_m + 2C_1 C_4 L_4 R_3 R_4) + s^2 (2C_1 L_4 R_1 R_3 g_m + C_1 L_4 R_1 R_4 g_m + 2C_1 L_4 R_3 + C_1 L_4 R_4 + C_3 L_4 R_3 R_4 g_m + 2C_4 L_4 R_3 R_4 g_m) + s (2C_1 R_1 R_3 R_4 g_m + 2C_1 R_3 R_4 + 2L_4 R_3 g_m + L_4 R_4 g_m)}$$

$$\mathbf{10.368 \quad INVALID-ORDER-368} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_4 R_1 R_3 R_4 g_m s^3 + R_3 R_4 g_m + s^2 (C_1 L_4 R_1 R_3 g_m + C_4 L_4 R_3 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + L_4 R_3 g_m)}{2 R_3 g_m + R_4 g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_4 R_3 R_4) + s^3 (C_1 C_3 L_4 R_1 R_3 g_m + C_1 C_3 L_4 R_3 + 2 C_1 C_4 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_4 g_m + 2 C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4 + C_3 C_4 L_4 R_3 R_4 g_m) + s^2 (C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4 + C_1 L_4 R_1 g_m + C_1 L_4 + C_3 L_4 R_3 g_m)}$$

$$\mathbf{10.369 \quad INVALID-ORDER-369} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_4 R_1 R_3 R_4 g_m s^3 + C_1 R_1 R_3 R_4 g_m s + C_4 L_4 R_3 R_4 g_m s^2 + R_3 R_4 g_m}{2 R_3 g_m + R_4 g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_4 R_3 R_4) + s^3 (2 C_1 C_4 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_4 g_m + 2 C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4 + C_3 C_4 L_4 R_3 R_4 g_m) + s^2 (C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4 + 2 C_1 C_4 R_1 R_3 R_4 g_m + 2 C_1 C_4 R_3 R_4 + 2 C_4 L_4 R_3 g_m + C_4 L_4 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + L_4 R_3 g_m)}$$

$$\mathbf{10.370 \quad INVALID-ORDER-370} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 R_1 R_3 g_m s^2 + g_m + s (C_1 R_1 g_m + C_3 R_3 g_m)}{s^3 (2 C_1 C_3 C_4 R_1 R_3 g_m + 2 C_1 C_3 C_4 R_3) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2 C_1 C_4 R_1 g_m + 2 C_1 C_4 + 2 C_3 C_4 R_3 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

$$\mathbf{10.371 \quad INVALID-ORDER-371} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 R_1 R_3 R_4 g_m s^2 + R_4 g_m + s (C_1 R_1 R_4 g_m + C_3 R_3 R_4 g_m)}{2 g_m + s^3 (2 C_1 C_3 C_4 R_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 R_3 R_4) + s^2 (2 C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2 C_1 C_3 R_3 + C_1 C_3 R_4 + 2 C_1 C_4 R_1 R_4 g_m + 2 C_1 C_4 R_4 + 2 C_3 C_4 R_3 R_4 g_m) + s (2 C_1 R_1 g_m + 2 C_1 + 2 C_3 R_3 g_m + C_3 R_4 g_m + 2 C_4 R_4 g_m)}$$

$$\mathbf{10.372 \quad INVALID-ORDER-372} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 R_1 R_3 R_4 g_m s^3 + g_m + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + C_3 C_4 R_3 R_4 g_m) + s (C_1 R_1 g_m + C_3 R_3 g_m + C_4 R_4 g_m)}{s^3 (2 C_1 C_3 C_4 R_1 R_3 g_m + C_1 C_3 C_4 R_1 R_4 g_m + 2 C_1 C_3 C_4 R_3 + C_1 C_3 C_4 R_4) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2 C_1 C_4 R_1 g_m + 2 C_1 C_4 + 2 C_3 C_4 R_3 g_m + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

$$\mathbf{10.373 \quad INVALID-ORDER-373} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_4 R_1 R_3 g_m s^4 + g_m + s^3 (C_1 C_4 L_4 R_1 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_4 L_4 g_m) + s (C_1 R_1 g_m + C_3 R_3 g_m)}{s^4 (C_1 C_3 C_4 L_4 R_1 g_m + C_1 C_3 C_4 L_4) + s^3 (2 C_1 C_3 C_4 R_1 R_3 g_m + 2 C_1 C_3 C_4 R_3 + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2 C_1 C_4 R_1 g_m + 2 C_1 C_4 + 2 C_3 C_4 R_3 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

$$\mathbf{10.374 \quad INVALID-ORDER-374} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_4 R_1 R_3 g_m s^3 + L_4 g_m s + s^2 (C_1 L_4 R_1 g_m + C_3 L_4 R_3 g_m)}{2 g_m + s^4 (2 C_1 C_3 C_4 L_4 R_1 R_3 g_m + 2 C_1 C_3 C_4 L_4 R_3) + s^3 (C_1 C_3 L_4 R_1 g_m + C_1 C_3 L_4 + 2 C_1 C_4 L_4 R_1 g_m + 2 C_1 C_4 L_4 + 2 C_3 C_4 L_4 R_3 g_m) + s^2 (2 C_1 C_3 R_1 R_3 g_m + 2 C_1 C_3 R_3 + C_3 L_4 g_m + 2 C_4 L_4 g_m) + s (2 C_1 R_1 g_m + 2 C_1 + 2 C_3 R_3 g_m)}$$

$$\mathbf{10.375 \quad INVALID-ORDER-375} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_4 R_1 R_3 g_m s^4 + g_m + s^3 (C_1 C_3 C_4 R_1 R_3 R_4 g_m + C_1 C_4 L_4 R_1 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + C_3 C_4 R_3 R_4 g_m + C_4 L_4 g_m) + s (C_1 R_1 g_m + C_3 R_3 g_m + C_4 R_4 g_m)}{s^4 (C_1 C_3 C_4 L_4 R_1 g_m + C_1 C_3 C_4 L_4) + s^3 (2 C_1 C_3 C_4 R_1 R_3 g_m + C_1 C_3 C_4 R_1 R_4 g_m + 2 C_1 C_3 C_4 R_3 + C_1 C_3 C_4 R_4 + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2 C_1 C_4 R_1 g_m + 2 C_1 C_4 + 2 C_3 C_4 R_3 g_m + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

$$\mathbf{10.376 \quad INVALID-ORDER-376} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_4 R_1 R_3 R_4 g_m s^3 + L_4 R_4 g_m s + s^2 (C_1 L_4 R_1 R_4 g_m + C_3 L_4 R_3 R_4 g_m)}{2 R_4 g_m + s^4 (2 C_1 C_3 C_4 L_4 R_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_4 R_3 R_4) + s^3 (2 C_1 C_3 L_4 R_1 R_3 g_m + C_1 C_3 L_4 R_1 R_4 g_m + 2 C_1 C_3 L_4 R_3 + C_1 C_3 L_4 R_4 + 2 C_1 C_4 L_4 R_1 R_4 g_m + 2 C_1 C_4 L_4 R_4 + 2 C_3 C_4 L_4 R_3 R_4 g_m) + s^2 (2 C_1 C_3 R_1 R_3 R_4 g_m + 2 C_1 C_3 R_3 R_4 + 2 C_1 L_4 R_1 g_m + 2 C_1 L_4 + 2 C_3 L_4 R_3 g_m)}$$

$$\mathbf{10.377 \quad INVALID-ORDER-377} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_4 R_1 R_3 R_4 g_m s^4 + R_4 g_m + s^3 (C_1 C_3 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_4 g_m + C_3 C_4 L_4 R_3 R_4 g_m) + s^2 (C_1 C_3 R_1 R_3 R_4 g_m + C_1 L_4 R_1 g_m + C_3 L_4 R_3 g_m + C_4 L_4 R_4 g_m) + s (C_1 R_1 R_4 g_m + C_3 R_3 R_4 g_m + L_4 g_m)}{2g_m + s^4 (2C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_4 R_1 R_4 g_m + 2C_1 C_3 C_4 L_4 R_3 + C_1 C_3 C_4 L_4 R_4) + s^3 (C_1 C_3 L_4 R_1 g_m + C_1 C_3 L_4 + 2C_1 C_4 L_4 R_1 g_m + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m + C_3 C_4 L_4 R_4 g_m) + s^2 (2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4 + C_3 L_4 g_m + 2C_4 g_m) + s (C_1 R_1 g_m + C_3 R_3 g_m + L_4 g_m)}$$

$$\mathbf{10.378 \quad INVALID-ORDER-378} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_4 R_1 R_3 R_4 g_m s^4 + R_4 g_m + s^3 (C_1 C_4 L_4 R_1 R_4 g_m + C_3 C_4 L_4 R_3 R_4 g_m) + s^2 (C_1 C_3 R_1 R_3 R_4 g_m + C_4 L_4 R_4 g_m) + s (C_1 R_1 R_4 g_m + C_3 R_3 R_4 g_m)}{2g_m + s^4 (2C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_4 R_1 R_4 g_m + 2C_1 C_3 C_4 L_4 R_3 + C_1 C_3 C_4 L_4 R_4) + s^3 (2C_1 C_3 C_4 R_1 R_3 R_4 g_m + 2C_1 C_3 C_4 R_3 R_4 + 2C_1 C_4 L_4 R_1 g_m + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m + C_3 C_4 L_4 R_4 g_m) + s^2 (2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4 + C_3 L_4 g_m + 2C_4 g_m) + s (C_1 R_1 g_m + C_3 R_3 g_m + L_4 g_m)}$$

$$\mathbf{10.379 \quad INVALID-ORDER-379} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 R_1 R_4 g_m s^3 + C_1 R_1 R_4 g_m s + C_3 L_3 R_4 g_m s^2 + R_4 g_m}{2g_m + s^3 (2C_1 C_3 L_3 R_1 g_m + 2C_1 C_3 L_3) + s^2 (C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2C_3 L_3 g_m) + s (2C_1 R_1 g_m + 2C_1 + C_3 R_4 g_m)}$$

$$\mathbf{10.380 \quad INVALID-ORDER-380} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 R_1 g_m s^3 + C_1 R_1 g_m s + C_3 L_3 g_m s^2 + g_m}{2C_3 C_4 L_3 g_m s^3 + s^4 (2C_1 C_3 C_4 L_3 R_1 g_m + 2C_1 C_3 C_4 L_3) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2C_1 C_4 R_1 g_m + 2C_1 C_4) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.381 \quad INVALID-ORDER-381} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 R_1 R_4 g_m s^3 + C_1 R_1 R_4 g_m s + C_3 L_3 R_4 g_m s^2 + R_4 g_m}{2g_m + s^4 (2C_1 C_3 C_4 L_3 R_1 R_4 g_m + 2C_1 C_3 C_4 L_3 R_4) + s^3 (2C_1 C_3 L_3 R_1 g_m + 2C_1 C_3 L_3 + 2C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_4 + 2C_3 L_3 g_m) + s (2C_1 R_1 g_m + 2C_1 + C_3 R_4 g_m + 2C_4 R_4 g_m)}$$

$$\mathbf{10.382 \quad INVALID-ORDER-382} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 R_1 R_4 g_m s^4 + g_m + s^3 (C_1 C_3 L_3 R_1 g_m + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_4 R_1 R_4 g_m + C_3 L_3 g_m) + s (C_1 R_1 g_m + C_4 R_4 g_m)}{s^4 (2C_1 C_3 C_4 L_3 R_1 g_m + 2C_1 C_3 C_4 L_3) + s^3 (C_1 C_3 C_4 R_1 R_4 g_m + C_1 C_3 C_4 R_4 + 2C_3 C_4 L_3 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2C_1 C_4 R_1 g_m + 2C_1 C_4 + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.383 \quad INVALID-ORDER-383} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 g_m s^5 + C_1 R_1 g_m s + C_3 C_4 L_3 L_4 g_m s^4 + g_m + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_4 L_4 R_1 g_m) + s^2 (C_3 L_3 g_m + C_4 L_4 g_m)}{s^4 (2C_1 C_3 C_4 L_3 R_1 g_m + 2C_1 C_3 C_4 L_3 + C_1 C_3 C_4 L_4 R_1 g_m + C_1 C_3 C_4 L_4) + s^3 (2C_3 C_4 L_3 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2C_1 C_4 R_1 g_m + 2C_1 C_4) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.384 \quad INVALID-ORDER-384} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 L_4 R_1 g_m s^4 + C_1 L_4 R_1 g_m s^2 + C_3 L_3 L_4 g_m s^3 + L_4 g_m s}{2C_3 C_4 L_3 L_4 g_m s^4 + 2g_m + s^5 (2C_1 C_3 C_4 L_3 L_4 R_1 g_m + 2C_1 C_3 C_4 L_3 L_4) + s^3 (2C_1 C_3 L_3 R_1 g_m + 2C_1 C_3 L_3 + C_1 C_3 L_4 R_1 g_m + C_1 C_3 L_4 + 2C_1 C_4 L_4 R_1 g_m + 2C_1 C_4 L_4) + s^2 (2C_3 L_3 g_m + C_3 L_4 g_m + 2C_4 L_4 g_m) + s (2C_1 R_1 g_m + 2C_1)}$$

$$\mathbf{10.385 \quad INVALID-ORDER-385} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 g_m s^5 + g_m + s^4 (C_1 C_3 C_4 L_3 R_1 R_4 g_m + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_4 L_4 R_1 g_m + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_4 R_1 R_4 g_m + C_3 L_3 g_m + C_4 L_4 g_m) + s (C_1 R_1 g_m + C_4 R_4 g_m)}{s^4 (2C_1 C_3 C_4 L_3 R_1 g_m + 2C_1 C_3 C_4 L_3 + C_1 C_3 C_4 L_4 R_1 g_m + C_1 C_3 C_4 L_4) + s^3 (C_1 C_3 C_4 R_1 R_4 g_m + C_1 C_3 C_4 R_4 + 2C_3 C_4 L_3 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2C_1 C_4 R_1 g_m + 2C_1 C_4 + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.386 \quad INVALID-ORDER-386} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 L_4 R_1 R_4 g_m s^4 + C_1 L_4 R_1 R_4 g_m s^2 + C_3 L_3 L_4 R_4 g_m s^3 + L_4 R_4 g_m s}{2 R_4 g_m + s^5 (2 C_1 C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_3 L_4 R_4) + s^4 (2 C_1 C_3 L_3 L_4 R_1 g_m + 2 C_1 C_3 L_3 L_4 + 2 C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (2 C_1 C_3 L_3 R_1 R_4 g_m + 2 C_1 C_3 L_3 R_4 + C_1 C_3 L_4 R_1 R_4 g_m + C_1 C_3 L_4 R_4 + 2 C_1 C_4 L_4 R_1 R_4 g_m + 2 C_1 C_4 L_4 R_4 + 2 C_3 L_3 L_4 g_m) + s^2 (2 C_1 L_4 R_1 g_m +$$

$$\mathbf{10.387 \quad INVALID-ORDER-387} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 R_4 g_m s^5 + R_4 g_m + s^4 (C_1 C_3 L_3 L_4 R_1 g_m + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (C_1 C_3 L_3 R_1 R_4 g_m + C_1 C_4 L_4 R_1 R_4 g_m + C_3 L_3 L_4 g_m) + s^2 (C_1 L_4 R_1 g_m + C_3 L_3 R_4 g_m + C_4 L_4 R_4 g_m) + s (C_1 R_1 R_4 g_m + L_4 g_m)}{2 g_m + s^5 (2 C_1 C_3 C_4 L_3 L_4 R_1 g_m + 2 C_1 C_3 C_4 L_3 L_4) + s^4 (C_1 C_3 C_4 L_4 R_1 R_4 g_m + C_1 C_3 C_4 L_4 R_4 + 2 C_3 C_4 L_3 L_4 g_m) + s^3 (2 C_1 C_3 L_3 R_1 g_m + 2 C_1 C_3 L_3 + C_1 C_3 L_4 R_1 g_m + C_1 C_3 L_4 + 2 C_1 C_4 L_4 R_1 g_m + 2 C_1 C_4 L_4 + C_3 C_4 L_4 R_4 g_m) + s^2 (C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2 C_3 L_3 g_m +$$

$$\mathbf{10.388 \quad INVALID-ORDER-388} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 R_4 g_m s^5 + C_1 R_1 R_4 g_m s + C_3 C_4 L_3 L_4 R_4 g_m s^4 + R_4 g_m + s^3 (C_1 C_3 L_3 R_1 R_4 g_m + C_1 C_4 L_4 R_1 R_4 g_m) + s^2 (C_3 L_3 R_4 g_m + C_4 L_4 R_4 g_m)}{2 g_m + s^5 (2 C_1 C_3 C_4 L_3 L_4 R_1 g_m + 2 C_1 C_3 C_4 L_3 L_4) + s^4 (2 C_1 C_3 C_4 L_3 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_3 R_4 + C_1 C_3 C_4 L_4 R_1 R_4 g_m + C_1 C_3 C_4 L_4 R_4 + 2 C_3 C_4 L_3 L_4 g_m) + s^3 (2 C_1 C_3 L_3 R_1 g_m + 2 C_1 C_3 L_3 + C_1 C_3 L_4 R_1 g_m + C_1 C_3 L_4 + 2 C_1 C_4 L_4 R_1 g_m + 2 C_1 C_4 L_4 + C_3 C_4 L_4 R_4 g_m) + s^2 (C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2 C_3 L_3 g_m +$$

$$\mathbf{10.389 \quad INVALID-ORDER-389} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_3 R_1 R_4 g_m s^2 + L_3 R_4 g_m s}{R_4 g_m + s^3 (C_1 C_3 L_3 R_1 R_4 g_m + C_1 C_3 L_3 R_4) + s^2 (2 C_1 L_3 R_1 g_m + 2 C_1 L_3 + C_3 L_3 R_4 g_m) + s (C_1 R_1 R_4 g_m + C_1 R_4 + 2 L_3 g_m)}$$

$$\mathbf{10.390 \quad INVALID-ORDER-390} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_3 R_1 g_m s^2 + L_3 g_m s}{g_m + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + 2 C_1 C_4 L_3 R_1 g_m + 2 C_1 C_4 L_3) + s^2 (C_3 L_3 g_m + 2 C_4 L_3 g_m) + s (C_1 R_1 g_m + C_1)}$$

$$\mathbf{10.391 \quad INVALID-ORDER-391} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_3 R_1 R_4 g_m s^2 + L_3 R_4 g_m s}{R_4 g_m + s^3 (C_1 C_3 L_3 R_1 R_4 g_m + C_1 C_3 L_3 R_4 + 2 C_1 C_4 L_3 R_1 R_4 g_m + 2 C_1 C_4 L_3 R_4) + s^2 (2 C_1 L_3 R_1 g_m + 2 C_1 L_3 + C_3 L_3 R_4 g_m + 2 C_4 L_3 R_4 g_m) + s (C_1 R_1 R_4 g_m + C_1 R_4 + 2 L_3 g_m)}$$

$$\mathbf{10.392 \quad INVALID-ORDER-392} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_3 R_1 R_4 g_m s^3 + L_3 g_m s + s^2 (C_1 L_3 R_1 g_m + C_4 L_3 R_4 g_m)}{g_m + s^4 (C_1 C_3 C_4 L_3 R_1 R_4 g_m + C_1 C_3 C_4 L_3 R_4) + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + 2 C_1 C_4 L_3 R_1 g_m + 2 C_1 C_4 L_3 + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_4 R_1 R_4 g_m + C_1 C_4 R_4 + C_3 L_3 g_m + 2 C_4 L_3 g_m) + s (C_1 R_1 g_m + C_1 + C_4 R_4 g_m)}$$

$$\mathbf{10.393 \quad INVALID-ORDER-393} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_3 L_4 R_1 g_m s^4 + C_1 L_3 R_1 g_m s^2 + C_4 L_3 L_4 g_m s^3 + L_3 g_m s}{C_3 C_4 L_3 L_4 g_m s^4 + g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_3 L_4) + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + 2 C_1 C_4 L_3 R_1 g_m + 2 C_1 C_4 L_3 + C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4) + s^2 (C_3 L_3 g_m + 2 C_4 L_3 g_m + C_4 L_4 g_m) + s (C_1 R_1 g_m + C_1)}$$

$$\mathbf{10.394 \quad INVALID-ORDER-394} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_3 L_4 R_1 g_m s^2 + L_3 L_4 g_m s}{2 L_3 g_m + L_4 g_m + s^3 (C_1 C_3 L_3 L_4 R_1 g_m + C_1 C_3 L_3 L_4 + 2 C_1 C_4 L_3 L_4 R_1 g_m + 2 C_1 C_4 L_3 L_4) + s^2 (C_3 L_3 L_4 g_m + 2 C_4 L_3 L_4 g_m) + s (2 C_1 L_3 R_1 g_m + 2 C_1 L_3 + C_1 L_4 R_1 g_m + C_1 L_4)}$$

$$\mathbf{10.395 \quad INVALID-ORDER-395} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_3 L_4 R_1 g_m s^4 + L_3 g_m s + s^3 (C_1 C_4 L_3 R_1 R_4 g_m + C_4 L_3 L_4 g_m) + s^2 (C_1 L_3 R_1 g_m + C_4 L_3 R_4 g_m)}{g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_3 L_4) + s^4 (C_1 C_3 C_4 L_3 R_1 R_4 g_m + C_1 C_3 C_4 L_3 R_4 + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + 2C_1 C_4 L_3 R_1 g_m + 2C_1 C_4 L_3 + C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4 + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_4 R_1 R_4 g_m + C_1 C_4 R_4 + C_3 L_3 g_m + 2C_4 L_3 R_1 g_m)}$$

$$\mathbf{10.396 \quad INVALID-ORDER-396} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_3 L_4 R_1 R_4 g_m s^2 + L_3 L_4 R_4 g_m s}{2L_3 R_4 g_m + L_4 R_4 g_m + s^3 (C_1 C_3 L_3 L_4 R_1 R_4 g_m + C_1 C_3 L_3 L_4 R_4 + 2C_1 C_4 L_3 L_4 R_1 R_4 g_m + 2C_1 C_4 L_3 L_4 R_4) + s^2 (2C_1 L_3 L_4 R_1 g_m + 2C_1 L_3 L_4 + C_3 L_3 L_4 R_4 g_m + 2C_4 L_3 L_4 R_4 g_m) + s (2C_1 L_3 R_1 R_4 g_m + 2C_1 L_3 R_4 + C_1 L_4 R_1 R_4 g_m + C_1 L_4 R_4 + 2L_3 L_4 g_m)}$$

$$\mathbf{10.397 \quad INVALID-ORDER-397} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_3 L_4 R_1 R_4 g_m s^4 + L_3 R_4 g_m s + s^3 (C_1 L_3 L_4 R_1 g_m + C_4 L_3 L_4 R_4 g_m) + s^2 (C_1 L_3 R_1 R_4 g_m + L_3 L_4 g_m)}{R_4 g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 R_4 g_m + C_1 C_3 C_4 L_3 L_4 R_4) + s^4 (C_1 C_3 L_3 L_4 R_1 g_m + C_1 C_3 L_3 L_4 + 2C_1 C_4 L_3 L_4 R_1 g_m + 2C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (C_1 C_3 L_3 R_1 R_4 g_m + C_1 C_3 L_3 R_4 + C_1 C_4 L_4 R_1 R_4 g_m + C_1 C_4 L_4 R_4 + C_3 L_3 L_4 g_m + 2C_4 L_3 L_4 g_m) + s^2 (2C_1 L_3 R_1 g_m)}$$

$$\mathbf{10.398 \quad INVALID-ORDER-398} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_3 L_4 R_1 R_4 g_m s^4 + C_1 L_3 R_1 R_4 g_m s^2 + C_4 L_3 L_4 R_4 g_m s^3 + L_3 R_4 g_m s}{R_4 g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 R_4 g_m + C_1 C_3 C_4 L_3 L_4 R_4) + s^4 (2C_1 C_4 L_3 L_4 R_1 g_m + 2C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (C_1 C_3 L_3 R_1 R_4 g_m + C_1 C_3 L_3 R_4 + 2C_1 C_4 L_3 R_1 R_4 g_m + 2C_1 C_4 L_3 R_4 + C_1 C_4 L_4 R_1 R_4 g_m + C_1 C_4 L_4 R_4 + 2C_4 L_3 L_4 g_m) + s^2 (2C_1 L_3 R_1 g_m + 2C_1 L_3 R_4)}$$

$$\mathbf{10.399 \quad INVALID-ORDER-399} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 R_1 R_4 g_m s^3 + R_4 g_m + s^2 (C_1 C_3 R_1 R_3 R_4 g_m + C_3 L_3 R_4 g_m) + s (C_1 R_1 R_4 g_m + C_3 R_3 R_4 g_m)}{2g_m + s^3 (2C_1 C_3 L_3 R_1 g_m + 2C_1 C_3 L_3) + s^2 (2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4 + 2C_3 L_3 g_m) + s (2C_1 R_1 g_m + 2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m)}$$

$$\mathbf{10.400 \quad INVALID-ORDER-400} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 R_1 g_m s^3 + g_m + s^2 (C_1 C_3 R_1 R_3 g_m + C_3 L_3 g_m) + s (C_1 R_1 g_m + C_3 R_3 g_m)}{s^4 (2C_1 C_3 C_4 L_3 R_1 g_m + 2C_1 C_3 C_4 L_3) + s^3 (2C_1 C_3 C_4 R_1 R_3 g_m + 2C_1 C_3 C_4 R_3 + 2C_3 C_4 L_3 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2C_1 C_4 R_1 g_m + 2C_1 C_4 + 2C_3 C_4 R_3 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.401 \quad INVALID-ORDER-401} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 R_1 R_4 g_m s^3 + R_4 g_m + s^2 (C_1 C_3 R_1 R_3 R_4 g_m + C_3 L_3 R_4 g_m) + s (C_1 R_1 R_4 g_m + C_3 R_3 R_4 g_m)}{2g_m + s^4 (2C_1 C_3 C_4 L_3 R_1 R_4 g_m + 2C_1 C_3 C_4 L_3 R_4) + s^3 (2C_1 C_3 C_4 R_1 R_3 R_4 g_m + 2C_1 C_3 C_4 R_3 R_4 + 2C_1 C_3 L_3 R_1 g_m + 2C_1 C_3 L_3 + 2C_3 C_4 L_3 R_4 g_m) + s^2 (2C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2C_1 C_3 R_3 + C_1 C_3 R_4 + 2C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_4 + 2C_3 C_4 R_3 R_4 g_m + 2C_3 L_3 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.402 \quad INVALID-ORDER-402} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 R_1 R_4 g_m s^4 + g_m + s^3 (C_1 C_3 C_4 R_1 R_3 R_4 g_m + C_1 C_3 L_3 R_1 g_m + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + C_3 C_4 R_3 R_4 g_m + C_3 L_3 g_m) + s (C_1 R_1 g_m + C_3 R_3 g_m + C_4 R_4 g_m)}{s^4 (2C_1 C_3 C_4 L_3 R_1 g_m + 2C_1 C_3 C_4 L_3) + s^3 (2C_1 C_3 C_4 R_1 R_3 g_m + C_1 C_3 C_4 R_1 R_4 g_m + 2C_1 C_3 C_4 R_3 + C_1 C_3 C_4 R_4 + 2C_3 C_4 L_3 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2C_1 C_4 R_1 g_m + 2C_1 C_4 + 2C_3 C_4 R_3 g_m + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.403 \quad INVALID-ORDER-403} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 g_m s^5 + g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_4 L_4 R_1 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_3 L_3 g_m + C_4 L_4 g_m) + s (C_1 R_1 g_m + C_3 R_3 g_m)}{s^4 (2C_1 C_3 C_4 L_3 R_1 g_m + 2C_1 C_3 C_4 L_3 + C_1 C_3 C_4 L_4 R_1 g_m + C_1 C_3 C_4 L_4) + s^3 (2C_1 C_3 C_4 R_1 R_3 g_m + 2C_1 C_3 C_4 R_3 + 2C_3 C_4 L_3 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2C_1 C_4 R_1 g_m + 2C_1 C_4 + 2C_3 C_4 R_3 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.404 \quad INVALID-ORDER-404} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 L_4 R_1 g_m s^4 + L_4 g_m s + s^3 (C_1 C_3 L_4 R_1 R_3 g_m + C_3 L_3 L_4 g_m) + s^2 (C_1 L_4 R_1 g_m + C_3 L_4 R_3 g_m)}{2g_m + s^5 (2C_1 C_3 C_4 L_3 L_4 R_1 g_m + 2C_1 C_3 C_4 L_3 L_4) + s^4 (2C_1 C_3 C_4 L_4 R_1 R_3 g_m + 2C_1 C_3 C_4 L_4 R_3 + 2C_3 C_4 L_3 L_4 g_m) + s^3 (2C_1 C_3 L_3 R_1 g_m + 2C_1 C_3 L_3 + C_1 C_3 L_4 R_1 g_m + C_1 C_3 L_4 + 2C_1 C_4 L_4 R_1 g_m + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m) + s^2 (2C_1 C_3 R_1 R_3 g_m + 2C_1 C_3 R_3 + 2C_3 C_4 R_3 g_m) + s (C_1 R_1 R_3 g_m + C_1 R_3 + C_3 R_3 g_m) + s^0 (C_1 R_3 + C_3 R_3)}$$

$$\mathbf{10.405 \quad INVALID-ORDER-405} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 g_m s^5 + g_m + s^4 (C_1 C_3 C_4 L_3 R_1 R_4 g_m + C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 C_4 R_1 R_3 R_4 g_m + C_1 C_3 L_3 R_1 g_m + C_1 C_4 L_4 R_1 g_m + C_3 C_4 L_3 R_4 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + C_3 C_4 R_3 R_4 g_m + C_3 L_3 g_m + C_4 L_4 g_m)}{s^4 (2C_1 C_3 C_4 L_3 R_1 g_m + 2C_1 C_3 C_4 L_3 + C_1 C_3 C_4 L_4 R_1 g_m + C_1 C_3 C_4 L_4) + s^3 (2C_1 C_3 C_4 R_1 R_3 g_m + C_1 C_3 C_4 R_1 R_4 g_m + 2C_1 C_3 C_4 R_3 + C_1 C_3 C_4 R_4 + 2C_3 C_4 L_3 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2C_1 C_4 R_1 g_m + 2C_1 C_4 + 2C_3 C_4 R_3 g_m + C_3 C_4 R_4 g_m) + s (C_1 R_1 g_m + C_1 + C_3 R_3 g_m + C_3) + s^0 (C_1 + C_3)}$$

$$\mathbf{10.406 \quad INVALID-ORDER-406} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 L_4 R_1 R_4 g_m s^4 + L_4 R_4 g_m s + s^3 (C_1 C_3 L_4 R_1 R_3 R_4 g_m)}{2R_4 g_m + s^5 (2C_1 C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2C_1 C_3 C_4 L_3 L_4 R_4) + s^4 (2C_1 C_3 C_4 L_4 R_1 R_3 R_4 g_m + 2C_1 C_3 C_4 L_4 R_3 R_4 + 2C_1 C_3 L_3 L_4 R_1 g_m + 2C_1 C_3 L_3 L_4 + 2C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (2C_1 C_3 L_3 R_1 R_4 g_m + 2C_1 C_3 L_3 R_4 + 2C_1 C_3 L_4 R_1 R_3 g_m + C_1 C_3 L_4 R_1 R_4 g_m + 2C_1 C_3 L_4 R_3 + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_3 + 2C_3 C_4 R_3 g_m) + s (C_1 R_1 R_3 g_m + C_1 R_3 + C_3 R_3 g_m) + s^0 (C_1 R_3 + C_3 R_3)}$$

$$\mathbf{10.407 \quad INVALID-ORDER-407} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 R_4 g_m s^5 + R_4 g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_1 C_3 L_3 L_4 R_1 g_m + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (C_1 C_3 L_3 R_1 R_4 g_m + C_1 C_3 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_4 g_m + C_3 C_4 L_4 R_3 R_4 g_m + C_3 L_3 L_4 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + C_3 C_4 R_3 R_4 g_m + C_3 L_3 g_m + C_4 L_4 g_m)}{2g_m + s^5 (2C_1 C_3 C_4 L_3 L_4 R_1 g_m + 2C_1 C_3 C_4 L_3 L_4) + s^4 (2C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_4 R_1 R_4 g_m + 2C_1 C_3 C_4 L_4 R_3 + C_1 C_3 C_4 L_4 R_4 + 2C_3 C_4 L_3 L_4 g_m) + s^3 (2C_1 C_3 L_3 R_1 g_m + 2C_1 C_3 L_3 + C_1 C_3 L_4 R_1 g_m + C_1 C_3 L_4 + 2C_1 C_4 L_4 R_1 g_m + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m + C_3 C_4 L_4 R_4 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2C_1 C_4 R_1 g_m + 2C_1 C_4 + 2C_3 C_4 R_3 g_m + C_3 C_4 R_4 g_m) + s (C_1 R_1 g_m + C_1 + C_3 R_3 g_m + C_3) + s^0 (C_1 + C_3)}$$

$$\mathbf{10.408 \quad INVALID-ORDER-408} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 R_4 g_m s^5 + R_4 g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (C_1 C_3 L_3 R_1 R_4 g_m + C_1 C_3 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_4 g_m + C_3 C_4 L_4 R_3 R_4 g_m + C_3 L_3 L_4 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + C_3 C_4 R_3 R_4 g_m + C_3 L_3 g_m + C_4 L_4 g_m)}{2g_m + s^5 (2C_1 C_3 C_4 L_3 L_4 R_1 g_m + 2C_1 C_3 C_4 L_3 L_4) + s^4 (2C_1 C_3 C_4 L_3 R_1 R_4 g_m + 2C_1 C_3 C_4 L_3 R_4 + 2C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_4 R_1 R_4 g_m + 2C_1 C_3 C_4 L_4 R_3 + C_1 C_3 C_4 L_4 R_4 + 2C_3 C_4 L_3 L_4 g_m) + s^3 (2C_1 C_3 L_3 R_1 g_m + 2C_1 C_3 L_3 + C_1 C_3 L_4 R_1 g_m + C_1 C_3 L_4 + 2C_1 C_4 L_4 R_1 g_m + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m + C_3 C_4 L_4 R_4 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2C_1 C_4 R_1 g_m + 2C_1 C_4 + 2C_3 C_4 R_3 g_m + C_3 C_4 R_4 g_m) + s (C_1 R_1 g_m + C_1 + C_3 R_3 g_m + C_3) + s^0 (C_1 + C_3)}$$

$$\mathbf{10.409 \quad INVALID-ORDER-409} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_3 R_1 R_3 R_4 g_m s^2 + L_3 R_3 R_4 g_m s}{R_3 R_4 g_m + s^3 (C_1 C_3 L_3 R_1 R_3 R_4 g_m + C_1 C_3 L_3 R_3 R_4) + s^2 (2C_1 L_3 R_1 R_3 g_m + C_1 L_3 R_1 R_4 g_m + 2C_1 L_3 R_3 + C_1 L_3 R_4 + C_3 L_3 R_3 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + C_1 R_3 R_4 + 2L_3 R_3 g_m + L_3 R_4 g_m) + s^0 (C_1 R_3 + C_3 R_3)}$$

$$\mathbf{10.410 \quad INVALID-ORDER-410} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_3 R_1 R_3 g_m s^2 + L_3 R_3 g_m s}{R_3 g_m + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_3 + 2C_1 C_4 L_3 R_1 R_3 g_m + 2C_1 C_4 L_3 R_3) + s^2 (C_1 L_3 R_1 g_m + C_1 L_3 + C_3 L_3 R_3 g_m + 2C_4 L_3 R_3 g_m) + s (C_1 R_1 R_3 g_m + C_1 R_3 + L_3 g_m) + s^0 (C_1 R_3 + C_3 R_3)}$$

$$\mathbf{10.411 \quad INVALID-ORDER-411} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_3 R_1 R_3 R_4 g_m s^2 + L_3 R_3 R_4 g_m s}{R_3 R_4 g_m + s^3 (C_1 C_3 L_3 R_1 R_3 R_4 g_m + C_1 C_3 L_3 R_3 R_4 + 2C_1 C_4 L_3 R_1 R_3 R_4 g_m + 2C_1 C_4 L_3 R_3 R_4) + s^2 (2C_1 L_3 R_1 R_3 g_m + C_1 L_3 R_1 R_4 g_m + 2C_1 L_3 R_3 + C_1 L_3 R_4 + C_3 L_3 R_3 R_4 g_m + 2C_4 L_3 R_3 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + C_1 R_3 R_4 + 2L_3 R_3 g_m + L_3 R_4 g_m) + s^0 (C_1 R_3 + C_3 R_3)}$$

$$\mathbf{10.412 \quad INVALID-ORDER-412} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_3 R_1 R_3 R_4 g_m s^3 + L_3 R_3 g_m s + s^2 (C_1 L_3 R_1 R_3 g_m + C_4 L_3 R_3 R_4 g_m)}{R_3 g_m + s^4 (C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_3 R_3 R_4) + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_3 + 2C_1 C_4 L_3 R_1 R_3 g_m + C_1 C_4 L_3 R_1 R_4 g_m + 2C_1 C_4 L_3 R_3 + C_1 C_4 L_3 R_4 + C_3 C_4 L_3 R_3 R_4 g_m) + s^2 (C_1 C_4 R_1 R_3 R_4 g_m + C_1 C_4 R_3 R_4 + C_1 L_3 R_1 g_m + C_1 L_3 + C_3 L_3 R_3 g_m + 2C_4 L_3 R_3 g_m) + s (C_1 R_1 R_3 R_4 g_m + C_1 R_3 R_4 + 2L_3 R_3 g_m + L_3 R_4 g_m) + s^0 (C_1 R_3 + C_3 R_3)}$$

$$\mathbf{10.413 \quad INVALID-ORDER-413} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_3 L_4 R_1 R_3 g_m s^4 + C_1 L_3 R_1 R_3 g_m s^2 + C_4 L_3 L_4 R_3 g_m s^3 + L_3 R_3 g_m s}{R_3 g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_3 L_4 R_3) + s^4 (C_1 C_4 L_3 L_4 R_1 g_m + C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_3 + 2C_1 C_4 L_3 R_1 R_3 g_m + 2C_1 C_4 L_3 R_3 + C_1 C_4 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_3 + C_4 L_3 L_4 g_m) + s^2 (C_1 L_3 R_1 g_m + C_1 L_3 + C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_3) + s (C_1 L_3 R_1 R_3 g_m + C_1 L_3 R_3 + C_1 L_4 R_1 R_3 g_m + C_1 L_4 R_3 + L_3 L_4 g_m)}$$

$$\mathbf{10.414 \quad INVALID-ORDER-414} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_3 L_4 R_1 R_3 g_m s^2 + L_3 L_4 R_3 g_m s}{2L_3 R_3 g_m + L_4 R_3 g_m + s^3 (C_1 C_3 L_3 L_4 R_1 R_3 g_m + C_1 C_3 L_3 L_4 R_3 + 2C_1 C_4 L_3 L_4 R_1 R_3 g_m + 2C_1 C_4 L_3 L_4 R_3) + s^2 (C_1 L_3 L_4 R_1 g_m + C_1 L_3 L_4 + C_3 L_3 L_4 R_3 g_m + 2C_4 L_3 L_4 R_3 g_m) + s (2C_1 L_3 R_1 R_3 g_m + 2C_1 L_3 R_3 + C_1 L_4 R_1 R_3 g_m + C_1 L_4 R_3 + L_3 L_4 g_m)}$$

$$\mathbf{10.415 \quad INVALID-ORDER-415} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_3 L_4 R_1 R_3 g_m s^4 + L_3 R_3 g_m s + s^3 (C_1 C_4 L_3 R_1 R_3 R_4 g_m + C_4 L_3 L_4 R_3)}{R_3 g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_3 L_4 R_3) + s^4 (C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_3 R_3 R_4 + C_1 C_4 L_3 L_4 R_1 g_m + C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_3 + 2C_1 C_4 L_3 R_1 R_3 g_m + C_1 C_4 L_3 R_1 R_4 g_m + 2C_1 C_4 L_3 R_3 + C_1 C_4 L_3 R_4 + C_1 C_4 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_3 + C_4 L_3 L_4 g_m) + s^2 (C_1 L_3 R_1 g_m + C_1 L_3 + C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_3) + s (C_1 L_3 R_1 R_3 g_m + C_1 L_3 R_3 + C_1 L_4 R_1 R_3 g_m + C_1 L_4 R_3 + L_3 L_4 g_m)}$$

$$\mathbf{10.416 \quad INVALID-ORDER-416} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_3 L_4 R_1 R_3 R_4 g_m s^2 + L_3 L_4 R_3 R_4 g_m s}{2L_3 R_3 R_4 g_m + L_4 R_3 R_4 g_m + s^3 (C_1 C_3 L_3 L_4 R_1 R_3 R_4 g_m + C_1 C_3 L_3 L_4 R_3 R_4 + 2C_1 C_4 L_3 L_4 R_1 R_3 R_4 g_m + 2C_1 C_4 L_3 L_4 R_3 R_4) + s^2 (2C_1 L_3 L_4 R_1 R_3 g_m + C_1 L_3 L_4 R_1 R_4 g_m + 2C_1 L_3 L_4 R_3 + C_1 L_3 L_4 R_4 + C_3 L_3 L_4 R_3 R_4 g_m + 2C_4 L_3 L_4 R_3 R_4 g_m) + s (2C_1 L_3 R_1 R_3 R_4 g_m + 2C_1 L_3 R_1 R_3 R_4 + C_1 L_4 R_1 R_3 R_4 g_m + C_1 L_4 R_1 R_3 R_4 + L_3 L_4 R_3 R_4 g_m)}$$

$$\mathbf{10.417 \quad INVALID-ORDER-417} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_3 L_4 R_1 R_3 R_4 g_m s^4 + L_3 R_3 R_4 g_m s}{R_3 R_4 g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_3 L_4 R_3 R_4) + s^4 (C_1 C_3 L_3 L_4 R_1 R_3 g_m + C_1 C_3 L_3 L_4 R_3 + 2C_1 C_4 L_3 L_4 R_1 R_3 g_m + C_1 C_4 L_3 L_4 R_1 R_4 g_m + 2C_1 C_4 L_3 L_4 R_3 + C_1 C_4 L_3 L_4 R_4 + C_3 C_4 L_3 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 R_4 g_m + C_1 C_3 L_3 R_3 R_4 + C_1 C_4 L_4 R_1 R_3 R_4 g_m + C_1 C_4 L_4 R_3 R_4 + C_4 L_3 L_4 R_3 R_4 g_m) + s^2 (C_1 L_3 R_1 R_3 R_4 g_m + C_1 L_3 R_1 R_3 R_4 + C_1 L_4 R_1 R_3 R_4 g_m + C_1 L_4 R_1 R_3 R_4 + L_3 L_4 R_3 R_4 g_m) + s (C_1 L_3 R_1 R_3 R_4 g_m + C_1 L_3 R_1 R_3 R_4 + C_1 L_4 R_1 R_3 R_4 + C_1 L_4 R_1 R_3 R_4 + L_3 L_4 R_3 R_4 g_m)}$$

$$\mathbf{10.418 \quad INVALID-ORDER-418} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_3 L_4 R_1 R_3 R_4 g_m s^4 + C_1 L_3 R_1 R_3 R_4 g_m s^2 + C_4 L_3 L_4 R_3 R_4 g_m s}{R_3 R_4 g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_3 L_4 R_3 R_4) + s^4 (2C_1 C_4 L_3 L_4 R_1 R_3 g_m + C_1 C_4 L_3 L_4 R_1 R_4 g_m + 2C_1 C_4 L_3 L_4 R_3 + C_1 C_4 L_3 L_4 R_4 + C_3 C_4 L_3 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 R_4 g_m + C_1 C_3 L_3 R_3 R_4 + 2C_1 C_4 L_3 R_1 R_3 R_4 g_m + 2C_1 C_4 L_3 R_3 R_4 + C_1 C_4 L_4 R_1 R_3 R_4 g_m + C_1 C_4 L_4 R_3 R_4 + C_4 L_3 L_4 R_3 R_4 g_m) + s^2 (C_1 L_3 R_1 R_3 R_4 g_m + C_1 L_3 R_1 R_3 R_4 + C_1 L_4 R_1 R_3 R_4 g_m + C_1 L_4 R_1 R_3 R_4 + L_3 L_4 R_3 R_4 g_m) + s (C_1 L_3 R_1 R_3 R_4 g_m + C_1 L_3 R_1 R_3 R_4 + C_1 L_4 R_1 R_3 R_4 + C_1 L_4 R_1 R_3 R_4 + L_3 L_4 R_3 R_4 g_m)}$$

$$\mathbf{10.419 \quad INVALID-ORDER-419} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 R_1 R_3 R_4 g_m s^3 + R_3 R_4 g_m + s^2 (C_1 L_3 R_1 R_4 g_m + C_3 L_3 R_3 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + L_3 R_4 g_m)}{2R_3 g_m + R_4 g_m + s^3 (2C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_1 R_4 g_m + 2C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4) + s^2 (2C_1 L_3 R_1 g_m + 2C_1 L_3 + 2C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m) + s (2C_1 R_1 R_3 g_m + C_1 R_1 R_4 g_m + 2C_1 R_3 + C_1 R_4 + 2L_3 g_m)}$$

$$\mathbf{10.420 \quad INVALID-ORDER-420} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 R_1 R_3 g_m s^3 + R_3 g_m + s^2 (C_1 L_3 R_1 g_m + C_3 L_3 R_3 g_m) + s (C_1 R_1 R_3 g_m + L_3 g_m)}{g_m + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 g_m + 2C_1 C_3 C_4 L_3 R_3) + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + 2C_1 C_4 L_3 R_1 g_m + 2C_1 C_4 L_3 + 2C_3 C_4 L_3 R_3 g_m) + s^2 (2C_1 C_4 R_1 R_3 g_m + 2C_1 C_4 R_3 + C_3 L_3 g_m + 2C_4 L_3 g_m) + s (C_1 R_1 g_m + C_1 + 2C_4 R_3 g_m)}$$

$$\mathbf{10.421 \quad INVALID-ORDER-421} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 R_1 R_3 R_4 g_m s^3 + R_3 R_4 g_m + s^2 (C_1 L_3 R_1 R_4 g_m + C_3 L_3 R_3 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + L_3 R_4 g_m)}{2R_3 g_m + R_4 g_m + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m + 2C_1 C_3 C_4 L_3 R_3 R_4) + s^3 (2C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_1 R_4 g_m + 2C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4 + 2C_1 C_4 L_3 R_1 R_4 g_m + 2C_1 C_4 L_3 R_4 + 2C_3 C_4 L_3 R_3 R_4 g_m) + s^2 (2C_1 C_4 R_1 R_3 R_4 g_m + 2C_1 C_4 R_3 R_4 + 2C_1 L_3 R_1 g_m + 2C_1 L_3 + C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_3) + s (C_1 L_3 R_1 R_3 R_4 g_m + C_1 L_3 R_1 R_3 R_4 + C_1 L_4 R_1 R_3 R_4 g_m + C_1 L_4 R_1 R_3 R_4 + L_3 L_4 R_3 R_4 g_m)}$$

$$\mathbf{10.422 \quad INVALID-ORDER-422} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m s^4 + R_3 g_m + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_4 L_3 R_1 R_4 g_m + C_3 C_4 L_3 R_3 R_4 g_m) + s^2 (C_1 C_4 R_1 R_3 R_4 g_m + C_1 L_3 R_1 g_m + C_3 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_1 R_1 R_3 g_m + C_4 R_3 R_4 g_m + L_3 g_m)}{g_m + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 g_m + C_1 C_3 C_4 L_3 R_1 R_4 g_m + 2C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_3 R_4) + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + 2C_1 C_4 L_3 R_1 g_m + 2C_1 C_4 L_3 + 2C_3 C_4 L_3 R_3 g_m + C_3 C_4 L_3 R_4 g_m) + s^2 (2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4 + C_3 L_3 g_m + 2C_4 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_1 R_1 R_3 g_m + C_4 R_3 R_4 g_m + L_3 g_m)}$$

$$\mathbf{10.423 \quad INVALID-ORDER-423} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m s^5 + R_3 g_m + s^4 (C_1 C_4 L_3 L_4 R_1 g_m + C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_3 g_m + C_4 L_3 L_4 g_m) + s^2 (C_1 L_3 R_1 g_m + C_3 L_3 R_3 g_m + C_4 L_4 R_3 g_m) + s (C_1 R_1 R_3 g_m + L_3 g_m)}{g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_3 L_4) + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 g_m + 2C_1 C_3 C_4 L_3 R_3 + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + 2C_1 C_4 L_3 R_1 g_m + 2C_1 C_4 L_3 + C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4 + 2C_3 C_4 L_3 R_3 g_m) + s^2 (2C_1 C_4 R_1 R_3 g_m + 2C_1 C_4 R_3 + C_3 L_3 g_m + 2C_4 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_1 R_1 R_3 g_m + L_3 g_m)}$$

$$\mathbf{10.424 \quad INVALID-ORDER-424} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 L_4 R_1 R_3 g_m s^4 + L_4 R_3 g_m s + s^3 (C_1 L_3 L_4 R_1 g_m + C_3 L_3 L_4 R_3 g_m) + s^2 (C_1 L_4 R_1 R_3 g_m + L_3 L_4 g_m)}{2R_3 g_m + s^5 (2C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m + 2C_1 C_3 C_4 L_3 L_4 R_3) + s^4 (C_1 C_3 L_3 L_4 R_1 g_m + C_1 C_3 L_3 L_4 + 2C_1 C_4 L_3 L_4 R_1 g_m + 2C_1 C_4 L_3 L_4 + 2C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (2C_1 C_3 L_3 R_1 R_3 g_m + 2C_1 C_3 L_3 R_3 + 2C_1 C_4 L_4 R_1 R_3 g_m + 2C_1 C_4 L_4 R_3 + C_3 L_3 L_4 g_m + 2C_4 L_3 L_4 g_m) + s^2 (2C_1 C_4 R_1 R_3 g_m + 2C_1 C_4 R_3 + C_3 L_3 g_m + 2C_4 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_1 R_1 R_3 g_m + L_3 g_m)}$$

$$\mathbf{10.425 \quad INVALID-ORDER-425} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m s^5 + R_3 g_m + s^4 (C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m + C_1 C_4 L_3 L_4 R_1 g_m + C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_4 L_3 R_1 R_4 g_m + C_1 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_3 R_3 R_4 g_m + C_4 L_3 L_4 g_m) + s^2 (C_1 C_4 R_1 R_3 R_4 g_m + C_1 L_3 R_1 g_m + C_3 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + L_3 R_3 g_m + L_4 R_4 g_m)}{g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_3 L_4) + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 g_m + C_1 C_3 C_4 L_3 R_1 R_4 g_m + 2C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_3 R_4 + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + 2C_1 C_4 L_3 R_1 g_m + 2C_1 C_4 L_3 + C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4 + 2C_3 C_4 L_3 R_3 g_m + C_3 C_4 L_3 R_4 g_m) + s^2 (2C_1 C_4 R_1 R_3 R_4 g_m + 2C_1 C_4 R_3 + C_3 L_3 g_m + 2C_4 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + L_3 R_3 g_m + L_4 R_4 g_m)}$$

$$\mathbf{10.426 \quad INVALID-ORDER-426} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 L_4 R_1 R_3 R_4 g_m s^4 + L_4 R_3 g_m s + s^3 (C_1 L_3 L_4 R_1 g_m + C_3 L_3 L_4 R_3 g_m) + s^2 (C_1 L_4 R_1 R_3 g_m + L_3 L_4 g_m)}{2R_3 R_4 g_m + s^5 (2C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m + 2C_1 C_3 C_4 L_3 L_4 R_3 R_4) + s^4 (2C_1 C_3 L_3 L_4 R_1 R_3 g_m + C_1 C_3 L_3 L_4 R_1 R_4 g_m + 2C_1 C_3 L_3 L_4 R_3 + C_1 C_3 L_3 L_4 R_4 + 2C_1 C_4 L_3 L_4 R_1 R_4 g_m + 2C_1 C_4 L_3 L_4 R_4 + 2C_3 C_4 L_3 L_4 R_3 R_4 g_m) + s^3 (2C_1 C_3 L_3 R_1 R_3 R_4 g_m + 2C_1 C_3 L_3 R_3 R_4 + 2C_1 C_4 L_4 R_1 R_3 g_m + 2C_1 C_4 L_4 R_3 + C_3 L_3 L_4 g_m + 2C_4 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s^2 (2C_1 C_4 R_1 R_3 R_4 g_m + 2C_1 C_4 R_3 + C_3 L_3 g_m + 2C_4 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + L_3 R_3 g_m + L_4 R_4 g_m)}$$

$$\mathbf{10.427 \quad INVALID-ORDER-427} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m s^5 + R_3 R_4 g_m + s^4 (C_1 C_3 L_3 L_4 R_1 R_3 g_m + C_1 C_4 L_3 L_4 R_1 R_4 g_m + C_3 C_4 L_3 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 R_4 g_m + C_1 C_4 L_3 R_1 R_4 g_m + C_1 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_3 R_3 R_4 g_m + C_4 L_3 L_4 g_m) + s^2 (C_1 C_4 R_1 R_3 R_4 g_m + C_1 L_3 R_1 g_m + C_3 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + L_3 R_3 g_m + L_4 R_4 g_m)}{2R_3 g_m + R_4 g_m + s^5 (2C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_3 C_4 L_3 L_4 R_4) + s^4 (C_1 C_3 L_3 L_4 R_1 g_m + C_1 C_3 L_3 L_4 + 2C_1 C_4 L_3 L_4 R_1 g_m + 2C_1 C_4 L_3 L_4 + 2C_3 C_4 L_3 L_4 R_3 g_m + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (2C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_1 R_4 g_m + 2C_1 C_4 L_4 R_1 R_3 g_m + 2C_1 C_4 L_4 R_3 + C_3 L_3 g_m + 2C_4 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s^2 (2C_1 C_4 R_1 R_3 R_4 g_m + 2C_1 C_4 R_3 + C_3 L_3 g_m + 2C_4 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + L_3 R_3 g_m + L_4 R_4 g_m)}$$

$$\mathbf{10.428 \quad INVALID-ORDER-428} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m s^5 + R_3 R_4 g_m + s^4 (C_1 C_4 L_3 L_4 R_1 R_4 g_m + C_3 C_4 L_3 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 R_4 g_m + C_1 C_4 L_3 R_1 R_4 g_m + C_1 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_3 R_3 R_4 g_m + C_4 L_3 L_4 g_m) + s^2 (C_1 C_4 R_1 R_3 R_4 g_m + C_1 L_3 R_1 g_m + C_3 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + L_3 R_3 g_m + L_4 R_4 g_m)}{2R_3 g_m + R_4 g_m + s^5 (2C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_3 C_4 L_3 L_4 R_4) + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m + 2C_1 C_3 C_4 L_3 R_3 R_4 + 2C_1 C_4 L_3 L_4 R_1 g_m + 2C_1 C_4 L_3 L_4 + 2C_3 C_4 L_3 L_4 R_3 g_m + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (2C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_1 R_4 g_m + 2C_1 C_4 L_4 R_1 R_3 g_m + 2C_1 C_4 L_4 R_3 + C_3 L_3 g_m + 2C_4 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s^2 (2C_1 C_4 R_1 R_3 R_4 g_m + 2C_1 C_4 R_3 + C_3 L_3 g_m + 2C_4 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + L_3 R_3 g_m + L_4 R_4 g_m)}$$

$$\mathbf{10.429 \quad INVALID-ORDER-429} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 R_1 R_3 R_4 g_m s^3 + C_1 R_1 R_3 R_4 g_m s + C_3 L_3 R_3 R_4 g_m s^2 + R_3 R_4 g_m}{2R_3 g_m + R_4 g_m + s^3 (2C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_1 R_4 g_m + 2C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4) + s^2 (C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4 + 2C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m) + s (2C_1 R_1 R_3 g_m + C_1 R_1 R_4 g_m + 2C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m)}$$

$$\mathbf{10.430 \quad INVALID-ORDER-430} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 R_1 R_3 g_m s^3 + C_1 R_1 R_3 g_m s + C_3 L_3 R_3 g_m s^2 + R_3 g_m}{g_m + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 g_m + 2C_1 C_3 C_4 L_3 R_3) + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + 2C_3 C_4 L_3 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_3 + 2C_1 C_4 R_1 R_3 g_m + 2C_1 C_4 R_3 + C_3 L_3 g_m) + s (C_1 R_1 g_m + C_1 + C_3 R_3 g_m + 2C_4 R_3 g_m)}$$

$$\mathbf{10.431 \quad INVALID-ORDER-431} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 R_1 R_3 R_4 g_m s^3 + C_1 R_1 R_3 R_4 g_m s + C_3 L_3 R_3 R_4 g_m s^2 + R_3 R_4 g_m}{2 R_3 g_m + R_4 g_m + s^4 (2 C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_3 R_3 R_4) + s^3 (2 C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_1 R_4 g_m + 2 C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4 + 2 C_3 C_4 L_3 R_3 R_4 g_m) + s^2 (C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4 + 2 C_1 C_4 R_1 R_3 R_4 g_m + 2 C_1 C_4 R_3 R_4 + 2 C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m)}$$

$$\mathbf{10.432 \quad INVALID-ORDER-432} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m s^4 + R_3 g_m + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_3 C_4 L_3 R_3 R_4 g_m) + s^2 (C_1 C_4 R_1 R_3 R_4 g_m + C_3 L_3 R_3 g_m) + s (C_1 R_1 R_3 g_m + C_4 R_3 R_4 g_m)}{g_m + s^4 (2 C_1 C_3 C_4 L_3 R_1 R_3 g_m + C_1 C_3 C_4 L_3 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_3 R_4) + s^3 (C_1 C_3 C_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 R_3 R_4 + C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + 2 C_3 C_4 L_3 R_3 g_m + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_3 + 2 C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2 C_1 C_4 R_3 R_4 + 2 C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m)}$$

$$\mathbf{10.433 \quad INVALID-ORDER-433} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m s^5 + C_1 R_1 R_3 g_m s + C_3 C_4 L_3 L_4 R_3 g_m s^4 + R_3 g_m + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_3 g_m) + s^2 (C_3 L_3 R_3 g_m + C_4 L_4 R_3 g_m)}{g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_3 L_4) + s^4 (2 C_1 C_3 C_4 L_3 R_1 R_3 g_m + 2 C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_4 R_3 + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4 + 2 C_3 C_4 L_3 R_3 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_3 + 2 C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2 C_1 C_4 R_3 R_4 + 2 C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m)}$$

$$\mathbf{10.434 \quad INVALID-ORDER-434} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 L_4 R_1 R_3 g_m s^4 + C_1 L_4 R_1 R_3 g_m s^2 + C_3 L_3 L_4 R_3 g_m s^3 + L_4 R_3 g_m s}{2 R_3 g_m + s^5 (2 C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m + 2 C_1 C_3 C_4 L_3 L_4 R_3) + s^4 (C_1 C_3 L_3 L_4 R_1 g_m + C_1 C_3 L_3 L_4 + 2 C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (2 C_1 C_3 L_3 R_1 R_3 g_m + 2 C_1 C_3 L_3 R_3 + C_1 C_3 L_4 R_1 R_3 g_m + C_1 C_3 L_4 R_3 + 2 C_1 C_4 L_4 R_1 R_3 g_m + 2 C_1 C_4 L_4 R_3 + C_3 L_3 L_4 g_m) + s^2 (C_1 L_4 R_1 g_m + C_1 L_4 R_3 + C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m)}$$

$$\mathbf{10.435 \quad INVALID-ORDER-435} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m s^5 + R_3 g_m + s^4 (C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m + C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_3 g_m) + s^2 (C_3 L_3 R_3 g_m + C_4 L_4 R_3 g_m)}{g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_3 L_4) + s^4 (2 C_1 C_3 C_4 L_3 R_1 R_3 g_m + C_1 C_3 C_4 L_3 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_3 R_4 + C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_4 R_3 + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 C_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 R_3 R_4 + C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4 + 2 C_3 C_4 L_3 R_3 g_m + C_3 C_4 L_4 R_3 g_m)}$$

$$\mathbf{10.436 \quad INVALID-ORDER-436} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_3 L_4 R_1 R_3 R_4 g_m s^4 + C_1 L_4 R_1 R_3 R_4 g_m s^2 + C_3 L_3 L_4 R_3 R_4 g_m s^3 + L_4 R_3 R_4 g_m s}{2 R_3 R_4 g_m + s^5 (2 C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_3 L_4 R_3 R_4) + s^4 (2 C_1 C_3 L_3 L_4 R_1 R_3 g_m + C_1 C_3 L_3 L_4 R_1 R_4 g_m + 2 C_1 C_3 L_3 L_4 R_3 + C_1 C_3 L_3 L_4 R_4 + 2 C_3 C_4 L_3 L_4 R_3 R_4 g_m) + s^3 (2 C_1 C_3 L_3 R_1 R_3 R_4 g_m + 2 C_1 C_3 L_3 R_3 R_4 + C_1 C_3 L_4 R_1 R_3 R_4 g_m + C_1 C_3 L_4 R_3 R_4 + 2 C_1 C_4 L_4 R_1 R_3 R_4 g_m + 2 C_1 C_4 L_4 R_3 R_4 + C_3 L_3 L_4 g_m) + s^2 (C_1 L_4 R_1 g_m + C_1 L_4 R_3 + C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m)}$$

$$\mathbf{10.437 \quad INVALID-ORDER-437} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m s^5 + R_3 R_4 g_m + s^4 (C_1 C_3 L_3 L_4 R_1 R_3 R_4 g_m + C_3 C_4 L_3 L_4 R_3 R_4 g_m) + s^3 (2 C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_3 g_m) + s^2 (C_3 L_3 R_3 g_m + C_4 L_4 R_3 g_m)}{2 R_3 g_m + R_4 g_m + s^5 (2 C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_3 C_4 L_3 L_4 R_4) + s^4 (C_1 C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_4 R_3 R_4 + C_1 C_3 L_3 L_4 R_1 g_m + C_1 C_3 L_3 L_4 + 2 C_3 C_4 L_3 L_4 R_3 g_m + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (2 C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_3 R_4 + 2 C_1 C_4 L_4 R_3 R_4 + C_3 L_3 L_4 g_m) + s^2 (C_1 L_4 R_1 g_m + C_1 L_4 R_3 + C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m)}$$

$$\mathbf{10.438 \quad INVALID-ORDER-438} \quad Z(s) = \left(R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m s^5 + R_3 R_4 g_m + s^4 (C_1 C_3 L_3 L_4 R_1 R_3 R_4 g_m + C_3 C_4 L_3 L_4 R_3 R_4 g_m) + s^3 (2 C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_3 g_m) + s^2 (C_3 L_3 R_3 g_m + C_4 L_4 R_3 g_m)}{2 R_3 g_m + R_4 g_m + s^5 (2 C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_3 C_4 L_3 L_4 R_4) + s^4 (2 C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_3 R_3 R_4 + C_1 C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_4 R_3 R_4 + 2 C_3 C_4 L_3 L_4 R_3 g_m + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (2 C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_3 R_4 + 2 C_1 C_4 L_4 R_3 R_4 + C_3 L_3 L_4 g_m) + s^2 (C_1 L_4 R_1 g_m + C_1 L_4 R_3 + C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m)}$$

$$\mathbf{10.439 \quad INVALID-ORDER-439} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_3 g_m s^2 + R_3 g_m}{2 C_1 C_4 L_1 R_3 g_m s^3 + g_m + s^2 (2 C_1 C_4 R_3 + C_1 L_1 g_m) + s (C_1 + 2 C_4 R_3 g_m)}$$

$$10.440 \quad \text{INVALID-ORDER-440} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_3 R_4 g_m s^2 + R_3 R_4 g_m}{2 C_1 C_4 L_1 R_3 R_4 g_m s^3 + 2 R_3 g_m + R_4 g_m + s^2 (2 C_1 C_4 R_3 R_4 + 2 C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m) + s (2 C_1 R_3 + C_1 R_4 + 2 C_4 R_3 R_4 g_m)}$$

$$10.441 \quad \text{INVALID-ORDER-441} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 R_3 R_4 g_m s^3 + C_1 L_1 R_3 g_m s^2 + C_4 R_3 R_4 g_m s + R_3 g_m}{g_m + s^3 (2 C_1 C_4 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m) + s^2 (2 C_1 C_4 R_3 + C_1 C_4 R_4 + C_1 L_1 g_m) + s (C_1 + 2 C_4 R_3 g_m + C_4 R_4 g_m)}$$

$$10.442 \quad \text{INVALID-ORDER-442} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 g_m s^4 + R_3 g_m + s^2 (C_1 L_1 R_3 g_m + C_4 L_4 R_3 g_m)}{C_1 C_4 L_1 L_4 g_m s^4 + g_m + s^3 (2 C_1 C_4 L_1 R_3 g_m + C_1 C_4 L_4) + s^2 (2 C_1 C_4 R_3 + C_1 L_1 g_m + C_4 L_4 g_m) + s (C_1 + 2 C_4 R_3 g_m)}$$

$$10.443 \quad \text{INVALID-ORDER-443} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_4 R_3 g_m s^3 + L_4 R_3 g_m s}{2 C_1 C_4 L_1 L_4 R_3 g_m s^4 + 2 R_3 g_m + s^3 (2 C_1 C_4 L_4 R_3 + C_1 L_1 L_4 g_m) + s^2 (2 C_1 L_1 R_3 g_m + C_1 L_4 + 2 C_4 L_4 R_3 g_m) + s (2 C_1 R_3 + L_4 g_m)}$$

$$10.444 \quad \text{INVALID-ORDER-444} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 g_m s^4 + C_1 C_4 L_1 R_3 R_4 g_m s^3 + C_4 R_3 R_4 g_m s + R_3 g_m + s^2 (C_1 L_1 R_3 g_m + C_4 L_4 R_3 g_m)}{C_1 C_4 L_1 L_4 g_m s^4 + g_m + s^3 (2 C_1 C_4 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m + C_1 C_4 L_4) + s^2 (2 C_1 C_4 R_3 + C_1 C_4 R_4 + C_1 L_1 g_m + C_4 L_4 g_m) + s (C_1 + 2 C_4 R_3 g_m + C_4 R_4 g_m)}$$

$$10.445 \quad \text{INVALID-ORDER-445} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_4 R_3 R_4 g_m s^3 + L_4 R_3 R_4 g_m s}{2 C_1 C_4 L_1 L_4 R_3 R_4 g_m s^4 + 2 R_3 R_4 g_m + s^3 (2 C_1 C_4 L_4 R_3 R_4 + 2 C_1 L_1 L_4 R_3 g_m + C_1 L_1 L_4 R_4 g_m) + s^2 (2 C_1 L_1 R_3 R_4 g_m + 2 C_1 L_4 R_3 + C_1 L_4 R_4 + 2 C_4 L_4 R_3 R_4 g_m) + s (2 C_1 R_3 R_4 + 2 L_4 R_3 g_m + L_4 R_4 g_m)}$$

$$10.446 \quad \text{INVALID-ORDER-446} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 R_4 g_m s^4 + C_1 L_1 L_4 R_3 g_m s^3 + L_4 R_3 g_m s + R_3 R_4 g_m + s^2 (C_1 L_1 R_3 R_4 g_m + C_4 L_4 R_3 R_4 g_m)}{2 R_3 g_m + R_4 g_m + s^4 (2 C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (2 C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4 + C_1 L_1 L_4 g_m) + s^2 (2 C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m + C_1 L_4 + 2 C_4 L_4 R_3 g_m + C_4 L_4 R_4 g_m) + s (2 C_1 R_3 + C_1 R_4 + L_4 g_m)}$$

$$10.447 \quad \text{INVALID-ORDER-447} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 R_4 g_m s^4 + R_3 R_4 g_m + s^2 (C_1 L_1 R_3 R_4 g_m + C_4 L_4 R_3 R_4 g_m)}{2 R_3 g_m + R_4 g_m + s^4 (2 C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (2 C_1 C_4 L_1 R_3 R_4 g_m + 2 C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4) + s^2 (2 C_1 C_4 R_3 R_4 + 2 C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m + 2 C_4 L_4 R_3 g_m + C_4 L_4 R_4 g_m) + s (2 C_1 R_3 + C_1 R_4 + 2 C_4 R_3 R_4 g_m)}$$

$$10.448 \quad \text{INVALID-ORDER-448} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_4 g_m s^2 + R_4 g_m}{C_1 C_3 L_1 R_4 g_m s^3 + 2 g_m + s^2 (C_1 C_3 R_4 + 2 C_1 L_1 g_m) + s (2 C_1 + C_3 R_4 g_m)}$$

10.449 INVALID-ORDER-449 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 g_m s^2 + g_m}{s^3 (C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m) + s^2 (C_1 C_3 + 2C_1 C_4) + s (C_3 g_m + 2C_4 g_m)}$$

10.450 INVALID-ORDER-450 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 R_4 g_m s^2 + R_4 g_m}{2g_m + s^3 (C_1 C_3 L_1 R_4 g_m + 2C_1 C_4 L_1 R_4 g_m) + s^2 (C_1 C_3 R_4 + 2C_1 C_4 R_4 + 2C_1 L_1 g_m) + s (2C_1 + C_3 R_4 g_m + 2C_4 R_4 g_m)}$$

10.451 INVALID-ORDER-451 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 R_4 g_m s^3 + C_1 L_1 g_m s^2 + C_4 R_4 g_m s + g_m}{C_1 C_3 C_4 L_1 R_4 g_m s^4 + s^3 (C_1 C_3 C_4 R_4 + C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

10.452 INVALID-ORDER-452 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 g_m s^4 + g_m + s^2 (C_1 L_1 g_m + C_4 L_4 g_m)}{C_1 C_3 C_4 L_1 L_4 g_m s^5 + C_1 C_3 C_4 L_4 s^4 + s^3 (C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 + 2C_1 C_4) + s (C_3 g_m + 2C_4 g_m)}$$

10.453 INVALID-ORDER-453 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 L_4 g_m s^3 + L_4 g_m s}{2C_1 s + 2g_m + s^4 (C_1 C_3 L_1 L_4 g_m + 2C_1 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 L_4 + 2C_1 C_4 L_4) + s^2 (2C_1 L_1 g_m + C_3 L_4 g_m + 2C_4 L_4 g_m)}$$

10.454 INVALID-ORDER-454 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 g_m s^4 + C_1 C_4 L_1 R_4 g_m s^3 + C_4 R_4 g_m s + g_m + s^2 (C_1 L_1 g_m + C_4 L_4 g_m)}{C_1 C_3 C_4 L_1 L_4 g_m s^5 + s^4 (C_1 C_3 C_4 L_1 R_4 g_m + C_1 C_3 C_4 L_4) + s^3 (C_1 C_3 C_4 R_4 + C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

10.455 INVALID-ORDER-455 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 L_4 R_4 g_m s^3 + L_4 R_4 g_m s}{2R_4 g_m + s^4 (C_1 C_3 L_1 L_4 R_4 g_m + 2C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (C_1 C_3 L_4 R_4 + 2C_1 C_4 L_4 R_4 + 2C_1 L_1 L_4 g_m) + s^2 (2C_1 L_1 R_4 g_m + 2C_1 L_4 + C_3 L_4 R_4 g_m + 2C_4 L_4 R_4 g_m) + s (2C_1 R_4 + 2L_4 g_m)}$$

10.456 INVALID-ORDER-456 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_4 g_m s^4 + C_1 L_1 L_4 g_m s^3 + L_4 g_m s + R_4 g_m + s^2 (C_1 L_1 R_4 g_m + C_4 L_4 R_4 g_m)}{C_1 C_3 C_4 L_1 L_4 R_4 g_m s^5 + 2g_m + s^4 (C_1 C_3 C_4 L_4 R_4 + C_1 C_3 L_1 L_4 g_m + 2C_1 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 L_1 R_4 g_m + C_1 C_3 L_4 + 2C_1 C_4 L_4 + C_3 C_4 L_4 R_4 g_m) + s^2 (C_1 C_3 R_4 + 2C_1 L_1 g_m + C_3 L_4 g_m + 2C_4 L_4 g_m) + s (2C_1 + C_3 R_4 g_m)}$$

10.457 INVALID-ORDER-457 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \frac{1}{C_3 s}, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_4 g_m s^4 + R_4 g_m + s^2 (C_1 L_1 R_4 g_m + C_4 L_4 R_4 g_m)}{C_1 C_3 C_4 L_1 L_4 R_4 g_m s^5 + 2g_m + s^4 (C_1 C_3 C_4 L_4 R_4 + 2C_1 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 L_1 R_4 g_m + 2C_1 C_4 L_1 R_4 g_m + 2C_1 C_4 L_4 + C_3 C_4 L_4 R_4 g_m) + s^2 (C_1 C_3 R_4 + 2C_1 C_4 R_4 + 2C_1 L_1 g_m + 2C_4 L_4 g_m) + s (2C_1 + C_3 R_4 g_m + 2C_4 R_4 g_m)}$$

$$\mathbf{10.458 \quad INVALID-ORDER-458} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_3 R_4 g_m s^2 + R_3 R_4 g_m}{C_1 C_3 L_1 R_3 R_4 g_m s^3 + 2 R_3 g_m + R_4 g_m + s^2 (C_1 C_3 R_3 R_4 + 2 C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m) + s (2 C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m)}$$

$$\mathbf{10.459 \quad INVALID-ORDER-459} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_3 g_m s^2 + R_3 g_m}{g_m + s^3 (C_1 C_3 L_1 R_3 g_m + 2 C_1 C_4 L_1 R_3 g_m) + s^2 (C_1 C_3 R_3 + 2 C_1 C_4 R_3 + C_1 L_1 g_m) + s (C_1 + C_3 R_3 g_m + 2 C_4 R_3 g_m)}$$

$$\mathbf{10.460 \quad INVALID-ORDER-460} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_3 R_4 g_m s^2 + R_3 R_4 g_m}{2 R_3 g_m + R_4 g_m + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + 2 C_1 C_4 L_1 R_3 R_4 g_m) + s^2 (C_1 C_3 R_3 R_4 + 2 C_1 C_4 R_3 R_4 + 2 C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m) + s (2 C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m + 2 C_4 R_3 R_4 g_m)}$$

$$\mathbf{10.461 \quad INVALID-ORDER-461} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 R_3 R_4 g_m s^3 + C_1 L_1 R_3 g_m s^2 + C_4 R_3 R_4 g_m s + R_3 g_m}{C_1 C_3 C_4 L_1 R_3 R_4 g_m s^4 + g_m + s^3 (C_1 C_3 C_4 R_3 R_4 + C_1 C_3 L_1 R_3 g_m + 2 C_1 C_4 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m) + s^2 (C_1 C_3 R_3 + 2 C_1 C_4 R_3 + C_1 C_4 R_4 + C_1 L_1 g_m + C_3 C_4 R_3 R_4 g_m) + s (C_1 + C_3 R_3 g_m + 2 C_4 R_3 g_m + C_4 R_4 g_m)}$$

$$\mathbf{10.462 \quad INVALID-ORDER-462} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 g_m s^4 + R_3 g_m + s^2 (C_1 L_1 R_3 g_m + C_4 L_4 R_3 g_m)}{C_1 C_3 C_4 L_1 L_4 R_3 g_m s^5 + g_m + s^4 (C_1 C_3 C_4 L_4 R_3 + C_1 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 L_1 R_3 g_m + 2 C_1 C_4 L_1 R_3 g_m + C_1 C_4 L_4 + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_3 + 2 C_1 C_4 R_3 + C_1 L_1 g_m + C_4 L_4 g_m) + s (C_1 + C_3 R_3 g_m + 2 C_4 R_3 g_m)}$$

$$\mathbf{10.463 \quad INVALID-ORDER-463} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_4 R_3 g_m s^3 + L_4 R_3 g_m s}{2 R_3 g_m + s^4 (C_1 C_3 L_1 L_4 R_3 g_m + 2 C_1 C_4 L_1 L_4 R_3 g_m) + s^3 (C_1 C_3 L_4 R_3 + 2 C_1 C_4 L_4 R_3 + C_1 L_1 L_4 g_m) + s^2 (2 C_1 L_1 R_3 g_m + C_1 L_4 + C_3 L_4 R_3 g_m + 2 C_4 L_4 R_3 g_m) + s (2 C_1 R_3 + L_4 g_m)}$$

$$\mathbf{10.464 \quad INVALID-ORDER-464} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 g_m s^4 + C_1 C_4 L_1 R_3 R_4 g_m s^3 + C_4 R_3 R_4 g_m s + R_3 g_m + s^2 (C_1 L_1 R_3 g_m + C_4 L_4 R_3 g_m)}{C_1 C_3 C_4 L_1 L_4 R_3 g_m s^5 + g_m + s^4 (C_1 C_3 C_4 L_1 R_3 R_4 g_m + C_1 C_3 C_4 L_4 R_3 + C_1 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 C_4 R_3 R_4 + C_1 C_3 L_1 R_3 g_m + 2 C_1 C_4 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m + C_1 C_4 L_4 + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_3 + 2 C_1 C_4 R_3 + C_1 C_4 R_4 + C_1 L_1 g_m + C_3 C_4 R_3 R_4 g_m + C_4 L_4 g_m)}$$

$$\mathbf{10.465 \quad INVALID-ORDER-465} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_4 R_3 R_4 g_m s^3 + L_4 R_3 R_4 g_m s}{2 R_3 R_4 g_m + s^4 (C_1 C_3 L_1 L_4 R_3 R_4 g_m + 2 C_1 C_4 L_1 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_4 R_3 R_4 + 2 C_1 C_4 L_4 R_3 R_4 + 2 C_1 L_1 L_4 R_3 g_m + C_1 L_1 L_4 R_4 g_m) + s^2 (2 C_1 L_1 R_3 R_4 g_m + 2 C_1 L_4 R_3 + C_1 L_4 R_4 + C_3 L_4 R_3 R_4 g_m + 2 C_4 L_4 R_3 R_4 g_m) + s (2 C_1 R_3 R_4 + 2 L_4 R_3 g_m + L_4 R_4 g_m)}$$

$$\mathbf{10.466 \quad INVALID-ORDER-466} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 R_4 g_m s^4 + C_1 L_1 L_4 R_3 g_m s^3 + L_4 R_3 g_m s + R_3 R_4 g_m + s^2 (C_1 L_1 R_3 R_4 g_m + C_4 L_4 R_3 R_4 g_m)}{C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m s^5 + 2 R_3 g_m + R_4 g_m + s^4 (C_1 C_3 C_4 L_4 R_3 R_4 + C_1 C_3 L_1 L_4 R_3 g_m + 2 C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + C_1 C_3 L_4 R_3 + 2 C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4 + C_1 L_1 L_4 g_m + C_3 C_4 L_4 R_3 R_4 g_m) + s^2 (C_1 C_3 R_3 R_4 + 2 C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m)}$$

$$\mathbf{10.467 \quad INVALID-ORDER-467} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 R_4 g_m s^4 + R_3 R_4 g_m + s^2 (C_1 L_1 R_3 R_4 g_m + C_4 L_4 R_3 R_4 g_m)}{C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m s^5 + 2 R_3 g_m + R_4 g_m + s^4 (C_1 C_3 C_4 L_4 R_3 R_4 + 2 C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + 2 C_1 C_4 L_1 R_3 R_4 g_m + 2 C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4 + C_3 C_4 L_4 R_3 R_4 g_m) + s^2 (C_1 C_3 R_3 R_4 + 2 C_1 C_4 R_3 R_4 + 2 C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m + C_3 C_4 R_3 R_4 g_m)}$$

$$10.468 \quad \text{INVALID-ORDER-468} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 R_3 R_4 g_m s^3 + C_1 L_1 R_4 g_m s^2 + C_3 R_3 R_4 g_m s + R_4 g_m}{2g_m + s^3 (2C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_1 R_4 g_m) + s^2 (2C_1 C_3 R_3 + C_1 C_3 R_4 + 2C_1 L_1 g_m) + s (2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m)}$$

$$10.469 \quad \text{INVALID-ORDER-469} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 R_3 g_m s^3 + C_1 L_1 g_m s^2 + C_3 R_3 g_m s + g_m}{2C_1 C_3 C_4 L_1 R_3 g_m s^4 + s^3 (2C_1 C_3 C_4 R_3 + C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + 2C_3 C_4 R_3 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.470 \quad \text{INVALID-ORDER-470} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 R_3 R_4 g_m s^3 + C_1 L_1 R_4 g_m s^2 + C_3 R_3 R_4 g_m s + R_4 g_m}{2C_1 C_3 C_4 L_1 R_3 R_4 g_m s^4 + 2g_m + s^3 (2C_1 C_3 C_4 R_3 R_4 + 2C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_1 R_4 g_m + 2C_1 C_4 L_1 R_4 g_m) + s^2 (2C_1 C_3 R_3 + C_1 C_3 R_4 + 2C_1 C_4 R_4 + 2C_1 L_1 g_m + 2C_3 C_4 R_3 R_4 g_m) + s (2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m + 2C_4 R_4 g_m)}$$

$$10.471 \quad \text{INVALID-ORDER-471} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 R_3 R_4 g_m s^4 + g_m + s^3 (C_1 C_3 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m) + s^2 (C_1 L_1 g_m + C_3 C_4 R_3 R_4 g_m) + s (C_3 R_3 g_m + C_4 R_4 g_m)}{s^4 (2C_1 C_3 C_4 L_1 R_3 g_m + C_1 C_3 C_4 L_1 R_4 g_m) + s^3 (2C_1 C_3 C_4 R_3 + C_1 C_3 C_4 R_4 + C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + 2C_3 C_4 R_3 g_m + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.472 \quad \text{INVALID-ORDER-472} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_4 R_3 g_m s^5 + C_1 C_4 L_1 L_4 g_m s^4 + C_3 R_3 g_m s + g_m + s^3 (C_1 C_3 L_1 R_3 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 L_1 g_m + C_4 L_4 g_m)}{C_1 C_3 C_4 L_1 L_4 g_m s^5 + s^4 (2C_1 C_3 C_4 L_1 R_3 g_m + C_1 C_3 C_4 L_4) + s^3 (2C_1 C_3 C_4 R_3 + C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + 2C_3 C_4 R_3 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.473 \quad \text{INVALID-ORDER-473} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_4 R_3 g_m s^4 + C_1 L_1 L_4 g_m s^3 + C_3 L_4 R_3 g_m s^2 + L_4 g_m s}{2C_1 C_3 C_4 L_1 L_4 R_3 g_m s^5 + 2g_m + s^4 (2C_1 C_3 C_4 L_4 R_3 + C_1 C_3 L_1 L_4 g_m + 2C_1 C_4 L_1 L_4 g_m) + s^3 (2C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_4 + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m) + s^2 (2C_1 C_3 R_3 + 2C_1 L_1 g_m + C_3 L_4 g_m + 2C_4 L_4 g_m) + s (2C_1 + 2C_3 R_3 g_m)}$$

$$10.474 \quad \text{INVALID-ORDER-474} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_4 R_3 g_m s^5 + g_m + s^4 (C_1 C_3 C_4 L_1 R_3 R_4 g_m + C_1 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 L_1 g_m + C_3 C_4 R_3 R_4 g_m + C_4 L_4 g_m) + s (C_3 R_3 g_m + C_4 R_4 g_m)}{C_1 C_3 C_4 L_1 L_4 g_m s^5 + s^4 (2C_1 C_3 C_4 L_1 R_3 g_m + C_1 C_3 C_4 L_1 R_4 g_m + C_1 C_3 C_4 L_4) + s^3 (2C_1 C_3 C_4 R_3 + C_1 C_3 C_4 R_4 + C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + 2C_3 C_4 R_3 g_m + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.475 \quad \text{INVALID-ORDER-475} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_4 R_3 R_4 g_m s^4 + C_1 L_1 L_4 R_4 g_m s^3 + C_3 L_4 R_3 R_4 g_m s^2 + L_4 R_4 g_m s}{2C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m s^5 + 2R_4 g_m + s^4 (2C_1 C_3 C_4 L_4 R_3 R_4 + 2C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_1 L_4 R_4 g_m + 2C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (2C_1 C_3 L_1 R_3 R_4 g_m + 2C_1 C_3 L_4 R_3 + C_1 C_3 L_4 R_4 + 2C_1 C_4 L_4 R_4 + 2C_1 L_1 L_4 g_m + 2C_3 C_4 L_4 R_3 R_4 g_m) + s^2 (2C_1 C_3 R_3 R_4 + 2C_1 L_1 R_4 g_m + 2C_3 R_3 R_4 g_m) + s (2C_1 + 2C_3 R_3 g_m)}$$

$$10.476 \quad \text{INVALID-ORDER-476} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m s^5 + R_4 g_m + s^4 (C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + C_1 L_1 L_4 g_m + C_3 C_4 L_4 R_3 R_4 g_m) + s^2 (C_1 L_1 R_4 g_m + C_3 L_4 R_3 g_m + C_4 L_4 R_4 g_m) + s (C_3 R_3 R_4 g_m + L_4 g_m)}{2g_m + s^5 (2C_1 C_3 C_4 L_1 L_4 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_4 g_m) + s^4 (2C_1 C_3 C_4 L_4 R_3 + C_1 C_3 C_4 L_4 R_4 + C_1 C_3 L_1 L_4 g_m + 2C_1 C_4 L_1 L_4 g_m) + s^3 (2C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_1 R_4 g_m + C_1 C_3 L_4 + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m + C_3 C_4 L_4 R_4 g_m) + s^2 (2C_1 C_3 R_3 + C_1 C_3 R_4 + 2C_1 L_1 g_m)}$$

$$10.477 \quad \text{INVALID-ORDER-477} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m s^5 + C_1 C_4 L_1 L_4 R_4 g_m s^4 + C_3 R_3 R_4 g_m s + R_4 g_m + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + C_3 C_4 L_4 R_3 R_4 g_m) + s^2 (C_1 L_1 R_4 g_m + C_4 L_4 R_4 g_m)}{2g_m + s^5 (2C_1 C_3 C_4 L_1 L_4 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_4 g_m) + s^4 (2C_1 C_3 C_4 L_1 R_3 R_4 g_m + 2C_1 C_3 C_4 L_4 R_3 + C_1 C_3 C_4 L_4 R_4 + 2C_1 C_4 L_1 L_4 g_m) + s^3 (2C_1 C_3 C_4 R_3 R_4 + 2C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_1 R_4 g_m + 2C_1 C_4 L_1 R_4 g_m + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m + C_3 C_4 L_4 R_4 g_m) + s^2 (2C_1 C_3 R_3 + C_1 C_3 R_4 + 2C_1 L_1 g_m)}$$

$$10.478 \quad \text{INVALID-ORDER-478} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_4 g_m s^4 + R_4 g_m + s^2 (C_1 L_1 R_4 g_m + C_3 L_3 R_4 g_m)}{2C_1 C_3 L_1 L_3 g_m s^4 + 2g_m + s^3 (C_1 C_3 L_1 R_4 g_m + 2C_1 C_3 L_3) + s^2 (C_1 C_3 R_4 + 2C_1 L_1 g_m + 2C_3 L_3 g_m) + s (2C_1 + C_3 R_4 g_m)}$$

$$10.479 \quad \text{INVALID-ORDER-479} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 g_m s^4 + g_m + s^2 (C_1 L_1 g_m + C_3 L_3 g_m)}{2C_1 C_3 C_4 L_1 L_3 g_m s^5 + 2C_1 C_3 C_4 L_3 s^4 + s^3 (C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m + 2C_3 C_4 L_3 g_m) + s^2 (C_1 C_3 + 2C_1 C_4) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.480 \quad \text{INVALID-ORDER-480} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_4 g_m s^4 + R_4 g_m + s^2 (C_1 L_1 R_4 g_m + C_3 L_3 R_4 g_m)}{2C_1 C_3 C_4 L_1 L_3 R_4 g_m s^5 + 2g_m + s^4 (2C_1 C_3 C_4 L_3 R_4 + 2C_1 C_3 L_1 L_3 g_m) + s^3 (C_1 C_3 L_1 R_4 g_m + 2C_1 C_3 L_3 + 2C_1 C_4 L_1 R_4 g_m + 2C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_3 R_4 + 2C_1 C_4 R_4 + 2C_1 L_1 g_m + 2C_3 L_3 g_m) + s (2C_1 + C_3 R_4 g_m + 2C_4 R_4 g_m)}$$

$$10.481 \quad \text{INVALID-ORDER-481} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 R_4 g_m s^5 + C_1 C_3 L_1 L_3 g_m s^4 + C_4 R_4 g_m s + g_m + s^3 (C_1 C_4 L_1 R_4 g_m + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 L_1 g_m + C_3 L_3 g_m)}{2C_1 C_3 C_4 L_1 L_3 g_m s^5 + s^4 (C_1 C_3 C_4 L_1 R_4 g_m + 2C_1 C_3 C_4 L_3) + s^3 (C_1 C_3 C_4 R_4 + C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m + 2C_3 C_4 L_3 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.482 \quad \text{INVALID-ORDER-482} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + g_m + s^4 (C_1 C_3 L_1 L_3 g_m + C_1 C_4 L_1 L_4 g_m + C_3 C_4 L_3 L_4 g_m) + s^2 (C_1 L_1 g_m + C_3 L_3 g_m + C_4 L_4 g_m)}{s^5 (2C_1 C_3 C_4 L_1 L_3 g_m + C_1 C_3 C_4 L_1 L_4 g_m) + s^4 (2C_1 C_3 C_4 L_3 + C_1 C_3 C_4 L_4) + s^3 (C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m + 2C_3 C_4 L_3 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 + 2C_1 C_4) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.483 \quad \text{INVALID-ORDER-483} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_4 g_m s^5 + L_4 g_m s + s^3 (C_1 L_1 L_4 g_m + C_3 L_3 L_4 g_m)}{2C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + 2C_1 C_3 C_4 L_3 L_4 s^5 + 2C_1 s + 2g_m + s^4 (2C_1 C_3 L_1 L_3 g_m + C_1 C_3 L_1 L_4 g_m + 2C_1 C_4 L_1 L_4 g_m + 2C_3 C_4 L_3 L_4 g_m) + s^3 (2C_1 C_3 L_3 + C_1 C_3 L_4 + 2C_1 C_4 L_4) + s^2 (2C_1 L_1 g_m + 2C_3 L_3 g_m + C_3 L_4 g_m + 2C_4 L_4 g_m)}$$

$$10.484 \quad \text{INVALID-ORDER-484} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + C_1 C_3 C_4 L_1 L_3 R_4 g_m s^5 + C_4 R_4 g_m s + g_m + s^4 (C_1 C_3 L_1 L_3 g_m + C_1 C_4 L_1 L_4 g_m + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_4 L_1 R_4 g_m + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 L_1 g_m + C_3 L_3 g_m + C_4 L_4 g_m)}{s^5 (2C_1 C_3 C_4 L_1 L_3 g_m + C_1 C_3 C_4 L_1 L_4 g_m) + s^4 (C_1 C_3 C_4 L_1 R_4 g_m + 2C_1 C_3 C_4 L_3 + C_1 C_3 C_4 L_4) + s^3 (C_1 C_3 C_4 R_4 + C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m + 2C_3 C_4 L_3 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$10.485 \quad \text{INVALID-ORDER-485} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_4 R_4 g_m s^5 + L_4 R_4 g_m s + s^3 (C_1 L_1 L_4 R_4 g_m + C_3 L_3 L_4 R_4 g_m)}{2C_1 C_3 C_4 L_1 L_3 L_4 R_4 g_m s^6 + 2R_4 g_m + s^5 (2C_1 C_3 C_4 L_3 L_4 R_4 + 2C_1 C_3 L_1 L_3 L_4 g_m) + s^4 (2C_1 C_3 L_1 L_3 R_4 g_m + C_1 C_3 L_1 L_4 R_4 g_m + 2C_1 C_3 L_3 L_4 + 2C_1 C_4 L_1 L_4 R_4 g_m + 2C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (2C_1 C_3 L_3 R_4 + C_1 C_3 L_4 R_4 + 2C_1 C_4 L_4 R_4 + 2C_1 L_1 L_4 g_m + 2C_3 L_3 L_4 g_m) + s^2 (C_1 L_1 R_4 g_m + C_3 L_3 R_4 g_m + C_4 L_4 R_4 g_m)}$$

$$10.486 \quad \text{INVALID-ORDER-486} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_4 g_m s^6 + C_1 C_3 L_1 L_3 L_4 g_m s^5 + L_4 g_m s + R_4 g_m + s^4 (C_1 C_3 L_1 L_3 R_4 g_m + C_1 C_4 L_1 L_4 R_4 g_m + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (C_1 L_1 L_4 g_m + C_3 L_3 L_4 g_m) + s^2 (C_1 L_1 R_4 g_m + C_3 L_3 R_4 g_m + C_4 L_4 R_4 g_m)}{2C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + 2g_m + s^5 (C_1 C_3 C_4 L_1 L_4 R_4 g_m + 2C_1 C_3 C_4 L_3 L_4) + s^4 (C_1 C_3 C_4 L_4 R_4 + 2C_1 C_3 L_1 L_3 g_m + C_1 C_3 L_1 L_4 g_m + 2C_1 C_4 L_1 L_4 g_m + 2C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_1 R_4 g_m + 2C_1 C_3 L_3 + C_1 C_3 L_4 + 2C_1 C_4 L_4 + C_3 C_4 L_4 R_4 g_m) + s^2 (C_1 C_3 R_4 + 2C_1 L_1 g_m)}$$

$$10.487 \quad \text{INVALID-ORDER-487} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_4 g_m s^6 + R_4 g_m + s^4 (C_1 C_3 L_1 L_3 R_4 g_m + C_1 C_4 L_1 L_4 R_4 g_m + C_3 C_4 L_3 L_4 R_4 g_m) + s^2 (C_1 L_1 R_4 g_m + C_3 L_3 R_4 g_m + C_4 L_4 R_4 g_m)}{2C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + 2g_m + s^5 (2C_1 C_3 C_4 L_1 L_3 R_4 g_m + C_1 C_3 C_4 L_1 L_4 R_4 g_m + 2C_1 C_3 C_4 L_3 L_4) + s^4 (2C_1 C_3 C_4 L_3 R_4 + C_1 C_3 C_4 L_4 R_4 + 2C_1 C_3 L_1 L_3 g_m + 2C_1 C_4 L_1 L_4 g_m + 2C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_1 R_4 g_m + 2C_1 C_3 L_3 + 2C_1 C_4 L_1 R_4 g_m + 2C_1 C_4 L_4 + 2C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_3 R_4 + 2C_1 L_1 g_m)}$$

$$10.488 \quad \text{INVALID-ORDER-488} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 R_4 g_m s^3 + L_3 R_4 g_m s}{C_1 C_3 L_1 L_3 R_4 g_m s^4 + R_4 g_m + s^3 (C_1 C_3 L_3 R_4 + 2C_1 L_1 L_3 g_m) + s^2 (C_1 L_1 R_4 g_m + 2C_1 L_3 + C_3 L_3 R_4 g_m) + s (C_1 R_4 + 2L_3 g_m)}$$

$$10.489 \quad \text{INVALID-ORDER-489} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 g_m s^3 + L_3 g_m s}{C_1 s + g_m + s^4 (C_1 C_3 L_1 L_3 g_m + 2C_1 C_4 L_1 L_3 g_m) + s^3 (C_1 C_3 L_3 + 2C_1 C_4 L_3) + s^2 (C_1 L_1 g_m + C_3 L_3 g_m + 2C_4 L_3 g_m)}$$

$$10.490 \quad \text{INVALID-ORDER-490} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 R_4 g_m s^3 + L_3 R_4 g_m s}{R_4 g_m + s^4 (C_1 C_3 L_1 L_3 R_4 g_m + 2C_1 C_4 L_1 L_3 R_4 g_m) + s^3 (C_1 C_3 L_3 R_4 + 2C_1 C_4 L_3 R_4 + 2C_1 L_1 L_3 g_m) + s^2 (C_1 L_1 R_4 g_m + 2C_1 L_3 + C_3 L_3 R_4 g_m + 2C_4 L_3 R_4 g_m) + s (C_1 R_4 + 2L_3 g_m)}$$

$$10.491 \quad \text{INVALID-ORDER-491} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 R_4 g_m s^4 + C_1 L_1 L_3 g_m s^3 + C_4 L_3 R_4 g_m s^2 + L_3 g_m s}{C_1 C_3 C_4 L_1 L_3 R_4 g_m s^5 + g_m + s^4 (C_1 C_3 C_4 L_3 R_4 + C_1 C_3 L_1 L_3 g_m + 2C_1 C_4 L_1 L_3 g_m) + s^3 (C_1 C_3 L_3 + C_1 C_4 L_1 R_4 g_m + 2C_1 C_4 L_3 + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_4 R_4 + C_1 L_1 g_m + C_3 L_3 g_m + 2C_4 L_3 g_m) + s (C_1 + C_4 R_4 g_m)}$$

$$10.492 \quad \text{INVALID-ORDER-492} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 g_m s^5 + L_3 g_m s + s^3 (C_1 L_1 L_3 g_m + C_4 L_3 L_4 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + C_1 C_3 C_4 L_3 L_4 s^5 + C_1 s + g_m + s^4 (C_1 C_3 L_1 L_3 g_m + 2C_1 C_4 L_1 L_3 g_m + C_1 C_4 L_1 L_4 g_m + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 + 2C_1 C_4 L_3 + C_1 C_4 L_4) + s^2 (C_1 L_1 g_m + C_3 L_3 g_m + 2C_4 L_3 g_m + C_4 L_4 g_m)}$$

$$10.493 \quad \text{INVALID-ORDER-493} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 L_4 g_m s^3 + L_3 L_4 g_m s}{2L_3 g_m + L_4 g_m + s^4 (C_1 C_3 L_1 L_3 L_4 g_m + 2C_1 C_4 L_1 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 L_4 + 2C_1 C_4 L_3 L_4) + s^2 (2C_1 L_1 L_3 g_m + C_1 L_1 L_4 g_m + C_3 L_3 L_4 g_m + 2C_4 L_3 L_4 g_m) + s (2C_1 L_3 + C_1 L_4)}$$

$$10.494 \quad \text{INVALID-ORDER-494} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 g_m s^5 + C_1 C_4 L_1 L_3 R_4 g_m s^4 + C_4 L_3 R_4 g_m s^2 + L_3 g_m s + s^3 (C_1 L_1 L_3 g_m + C_4 L_3 L_4 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + g_m + s^5 (C_1 C_3 C_4 L_1 L_3 R_4 g_m + C_1 C_3 C_4 L_3 L_4) + s^4 (C_1 C_3 C_4 L_3 R_4 + C_1 C_3 L_1 L_3 g_m + 2C_1 C_4 L_1 L_3 g_m + C_1 C_4 L_1 L_4 g_m + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 + C_1 C_4 L_1 R_4 g_m + 2C_1 C_4 L_3 + C_1 C_4 L_4 + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_4 R_4 + C_1 L_1 g_m + C_3 L_3 g_m + 2C_4 L_3 g_m)}$$

$$10.495 \quad \text{INVALID-ORDER-495} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 L_4 R_4 g_m s^3 + L_3 L_4 R_4 g_m s}{2L_3 R_4 g_m + L_4 R_4 g_m + s^4 (C_1 C_3 L_1 L_3 L_4 R_4 g_m + 2C_1 C_4 L_1 L_3 L_4 R_4 g_m) + s^3 (C_1 C_3 L_3 L_4 R_4 + 2C_1 C_4 L_3 L_4 R_4 + 2C_1 L_1 L_3 L_4 g_m) + s^2 (2C_1 L_1 L_3 R_4 g_m + C_1 L_1 L_4 R_4 g_m + 2C_1 L_3 L_4 + C_3 L_3 L_4 R_4 g_m + 2C_4 L_3 L_4 R_4 g_m) + s (2C_1 L_3 R_4 + C_1 L_4 R_4 + 2L_3 L_4 g_m)}$$

$$10.496 \quad \text{INVALID-ORDER-496} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 R_4 g_m s^5 + C_1 L_1 L_3 L_4 g_m s^4 + L_3 L_4 g_m s^2 + L_3 R_4 g_m s + s^3 (C_1 L_1 L_3 R_4 g_m + C_4 L_3 L_4 R_4 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 R_4 g_m s^6 + R_4 g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_4 + C_1 C_3 L_1 L_3 L_4 g_m + 2C_1 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_4 g_m + C_1 C_3 L_3 L_4 + C_1 C_4 L_1 L_4 R_4 g_m + 2C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (C_1 C_3 L_3 R_4 + C_1 C_4 L_4 R_4 + 2C_1 L_1 L_3 g_m + C_1 L_1 L_4 g_m + C_3 L_3 L_4 g_m + 2C_4 L_3 L_4 g_m) + s^2 (C_1 C_4 R_4 + C_1 L_1 g_m + C_3 L_3 g_m + 2C_4 L_3 g_m)}$$

$$10.497 \quad \text{INVALID-ORDER-497} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 R_4 g_m s^5 + L_3 R_4 g_m s + s^3 (C_1 L_1 L_3 R_4 g_m + C_4 L_3 L_4 R_4 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 R_4 g_m s^6 + R_4 g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_4 + 2C_1 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_4 g_m + 2C_1 C_4 L_1 L_3 R_4 g_m + C_1 C_4 L_1 L_4 R_4 g_m + 2C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (C_1 C_3 L_3 R_4 + 2C_1 C_4 L_3 R_4 + C_1 C_4 L_4 R_4 + 2C_1 L_1 L_3 g_m + 2C_4 L_3 L_4 g_m) + s^2 (C_1 L_1 g_m + C_3 L_3 g_m + 2C_4 L_3 g_m)}$$

$$\mathbf{10.498 \quad INVALID-ORDER-498} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_4 g_m s^4 + C_1 C_3 L_1 R_3 R_4 g_m s^3 + C_3 R_3 R_4 g_m s + R_4 g_m + s^2 (C_1 L_1 R_4 g_m + C_3 L_3 R_4 g_m)}{2C_1 C_3 L_1 L_3 g_m s^4 + 2g_m + s^3 (2C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_1 R_4 g_m + 2C_1 C_3 L_3) + s^2 (2C_1 C_3 R_3 + C_1 C_3 R_4 + 2C_1 L_1 g_m + 2C_3 L_3 g_m) + s (2C_1 + 2C_3 R_3 g_m + C_3 R_4 g_m)}$$

$$\mathbf{10.499 \quad INVALID-ORDER-499} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 g_m s^4 + C_1 C_3 L_1 R_3 g_m s^3 + C_3 R_3 g_m s + g_m + s^2 (C_1 L_1 g_m + C_3 L_3 g_m)}{2C_1 C_3 C_4 L_1 L_3 g_m s^5 + s^4 (2C_1 C_3 C_4 L_1 R_3 g_m + 2C_1 C_3 C_4 L_3) + s^3 (2C_1 C_3 C_4 R_3 + C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m + 2C_3 C_4 L_3 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + 2C_3 C_4 R_3 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.500 \quad INVALID-ORDER-500} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_4 g_m s^4 + C_1 C_3 L_1 R_3 R_4 g_m s^3 + C_3 R_3 R_4 g_m s + R_4 g_m + s^2 (C_1 L_1 R_4 g_m + C_3 L_3 R_4 g_m)}{2C_1 C_3 C_4 L_1 L_3 R_4 g_m s^5 + 2g_m + s^4 (2C_1 C_3 C_4 L_1 R_3 R_4 g_m + 2C_1 C_3 C_4 L_3 R_4 + 2C_1 C_3 L_1 L_3 g_m) + s^3 (2C_1 C_3 C_4 R_3 R_4 + 2C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_1 R_4 g_m + 2C_1 C_3 L_3 + 2C_1 C_4 L_1 R_4 g_m + 2C_3 C_4 L_3 R_4 g_m) + s^2 (2C_1 C_3 R_3 + C_1 C_3 R_4 + 2C_1 C_4 R_4 + 2C_1 L_1 g_m + 2C_3 C_4 R_3 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.501 \quad INVALID-ORDER-501} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 R_4 g_m s^5 + g_m + s^4 (C_1 C_3 C_4 L_1 R_3 R_4 g_m + C_1 C_3 L_1 L_3 g_m) + s^3 (C_1 C_3 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 L_1 g_m + C_3 C_4 R_3 R_4 g_m + C_3 L_3 g_m) + s (C_3 R_3 g_m + C_4 R_4 g_m)}{2C_1 C_3 C_4 L_1 L_3 g_m s^5 + s^4 (2C_1 C_3 C_4 L_1 R_3 g_m + C_1 C_3 C_4 L_1 R_4 g_m + 2C_1 C_3 C_4 L_3) + s^3 (2C_1 C_3 C_4 R_3 + C_1 C_3 C_4 R_4 + C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m + 2C_3 C_4 L_3 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + 2C_3 C_4 R_3 g_m + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.502 \quad INVALID-ORDER-502} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + C_1 C_3 C_4 L_1 L_4 R_3 g_m s^5 + C_3 R_3 g_m s + g_m + s^4 (C_1 C_3 L_1 L_3 g_m + C_1 C_4 L_1 L_4 g_m + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_1 R_3 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 L_1 g_m + C_3 L_3 g_m + C_4 L_4 g_m)}{s^5 (2C_1 C_3 C_4 L_1 L_3 g_m + C_1 C_3 C_4 L_1 L_4 g_m) + s^4 (2C_1 C_3 C_4 L_1 R_3 g_m + 2C_1 C_3 C_4 L_3 + C_1 C_3 C_4 L_4) + s^3 (2C_1 C_3 C_4 R_3 + C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m + 2C_3 C_4 L_3 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + 2C_3 C_4 R_3 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.503 \quad INVALID-ORDER-503} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_4 g_m s^5 + C_1 C_3 L_1 L_4 R_3 g_m s^4 + C_3 L_4 R_3 g_m s^2 + L_4 g_m s + s^3 (C_1 L_1 L_4 g_m + C_3 L_3 L_4 g_m)}{2C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + 2g_m + s^5 (2C_1 C_3 C_4 L_1 L_4 R_3 g_m + 2C_1 C_3 C_4 L_3 L_4) + s^4 (2C_1 C_3 C_4 L_4 R_3 + 2C_1 C_3 L_1 L_3 g_m + C_1 C_3 L_1 L_4 g_m + 2C_1 C_4 L_1 L_4 g_m + 2C_3 C_4 L_3 L_4 g_m) + s^3 (2C_1 C_3 L_1 R_3 g_m + 2C_1 C_3 L_3 + C_1 C_3 L_4 + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m) + s^2 (2C_1 C_3 R_3 + 2C_1 C_4 R_4 + 2C_3 C_4 R_3 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.504 \quad INVALID-ORDER-504} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + g_m + s^5 (C_1 C_3 C_4 L_1 L_3 R_4 g_m + C_1 C_3 C_4 L_1 L_4 R_3 g_m) + s^4 (C_1 C_3 C_4 L_1 R_3 R_4 g_m + C_1 C_3 L_1 L_3 g_m + C_1 C_4 L_1 L_4 g_m + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m + C_3 C_4 L_3 R_4 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 L_1 g_m + C_3 C_4 R_3 R_4 g_m + C_3 L_3 g_m) + s (C_3 R_3 g_m + C_4 R_4 g_m)}{s^5 (2C_1 C_3 C_4 L_1 L_3 g_m + C_1 C_3 C_4 L_1 L_4 g_m) + s^4 (2C_1 C_3 C_4 L_1 R_3 g_m + C_1 C_3 C_4 L_1 R_4 g_m + 2C_1 C_3 C_4 L_3 + C_1 C_3 C_4 L_4) + s^3 (2C_1 C_3 C_4 R_3 + C_1 C_3 C_4 R_4 + C_1 C_3 L_1 g_m + 2C_1 C_4 L_1 g_m + 2C_3 C_4 L_3 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 + 2C_1 C_4 + 2C_3 C_4 R_3 g_m + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.505 \quad INVALID-ORDER-505} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_4 R_4 g_m s^5 + C_1 C_3 L_1 L_4 R_3 R_4 g_m s^4 + C_3 L_4 R_3 R_4 g_m s^2 + L_4 g_m s + s^3 (C_1 L_1 L_4 g_m + C_3 L_3 L_4 g_m)}{2C_1 C_3 C_4 L_1 L_3 L_4 R_4 g_m s^6 + 2R_4 g_m + s^5 (2C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m + 2C_1 C_3 C_4 L_3 L_4 R_4 + 2C_1 C_3 L_1 L_3 L_4 g_m) + s^4 (2C_1 C_3 C_4 L_4 R_3 R_4 + 2C_1 C_3 L_1 L_3 R_4 g_m + 2C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_1 L_4 R_4 g_m + 2C_1 C_3 L_3 L_4 + 2C_1 C_4 L_1 L_4 R_4 g_m + 2C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (2C_1 C_3 L_1 R_3 g_m + 2C_1 C_3 L_3 + C_1 C_3 L_4 + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m) + s^2 (2C_1 C_3 R_3 + 2C_1 C_4 R_4 + 2C_3 C_4 R_3 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.506 \quad INVALID-ORDER-506} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_4 g_m s^6 + R_4 g_m + s^5 (C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m + C_1 C_3 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_4 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_4 L_1 L_4 R_4 g_m + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + C_1 L_1 L_4 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 L_1 g_m + C_3 C_4 R_3 R_4 g_m + C_3 L_3 g_m) + s (C_3 R_3 g_m + C_4 R_4 g_m)}{2C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + 2g_m + s^5 (2C_1 C_3 C_4 L_1 L_4 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_4 g_m + 2C_1 C_3 C_4 L_3 L_4) + s^4 (2C_1 C_3 C_4 L_4 R_3 + C_1 C_3 C_4 L_4 R_4 + 2C_1 C_3 L_1 L_3 g_m + C_1 C_3 L_1 L_4 g_m + 2C_1 C_4 L_1 L_4 g_m + 2C_3 C_4 L_3 L_4 g_m) + s^3 (2C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_1 R_4 g_m + 2C_1 C_3 L_3 + C_1 C_3 L_4 + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m) + s^2 (2C_1 C_3 R_3 + 2C_1 C_4 R_4 + 2C_3 C_4 R_3 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.507 \quad INVALID-ORDER-507} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_4 g_m s^6 + C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m s^5 + C_3 R_3 R_4 g_m s + R_4 g_m + s^4 (C_1 C_3 L_1 L_3 R_4 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_4 L_1 L_4 R_4 g_m + C_3 C_4 L_3 L_4 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + C_1 L_1 L_4 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 L_1 g_m + C_3 C_4 R_3 R_4 g_m + C_3 L_3 g_m) + s (C_3 R_3 g_m + C_4 R_4 g_m)}{2C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + 2g_m + s^5 (2C_1 C_3 C_4 L_1 L_3 R_4 g_m + 2C_1 C_3 C_4 L_1 L_4 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_4 g_m + 2C_1 C_3 C_4 L_3 L_4) + s^4 (2C_1 C_3 C_4 L_1 R_3 R_4 g_m + 2C_1 C_3 C_4 L_3 R_4 + 2C_1 C_3 C_4 L_4 R_3 + C_1 C_3 C_4 L_4 R_4 + 2C_1 C_3 L_1 L_3 g_m + 2C_1 C_4 L_1 L_4 g_m + 2C_3 C_4 L_3 L_4 g_m) + s^3 (2C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_1 R_4 g_m + 2C_1 C_3 L_3 + C_1 C_3 L_4 + 2C_1 C_4 L_4 + 2C_3 C_4 L_4 R_3 g_m) + s^2 (2C_1 C_3 R_3 + 2C_1 C_4 R_4 + 2C_3 C_4 R_3 g_m) + s (C_3 g_m + 2C_4 g_m)}$$

$$\mathbf{10.508 \quad INVALID-ORDER-508} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 R_3 R_4 g_m s^3 + L_3 R_3 R_4 g_m s}{C_1 C_3 L_1 L_3 R_3 R_4 g_m s^4 + R_3 R_4 g_m + s^3 (C_1 C_3 L_3 R_3 R_4 + 2C_1 L_1 L_3 R_3 g_m + C_1 L_1 L_3 R_4 g_m) + s^2 (C_1 L_1 R_3 R_4 g_m + 2C_1 L_3 R_3 + C_1 L_3 R_4 + C_3 L_3 R_3 R_4 g_m) + s (C_1 R_3 R_4 + 2L_3 R_3 g_m + L_3 R_4 g_m)}$$

$$\mathbf{10.509 \quad INVALID-ORDER-509} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 R_3 g_m s^3 + L_3 R_3 g_m s}{R_3 g_m + s^4 (C_1 C_3 L_1 L_3 R_3 g_m + 2C_1 C_4 L_1 L_3 R_3 g_m) + s^3 (C_1 C_3 L_3 R_3 + 2C_1 C_4 L_3 R_3 + C_1 L_1 L_3 g_m) + s^2 (C_1 L_1 R_3 g_m + C_1 L_3 + C_3 L_3 R_3 g_m + 2C_4 L_3 R_3 g_m) + s (C_1 R_3 + L_3 g_m)}$$

$$\mathbf{10.510 \quad INVALID-ORDER-510} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 R_3 R_4 g_m s^3 + L_3 R_3 R_4 g_m s}{R_3 R_4 g_m + s^4 (C_1 C_3 L_1 L_3 R_3 R_4 g_m + 2C_1 C_4 L_1 L_3 R_3 R_4 g_m) + s^3 (C_1 C_3 L_3 R_3 R_4 + 2C_1 C_4 L_3 R_3 R_4 + 2C_1 L_1 L_3 R_3 g_m + C_1 L_1 L_3 R_4 g_m) + s^2 (C_1 L_1 R_3 R_4 g_m + 2C_1 L_3 R_3 + C_1 L_3 R_4 + C_3 L_3 R_3 R_4 g_m + 2C_4 L_3 R_3 R_4 g_m) + s (C_1 R_3 R_4 + 2L_3 R_3 g_m + L_3 R_4 g_m)}$$

$$\mathbf{10.511 \quad INVALID-ORDER-511} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 R_3 R_4 g_m s^4 + C_1 L_1 L_3 R_3 g_m s^3 + C_4 L_3 R_3 R_4 g_m s^2 + L_3 R_3 g_m s}{C_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m s^5 + R_3 g_m + s^4 (C_1 C_3 C_4 L_3 R_3 R_4 + C_1 C_3 L_1 L_3 R_3 g_m + 2C_1 C_4 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_3 R_4 g_m) + s^3 (C_1 C_3 L_3 R_3 + C_1 C_4 L_1 R_3 R_4 g_m + 2C_1 C_4 L_3 R_3 + C_1 C_4 L_3 R_4 + C_1 L_1 L_3 g_m + C_3 C_4 L_3 R_3 R_4 g_m) + s^2 (C_1 C_4 R_3 R_4 + C_1 L_1 R_3 g_m + C_1 L_3 + C_3 L_3 R_3 R_4 g_m) + s (C_1 R_3 R_4 + 2L_3 R_3 g_m + L_3 R_4 g_m)}$$

$$\mathbf{10.512 \quad INVALID-ORDER-512} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 R_3 g_m s^5 + L_3 R_3 g_m s + s^3 (C_1 L_1 L_3 R_3 g_m + C_4 L_3 L_4 R_3 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m s^6 + R_3 g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_3 g_m + 2C_1 C_4 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (C_1 C_3 L_3 R_3 + 2C_1 C_4 L_3 R_3 + C_1 C_4 L_4 R_3 + C_1 L_1 L_3 g_m + C_4 L_3 L_4 g_m) + s^2 (C_1 L_1 R_3 g_m + C_4 L_3 L_4 g_m) + s (C_1 R_3 R_4 + 2L_3 R_3 g_m + L_3 R_4 g_m)}$$

$$\mathbf{10.513 \quad INVALID-ORDER-513} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 L_4 R_3 g_m s^3 + L_3 L_4 R_3 g_m s}{2L_3 R_3 g_m + L_4 R_3 g_m + s^4 (C_1 C_3 L_1 L_3 L_4 R_3 g_m + 2C_1 C_4 L_1 L_3 L_4 R_3 g_m) + s^3 (C_1 C_3 L_3 L_4 R_3 + 2C_1 C_4 L_3 L_4 R_3 + C_1 L_1 L_3 L_4 g_m) + s^2 (2C_1 L_1 L_3 R_3 g_m + C_1 L_1 L_4 R_3 g_m + C_1 L_3 L_4 + C_3 L_3 L_4 R_3 g_m + 2C_4 L_3 L_4 R_3 g_m) + s (2C_1 L_3 R_3 + C_1 L_4 R_3 + L_3 L_4 g_m)}$$

$$\mathbf{10.514 \quad INVALID-ORDER-514} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 R_3 g_m s^5 + C_1 C_4 L_1 L_3 R_3 R_4 g_m s^4 + C_4 L_3 R_3 R_4 g_m s^2 + L_3 R_3 g_m s}{C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m s^6 + R_3 g_m + s^5 (C_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m + C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 C_4 L_3 R_3 R_4 + C_1 C_3 L_1 L_3 R_3 g_m + 2C_1 C_4 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_3 R_4 g_m + C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (C_1 C_3 L_3 R_3 + C_1 C_4 L_3 R_3 + C_1 C_4 L_4 R_3 + C_1 L_1 L_3 g_m + C_4 L_3 L_4 g_m) + s^2 (C_1 L_1 R_3 g_m + C_4 L_3 L_4 g_m) + s (C_1 R_3 R_4 + 2L_3 R_3 g_m + L_3 R_4 g_m)}$$

$$\mathbf{10.515 \quad INVALID-ORDER-515} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 L_4 R_3 R_4 g_m s^3 + L_3 L_4 R_3 R_4 g_m s}{2L_3 R_3 R_4 g_m + L_4 R_3 R_4 g_m + s^4 (C_1 C_3 L_1 L_3 L_4 R_3 R_4 g_m + 2C_1 C_4 L_1 L_3 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_3 L_4 R_3 R_4 + 2C_1 C_4 L_3 L_4 R_3 R_4 + 2C_1 L_1 L_3 L_4 R_3 g_m + C_1 L_1 L_3 L_4 R_4 g_m) + s^2 (2C_1 L_1 L_3 R_3 R_4 g_m + C_1 L_1 L_4 R_3 R_4 g_m + 2C_1 L_3 L_4 R_3 + C_1 L_3 L_4 R_4 + C_3 L_3 L_4 R_3 R_4 g_m + 2C_4 L_3 L_4 R_3 R_4 g_m) + s (C_1 R_3 R_4 + 2L_3 R_3 g_m + L_3 R_4 g_m)}$$

$$\mathbf{10.516 \quad INVALID-ORDER-516} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^5 + C_1 L_1 L_3 L_4 R_3 g_m s^3 + L_3 R_3 R_4 g_m s}{C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^6 + R_3 R_4 g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_3 R_4 + C_1 C_3 L_1 L_3 L_4 R_3 g_m + 2C_1 C_4 L_1 L_3 L_4 R_3 g_m + C_1 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_3 R_4 g_m + C_1 C_3 L_3 L_4 R_3 + C_1 C_4 L_1 L_4 R_3 R_4 g_m + 2C_1 C_4 L_3 L_4 R_3 + C_1 C_4 L_3 L_4 R_4 + C_1 L_1 L_3 L_4 g_m + C_3 C_4 L_3 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_3 R_3 R_4 + 2C_1 C_4 L_3 R_3 R_4 + 2C_1 L_1 L_3 R_3 g_m + C_1 L_1 L_3 R_4 g_m + C_1 L_3 L_4 R_3 + C_1 L_3 L_4 R_4 + C_3 L_3 L_4 R_3 R_4 g_m + 2C_4 L_3 L_4 R_3 R_4 g_m) + s^2 (C_1 L_1 R_3 R_4 g_m + C_4 L_3 L_4 R_3 + C_1 L_3 L_4 R_3 + C_1 L_3 L_4 R_4 + C_3 L_3 L_4 R_3 R_4 g_m + 2C_4 L_3 L_4 R_3 R_4 g_m) + s (C_1 R_3 R_4 + 2L_3 R_3 g_m + L_3 R_4 g_m)}$$

$$\mathbf{10.517 \quad INVALID-ORDER-517} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^5 + L_3 R_3 R_4 g_m s + s^3 (C_1 L_1 L_3 R_3 g_m + C_4 L_3 L_4 R_3 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^6 + R_3 R_4 g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_3 R_4 + 2C_1 C_4 L_1 L_3 L_4 R_3 g_m + C_1 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_3 R_4 g_m + 2C_1 C_4 L_1 L_3 R_3 R_4 g_m + C_1 C_4 L_1 L_4 R_3 R_4 g_m + 2C_1 C_4 L_3 L_4 R_3 + C_1 C_4 L_3 L_4 R_4 + C_3 C_4 L_3 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_3 R_3 R_4 + 2C_1 C_4 L_3 R_3 R_4 + 2C_1 L_1 L_3 R_3 g_m + C_1 L_1 L_3 R_4 g_m + C_1 L_3 L_4 R_3 + C_1 L_3 L_4 R_4 + C_3 L_3 L_4 R_3 R_4 g_m + 2C_4 L_3 L_4 R_3 R_4 g_m) + s^2 (C_1 L_1 R_3 R_4 g_m + C_4 L_3 L_4 R_3 + C_1 L_3 L_4 R_3 + C_1 L_3 L_4 R_4 + C_3 L_3 L_4 R_3 R_4 g_m + 2C_4 L_3 L_4 R_3 R_4 g_m) + s (C_1 R_3 R_4 + 2L_3 R_3 g_m + L_3 R_4 g_m)}$$

$$\mathbf{10.518 \quad INVALID-ORDER-518} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_3 R_4 g_m s^4 + C_1 L_1 L_3 R_4 g_m s^3 + L_3 R_4 g_m s + R_3 R_4 g_m + s^2 (C_1 L_1 R_3 R_4 g_m + C_3 L_3 R_3 R_4 g_m)}{2 R_3 g_m + R_4 g_m + s^4 (2 C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_3 R_4 g_m) + s^3 (2 C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4 + 2 C_1 L_1 L_3 g_m) + s^2 (2 C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m + 2 C_1 L_3 + 2 C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m) + s (2 C_1 R_3 + C_1 R_4 + 2 L_3 g_m)}$$

$$\mathbf{10.519 \quad INVALID-ORDER-519} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_3 g_m s^4 + C_1 L_1 L_3 g_m s^3 + L_3 g_m s + R_3 g_m + s^2 (C_1 L_1 R_3 g_m + C_3 L_3 R_3 g_m)}{2 C_1 C_3 C_4 L_1 L_3 R_3 g_m s^5 + g_m + s^4 (2 C_1 C_3 C_4 L_3 R_3 + C_1 C_3 L_1 L_3 g_m + 2 C_1 C_4 L_1 L_3 g_m) + s^3 (C_1 C_3 L_3 + 2 C_1 C_4 L_1 R_3 g_m + 2 C_1 C_4 L_3 + 2 C_3 C_4 L_3 R_3 g_m) + s^2 (2 C_1 C_4 R_3 + C_1 L_1 g_m + C_3 L_3 g_m + 2 C_4 L_3 g_m) + s (C_1 + 2 C_4 R_3 g_m)}$$

$$\mathbf{10.520 \quad INVALID-ORDER-520} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_3 R_4 g_m s^4 + C_1 L_1 L_3 R_4 g_m s^3 + L_3 R_4 g_m s + R_3 R_4 g_m + s^2 (C_1 L_1 R_3 R_4 g_m + C_3 L_3 R_3 R_4 g_m)}{2 C_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m s^5 + 2 R_3 g_m + R_4 g_m + s^4 (2 C_1 C_3 C_4 L_3 R_3 R_4 + 2 C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_3 R_4 g_m + 2 C_1 C_4 L_1 L_3 R_4 g_m) + s^3 (2 C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4 + 2 C_1 C_4 L_1 R_3 R_4 g_m + 2 C_1 C_4 L_3 R_4 + 2 C_1 L_1 L_3 g_m + 2 C_3 C_4 L_3 R_3 R_4 g_m) + s^2 (2 C_1 C_4 R_3 R_4 + 2 C_1 L_1 R_3 g_m + C_3 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_4 R_3 R_4 g_m + L_3 g_m)}$$

$$\mathbf{10.521 \quad INVALID-ORDER-521} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m s^5 + R_3 g_m + s^4 (C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_3 R_4 g_m) + s^3 (C_1 C_4 L_1 R_3 R_4 g_m + C_1 L_1 L_3 g_m + C_3 C_4 L_3 R_3 R_4 g_m) + s^2 (C_1 L_1 R_3 g_m + C_3 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_4 R_3 R_4 g_m + L_3 g_m)}{g_m + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_3 g_m + C_1 C_3 C_4 L_1 L_3 R_4 g_m) + s^4 (2 C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_3 R_4 + C_1 C_3 L_1 L_3 g_m + 2 C_1 C_4 L_1 L_3 g_m) + s^3 (C_1 C_3 L_3 + 2 C_1 C_4 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m + 2 C_1 C_4 L_3 + 2 C_3 C_4 L_3 R_3 g_m + C_3 C_4 L_3 R_4 g_m) + s^2 (2 C_1 C_4 R_3 + C_1 C_4 R_4 + C_1 L_1 g_m + C_3 L_3 g_m + C_4 L_3 g_m) + s (C_4 R_3 + C_4 R_4 + L_3)}$$

$$\mathbf{10.522 \quad INVALID-ORDER-522} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m s^6 + C_1 C_4 L_1 L_3 L_4 g_m s^5 + L_3 g_m s + R_3 g_m + s^4 (C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (C_1 L_1 L_3 g_m + C_4 L_3 L_4 g_m) + s^2 (C_1 L_1 R_3 g_m + C_3 L_3 R_3 g_m + C_4 L_4 R_3 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + g_m + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_3 g_m + C_1 C_3 C_4 L_3 L_4) + s^4 (2 C_1 C_3 C_4 L_3 R_3 + C_1 C_3 L_1 L_3 g_m + 2 C_1 C_4 L_1 L_3 g_m + C_1 C_4 L_1 L_4 g_m + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 + 2 C_1 C_4 L_1 R_3 g_m + 2 C_1 C_4 L_3 + C_1 C_4 L_4 + 2 C_3 C_4 L_3 R_3 g_m) + s^2 (2 C_1 C_4 R_3 + C_1 L_1 g_m + C_3 L_3 g_m + C_4 L_3 g_m) + s (C_4 R_3 + C_4 R_4 + L_4)}$$

$$\mathbf{10.523 \quad INVALID-ORDER-523} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_4 R_3 g_m s^5 + C_1 L_1 L_3 L_4 g_m s^4 + L_3 L_4 g_m s^2 + L_4 R_3 g_m s + s^3 (C_1 L_1 L_4 R_3 g_m + C_3 L_3 L_4 R_3 g_m)}{2 C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m s^6 + 2 R_3 g_m + s^5 (2 C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_3 L_1 L_3 L_4 g_m + 2 C_1 C_4 L_1 L_3 L_4 g_m) + s^4 (2 C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_3 L_4 + 2 C_1 C_4 L_1 L_4 R_3 g_m + 2 C_1 C_4 L_3 L_4 + 2 C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (2 C_1 C_3 L_3 R_3 + 2 C_1 C_4 L_4 R_3 + 2 C_1 L_1 L_3 g_m + C_1 L_1 L_4 g_m + C_3 L_3 L_4 g_m) + s^2 (2 C_1 C_4 R_3 + C_1 L_1 g_m + C_3 L_3 g_m + C_4 L_3 g_m) + s (C_4 R_3 + C_4 R_4 + L_4)}$$

$$\mathbf{10.524 \quad INVALID-ORDER-524} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m s^6 + R_3 g_m + s^5 (C_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m + C_1 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_3 R_4 g_m + C_1 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (C_1 C_4 L_1 R_3 R_4 g_m + C_1 L_1 L_3 g_m + C_3 C_4 L_3 R_3 R_4 g_m) + s^2 (C_1 L_1 R_3 g_m + C_3 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_4 R_3 + C_4 R_4 + L_4)}$$

$$\mathbf{10.525 \quad INVALID-ORDER-525} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_4 R_3 R_4 g_m s^5 + s^4 (2 C_1 C_3 L_1 L_3 R_3 R_4 g_m + 2 C_1 C_3 L_3 L_4 R_3 + C_1 C_3 L_3 L_4 R_4 + 2 C_1 C_4 L_1 L_4 R_3 R_4 g_m + 2 C_1 C_4 L_3 L_4 R_4 + 2 C_1 L_1 L_3 L_4 g_m + 2 C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (2 C_1 C_3 L_3 R_3 + 2 C_1 C_4 L_4 R_3 + 2 C_1 L_1 L_3 g_m + C_1 L_1 L_4 g_m + C_3 L_3 L_4 g_m) + s^2 (2 C_1 C_4 R_3 + C_1 L_1 g_m + C_3 L_3 g_m + C_4 L_3 g_m) + s (C_4 R_3 + C_4 R_4 + L_4)}$$

$$\mathbf{10.526 \quad INVALID-ORDER-526} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^6 + R_3 R_4 g_m + s^5 (C_1 C_3 L_1 L_3 L_4 R_3 g_m + C_1 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_3 R_4 g_m + C_1 C_4 L_1 L_4 R_3 R_4 g_m + C_1 L_1 L_3 g_m + C_3 C_4 L_3 R_3 R_4 g_m) + s^3 (C_1 C_4 L_1 R_3 R_4 g_m + C_1 L_1 L_3 g_m + C_3 C_4 L_3 R_3 R_4 g_m) + s^2 (C_1 L_1 R_3 g_m + C_3 L_3 R_3 g_m + C_4 L_3 R_4 g_m) + s (C_4 R_3 + C_4 R_4 + L_4)}$$

$$\mathbf{10.527 \quad INVALID-ORDER-527} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^6 + C_1 C_4 L_1 L_3 L_4 R_4 g_m s^5 + s^4 (2 C_1 C_3 C_4 L_3 R_3 R_4 + 2 C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_3 R_4 g_m + 2 C_1 C_4 L_1 L_3 R_4 g_m + 2 C_1 C_4 L_1 L_4 R_3 g_m + 2 C_1 C_4 L_3 L_4 R_4 + 2 C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (2 C_1 C_3 C_4 L_3 R_3 R_4 + 2 C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_3 R_4 g_m + 2 C_1 C_4 L_1 L_3 R_4 g_m + 2 C_1 C_4 L_1 L_4 R_3 g_m + 2 C_1 C_4 L_3 L_4 R_4 + 2 C_3 C_4 L_3 L_4 R_3 g_m) + s^2 (2 C_1 C_4 R_3 + C_1 L_1 g_m + C_3 L_3 g_m + C_4 L_3 g_m) + s (C_4 R_3 + C_4 R_4 + L_4)}$$

$$\mathbf{10.528 \quad INVALID-ORDER-528} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_3 R_4 g_m s^4 + R_3 R_4 g_m + s^2 (C_1 L_1 R_3 R_4 g_m + C_3 L_3 R_3 R_4 g_m)}{2 R_3 g_m + R_4 g_m + s^4 (2 C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_3 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + 2 C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4) + s^2 (C_1 C_3 R_3 R_4 + 2 C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m + 2 C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m) + s (2 C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m)}$$

$$\mathbf{10.529 \quad INVALID-ORDER-529} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_3 g_m s^4 + R_3 g_m + s^2 (C_1 L_1 R_3 g_m + C_3 L_3 R_3 g_m)}{2 C_1 C_3 C_4 L_1 L_3 R_3 g_m s^5 + g_m + s^4 (2 C_1 C_3 C_4 L_3 R_3 + C_1 C_3 L_1 L_3 g_m) + s^3 (C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_3 + 2 C_1 C_4 L_1 R_3 g_m + 2 C_3 C_4 L_3 R_3 g_m) + s^2 (C_1 C_3 R_3 + 2 C_1 C_4 R_3 + C_1 L_1 g_m + C_3 L_3 g_m) + s (C_1 + C_3 R_3 g_m + 2 C_4 R_3 g_m)}$$

$$\mathbf{10.530 \quad INVALID-ORDER-530} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_3 R_4 g_m s^4 + R_3 R_4 g_m + s^2 (C_1 L_1 R_3 R_4 g_m + C_3 L_3 R_3 R_4 g_m)}{2 C_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m s^5 + 2 R_3 g_m + R_4 g_m + s^4 (2 C_1 C_3 C_4 L_3 R_3 R_4 + 2 C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_3 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + 2 C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4 + 2 C_1 C_4 L_1 R_3 R_4 g_m + 2 C_3 C_4 L_3 R_3 R_4 g_m) + s^2 (C_1 C_3 R_3 R_4 + 2 C_1 C_4 R_3 R_4 + 2 C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m)}$$

$$\mathbf{10.531 \quad INVALID-ORDER-531} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m s^5 + C_1 C_3 L_1 L_3 R_3 g_m s^4 + C_4 R_3 R_4 g_m s + R_3 g_m + s^3 (C_1 C_4 L_1 R_3 R_4 g_m + C_3 C_4 L_3 R_3 R_4 g_m) + s^2 (C_1 L_1 R_3 g_m + C_3 L_3 R_3 g_m)}{g_m + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_3 g_m + C_1 C_3 C_4 L_1 L_3 R_4 g_m) + s^4 (C_1 C_3 C_4 L_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_3 R_4 + C_1 C_3 L_1 L_3 g_m) + s^3 (C_1 C_3 C_4 R_3 R_4 + C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_3 + 2 C_1 C_4 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m + 2 C_3 C_4 L_3 R_3 g_m + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_3 R_3)}$$

$$\mathbf{10.532 \quad INVALID-ORDER-532} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m s^6 + R_3 g_m + s^4 (C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_3 L_4 R_3 g_m) + s^2 (C_1 L_1 R_3 g_m + C_3 L_3 R_3 g_m + C_4 L_4 R_3 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + g_m + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_3 g_m + C_1 C_3 C_4 L_3 L_4) + s^4 (2 C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_4 R_3 + C_1 C_3 L_1 L_3 g_m + C_1 C_4 L_1 L_4 g_m + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_3 + 2 C_1 C_4 L_1 R_3 g_m + C_1 C_4 L_4 + 2 C_3 C_4 L_3 R_3 g_m + C_3 C_4 L_3 R_4)}$$

$$\mathbf{10.533 \quad INVALID-ORDER-533} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_4 R_3 g_m s^5 + L_4 R_3 g_m s + s^3 (C_1 L_1 L_4 R_3 g_m + C_3 L_3 L_4 R_3 g_m)}{2 C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m s^6 + 2 R_3 g_m + s^5 (2 C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_3 L_1 L_3 L_4 g_m) + s^4 (2 C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_3 L_4 + 2 C_1 C_4 L_1 L_4 R_3 g_m + 2 C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (2 C_1 C_3 L_3 R_3 + C_1 C_3 L_4 R_3 + 2 C_1 C_4 L_4 R_3 + C_1 L_1 L_4 g_m + C_3 L_3 L_4 g_m) + s^2 (2 C_1 C_4 L_4 R_3)}$$

$$\mathbf{10.534 \quad INVALID-ORDER-534} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m s^6 + C_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m s^5 + C_4 R_3 R_4 g_m s + R_3 g_m + s^4 (C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_4 R_3 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + g_m + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_3 g_m + C_1 C_3 C_4 L_1 L_3 R_4 g_m + C_1 C_3 C_4 L_1 L_4 R_3 g_m + C_1 C_3 C_4 L_3 L_4) + s^4 (C_1 C_3 C_4 L_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_3 R_4 + C_1 C_3 C_4 L_4 R_3 + C_1 C_3 L_1 L_3 g_m + C_1 C_4 L_1 L_4 g_m + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 C_4 R_3 R_4)}$$

$$\mathbf{10.535 \quad INVALID-ORDER-535} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_4 R_3 R_4 g_m s^5 + L_4 R_3 R_4 g_m s + s^3 (C_1 L_1 L_4 R_3 g_m + C_3 L_3 L_4 R_3 g_m)}{2 C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^6 + 2 R_3 R_4 g_m + s^5 (2 C_1 C_3 C_4 L_3 L_4 R_3 R_4 + 2 C_1 C_3 L_1 L_3 L_4 R_3 g_m + C_1 C_3 L_1 L_3 L_4 R_4 g_m) + s^4 (2 C_1 C_3 L_1 L_3 R_3 R_4 g_m + C_1 C_3 L_1 L_4 R_3 R_4 g_m + 2 C_1 C_3 L_3 L_4 R_3 + C_1 C_3 L_3 L_4 R_4 + 2 C_1 C_4 L_1 L_4 R_3 R_4 g_m + 2 C_3 C_4 L_3 L_4 R_3 R_4 g_m) + s^3 (2 C_1 C_3 L_3 R_3)}$$

$$\mathbf{10.536 \quad INVALID-ORDER-536} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^6 + C_1 C_3 L_1 L_3 L_4 R_3 g_m s^5 + L_4 R_3 R_4 g_m s}{2 R_3 g_m + R_4 g_m + s^6 (2 C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^5 (C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_3 C_4 L_3 L_4 R_4 + C_1 C_3 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 C_4 L_4 R_3 R_4 + 2 C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_3 R_4 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_3 L_4 + 2 C_1 C_4 L_1 L_4 R_3 R_4 g_m)}$$

$$10.537 \quad \text{INVALID-ORDER-537} \quad Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_r}{2R_3 g_m + R_4 g_m + s^6 (2C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^5 (2C_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m + C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m + 2C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_3 C_4 L_3 L_4 R_4) + s^4 (2C_1 C_3 C_4 L_3 R_3 R_4 + C_1 C_3 C_4 L_4 R_3 R_4 + 2C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_3 R_4 g_m + 2C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (2C_1 C_4 L_1 L_3 R_3 + C_1 C_4 L_1 L_3 R_4 + C_1 C_4 L_1 L_4 R_3 + C_1 C_4 L_1 L_4 R_4) + s^2 (2C_1 C_4 L_1 R_3 R_4 + C_1 C_4 L_1 R_4 R_3 + C_1 C_4 L_1 R_4 R_4) + s (2C_1 C_4 R_3 R_4 + L_1 g_m) + 1}$$

$$10.538 \quad \text{INVALID-ORDER-538} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad R_3, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_3 g_m s}{2C_1 C_4 L_1 R_3 s^3 + s^2 (C_1 L_1 + 2C_4 L_1 R_3 g_m) + s (2C_4 R_3 + L_1 g_m) + 1}$$

$$10.539 \quad \text{INVALID-ORDER-539} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad R_3, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_3 R_4 g_m s}{2C_1 C_4 L_1 R_3 R_4 s^3 + 2R_3 + R_4 + s^2 (2C_1 L_1 R_3 + C_1 L_1 R_4 + 2C_4 L_1 R_3 R_4 g_m) + s (2C_4 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$10.540 \quad \text{INVALID-ORDER-540} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad R_3, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 R_3 R_4 g_m s^2 + L_1 R_3 g_m s}{s^3 (2C_1 C_4 L_1 R_3 + C_1 C_4 L_1 R_4) + s^2 (C_1 L_1 + 2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m) + s (2C_4 R_3 + C_4 R_4 + L_1 g_m) + 1}$$

$$10.541 \quad \text{INVALID-ORDER-541} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad R_3, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_3 g_m s^3 + L_1 R_3 g_m s}{C_1 C_4 L_1 L_4 s^4 + s^3 (2C_1 C_4 L_1 R_3 + C_4 L_1 L_4 g_m) + s^2 (C_1 L_1 + 2C_4 L_1 R_3 g_m + C_4 L_4) + s (2C_4 R_3 + L_1 g_m) + 1}$$

$$10.542 \quad \text{INVALID-ORDER-542} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad R_3, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_3 g_m s^2}{2C_1 C_4 L_1 L_4 R_3 s^4 + 2R_3 + s^3 (C_1 L_1 L_4 + 2C_4 L_1 L_4 R_3 g_m) + s^2 (2C_1 L_1 R_3 + 2C_4 L_4 R_3 + L_1 L_4 g_m) + s (2L_1 R_3 g_m + L_4)}$$

$$10.543 \quad \text{INVALID-ORDER-543} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad R_3, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_3 g_m s^3 + C_4 L_1 R_3 R_4 g_m s^2 + L_1 R_3 g_m s}{C_1 C_4 L_1 L_4 s^4 + s^3 (2C_1 C_4 L_1 R_3 + C_1 C_4 L_1 R_4 + C_4 L_1 L_4 g_m) + s^2 (C_1 L_1 + 2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m + C_4 L_4) + s (2C_4 R_3 + C_4 R_4 + L_1 g_m) + 1}$$

$$10.544 \quad \text{INVALID-ORDER-544} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad R_3, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_3 R_4 g_m s^2}{2C_1 C_4 L_1 L_4 R_3 R_4 s^4 + 2R_3 R_4 + s^3 (2C_1 L_1 L_4 R_3 + C_1 L_1 L_4 R_4 + 2C_4 L_1 L_4 R_3 R_4 g_m) + s^2 (2C_1 L_1 R_3 R_4 + 2C_4 L_4 R_3 R_4 + 2L_1 L_4 R_3 g_m + L_1 L_4 R_4 g_m) + s (2L_1 R_3 R_4 g_m + 2L_4 R_3 + L_4 R_4)}$$

$$10.545 \quad \text{INVALID-ORDER-545} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad R_3, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_3 R_4 g_m s^3 + L_1 L_4 R_3 g_m s^2 + L_1 R_3 R_4 g_m s}{2R_3 + R_4 + s^4 (2C_1 C_4 L_1 L_4 R_3 + C_1 C_4 L_1 L_4 R_4) + s^3 (C_1 L_1 L_4 + 2C_4 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (2C_1 L_1 R_3 + C_1 L_1 R_4 + 2C_4 L_4 R_3 + C_4 L_4 R_4 + L_1 L_4 g_m) + s (2L_1 R_3 g_m + L_1 R_4 g_m + L_4)}$$

$$10.546 \quad \text{INVALID-ORDER-546} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad R_3, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_3 R_4 g_m s^3 + L_1 R_3 R_4 g_m s}{2 R_3 + R_4 + s^4 (2 C_1 C_4 L_1 L_4 R_3 + C_1 C_4 L_1 L_4 R_4) + s^3 (2 C_1 C_4 L_1 R_3 R_4 + 2 C_4 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (2 C_1 L_1 R_3 + C_1 L_1 R_4 + 2 C_4 L_1 R_3 R_4 g_m + 2 C_4 L_4 R_3 + C_4 L_4 R_4) + s (2 C_4 R_3 R_4 + 2 L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$10.547 \quad \text{INVALID-ORDER-547} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 g_m s}{C_1 C_3 L_1 R_4 s^3 + s^2 (2 C_1 L_1 + C_3 L_1 R_4 g_m) + s (C_3 R_4 + 2 L_1 g_m) + 2}$$

$$10.548 \quad \text{INVALID-ORDER-548} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_4 g_m s}{s^3 (C_1 C_3 L_1 R_4 + 2 C_1 C_4 L_1 R_4) + s^2 (2 C_1 L_1 + C_3 L_1 R_4 g_m + 2 C_4 L_1 R_4 g_m) + s (C_3 R_4 + 2 C_4 R_4 + 2 L_1 g_m) + 2}$$

$$10.549 \quad \text{INVALID-ORDER-549} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 R_4 g_m s + L_1 g_m}{C_1 C_3 C_4 L_1 R_4 s^3 + C_3 + 2 C_4 + s^2 (C_1 C_3 L_1 + 2 C_1 C_4 L_1 + C_3 C_4 L_1 R_4 g_m) + s (C_3 C_4 R_4 + C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$10.550 \quad \text{INVALID-ORDER-550} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 g_m s^2 + L_1 g_m}{C_1 C_3 C_4 L_1 L_4 s^4 + C_3 C_4 L_1 L_4 g_m s^3 + C_3 + 2 C_4 + s^2 (C_1 C_3 L_1 + 2 C_1 C_4 L_1 + C_3 C_4 L_4) + s (C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$10.551 \quad \text{INVALID-ORDER-551} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 g_m s^2}{2 L_1 g_m s + s^4 (C_1 C_3 L_1 L_4 + 2 C_1 C_4 L_1 L_4) + s^3 (C_3 L_1 L_4 g_m + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_1 L_1 + C_3 L_4 + 2 C_4 L_4) + 2}$$

$$10.552 \quad \text{INVALID-ORDER-552} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 g_m s^2 + C_4 L_1 R_4 g_m s + L_1 g_m}{C_1 C_3 C_4 L_1 L_4 s^4 + C_3 + 2 C_4 + s^3 (C_1 C_3 C_4 L_1 R_4 + C_3 C_4 L_1 L_4 g_m) + s^2 (C_1 C_3 L_1 + 2 C_1 C_4 L_1 + C_3 C_4 L_1 R_4 g_m + C_3 C_4 L_4) + s (C_3 C_4 R_4 + C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$10.553 \quad \text{INVALID-ORDER-553} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_4 g_m s^2}{2 R_4 + s^4 (C_1 C_3 L_1 L_4 R_4 + 2 C_1 C_4 L_1 L_4 R_4) + s^3 (2 C_1 L_1 L_4 + C_3 L_1 L_4 R_4 g_m + 2 C_4 L_1 L_4 R_4 g_m) + s^2 (2 C_1 L_1 R_4 + C_3 L_4 R_4 + 2 C_4 L_4 R_4 + 2 L_1 L_4 g_m) + s (2 L_1 R_4 g_m + 2 L_4)}$$

$$10.554 \quad \text{INVALID-ORDER-554} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_4 g_m s^3 + L_1 L_4 g_m s^2 + L_1 R_4 g_m s}{C_1 C_3 C_4 L_1 L_4 R_4 s^5 + s^4 (C_1 C_3 L_1 L_4 + 2 C_1 C_4 L_1 L_4 + C_3 C_4 L_1 L_4 R_4 g_m) + s^3 (C_1 C_3 L_1 R_4 + C_3 C_4 L_4 R_4 + C_3 L_1 L_4 g_m + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_1 L_1 + C_3 L_1 R_4 g_m + C_3 L_4 + 2 C_4 L_4) + s (C_3 R_4 + 2 L_1 g_m) + 2}$$

$$10.555 \quad \text{INVALID-ORDER-555} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_4 g_m s^3 + L_1 R_4 g_m s}{C_1 C_3 C_4 L_1 L_4 R_4 s^5 + s^4 (2 C_1 C_4 L_1 L_4 + C_3 C_4 L_1 L_4 R_4 g_m) + s^3 (C_1 C_3 L_1 R_4 + 2 C_1 C_4 L_1 R_4 + C_3 C_4 L_4 R_4 + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_1 L_1 + C_3 L_1 R_4 g_m + 2 C_4 L_1 R_4 g_m + 2 C_4 L_4) + s (C_3 R_4 + 2 C_4 R_4 + 2 L_1 g_m) + 2}$$

$$\mathbf{10.556 \quad INVALID-ORDER-556} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_3 R_4 g_m s}{C_1 C_3 L_1 R_3 R_4 s^3 + 2R_3 + R_4 + s^2 (2C_1 L_1 R_3 + C_1 L_1 R_4 + C_3 L_1 R_3 R_4 g_m) + s (C_3 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$\mathbf{10.557 \quad INVALID-ORDER-557} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_3 g_m s}{s^3 (C_1 C_3 L_1 R_3 + 2C_1 C_4 L_1 R_3) + s^2 (C_1 L_1 + C_3 L_1 R_3 g_m + 2C_4 L_1 R_3 g_m) + s (C_3 R_3 + 2C_4 R_3 + L_1 g_m) + 1}$$

$$\mathbf{10.558 \quad INVALID-ORDER-558} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_3 R_4 g_m s}{2R_3 + R_4 + s^3 (C_1 C_3 L_1 R_3 R_4 + 2C_1 C_4 L_1 R_3 R_4) + s^2 (2C_1 L_1 R_3 + C_1 L_1 R_4 + C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m) + s (C_3 R_3 R_4 + 2C_4 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$\mathbf{10.559 \quad INVALID-ORDER-559} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 R_3 R_4 g_m s^2 + L_1 R_3 g_m s}{C_1 C_3 C_4 L_1 R_3 R_4 s^4 + s^3 (C_1 C_3 L_1 R_3 + 2C_1 C_4 L_1 R_3 + C_1 C_4 L_1 R_4 + C_3 C_4 L_1 R_3 R_4 g_m) + s^2 (C_1 L_1 + C_3 C_4 R_3 R_4 + C_3 L_1 R_3 g_m + 2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m) + s (C_3 R_3 + 2C_4 R_3 + C_4 R_4 + L_1 g_m) + 1}$$

$$\mathbf{10.560 \quad INVALID-ORDER-560} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_3 g_m s^3 + L_1 R_3 g_m s}{C_1 C_3 C_4 L_1 L_4 R_3 s^5 + s^4 (C_1 C_4 L_1 L_4 + C_3 C_4 L_1 L_4 R_3 g_m) + s^3 (C_1 C_3 L_1 R_3 + 2C_1 C_4 L_1 R_3 + C_3 C_4 L_4 R_3 + C_4 L_1 L_4 g_m) + s^2 (C_1 L_1 + C_3 L_1 R_3 g_m + 2C_4 L_1 R_3 g_m + C_4 L_4) + s (C_3 R_3 + 2C_4 R_3 + L_1 g_m) + 1}$$

$$\mathbf{10.561 \quad INVALID-ORDER-561} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_3 g_m s^2}{2R_3 + s^4 (C_1 C_3 L_1 L_4 R_3 + 2C_1 C_4 L_1 L_4 R_3) + s^3 (C_1 L_1 L_4 + C_3 L_1 L_4 R_3 g_m + 2C_4 L_1 L_4 R_3 g_m) + s^2 (2C_1 L_1 R_3 + C_3 L_4 R_3 + 2C_4 L_4 R_3 + L_1 L_4 g_m) + s (2L_1 R_3 g_m + L_4)}$$

$$\mathbf{10.562 \quad INVALID-ORDER-562} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_3 g_m s^3 + C_4 L_1 R_3 R_4 g_m s^2 + L_1 R_3 g_m s}{C_1 C_3 C_4 L_1 L_4 R_3 s^5 + s^4 (C_1 C_3 C_4 L_1 R_3 R_4 + C_1 C_4 L_1 L_4 + C_3 C_4 L_1 L_4 R_3 g_m) + s^3 (C_1 C_3 L_1 R_3 + 2C_1 C_4 L_1 R_3 + C_1 C_4 L_1 R_4 + C_3 C_4 L_1 R_3 R_4 g_m + C_3 C_4 L_4 R_3 + C_4 L_1 L_4 g_m) + s^2 (C_1 L_1 + C_3 C_4 R_3 R_4 + C_3 L_1 R_3 g_m + 2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m + C_4 L_4) + s (C_3 R_3 + 2C_4 R_3 + L_1 g_m)}$$

$$\mathbf{10.563 \quad INVALID-ORDER-563} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_3 R_4 g_m s^2}{2R_3 R_4 + s^4 (C_1 C_3 L_1 L_4 R_3 R_4 + 2C_1 C_4 L_1 L_4 R_3 R_4) + s^3 (2C_1 L_1 L_4 R_3 + C_1 L_1 L_4 R_4 + C_3 L_1 L_4 R_3 R_4 g_m + 2C_4 L_1 L_4 R_3 R_4 g_m) + s^2 (2C_1 L_1 R_3 R_4 + C_3 L_4 R_3 R_4 + 2C_4 L_4 R_3 R_4 + 2L_1 L_4 R_3 g_m + L_1 L_4 R_4 g_m) + s (2L_1 R_3 R_4 g_m + 2L_4 R_3 + L_4 R_4)}$$

$$\mathbf{10.564 \quad INVALID-ORDER-564} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_3 R_4 g_m s^3 + L_1 L_4 R_3 g_m s^2 + L_1 R_3 R_4 g_m s}{C_1 C_3 C_4 L_1 L_4 R_3 R_4 s^5 + 2R_3 + R_4 + s^4 (C_1 C_3 L_1 L_4 R_3 + 2C_1 C_4 L_1 L_4 R_3 + C_1 C_4 L_1 L_4 R_4 + C_3 C_4 L_1 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 + C_1 L_1 L_4 + C_3 C_4 L_4 R_3 R_4 + C_3 L_1 L_4 R_3 g_m + 2C_4 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (2C_1 L_1 R_3 + C_1 L_1 R_4 + C_3 L_1 R_3 R_4 g_m + C_3 L_4 R_3 + 2C_4 L_4 R_3 + L_1 L_4 g_m) + s (2L_1 R_3 g_m + L_4)}$$

$$\mathbf{10.565 \quad INVALID-ORDER-565} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_3 R_4 g_m s^3 + L_1 R_3 R_4 g_m s}{C_1 C_3 C_4 L_1 L_4 R_3 R_4 s^5 + 2R_3 + R_4 + s^4 (2C_1 C_4 L_1 L_4 R_3 + C_1 C_4 L_1 L_4 R_4 + C_3 C_4 L_1 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 + 2C_1 C_4 L_1 R_3 R_4 + C_3 C_4 L_4 R_3 R_4 + 2C_4 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (2C_1 L_1 R_3 + C_1 L_1 R_4 + C_3 L_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4 g_m + 2C_4 L_4 R_3 + C_4 L_4 R_4) + s (2L_1 R_3 g_m + L_4)}$$

$$\mathbf{10.566 \quad INVALID-ORDER-566} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, R_3 + \frac{1}{C_3 s}, R_4, \infty, \infty \right)$$

$$H(s) = \frac{C_3 L_1 R_3 R_4 g_m s^2 + L_1 R_4 g_m s}{s^3 (2C_1 C_3 L_1 R_3 + C_1 C_3 L_1 R_4) + s^2 (2C_1 L_1 + 2C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m) + s (2C_3 R_3 + C_3 R_4 + 2L_1 g_m) + 2}$$

$$\mathbf{10.567 \quad INVALID-ORDER-567} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, R_3 + \frac{1}{C_3 s}, \frac{1}{C_4 s}, \infty, \infty \right)$$

$$H(s) = \frac{C_3 L_1 R_3 g_m s + L_1 g_m}{2C_1 C_3 C_4 L_1 R_3 s^3 + C_3 + 2C_4 + s^2 (C_1 C_3 L_1 + 2C_1 C_4 L_1 + 2C_3 C_4 L_1 R_3 g_m) + s (2C_3 C_4 R_3 + C_3 L_1 g_m + 2C_4 L_1 g_m)}$$

$$\mathbf{10.568 \quad INVALID-ORDER-568} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, R_3 + \frac{1}{C_3 s}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$$

$$H(s) = \frac{C_3 L_1 R_3 R_4 g_m s^2 + L_1 R_4 g_m s}{2C_1 C_3 C_4 L_1 R_3 R_4 s^4 + s^3 (2C_1 C_3 L_1 R_3 + C_1 C_3 L_1 R_4 + 2C_1 C_4 L_1 R_4 + 2C_3 C_4 L_1 R_3 R_4 g_m) + s^2 (2C_1 L_1 + 2C_3 C_4 R_3 R_4 + 2C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m + 2C_4 L_1 R_4 g_m) + s (2C_3 R_3 + C_3 R_4 + 2C_4 R_4 + 2L_1 g_m) + 2}$$

$$\mathbf{10.569 \quad INVALID-ORDER-569} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, R_3 + \frac{1}{C_3 s}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 R_3 R_4 g_m s^2 + L_1 g_m + s (C_3 L_1 R_3 g_m + C_4 L_1 R_4 g_m)}{C_3 + 2C_4 + s^3 (2C_1 C_3 C_4 L_1 R_3 + C_1 C_3 C_4 L_1 R_4) + s^2 (C_1 C_3 L_1 + 2C_1 C_4 L_1 + 2C_3 C_4 L_1 R_3 g_m + C_3 C_4 L_1 R_4 g_m) + s (2C_3 C_4 R_3 + C_3 C_4 R_4 + C_3 L_1 g_m + 2C_4 L_1 g_m)}$$

$$\mathbf{10.570 \quad INVALID-ORDER-570} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, R_3 + \frac{1}{C_3 s}, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_4 R_3 g_m s^3 + C_3 L_1 R_3 g_m s + C_4 L_1 L_4 g_m s^2 + L_1 g_m}{C_1 C_3 C_4 L_1 L_4 s^4 + C_3 + 2C_4 + s^3 (2C_1 C_3 C_4 L_1 R_3 + C_3 C_4 L_1 L_4 g_m) + s^2 (C_1 C_3 L_1 + 2C_1 C_4 L_1 + 2C_3 C_4 L_1 R_3 g_m + C_3 C_4 L_4) + s (2C_3 C_4 R_3 + C_3 L_1 g_m + 2C_4 L_1 g_m)}$$

$$\mathbf{10.571 \quad INVALID-ORDER-571} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, R_3 + \frac{1}{C_3 s}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_4 R_3 g_m s^3 + L_1 L_4 g_m s^2}{2C_1 C_3 C_4 L_1 L_4 R_3 s^5 + s^4 (C_1 C_3 L_1 L_4 + 2C_1 C_4 L_1 L_4 + 2C_3 C_4 L_1 L_4 R_3 g_m) + s^3 (2C_1 C_3 L_1 R_3 + 2C_3 C_4 L_4 R_3 + C_3 L_1 L_4 g_m + 2C_4 L_1 L_4 g_m) + s^2 (2C_1 L_1 + 2C_3 L_1 R_3 g_m + C_3 L_4 + 2C_4 L_4) + s (2C_3 R_3 + 2L_1 g_m) + 2}$$

$$\mathbf{10.572 \quad INVALID-ORDER-572} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, R_3 + \frac{1}{C_3 s}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_4 R_3 g_m s^3 + L_1 g_m + s^2 (C_3 C_4 L_1 R_3 R_4 g_m + C_4 L_1 L_4 g_m) + s (C_3 L_1 R_3 g_m + C_4 L_1 R_4 g_m)}{C_1 C_3 C_4 L_1 L_4 s^4 + C_3 + 2C_4 + s^3 (2C_1 C_3 C_4 L_1 R_3 + C_1 C_3 C_4 L_1 R_4 + C_3 C_4 L_1 L_4 g_m) + s^2 (C_1 C_3 L_1 + 2C_1 C_4 L_1 + 2C_3 C_4 L_1 R_3 g_m + C_3 C_4 L_1 R_4 g_m + C_3 C_4 L_4) + s (2C_3 C_4 R_3 + C_3 C_4 R_4 + C_3 L_1 g_m + 2C_4 L_1 g_m)}$$

$$\mathbf{10.573 \quad INVALID-ORDER-573} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, R_3 + \frac{1}{C_3 s}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_4 R_3 R_4 g_m s^3 + L_1 L_4 R_4 g_m s^2}{2C_1 C_3 C_4 L_1 L_4 R_3 R_4 s^5 + 2R_4 + s^4 (2C_1 C_3 L_1 L_4 R_3 + C_1 C_3 L_1 L_4 R_4 + 2C_1 C_4 L_1 L_4 R_4 + 2C_3 C_4 L_1 L_4 R_3 R_4 g_m) + s^3 (2C_1 C_3 L_1 R_3 R_4 + 2C_1 L_1 L_4 + 2C_3 C_4 L_4 R_3 R_4 + 2C_3 L_1 L_4 R_3 g_m + C_3 L_1 L_4 R_4 g_m + 2C_4 L_1 L_4 R_4 g_m) + s^2 (2C_1 L_1 R_4 + 2C_3 L_1 R_3 R_4 g_m + 2C_3 L_4 R_3 + C_3 L_4 R_4) + s (2C_3 R_3 + 2L_1 g_m) + 2}$$

$$\mathbf{10.574 \quad INVALID-ORDER-574} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, R_3 + \frac{1}{C_3 s}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_4 R_3 R_4 g_m s^4 + L_1 R_4 g_m s + s^3 (C_3 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (C_3 L_1 R_3 R_4 g_m + L_1 L_4 g_m)}{s^5 (2C_1 C_3 C_4 L_1 L_4 R_3 + C_1 C_3 C_4 L_1 L_4 R_4) + s^4 (C_1 C_3 L_1 L_4 + 2C_1 C_4 L_1 L_4 + 2C_3 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_1 L_4 R_4 g_m) + s^3 (2C_1 C_3 L_1 R_3 + C_1 C_3 L_1 R_4 + 2C_3 C_4 L_4 R_3 + C_3 C_4 L_4 R_4 + C_3 L_1 L_4 g_m + 2C_4 L_1 L_4 g_m) + s^2 (2C_1 L_1 + 2C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m + C_3 L_4 + 2C_4 L_4) + s (2C_3 R_3 + 2L_1 g_m) + 2}$$

$$\mathbf{10.575 \quad INVALID-ORDER-575} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, R_3 + \frac{1}{C_3 s}, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_4 R_3 R_4 g_m s^4 + C_3 L_1 R_3 R_4 g_m s^2 + C_4 L_1 L_4 R_4 g_m s^3 + L_1 R_4 g_m s}{s^5 (2C_1 C_3 C_4 L_1 L_4 R_3 + C_1 C_3 C_4 L_1 L_4 R_4) + s^4 (2C_1 C_3 C_4 L_1 R_3 R_4 + 2C_1 C_4 L_1 L_4 + 2C_3 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_1 L_4 R_4 g_m) + s^3 (2C_1 C_3 L_1 R_3 + C_1 C_3 L_1 R_4 + 2C_1 C_4 L_1 R_4 + 2C_3 C_4 L_1 R_3 R_4 g_m + 2C_3 C_4 L_4 R_3 + C_3 C_4 L_4 R_4 + 2C_4 L_1 L_4 g_m) + s^2 (2C_1 L_1 + 2C_3 C_4 R_3 R_4 + C_3 L_1 R_4 g_m + C_3 L_4 R_4) + s (2C_3 R_3 + 2L_1 g_m) + 2}$$

$$\mathbf{10.576 \quad INVALID-ORDER-576} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_4 g_m s^3 + L_1 R_4 g_m s}{2 C_1 C_3 L_1 L_3 s^4 + s^3 (C_1 C_3 L_1 R_4 + 2 C_3 L_1 L_3 g_m) + s^2 (2 C_1 L_1 + C_3 L_1 R_4 g_m + 2 C_3 L_3) + s (C_3 R_4 + 2 L_1 g_m) + 2}$$

$$\mathbf{10.577 \quad INVALID-ORDER-577} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 g_m s^2 + L_1 g_m}{2 C_1 C_3 C_4 L_1 L_3 s^4 + 2 C_3 C_4 L_1 L_3 g_m s^3 + C_3 + 2 C_4 + s^2 (C_1 C_3 L_1 + 2 C_1 C_4 L_1 + 2 C_3 C_4 L_3) + s (C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$\mathbf{10.578 \quad INVALID-ORDER-578} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_4 g_m s^3 + L_1 R_4 g_m s}{2 C_1 C_3 C_4 L_1 L_3 R_4 s^5 + s^4 (2 C_1 C_3 L_1 L_3 + 2 C_3 C_4 L_1 L_3 R_4 g_m) + s^3 (C_1 C_3 L_1 R_4 + 2 C_1 C_4 L_1 R_4 + 2 C_3 C_4 L_3 R_4 + 2 C_3 L_1 L_3 g_m) + s^2 (2 C_1 L_1 + C_3 L_1 R_4 g_m + 2 C_3 L_3 + 2 C_4 L_1 R_4 g_m) + s (C_3 R_4 + 2 C_4 R_4 + 2 L_1 g_m) + 2}$$

$$\mathbf{10.579 \quad INVALID-ORDER-579} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 R_4 g_m s^3 + C_3 L_1 L_3 g_m s^2 + C_4 L_1 R_4 g_m s + L_1 g_m}{2 C_1 C_3 C_4 L_1 L_3 s^4 + C_3 + 2 C_4 + s^3 (C_1 C_3 C_4 L_1 R_4 + 2 C_3 C_4 L_1 L_3 g_m) + s^2 (C_1 C_3 L_1 + 2 C_1 C_4 L_1 + C_3 C_4 L_1 R_4 g_m + 2 C_3 C_4 L_3) + s (C_3 C_4 R_4 + C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$\mathbf{10.580 \quad INVALID-ORDER-580} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 g_m s^4 + L_1 g_m + s^2 (C_3 L_1 L_3 g_m + C_4 L_1 L_4 g_m)}{C_3 + 2 C_4 + s^4 (2 C_1 C_3 C_4 L_1 L_3 + C_1 C_3 C_4 L_1 L_4) + s^3 (2 C_3 C_4 L_1 L_3 g_m + C_3 C_4 L_1 L_4 g_m) + s^2 (C_1 C_3 L_1 + 2 C_1 C_4 L_1 + 2 C_3 C_4 L_3 + C_3 C_4 L_4) + s (C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$\mathbf{10.581 \quad INVALID-ORDER-581} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 L_4 g_m s^4 + L_1 L_4 g_m s^2}{2 C_1 C_3 C_4 L_1 L_3 L_4 s^6 + 2 C_3 C_4 L_1 L_3 L_4 g_m s^5 + 2 L_1 g_m s + s^4 (2 C_1 C_3 L_1 L_3 + C_1 C_3 L_1 L_4 + 2 C_1 C_4 L_1 L_4 + 2 C_3 C_4 L_3 L_4) + s^3 (2 C_3 L_1 L_3 g_m + C_3 L_1 L_4 g_m + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_1 L_1 + 2 C_3 L_3 + C_3 L_4 + 2 C_4 L_4) + 2}$$

$$\mathbf{10.582 \quad INVALID-ORDER-582} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 g_m s^4 + C_3 C_4 L_1 L_3 R_4 g_m s^3 + C_4 L_1 R_4 g_m s + L_1 g_m + s^2 (C_3 L_1 L_3 g_m + C_4 L_1 L_4 g_m)}{C_3 + 2 C_4 + s^4 (2 C_1 C_3 C_4 L_1 L_3 + C_1 C_3 C_4 L_1 L_4) + s^3 (C_1 C_3 C_4 L_1 R_4 + 2 C_3 C_4 L_1 L_3 g_m + C_3 C_4 L_1 L_4 g_m) + s^2 (C_1 C_3 L_1 + 2 C_1 C_4 L_1 + C_3 C_4 L_1 R_4 g_m + 2 C_3 C_4 L_3 + C_3 C_4 L_4) + s (C_3 C_4 R_4 + C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$\mathbf{10.583 \quad INVALID-ORDER-583} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 L_4 R_4 g_m s^4 + L_1 L_4 R_4 g_m s^2}{2 C_1 C_3 C_4 L_1 L_3 L_4 R_4 s^6 + 2 R_4 + s^5 (2 C_1 C_3 L_1 L_3 L_4 + 2 C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (2 C_1 C_3 L_1 L_3 R_4 + C_1 C_3 L_1 L_4 R_4 + 2 C_1 C_4 L_1 L_4 R_4 + 2 C_3 C_4 L_3 L_4 R_4 + 2 C_3 L_1 L_3 L_4 g_m) + s^3 (2 C_1 L_1 L_4 + 2 C_3 L_1 L_3 R_4 g_m + C_3 L_1 L_4 R_4 g_m + 2 C_3 L_3 L_4 + 2 C_4 L_1 L_4 R_4 g_m) + s^2 (2 C_1 L_1 R_4 + 2 C_3 L_3 R_4 + 2 C_4 L_1 R_4 g_m) + s (C_3 R_4 + 2 L_1 g_m) + 2}$$

$$\mathbf{10.584 \quad INVALID-ORDER-584} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_4 g_m s^5 + C_3 L_1 L_3 L_4 g_m s^4 + L_1 L_4 g_m s^2 + L_1 R_4 g_m s + s^3 (C_3 L_1 L_3 R_4 g_m + C_4 L_1 L_4 R_4 g_m)}{2 C_1 C_3 C_4 L_1 L_3 L_4 s^6 + s^5 (C_1 C_3 C_4 L_1 L_4 R_4 + 2 C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (2 C_1 C_3 L_1 L_3 + C_1 C_3 L_1 L_4 + 2 C_1 C_4 L_1 L_4 + C_3 C_4 L_1 L_4 R_4 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (C_1 C_3 L_1 R_4 + C_3 C_4 L_4 R_4 + 2 C_3 L_1 L_3 g_m + C_3 L_1 L_4 g_m + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_1 L_1 + C_3 L_1 R_4 g_m + 2 C_3 L_3 + C_3 L_4) + s (C_3 R_4 + 2 L_1 g_m) + 2}$$

$$\mathbf{10.585 \quad INVALID-ORDER-585} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_4 g_m s^5 + L_1 R_4 g_m s + s^3 (C_3 L_1 L_3 R_4 g_m + C_4 L_1 L_4 R_4 g_m)}{2 C_1 C_3 C_4 L_1 L_3 L_4 s^6 + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_4 + C_1 C_3 C_4 L_1 L_4 R_4 + 2 C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (2 C_1 C_3 L_1 L_3 + 2 C_1 C_4 L_1 L_4 + 2 C_3 C_4 L_1 L_3 R_4 g_m + C_3 C_4 L_1 L_4 R_4 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (C_1 C_3 L_1 R_4 + 2 C_1 C_4 L_1 R_4 + 2 C_3 C_4 L_3 R_4 + C_3 C_4 L_4 R_4 + 2 C_3 L_1 L_3 g_m + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_1 L_1 + C_3 L_1 R_4 g_m + 2 C_3 L_3 + C_3 L_4) + s (C_3 R_4 + 2 L_1 g_m) + 2}$$

$$\mathbf{10.586 \quad INVALID-ORDER-586} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 R_4 g_m s^2}{C_1 C_3 L_1 L_3 R_4 s^4 + R_4 + s^3 (2C_1 L_1 L_3 + C_3 L_1 L_3 R_4 g_m) + s^2 (C_1 L_1 R_4 + C_3 L_3 R_4 + 2L_1 L_3 g_m) + s (L_1 R_4 g_m + 2L_3)}$$

$$\mathbf{10.587 \quad INVALID-ORDER-587} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 g_m s^2}{L_1 g_m s + s^4 (C_1 C_3 L_1 L_3 + 2C_1 C_4 L_1 L_3) + s^3 (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m) + s^2 (C_1 L_1 + C_3 L_3 + 2C_4 L_3) + 1}$$

$$\mathbf{10.588 \quad INVALID-ORDER-588} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 R_4 g_m s^2}{R_4 + s^4 (C_1 C_3 L_1 L_3 R_4 + 2C_1 C_4 L_1 L_3 R_4) + s^3 (2C_1 L_1 L_3 + C_3 L_1 L_3 R_4 g_m + 2C_4 L_1 L_3 R_4 g_m) + s^2 (C_1 L_1 R_4 + C_3 L_3 R_4 + 2C_4 L_3 R_4 + 2L_1 L_3 g_m) + s (L_1 R_4 g_m + 2L_3)}$$

$$\mathbf{10.589 \quad INVALID-ORDER-589} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 R_4 g_m s^3 + L_1 L_3 g_m s^2}{C_1 C_3 C_4 L_1 L_3 R_4 s^5 + s^4 (C_1 C_3 L_1 L_3 + 2C_1 C_4 L_1 L_3 + C_3 C_4 L_1 L_3 R_4 g_m) + s^3 (C_1 C_4 L_1 R_4 + C_3 C_4 L_3 R_4 + C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m) + s^2 (C_1 L_1 + C_3 L_3 + C_4 L_1 R_4 g_m + 2C_4 L_3) + s (C_4 R_4 + L_1 g_m) + 1}$$

$$\mathbf{10.590 \quad INVALID-ORDER-590} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 g_m s^4 + L_1 L_3 g_m s^2}{C_1 C_3 C_4 L_1 L_3 L_4 s^6 + C_3 C_4 L_1 L_3 L_4 g_m s^5 + L_1 g_m s + s^4 (C_1 C_3 L_1 L_3 + 2C_1 C_4 L_1 L_3 + C_1 C_4 L_1 L_4 + C_3 C_4 L_3 L_4) + s^3 (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_4 g_m) + s^2 (C_1 L_1 + C_3 L_3 + 2C_4 L_3 + C_4 L_4) + 1}$$

$$\mathbf{10.591 \quad INVALID-ORDER-591} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 L_4 g_m s^2}{2L_3 + L_4 + s^4 (C_1 C_3 L_1 L_3 L_4 + 2C_1 C_4 L_1 L_3 L_4) + s^3 (C_3 L_1 L_3 L_4 g_m + 2C_4 L_1 L_3 L_4 g_m) + s^2 (2C_1 L_1 L_3 + C_1 L_1 L_4 + C_3 L_3 L_4 + 2C_4 L_3 L_4) + s (2L_1 L_3 g_m + L_1 L_4 g_m)}$$

$$\mathbf{10.592 \quad INVALID-ORDER-592} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 g_m s^4 + C_4 L_1 L_3 R_4 g_m s^3 + L_1 L_3 g_m s^2}{C_1 C_3 C_4 L_1 L_3 L_4 s^6 + s^5 (C_1 C_3 C_4 L_1 L_3 R_4 + C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 L_1 L_3 + 2C_1 C_4 L_1 L_3 + C_1 C_4 L_1 L_4 + C_3 C_4 L_1 L_3 R_4 g_m + C_3 C_4 L_3 L_4) + s^3 (C_1 C_4 L_1 R_4 + C_3 C_4 L_3 R_4 + C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_4 g_m) + s^2 (C_1 L_1 + C_3 L_3 + C_4 L_1 R_4 g_m + 2C_4 L_3 + C_4 L_4) + s (C_4 R_4 + L_1 g_m) + 1}$$

$$\mathbf{10.593 \quad INVALID-ORDER-593} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 L_4 R_4 g_m s^2}{2L_3 R_4 + L_4 R_4 + s^4 (C_1 C_3 L_1 L_3 L_4 R_4 + 2C_1 C_4 L_1 L_3 L_4 R_4) + s^3 (2C_1 L_1 L_3 L_4 + C_3 L_1 L_3 L_4 R_4 g_m + 2C_4 L_1 L_3 L_4 R_4 g_m) + s^2 (2C_1 L_1 L_3 R_4 + C_1 L_1 L_4 R_4 + C_3 L_3 L_4 R_4 + 2C_4 L_3 L_4 R_4 + 2L_1 L_3 L_4 g_m) + s (2L_1 L_3 R_4 g_m + L_1 L_4 R_4 g_m + 2L_3 L_4)}$$

$$\mathbf{10.594 \quad INVALID-ORDER-594} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 R_4 g_m s^4 + L_1 L_3 L_4 g_m s^3 + L_1 L_3 R_4 g_m s^2}{C_1 C_3 C_4 L_1 L_3 L_4 R_4 s^6 + R_4 + s^5 (C_1 C_3 L_1 L_3 L_4 + 2C_1 C_4 L_1 L_3 L_4 + C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_4 + C_1 C_4 L_1 L_4 R_4 + C_3 C_4 L_3 L_4 R_4 + C_3 L_1 L_3 L_4 g_m + 2C_4 L_1 L_3 L_4 g_m) + s^3 (2C_1 L_1 L_3 + C_1 L_1 L_4 + C_3 L_1 L_3 R_4 g_m + C_3 L_3 L_4 + C_4 L_1 L_4 R_4 g_m + 2C_4 L_3 L_4) + s^2 (C_1 L_1 R_4 + C_3 L_3 R_4 + 2C_4 L_3 R_4) + s (C_4 R_4 + L_1 g_m) + 1}$$

$$\mathbf{10.595 \quad INVALID-ORDER-595} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 R_4 g_m s^4 + L_1 L_3 R_4 g_m s^2}{C_1 C_3 C_4 L_1 L_3 L_4 R_4 s^6 + R_4 + s^5 (2C_1 C_4 L_1 L_3 L_4 + C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_4 + 2C_1 C_4 L_1 L_3 R_4 + C_1 C_4 L_1 L_4 R_4 + C_3 C_4 L_3 L_4 R_4 + 2C_4 L_1 L_3 L_4 g_m) + s^3 (2C_1 L_1 L_3 + C_3 L_1 L_3 R_4 g_m + 2C_4 L_1 L_3 R_4 g_m + C_4 L_1 L_4 R_4 g_m + 2C_4 L_3 L_4) + s^2 (C_1 L_1 R_4 + C_3 L_3 R_4 + 2C_4 L_3 R_4) + s (C_4 R_4 + L_1 g_m) + 1}$$

$$\mathbf{10.596 \quad INVALID-ORDER-596} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_4 g_m s^3 + C_3 L_1 R_3 R_4 g_m s^2 + L_1 R_4 g_m s}{2 C_1 C_3 L_1 L_3 s^4 + s^3 (2 C_1 C_3 L_1 R_3 + C_1 C_3 L_1 R_4 + 2 C_3 L_1 L_3 g_m) + s^2 (2 C_1 L_1 + 2 C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m + 2 C_3 L_3) + s (2 C_3 R_3 + C_3 R_4 + 2 L_1 g_m) + 2}$$

$$\mathbf{10.597 \quad INVALID-ORDER-597} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 g_m s^2 + C_3 L_1 R_3 g_m s + L_1 g_m}{2 C_1 C_3 C_4 L_1 L_3 s^4 + C_3 + 2 C_4 + s^3 (2 C_1 C_3 C_4 L_1 R_3 + 2 C_3 C_4 L_1 L_3 g_m) + s^2 (C_1 C_3 L_1 + 2 C_1 C_4 L_1 + 2 C_3 C_4 L_1 R_3 g_m + 2 C_3 C_4 L_3) + s (2 C_3 C_4 R_3 + C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$\mathbf{10.598 \quad INVALID-ORDER-598} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_4 g_m s^3 + C_3 L_1 R_3 R_4 g_m s^2 + L_1 R_4 g_m s}{2 C_1 C_3 C_4 L_1 L_3 R_4 s^5 + s^4 (2 C_1 C_3 C_4 L_1 R_3 R_4 + 2 C_1 C_3 L_1 L_3 + 2 C_3 C_4 L_1 L_3 R_4 g_m) + s^3 (2 C_1 C_3 L_1 R_3 + C_1 C_3 L_1 R_4 + 2 C_1 C_4 L_1 R_4 + 2 C_3 C_4 L_1 R_3 R_4 g_m + 2 C_3 C_4 L_3 R_4 + 2 C_3 L_1 L_3 g_m) + s^2 (2 C_1 L_1 + 2 C_3 C_4 R_3 R_4 + 2 C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m + 2 C_3 L_3 + 2 C_4 L_1 R_4 g_m) + s (2 C_3 C_4 R_3 + C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$\mathbf{10.599 \quad INVALID-ORDER-599} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 R_4 g_m s^3 + L_1 g_m + s^2 (C_3 C_4 L_1 R_3 R_4 g_m + C_3 L_1 L_3 g_m) + s (C_3 L_1 R_3 g_m + C_4 L_1 R_4 g_m)}{2 C_1 C_3 C_4 L_1 L_3 s^4 + C_3 + 2 C_4 + s^3 (2 C_1 C_3 C_4 L_1 R_3 + C_1 C_3 C_4 L_1 R_4 + 2 C_3 C_4 L_1 L_3 g_m) + s^2 (C_1 C_3 L_1 + 2 C_1 C_4 L_1 + 2 C_3 C_4 L_1 R_3 g_m + C_3 C_4 L_1 R_4 g_m + 2 C_3 C_4 L_3) + s (2 C_3 C_4 R_3 + C_3 C_4 R_4 + C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$\mathbf{10.600 \quad INVALID-ORDER-600} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 g_m s^4 + C_3 C_4 L_1 L_4 R_3 g_m s^3 + C_3 L_1 R_3 g_m s + L_1 g_m + s^2 (C_3 L_1 L_3 g_m + C_4 L_1 L_4 g_m)}{C_3 + 2 C_4 + s^4 (2 C_1 C_3 C_4 L_1 L_3 + C_1 C_3 C_4 L_1 L_4) + s^3 (2 C_1 C_3 C_4 L_1 R_3 + 2 C_3 C_4 L_1 L_3 g_m + C_3 C_4 L_1 L_4 g_m) + s^2 (C_1 C_3 L_1 + 2 C_1 C_4 L_1 + 2 C_3 C_4 L_1 R_3 g_m + 2 C_3 C_4 L_3 + C_3 C_4 L_4) + s (2 C_3 C_4 R_3 + C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$\mathbf{10.601 \quad INVALID-ORDER-601} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 L_4 g_m s^4 + C_3 L_1 L_4 R_3 g_m s^3 + L_1 L_4 g_m s^2}{2 C_1 C_3 C_4 L_1 L_3 L_4 s^6 + s^5 (2 C_1 C_3 C_4 L_1 L_4 R_3 + 2 C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (2 C_1 C_3 L_1 L_3 + C_1 C_3 L_1 L_4 + 2 C_1 C_4 L_1 L_4 + 2 C_3 C_4 L_1 L_4 R_3 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (2 C_1 C_3 L_1 R_3 + 2 C_3 C_4 L_4 R_3 + 2 C_3 L_1 L_3 g_m + C_3 L_1 L_4 g_m + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_1 L_1 + 2 C_3 L_1 R_3 g_m + 2 C_3 L_3)}$$

$$\mathbf{10.602 \quad INVALID-ORDER-602} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 g_m s^4 + L_1 g_m + s^3 (C_3 C_4 L_1 L_3 R_4 g_m + C_3 C_4 L_1 L_4 R_3 g_m) + s^2 (C_3 C_4 L_1 R_3 R_4 g_m + C_3 L_1 L_3 g_m + C_4 L_1 L_4 g_m) + s (C_3 L_1 R_3 g_m + C_4 L_1 R_4 g_m)}{C_3 + 2 C_4 + s^4 (2 C_1 C_3 C_4 L_1 L_3 + C_1 C_3 C_4 L_1 L_4) + s^3 (2 C_1 C_3 C_4 L_1 R_3 + C_1 C_3 C_4 L_1 R_4 + 2 C_3 C_4 L_1 L_3 g_m + C_3 C_4 L_1 L_4 g_m) + s^2 (C_1 C_3 L_1 + 2 C_1 C_4 L_1 + 2 C_3 C_4 L_1 R_3 g_m + C_3 C_4 L_1 R_4 g_m + 2 C_3 C_4 L_3 + C_3 C_4 L_4) + s (2 C_3 C_4 R_3 + C_3 C_4 R_4 + C_3 L_1 g_m + 2 C_4 L_1 g_m)}$$

$$\mathbf{10.603 \quad INVALID-ORDER-603} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 L_4 R_4 g_m s^4 + C_3 L_1 L_4 R_3 R_4 g_m s^3 + L_1 L_4 R_4 g_m s^2}{2 C_1 C_3 C_4 L_1 L_3 L_4 R_4 s^6 + 2 R_4 + s^5 (2 C_1 C_3 C_4 L_1 L_4 R_3 R_4 + 2 C_1 C_3 L_1 L_3 L_4 + 2 C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (2 C_1 C_3 L_1 L_3 R_4 + 2 C_1 C_3 L_1 L_4 R_3 + C_1 C_3 L_1 L_4 R_4 + 2 C_1 C_4 L_1 L_4 R_4 + 2 C_3 C_4 L_1 L_4 R_3 R_4 g_m + 2 C_3 C_4 L_3 L_4 R_4 + 2 C_3 L_1 L_3 L_4 g_m) + s^3 (2 C_1 C_3 L_1 R_3 R_4 + 2 C_1 L_1 L_4 R_4 g_m)}$$

$$\mathbf{10.604 \quad INVALID-ORDER-604} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_4 g_m s^5 + L_1 R_4 g_m s + s^4 (C_3 C_4 L_1 L_4 R_3 R_4 g_m + C_3 L_1 L_3 L_4 g_m) + s^3 (C_3 L_1 L_3 R_4 g_m + C_3 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (C_3 L_1 R_3 R_4 g_m + C_4 L_1 R_4 g_m)}{2 C_1 C_3 C_4 L_1 L_3 L_4 s^6 + s^5 (2 C_1 C_3 C_4 L_1 L_4 R_3 + C_1 C_3 C_4 L_1 L_4 R_4 + 2 C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (2 C_1 C_3 L_1 L_3 + C_1 C_3 L_1 L_4 + 2 C_1 C_4 L_1 L_4 + 2 C_3 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_1 L_4 R_4 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (2 C_1 C_3 L_1 R_3 + C_1 C_3 L_1 R_4 + 2 C_3 C_4 L_4 R_3 + C_3 C_4 L_4 R_4 + 2 C_3 L_1 L_3 g_m + C_4 L_1 L_4 g_m)}$$

$$\mathbf{10.605 \quad INVALID-ORDER-605} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_4 g_m s^5 + C_3 C_4 L_1 L_4 R_3 R_4 g_m s^4 + C_3 L_1 R_3 R_4 g_m s^3 + L_1 R_4 g_m s^2}{2 C_1 C_3 C_4 L_1 L_3 L_4 s^6 + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_4 + 2 C_1 C_3 C_4 L_1 L_4 R_3 + C_1 C_3 C_4 L_1 L_4 R_4 + 2 C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (2 C_1 C_3 C_4 L_1 R_3 R_4 + 2 C_1 C_3 L_1 L_3 + 2 C_1 C_4 L_1 L_4 + 2 C_3 C_4 L_1 L_3 R_4 g_m + 2 C_3 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_1 L_4 R_4 g_m + 2 C_3 C_4 L_3 L_4) + s^3 (2 C_1 C_3 L_1 R_3 + C_1 C_3 L_1 R_4 + 2 C_3 C_4 L_4 R_3 + C_3 C_4 L_4 R_4 + 2 C_3 L_1 L_3 g_m + C_4 L_1 L_4 g_m)}$$

$$\mathbf{10.606 \quad INVALID-ORDER-606} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 R_3 R_4 g_m s^2}{C_1 C_3 L_1 L_3 R_3 R_4 s^4 + R_3 R_4 + s^3 (2C_1 L_1 L_3 R_3 + C_1 L_1 L_3 R_4 + C_3 L_1 L_3 R_3 R_4 g_m) + s^2 (C_1 L_1 R_3 R_4 + C_3 L_3 R_3 R_4 + 2L_1 L_3 R_3 g_m + L_1 L_3 R_4 g_m) + s (L_1 R_3 R_4 g_m + 2L_3 R_3 + L_3 R_4)}$$

$$\mathbf{10.607 \quad INVALID-ORDER-607} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 R_3 g_m s^2}{R_3 + s^4 (C_1 C_3 L_1 L_3 R_3 + 2C_1 C_4 L_1 L_3 R_3) + s^3 (C_1 L_1 L_3 + C_3 L_1 L_3 R_3 g_m + 2C_4 L_1 L_3 R_3 g_m) + s^2 (C_1 L_1 R_3 + C_3 L_3 R_3 + 2C_4 L_3 R_3 + L_1 L_3 g_m) + s (L_1 R_3 g_m + L_3)}$$

$$\mathbf{10.608 \quad INVALID-ORDER-608} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 R_3 R_4 g_m s^2}{R_3 R_4 + s^4 (C_1 C_3 L_1 L_3 R_3 R_4 + 2C_1 C_4 L_1 L_3 R_3 R_4) + s^3 (2C_1 L_1 L_3 R_3 + C_1 L_1 L_3 R_4 + C_3 L_1 L_3 R_3 R_4 g_m + 2C_4 L_1 L_3 R_3 R_4 g_m) + s^2 (C_1 L_1 R_3 R_4 + C_3 L_3 R_3 R_4 + 2C_4 L_3 R_3 R_4 + 2L_1 L_3 R_3 g_m + L_1 L_3 R_4 g_m) + s (L_1 R_3 R_4 g_m + 2L_3 R_3 + L_3 R_4)}$$

$$\mathbf{10.609 \quad INVALID-ORDER-609} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 R_3 R_4 g_m s^3 + L_1 L_3 R_3 g_m s^2}{C_1 C_3 C_4 L_1 L_3 R_3 R_4 s^5 + R_3 + s^4 (C_1 C_3 L_1 L_3 R_3 + 2C_1 C_4 L_1 L_3 R_3 + C_1 C_4 L_1 L_3 R_4 + C_3 C_4 L_1 L_3 R_3 R_4 g_m) + s^3 (C_1 C_4 L_1 R_3 R_4 + C_1 L_1 L_3 + C_3 C_4 L_3 R_3 R_4 + C_3 L_1 L_3 R_3 g_m + 2C_4 L_1 L_3 R_3 g_m + C_4 L_1 L_3 R_4 g_m) + s^2 (C_1 L_1 R_3 + C_3 L_3 R_3 + C_4 L_1 R_3 R_4 g_m + 2C_4 L_3 R_3 + C_4 L_1 L_3 g_m) + s (L_1 R_3 g_m + L_3)}$$

$$\mathbf{10.610 \quad INVALID-ORDER-610} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 R_3 g_m s^4 + L_1 L_3 R_3 g_m s^2}{C_1 C_3 C_4 L_1 L_3 L_4 R_3 s^6 + R_3 + s^5 (C_1 C_4 L_1 L_3 L_4 + C_3 C_4 L_1 L_3 L_4 R_3 g_m) + s^4 (C_1 C_3 L_1 L_3 R_3 + 2C_1 C_4 L_1 L_3 R_3 + C_1 C_4 L_1 L_4 R_3 + C_3 C_4 L_3 L_4 R_3 + C_4 L_1 L_3 L_4 g_m) + s^3 (C_1 L_1 L_3 + C_3 L_1 L_3 R_3 g_m + 2C_4 L_1 L_3 R_3 g_m + C_4 L_1 L_4 R_3 g_m + C_4 L_3 L_4) + s^2 (C_1 L_1 R_3 + C_3 L_3 R_3 + C_4 L_1 R_3 g_m + L_1 L_3 g_m) + s (L_1 R_3 g_m + L_3)}$$

$$\mathbf{10.611 \quad INVALID-ORDER-611} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 L_4 R_3 g_m s^2}{2L_3 R_3 + L_4 R_3 + s^4 (C_1 C_3 L_1 L_3 L_4 R_3 + 2C_1 C_4 L_1 L_3 L_4 R_3) + s^3 (C_1 L_1 L_3 L_4 + C_3 L_1 L_3 L_4 R_3 g_m + 2C_4 L_1 L_3 L_4 R_3 g_m) + s^2 (2C_1 L_1 L_3 R_3 + C_1 L_1 L_4 R_3 + C_3 L_3 L_4 R_3 + 2C_4 L_3 L_4 R_3 + L_1 L_3 L_4 g_m) + s (2L_1 L_3 R_3 g_m + L_1 L_4 R_3 g_m + L_3 L_4)}$$

$$\mathbf{10.612 \quad INVALID-ORDER-612} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 R_3 g_m s^4 + C_4 L_1 L_3 R_3 R_4 g_m s^3 + L_1 L_3 R_3 g_m s^2}{C_1 C_3 C_4 L_1 L_3 L_4 R_3 s^6 + R_3 + s^5 (C_1 C_3 C_4 L_1 L_3 R_3 R_4 + C_1 C_4 L_1 L_3 L_4 + C_3 C_4 L_1 L_3 L_4 R_3 g_m) + s^4 (C_1 C_3 L_1 L_3 R_3 + 2C_1 C_4 L_1 L_3 R_3 + C_1 C_4 L_1 L_3 R_4 + C_1 C_4 L_1 L_4 R_3 + C_3 C_4 L_1 L_3 R_3 R_4 g_m + C_3 C_4 L_3 L_4 R_3 + C_4 L_1 L_3 L_4 g_m) + s^3 (C_1 C_4 L_1 R_3 R_4 + C_1 L_1 L_3 + C_3 C_4 L_3 R_3 R_4 + C_3 L_1 L_3 R_3 g_m + 2C_4 L_1 L_3 R_3 g_m + C_4 L_1 L_4 R_3 g_m + C_4 L_3 L_4) + s^2 (C_1 L_1 R_3 + C_3 L_3 R_3 + C_4 L_1 R_3 g_m + L_1 L_3 g_m) + s (L_1 R_3 g_m + L_3)}$$

$$\mathbf{10.613 \quad INVALID-ORDER-613} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 L_4 R_3 R_4 g_m s^2}{2L_3 R_3 R_4 + L_4 R_3 R_4 + s^4 (C_1 C_3 L_1 L_3 L_4 R_3 R_4 + 2C_1 C_4 L_1 L_3 L_4 R_3 R_4) + s^3 (2C_1 L_1 L_3 L_4 R_3 + C_1 L_1 L_3 L_4 R_4 + C_3 L_1 L_3 L_4 R_3 R_4 g_m + 2C_4 L_1 L_3 L_4 R_3 R_4 g_m) + s^2 (2C_1 L_1 L_3 R_3 R_4 + C_1 L_1 L_4 R_3 R_4 + C_3 L_3 L_4 R_3 R_4 + 2C_4 L_3 L_4 R_3 R_4 + 2L_1 L_3 L_4 R_3 g_m + L_1 L_3 L_4 R_4 g_m) + s (L_1 R_3 R_4 g_m + L_3)}$$

$$\mathbf{10.614 \quad INVALID-ORDER-614} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 R_3 R_4 g_m s^4 + C_4 L_1 L_3 R_3 R_4 g_m s^3 + L_1 L_3 R_3 g_m s^2}{C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4 s^6 + R_3 R_4 + s^5 (C_1 C_3 L_1 L_3 L_4 R_3 + 2C_1 C_4 L_1 L_3 L_4 R_3 + C_1 C_4 L_1 L_3 L_4 R_4 + C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_3 R_4 + C_1 C_4 L_1 L_4 R_3 R_4 + C_1 L_1 L_3 L_4 + C_3 C_4 L_3 L_4 R_3 R_4 + C_3 L_1 L_3 L_4 R_3 g_m + 2C_4 L_1 L_3 L_4 R_3 g_m + C_4 L_1 L_3 L_4 R_4 g_m) + s^3 (2C_1 L_1 L_3 R_3 + C_1 L_1 L_3 R_4 + C_3 L_3 R_3 + L_1 L_3 g_m) + s^2 (C_1 L_1 R_3 + C_3 L_3 R_3 + C_4 L_1 R_3 g_m + L_1 L_3 g_m) + s (L_1 R_3 g_m + L_3)}$$

$$\mathbf{10.615 \quad INVALID-ORDER-615} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 R_3 R_4 g_m s^4 + L_1 L_3 R_3 R_4 g_m s^2}{C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4 s^6 + R_3 R_4 + s^5 (2C_1 C_4 L_1 L_3 L_4 R_3 + C_1 C_4 L_1 L_3 L_4 R_4 + C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_3 R_4 + 2C_1 C_4 L_1 L_3 R_3 R_4 + C_1 C_4 L_1 L_4 R_3 R_4 + C_3 C_4 L_3 L_4 R_3 R_4 + 2C_4 L_1 L_3 L_4 R_3 g_m + C_4 L_1 L_3 L_4 R_4 g_m) + s^3 (2C_1 L_1 L_3 R_3 + C_1 L_1 L_3 R_4 + C_3 L_3 R_3 + L_1 L_3 g_m) + s^2 (C_1 L_1 R_3 + C_3 L_3 R_3 + C_4 L_1 R_3 g_m + L_1 L_3 g_m) + s (L_1 R_3 g_m + L_3)}$$

$$\mathbf{10.616 \quad INVALID-ORDER-616} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_3 R_4 g_m s^3 + L_1 L_3 R_4 g_m s^2 + L_1 R_3 R_4 g_m s}{2R_3 + R_4 + s^4 (2C_1 C_3 L_1 L_3 R_3 + C_1 C_3 L_1 L_3 R_4) + s^3 (2C_1 L_1 L_3 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_3 R_4 g_m) + s^2 (2C_1 L_1 R_3 + C_1 L_1 R_4 + 2C_3 L_3 R_3 + C_3 L_3 R_4 + 2L_1 L_3 g_m) + s (2L_1 R_3 g_m + L_1 R_4 g_m + 2L_3)}$$

$$\mathbf{10.617 \quad INVALID-ORDER-617} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_3 g_m s^3 + L_1 L_3 g_m s^2 + L_1 R_3 g_m s}{2C_1 C_3 C_4 L_1 L_3 R_3 s^5 + s^4 (C_1 C_3 L_1 L_3 + 2C_1 C_4 L_1 L_3 + 2C_3 C_4 L_1 L_3 R_3 g_m) + s^3 (2C_1 C_4 L_1 R_3 + 2C_3 C_4 L_3 R_3 + C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m) + s^2 (C_1 L_1 + C_3 L_3 + 2C_4 L_1 R_3 g_m + 2C_4 L_3) + s (2C_4 R_3 + L_1 g_m) + 1}$$

$$\mathbf{10.618 \quad INVALID-ORDER-618} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_3 R_4 g_m s^3 + L_1 L_3 R_4 g_m s^2 + L_1 R_3 R_4 g_m s}{2C_1 C_3 C_4 L_1 L_3 R_3 R_4 s^5 + 2R_3 + R_4 + s^4 (2C_1 C_3 L_1 L_3 R_3 + C_1 C_3 L_1 L_3 R_4 + 2C_1 C_4 L_1 L_3 R_4 + 2C_3 C_4 L_1 L_3 R_3 R_4 g_m) + s^3 (2C_1 C_4 L_1 R_3 R_4 + 2C_1 L_1 L_3 + 2C_3 C_4 L_3 R_3 R_4 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_3 R_4 g_m + 2C_4 L_1 L_3 R_4 g_m) + s^2 (2C_1 L_1 R_3 + C_1 L_1 R_4 + 2C_3 L_3 R_3 + C_3 L_3 R_4 + 2L_1 L_3 g_m) + s (2L_1 R_3 g_m + L_1 R_4 g_m + 2L_3)}$$

$$\mathbf{10.619 \quad INVALID-ORDER-619} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 R_3 R_4 g_m s^4 + L_1 R_3 g_m s + s^3 (C_3 L_1 L_3 R_3 g_m + C_4 L_1 L_3 R_4 g_m) + s^2 (C_4 L_1 R_3 R_4 g_m + L_1 L_3 g_m)}{s^5 (2C_1 C_3 C_4 L_1 L_3 R_3 + C_1 C_3 C_4 L_1 L_3 R_4) + s^4 (C_1 C_3 L_1 L_3 + 2C_1 C_4 L_1 L_3 + 2C_3 C_4 L_1 L_3 R_3 g_m + C_3 C_4 L_1 L_3 R_4 g_m) + s^3 (2C_1 C_4 L_1 R_3 + C_1 C_4 L_1 R_4 + 2C_3 C_4 L_3 R_3 + C_3 C_4 L_3 R_4 + C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m) + s^2 (C_1 L_1 + C_3 L_3 + 2C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m + 2C_4 L_3)}$$

$$\mathbf{10.620 \quad INVALID-ORDER-620} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_3 g_m s^5 + C_4 L_1 L_3 L_4 g_m s^4 + L_1 L_3 g_m s^2 + L_1 R_3 g_m s + s^3 (C_3 L_1 L_3 R_3 g_m + C_4 L_1 L_4 R_3 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 s^6 + s^5 (2C_1 C_3 C_4 L_1 L_3 R_3 + C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 L_1 L_3 + 2C_1 C_4 L_1 L_3 + C_1 C_4 L_1 L_4 + 2C_3 C_4 L_1 L_3 R_3 g_m + C_3 C_4 L_3 L_4) + s^3 (2C_1 C_4 L_1 R_3 + 2C_3 C_4 L_3 R_3 + C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_4 g_m) + s^2 (C_1 L_1 + C_3 L_3 + 2C_4 L_1 R_3 g_m + 2C_4 L_4)}$$

$$\mathbf{10.621 \quad INVALID-ORDER-621} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 L_4 R_3 g_m s^4 + L_1 L_3 L_4 g_m s^3 + L_1 L_4 R_3 g_m s^2}{2C_1 C_3 C_4 L_1 L_3 L_4 R_3 s^6 + 2R_3 + s^5 (C_1 C_3 L_1 L_3 L_4 + 2C_1 C_4 L_1 L_3 L_4 + 2C_3 C_4 L_1 L_3 L_4 R_3 g_m) + s^4 (2C_1 C_3 L_1 L_3 R_3 + 2C_1 C_4 L_1 L_4 R_3 + 2C_3 C_4 L_3 L_4 R_3 + C_3 L_1 L_3 L_4 g_m + 2C_4 L_1 L_3 L_4 g_m) + s^3 (2C_1 L_1 L_3 + C_1 L_1 L_4 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_3 L_4 + 2C_4 L_1 L_4 R_3 g_m + 2C_4 L_4)}$$

$$\mathbf{10.622 \quad INVALID-ORDER-622} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_3 g_m s^5 + L_1 R_3 g_m s + s^4 (C_3 C_4 L_1 L_3 R_3 R_4 g_m + C_4 L_1 L_3 L_4 g_m) + s^3 (C_3 L_1 L_3 R_3 g_m + C_4 L_1 L_3 R_4 g_m + C_4 L_1 L_4 R_3 g_m) + s^2 (C_4 L_1 R_3 R_4 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 s^6 + s^5 (2C_1 C_3 C_4 L_1 L_3 R_3 + C_1 C_3 C_4 L_1 L_3 R_4 + C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 L_1 L_3 + 2C_1 C_4 L_1 L_3 + C_1 C_4 L_1 L_4 + 2C_3 C_4 L_1 L_3 R_3 g_m + C_3 C_4 L_1 L_3 R_4 g_m + C_3 C_4 L_3 L_4) + s^3 (2C_1 C_4 L_1 R_3 + C_1 C_4 L_1 R_4 + 2C_3 C_4 L_3 R_3 + C_3 C_4 L_3 R_4 + C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + 2C_4 L_4)}$$

$$\mathbf{10.623 \quad INVALID-ORDER-623} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 L_4 R_3 g_m s^4 + L_1 L_3 L_4 g_m s^3 + L_1 L_4 R_3 g_m s^2}{2C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4 s^6 + 2R_3 R_4 + s^5 (2C_1 C_3 L_1 L_3 L_4 R_3 + C_1 C_3 L_1 L_3 L_4 R_4 + 2C_1 C_4 L_1 L_3 L_4 R_4 + 2C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m) + s^4 (2C_1 C_3 L_1 L_3 R_3 R_4 + 2C_1 C_4 L_1 L_4 R_3 R_4 + 2C_1 L_1 L_3 L_4 + 2C_3 C_4 L_3 L_4 R_3 R_4 + 2C_3 L_1 L_3 L_4 R_3 g_m + C_3 L_1 L_3 L_4 R_4 g_m + 2C_4 L_1 L_3 L_4 R_4 g_m)}$$

$$\mathbf{10.624 \quad INVALID-ORDER-624} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^5 + L_1 R_3 R_4 g_m s + s^4 (C_3 L_1 L_3 L_4 R_3 g_m + C_4 L_1 L_3 L_4 R_4 g_m)}{2R_3 + R_4 + s^6 (2C_1 C_3 C_4 L_1 L_3 L_4 R_3 + C_1 C_3 C_4 L_1 L_3 L_4 R_4) + s^5 (C_1 C_3 L_1 L_3 L_4 + 2C_1 C_4 L_1 L_3 L_4 + 2C_3 C_4 L_1 L_3 L_4 R_3 g_m + C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (2C_1 C_3 L_1 L_3 R_3 + C_1 C_3 L_1 L_3 R_4 + 2C_1 C_4 L_1 L_4 R_3 + C_1 C_4 L_1 L_4 R_4 + 2C_3 C_4 L_3 L_4 R_3 + C_3 C_4 L_3 L_4 R_4 + C_3 L_1 L_3 L_4 g_m)}$$

$$\mathbf{10.625 \quad INVALID-ORDER-625} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^5 + L_1 R_3 R_4 g_m s + s^4 (C_3 L_1 L_3 L_4 R_3 g_m + C_4 L_1 L_3 L_4 R_4 g_m)}{2R_3 + R_4 + s^6 (2C_1 C_3 C_4 L_1 L_3 L_4 R_3 + C_1 C_3 C_4 L_1 L_3 L_4 R_4) + s^5 (2C_1 C_3 C_4 L_1 L_3 R_3 R_4 + 2C_1 C_4 L_1 L_3 L_4 + 2C_3 C_4 L_1 L_3 L_4 R_3 g_m + C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (2C_1 C_3 L_1 L_3 R_3 + C_1 C_3 L_1 L_3 R_4 + 2C_1 C_4 L_1 L_3 R_4 + 2C_1 C_4 L_1 L_4 R_3 + C_1 C_4 L_1 L_4 R_4 + 2C_3 C_4 L_1 L_3 R_3 R_4 g_m)}$$

$$\mathbf{10.626 \quad INVALID-ORDER-626} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_3 R_4 g_m s^3 + L_1 R_3 R_4 g_m s}{2R_3 + R_4 + s^4 (2C_1 C_3 L_1 L_3 R_3 + C_1 C_3 L_1 L_3 R_4) + s^3 (C_1 C_3 L_1 R_3 R_4 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_3 R_4 g_m) + s^2 (2C_1 L_1 R_3 + C_1 L_1 R_4 + C_3 L_1 R_3 R_4 g_m + 2C_3 L_3 R_3 + C_3 L_3 R_4) + s (C_3 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$\mathbf{10.627 \quad INVALID-ORDER-627} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_3 g_m s^3 + L_1 R_3 g_m s}{2C_1 C_3 C_4 L_1 L_3 R_3 s^5 + s^4 (C_1 C_3 L_1 L_3 + 2C_3 C_4 L_1 L_3 R_3 g_m) + s^3 (C_1 C_3 L_1 R_3 + 2C_1 C_4 L_1 R_3 + 2C_3 C_4 L_3 R_3 + C_3 L_1 L_3 g_m) + s^2 (C_1 L_1 + C_3 L_1 R_3 g_m + C_3 L_3 + 2C_4 L_1 R_3 g_m) + s (C_3 R_3 + 2C_4 R_3 + L_1 g_m) + 1}$$

$$\mathbf{10.628 \quad INVALID-ORDER-628} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_3 R_4 g_m s^3 + L_1 R_3 R_4 g_m s}{2C_1 C_3 C_4 L_1 L_3 R_3 R_4 s^5 + 2R_3 + R_4 + s^4 (2C_1 C_3 L_1 L_3 R_3 + C_1 C_3 L_1 L_3 R_4 + 2C_3 C_4 L_1 L_3 R_3 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 + 2C_1 C_4 L_1 R_3 R_4 + 2C_3 C_4 L_3 R_3 R_4 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_3 R_4 g_m) + s^2 (2C_1 L_1 R_3 + C_1 L_1 R_4 + C_3 L_1 R_3 R_4 g_m + 2C_3 L_3 R_3 + C_3 L_3 R_4 + 2C_4 L_1 R_3 g_m) + s (C_3 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$\mathbf{10.629 \quad INVALID-ORDER-629} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 R_3 R_4 g_m s^4 + C_3 L_1 L_3 R_3 g_m s^3 + C_4 L_1 R_3 R_4 g_m s^2 + L_1 R_3 g_m s}{s^5 (2C_1 C_3 C_4 L_1 L_3 R_3 + C_1 C_3 C_4 L_1 L_3 R_4) + s^4 (C_1 C_3 C_4 L_1 R_3 R_4 + C_1 C_3 L_1 L_3 + 2C_3 C_4 L_1 L_3 R_3 g_m + C_3 C_4 L_1 L_3 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 + 2C_1 C_4 L_1 R_3 + C_1 C_4 L_1 R_4 + C_3 C_4 L_1 R_3 R_4 g_m + 2C_3 C_4 L_3 R_3 + C_3 C_4 L_3 R_4 + C_3 L_1 L_3 g_m) + s^2 (C_1 L_1 + C_3 C_4 R_3 R_4 + C_3 L_1 R_3 R_4 g_m) + s (C_3 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$\mathbf{10.630 \quad INVALID-ORDER-630} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_3 g_m s^5 + L_1 R_3 g_m s + s^3 (C_3 L_1 L_3 R_3 g_m + C_4 L_1 L_4 R_3 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 s^6 + s^5 (2C_1 C_3 C_4 L_1 L_3 R_3 + C_1 C_3 C_4 L_1 L_4 R_3 + C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 L_1 L_3 + C_1 C_4 L_1 L_4 + 2C_3 C_4 L_1 L_3 R_3 g_m + C_3 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_3 L_4) + s^3 (C_1 C_3 L_1 R_3 + 2C_1 C_4 L_1 R_3 + 2C_3 C_4 L_3 R_3 + C_3 C_4 L_4 R_3 + C_3 L_1 L_3 g_m + C_4 L_1 L_4 g_m) + s^2 (C_1 L_1 + C_3 C_4 R_3 R_4 + C_3 L_1 R_3 R_4 g_m) + s (C_3 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$\mathbf{10.631 \quad INVALID-ORDER-631} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 L_4 R_3 g_m s^4 + L_1 L_4 R_3 g_m s^2}{2C_1 C_3 C_4 L_1 L_3 L_4 R_3 s^6 + 2R_3 + s^5 (C_1 C_3 L_1 L_3 L_4 + 2C_3 C_4 L_1 L_3 L_4 R_3 g_m) + s^4 (2C_1 C_3 L_1 L_3 R_3 + C_1 C_3 L_1 L_4 R_3 + 2C_1 C_4 L_1 L_4 R_3 + 2C_3 C_4 L_3 L_4 R_3 + C_3 L_1 L_3 L_4 g_m) + s^3 (C_1 L_1 L_4 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_4 R_3 g_m + C_3 L_3 L_4 + 2C_4 L_1 L_4 R_3 g_m) + s^2 (2C_1 L_1 R_3 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_4 R_3 g_m) + s (C_3 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$\mathbf{10.632 \quad INVALID-ORDER-632} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_3 g_m s^5 + C_3 C_4 L_1 L_3 R_3 R_4 g_m s^4 + C_4 L_1 R_3 R_4 g_m s^2 + L_1 R_3 g_m s}{C_1 C_3 C_4 L_1 L_3 L_4 s^6 + s^5 (2C_1 C_3 C_4 L_1 L_3 R_3 + C_1 C_3 C_4 L_1 L_3 R_4 + C_1 C_3 C_4 L_1 L_4 R_3 + C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 C_4 L_1 R_3 R_4 + C_1 C_3 L_1 L_3 + C_1 C_4 L_1 L_4 + 2C_3 C_4 L_1 L_3 R_3 g_m + C_3 C_4 L_1 L_3 R_4 g_m + C_3 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_3 L_4) + s^3 (C_1 C_3 L_1 R_3 + 2C_1 C_4 L_1 R_3 + C_1 C_4 L_1 R_4 + 2C_3 C_4 L_3 R_3 + C_3 C_4 L_4 R_3 + C_3 L_1 L_3 g_m + C_4 L_1 L_4 g_m) + s^2 (2C_1 L_1 R_3 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_4 R_3 g_m) + s (C_3 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$\mathbf{10.633 \quad INVALID-ORDER-633} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 L_4 R_3 R_4 g_m s^4 + L_1 L_4 R_3 R_4 g_m s^2}{2C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4 s^6 + 2R_3 R_4 + s^5 (2C_1 C_3 L_1 L_3 L_4 R_3 + C_1 C_3 L_1 L_3 L_4 R_4 + 2C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m) + s^4 (2C_1 C_3 L_1 L_3 R_3 R_4 + C_1 C_3 L_1 L_4 R_3 R_4 + 2C_1 C_4 L_1 L_4 R_3 R_4 + 2C_3 C_4 L_3 L_4 R_3 R_4 + 2C_3 L_1 L_3 L_4 R_3 g_m + C_3 L_1 L_3 L_4 R_4 g_m) + s^3 (2C_1 L_1 L_4 R_3 + C_1 L_1 L_4 R_4 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_4 R_3 g_m + C_3 L_3 L_4 + 2C_4 L_1 L_4 R_3 g_m) + s^2 (2C_1 L_1 R_3 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_4 R_3 g_m) + s (C_3 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$\mathbf{10.634 \quad INVALID-ORDER-634} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^5 + C_3 C_4 L_1 L_3 R_3 R_4 g_m s^4 + C_4 L_1 R_3 R_4 g_m s^2 + L_1 R_3 g_m s}{2R_3 + R_4 + s^6 (2C_1 C_3 C_4 L_1 L_3 L_4 R_3 + C_1 C_3 C_4 L_1 L_3 L_4 R_4) + s^5 (C_1 C_3 C_4 L_1 L_4 R_3 R_4 + C_1 C_3 L_1 L_3 L_4 + 2C_3 C_4 L_1 L_3 L_4 R_3 g_m + C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (2C_1 C_3 L_1 L_3 R_3 + C_1 C_3 L_1 L_3 R_4 + C_1 C_3 L_1 L_4 R_3 + 2C_1 C_4 L_1 L_4 R_3 + C_1 C_4 L_1 L_4 R_4 + C_3 C_4 L_1 L_4 R_3 R_4 g_m + 2C_3 C_4 L_3 L_4 R_3 R_4 + 2C_3 L_1 L_3 L_4 R_3 g_m + C_3 L_1 L_3 L_4 R_4 g_m) + s^3 (2C_1 L_1 L_4 R_3 + C_1 L_1 L_4 R_4 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_4 R_3 g_m + C_3 L_3 L_4 + 2C_4 L_1 L_4 R_3 g_m) + s^2 (2C_1 L_1 R_3 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_4 R_3 g_m) + s (C_3 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

$$\mathbf{10.635 \quad INVALID-ORDER-635} \quad Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_3 R_4 g_m s^2 + C_1 R_1 R_3 R_4 g_m s + R_3 R_4 g_m}{2R_3 + R_4 + s^6 (2C_1 C_3 C_4 L_1 L_3 L_4 R_3 + C_1 C_3 C_4 L_1 L_3 L_4 R_4) + s^5 (2C_1 C_3 C_4 L_1 L_3 R_3 R_4 + C_1 C_3 C_4 L_1 L_4 R_3 R_4 + 2C_3 C_4 L_1 L_3 L_4 R_3 g_m + C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (2C_1 C_3 L_1 L_3 R_3 + C_1 C_3 L_1 L_3 R_4 + 2C_1 C_4 L_1 L_4 R_3 + C_1 C_4 L_1 L_4 R_4 + 2C_3 C_4 L_1 L_3 R_3 R_4 g_m + C_3 C_4 L_1 L_4 R_3 R_4 g_m) + s^3 (2C_1 C_4 L_1 R_3 R_4 g_m + C_1 C_4 L_1 R_4 g_m) + s^2 (2C_1 C_4 R_3 R_4 + C_1 L_1 g_m) + s (C_1 R_1 g_m + C_1 + 2C_4 R_3 g_m)}$$

$$\mathbf{10.636 \quad INVALID-ORDER-636} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_3 g_m s^2 + C_1 R_1 R_3 g_m s + R_3 g_m}{2C_1 C_4 L_1 R_3 g_m s^3 + g_m + s^2 (2C_1 C_4 R_1 R_3 g_m + 2C_1 C_4 R_3 + C_1 L_1 g_m) + s (C_1 R_1 g_m + C_1 + 2C_4 R_3 g_m)}$$

$$\mathbf{10.637 \quad INVALID-ORDER-637} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_3 R_4 g_m s^2 + C_1 R_1 R_3 R_4 g_m s + R_3 R_4 g_m}{2C_1 C_4 L_1 R_3 R_4 g_m s^3 + 2R_3 g_m + R_4 g_m + s^2 (2C_1 C_4 R_1 R_3 R_4 g_m + 2C_1 C_4 R_3 R_4 + 2C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m) + s (2C_1 R_1 R_3 g_m + C_1 R_1 R_4 g_m + 2C_1 R_3 + C_1 R_4 + 2C_4 R_3 R_4 g_m)}$$

$$\mathbf{10.638 \quad INVALID-ORDER-638} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 R_3 R_4 g_m s^3 + R_3 g_m + s^2 (C_1 C_4 R_1 R_3 R_4 g_m + C_1 L_1 R_3 g_m) + s (C_1 R_1 R_3 g_m + C_4 R_3 R_4 g_m)}{g_m + s^3 (2C_1 C_4 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m) + s^2 (2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4 + C_1 L_1 g_m) + s (C_1 R_1 g_m + C_1 + 2C_4 R_3 g_m + C_4 R_4 g_m)}$$

$$\mathbf{10.639 \quad INVALID-ORDER-639} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 g_m s^4 + C_1 C_4 L_4 R_1 R_3 g_m s^3 + C_1 R_1 R_3 g_m s + R_3 g_m + s^2 (C_1 L_1 R_3 g_m + C_4 L_4 R_3 g_m)}{C_1 C_4 L_1 L_4 g_m s^4 + g_m + s^3 (2C_1 C_4 L_1 R_3 g_m + C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4) + s^2 (2C_1 C_4 R_1 R_3 g_m + 2C_1 C_4 R_3 + C_1 L_1 g_m + C_4 L_4 g_m) + s (C_1 R_1 g_m + C_1 + 2C_4 R_3 g_m)}$$

$$\mathbf{10.640 \quad INVALID-ORDER-640} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_4 R_3 g_m s^3 + C_1 L_4 R_1 R_3 g_m s^2 + L_4 R_3 g_m s}{2C_1 C_4 L_1 L_4 R_3 g_m s^4 + 2R_3 g_m + s^3 (2C_1 C_4 L_4 R_1 R_3 g_m + 2C_1 C_4 L_4 R_3 + C_1 L_1 L_4 g_m) + s^2 (2C_1 L_1 R_3 g_m + C_1 L_4 R_1 g_m + C_1 L_4 + 2C_4 L_4 R_3 g_m) + s (2C_1 R_1 R_3 g_m + 2C_1 R_3 + L_4 g_m)}$$

$$\mathbf{10.641 \quad INVALID-ORDER-641} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 g_m s^4 + R_3 g_m + s^3 (C_1 C_4 L_1 R_3 R_4 g_m + C_1 C_4 L_4 R_1 R_3 g_m) + s^2 (C_1 C_4 R_1 R_3 R_4 g_m + C_1 L_1 R_3 g_m + C_4 L_4 R_3 g_m) + s (C_1 R_1 R_3 g_m + C_4 R_3 R_4 g_m)}{C_1 C_4 L_1 L_4 g_m s^4 + g_m + s^3 (2C_1 C_4 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m + C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4) + s^2 (2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4 + C_1 L_1 g_m + C_4 L_4 g_m) + s (C_1 R_1 g_m + C_1 + 2C_4 R_3 g_m + C_4 R_4 g_m)}$$

$$\mathbf{10.642 \quad INVALID-ORDER-642} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_4 R_3 R_4 g_m s^3 + C_1 L_4 R_1 R_3 R_4 g_m s^2 + L_4 R_3 R_4 g_m s}{2C_1 C_4 L_1 L_4 R_3 R_4 g_m s^4 + 2R_3 R_4 g_m + s^3 (2C_1 C_4 L_4 R_1 R_3 R_4 g_m + 2C_1 C_4 L_4 R_3 R_4 + 2C_1 L_1 L_4 R_3 g_m + C_1 L_1 L_4 R_4 g_m) + s^2 (2C_1 L_1 R_3 R_4 g_m + 2C_1 L_4 R_1 R_3 g_m + C_1 L_4 R_1 R_4 g_m + 2C_1 L_4 R_3 + C_1 L_4 R_4 + 2C_4 L_4 R_3 R_4 g_m) + s (2C_1 R_1 R_3 R_4 g_m + 2C_1 R_3 R_4 + 2L_4 R_3 g_m + L_4 R_4 g_m)}$$

$$\mathbf{10.643 \quad INVALID-ORDER-643} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 R_4 g_m s^4 + R_3 R_4 g_m + s^3 (C_1 C_4 L_4 R_1 R_3 R_4 g_m + C_1 L_1 L_4 R_3 g_m) + s^2 (C_1 L_1 R_3 R_4 g_m + C_1 L_4 R_1 R_3 g_m + C_4 L_4 R_3 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + L_4 R_3 g_m)}{2R_3 g_m + R_4 g_m + s^4 (2C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (2C_1 C_4 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_4 g_m + 2C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4 + C_1 L_1 L_4 g_m) + s^2 (2C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m + C_1 L_4 R_1 g_m + C_1 L_4 + 2C_4 L_4 R_3 g_m + C_4 L_4 R_4 g_m) + s (2C_1 R_1 R_3 g_m + C_1 R_1 R_4 g_m)}$$

$$\mathbf{10.644 \quad INVALID-ORDER-644} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 R_4 g_m s^4 + C_1 C_4 L_4 R_1 R_3 R_4 g_m s^3 + C_1 R_1 R_3 R_4 g_m s + R_3 R_4 g_m + s^2 (C_1 L_1 R_3 R_4 g_m + C_4 L_4 R_3 R_4 g_m)}{2 R_3 g_m + R_4 g_m + s^4 (2 C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (2 C_1 C_4 L_1 R_3 R_4 g_m + 2 C_1 C_4 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_4 g_m + 2 C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4) + s^2 (2 C_1 C_4 R_1 R_3 R_4 g_m + 2 C_1 C_4 R_3 R_4 + 2 C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m + 2 C_4 L_4 R_3 g_m + C_4 L_4 R_4 g_m) + s (2 C_1 R_1 R_3 g_m + C_1 R_1 R_4 g_m + 2 C_4 L_4 R_3 g_m + C_4 L_4 R_4 g_m)}$$

$$\mathbf{10.645 \quad INVALID-ORDER-645} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_4 g_m s^2 + C_1 R_1 R_4 g_m s + R_4 g_m}{C_1 C_3 L_1 R_4 g_m s^3 + 2 g_m + s^2 (C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2 C_1 L_1 g_m) + s (2 C_1 R_1 g_m + 2 C_1 + C_3 R_4 g_m)}$$

$$\mathbf{10.646 \quad INVALID-ORDER-646} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 g_m s^2 + C_1 R_1 g_m s + g_m}{s^3 (C_1 C_3 L_1 g_m + 2 C_1 C_4 L_1 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2 C_1 C_4 R_1 g_m + 2 C_1 C_4) + s (C_3 g_m + 2 C_4 g_m)}$$

$$\mathbf{10.647 \quad INVALID-ORDER-647} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_4 g_m s^2 + C_1 R_1 R_4 g_m s + R_4 g_m}{2 g_m + s^3 (C_1 C_3 L_1 R_4 g_m + 2 C_1 C_4 L_1 R_4 g_m) + s^2 (C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2 C_1 C_4 R_1 R_4 g_m + 2 C_1 C_4 R_4 + 2 C_1 L_1 g_m) + s (2 C_1 R_1 g_m + 2 C_1 + C_3 R_4 g_m + 2 C_4 R_4 g_m)}$$

$$\mathbf{10.648 \quad INVALID-ORDER-648} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 R_4 g_m s^3 + g_m + s^2 (C_1 C_4 R_1 R_4 g_m + C_1 L_1 g_m) + s (C_1 R_1 g_m + C_4 R_4 g_m)}{C_1 C_3 C_4 L_1 R_4 g_m s^4 + s^3 (C_1 C_3 C_4 R_1 R_4 g_m + C_1 C_3 C_4 R_4 + C_1 C_3 L_1 g_m + 2 C_1 C_4 L_1 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2 C_1 C_4 R_1 g_m + 2 C_1 C_4 + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

$$\mathbf{10.649 \quad INVALID-ORDER-649} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 g_m s^4 + C_1 C_4 L_4 R_1 g_m s^3 + C_1 R_1 g_m s + g_m + s^2 (C_1 L_1 g_m + C_4 L_4 g_m)}{C_1 C_3 C_4 L_1 L_4 g_m s^5 + s^4 (C_1 C_3 C_4 L_4 R_1 g_m + C_1 C_3 C_4 L_4) + s^3 (C_1 C_3 L_1 g_m + 2 C_1 C_4 L_1 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2 C_1 C_4 R_1 g_m + 2 C_1 C_4) + s (C_3 g_m + 2 C_4 g_m)}$$

$$\mathbf{10.650 \quad INVALID-ORDER-650} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_4 g_m s^3 + C_1 L_4 R_1 g_m s^2 + L_4 g_m s}{2 g_m + s^4 (C_1 C_3 L_1 L_4 g_m + 2 C_1 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 L_4 R_1 g_m + C_1 C_3 L_4 + 2 C_1 C_4 L_4 R_1 g_m + 2 C_1 C_4 L_4) + s^2 (2 C_1 L_1 g_m + C_3 L_4 g_m + 2 C_4 L_4 g_m) + s (2 C_1 R_1 g_m + 2 C_1)}$$

$$\mathbf{10.651 \quad INVALID-ORDER-651} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 g_m s^4 + g_m + s^3 (C_1 C_4 L_1 R_4 g_m + C_1 C_4 L_4 R_1 g_m) + s^2 (C_1 C_4 R_1 R_4 g_m + C_1 L_1 g_m + C_4 L_4 g_m) + s (C_1 R_1 g_m + C_4 R_4 g_m)}{C_1 C_3 C_4 L_1 L_4 g_m s^5 + s^4 (C_1 C_3 C_4 L_1 R_4 g_m + C_1 C_3 C_4 L_4 R_1 g_m + C_1 C_3 C_4 L_4) + s^3 (C_1 C_3 C_4 R_1 R_4 g_m + C_1 C_3 C_4 R_4 + C_1 C_3 L_1 g_m + 2 C_1 C_4 L_1 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2 C_1 C_4 R_1 g_m + 2 C_1 C_4 + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

$$\mathbf{10.652 \quad INVALID-ORDER-652} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_4 R_4 g_m s^3 + C_1 L_4 R_1 R_4 g_m s^2 + L_4 R_4 g_m s}{2 R_4 g_m + s^4 (C_1 C_3 L_1 L_4 R_4 g_m + 2 C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (C_1 C_3 L_4 R_1 R_4 g_m + C_1 C_3 L_4 R_4 + 2 C_1 C_4 L_4 R_1 R_4 g_m + 2 C_1 C_4 L_4 R_4 + 2 C_1 L_1 L_4 g_m) + s^2 (2 C_1 L_1 R_4 g_m + 2 C_1 L_4 R_1 g_m + 2 C_1 L_4 + C_3 L_4 R_4 g_m + 2 C_4 L_4 R_4 g_m) + s (2 C_1 R_1 R_4 g_m + 2 C_1 R_4 + 2 L_4 g_m)}$$

$$\mathbf{10.653 \quad INVALID-ORDER-653} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_4 g_m s^4 + R_4 g_m + s^3 (C_1 C_4 L_4 R_1 R_4 g_m + C_1 L_1 L_4 g_m) + s^2 (C_1 L_1 R_4 g_m + C_1 L_4 R_1 g_m + C_4 L_4 R_4 g_m) + s (C_1 R_1 R_4 g_m + L_4 g_m)}{C_1 C_3 C_4 L_1 L_4 R_4 g_m s^5 + 2 g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_4 g_m + C_1 C_3 C_4 L_4 R_4 + C_1 C_3 L_1 L_4 g_m + 2 C_1 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 L_1 R_4 g_m + C_1 C_3 L_4 R_1 g_m + C_1 C_3 L_4 + 2 C_1 C_4 L_4 R_1 g_m + 2 C_1 C_4 L_4 + C_3 C_4 L_4 R_4 g_m) + s^2 (C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2 C_1 L_1 g_m + C_3 L_4 g_m + 2 C_4 L_4 g_m)}$$

$$\mathbf{10.654 \quad INVALID-ORDER-654} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_4 g_m s^4 + C_1 C_4 L_4 R_1 R_4 g_m s^3 + C_1 R_1 R_4 g_m s + R_4 g_m + s^2 (C_1 L_1 R_4 g_m + C_4 L_4 R_4 g_m)}{C_1 C_3 C_4 L_1 L_4 R_4 g_m s^5 + 2g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_4 g_m + C_1 C_3 C_4 L_4 R_4 + 2C_1 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 L_1 R_4 g_m + 2C_1 C_4 L_1 R_4 g_m + 2C_1 C_4 L_4 R_1 g_m + 2C_1 C_4 L_4 + C_3 C_4 L_4 R_4 g_m) + s^2 (C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_4 + 2C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_4 + 2C_1 L_1 g_m + 2C_4 L_4 g_m) + s (C_1 R_1 R_4 g_m + C_1 R_4 + C_3 R_4 R_4 g_m) + R_4 g_m}$$

$$\mathbf{10.655 \quad INVALID-ORDER-655} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_3 R_4 g_m s^2 + C_1 R_1 R_3 R_4 g_m s + R_3 R_4 g_m}{C_1 C_3 L_1 R_3 R_4 g_m s^3 + 2R_3 g_m + R_4 g_m + s^2 (C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4 + 2C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m) + s (2C_1 R_1 R_3 g_m + C_1 R_1 R_4 g_m + 2C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m) + R_3 R_4 g_m}$$

$$\mathbf{10.656 \quad INVALID-ORDER-656} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_3 g_m s^2 + C_1 R_1 R_3 g_m s + R_3 g_m}{g_m + s^3 (C_1 C_3 L_1 R_3 g_m + 2C_1 C_4 L_1 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_3 + 2C_1 C_4 R_1 R_3 g_m + 2C_1 C_4 R_3 + C_1 L_1 g_m) + s (C_1 R_1 g_m + C_1 + C_3 R_3 g_m + 2C_4 R_3 g_m) + R_3 g_m}$$

$$\mathbf{10.657 \quad INVALID-ORDER-657} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_3 R_4 g_m s^2 + C_1 R_1 R_3 R_4 g_m s + R_3 R_4 g_m}{2R_3 g_m + R_4 g_m + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + 2C_1 C_4 L_1 R_3 R_4 g_m) + s^2 (C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4 + 2C_1 C_4 R_1 R_3 R_4 g_m + 2C_1 C_4 R_3 R_4 + 2C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m) + s (2C_1 R_1 R_3 g_m + C_1 R_1 R_4 g_m + 2C_1 R_3 + C_1 R_4 + C_3 R_3 R_4 g_m + 2C_4 R_3 R_4 g_m) + R_3 R_4 g_m}$$

$$\mathbf{10.658 \quad INVALID-ORDER-658} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 R_3 R_4 g_m s^3 + R_3 g_m + s^2 (C_1 C_4 R_1 R_3 R_4 g_m + C_1 L_1 R_3 g_m) + s (C_1 R_1 R_3 g_m + C_4 R_3 R_4 g_m)}{C_1 C_3 C_4 L_1 R_3 R_4 g_m s^4 + g_m + s^3 (C_1 C_3 C_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 R_3 R_4 + C_1 C_3 L_1 R_3 g_m + 2C_1 C_4 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_3 + 2C_1 C_4 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + 2C_1 C_4 R_3 + C_1 C_4 R_4 + C_1 L_1 g_m + C_3 C_4 R_3 R_4 g_m) + s (C_1 R_1 g_m + C_1 + C_3 R_3 R_4 g_m) + R_3 g_m}$$

$$\mathbf{10.659 \quad INVALID-ORDER-659} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 g_m s^4 + C_1 C_4 L_4 R_1 R_3 g_m s^3 + C_1 R_1 R_3 g_m s + R_3 g_m + s^2 (C_1 L_1 R_3 g_m + C_4 L_4 R_3 g_m)}{C_1 C_3 C_4 L_1 L_4 R_3 g_m s^5 + g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_4 R_3 + C_1 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 L_1 R_3 g_m + 2C_1 C_4 L_1 R_3 g_m + C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4 + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_3 + 2C_1 C_4 R_1 R_3 g_m + 2C_1 C_4 R_3 + C_1 L_1 g_m + C_4 L_4 g_m) + s (C_1 R_1 R_3 g_m + C_1 R_3 + C_3 R_3 R_3 g_m) + R_3 g_m}$$

$$\mathbf{10.660 \quad INVALID-ORDER-660} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_4 R_3 g_m s^3 + C_1 L_4 R_1 R_3 g_m s^2 + L_4 R_3 g_m s}{2R_3 g_m + s^4 (C_1 C_3 L_1 L_4 R_3 g_m + 2C_1 C_4 L_1 L_4 R_3 g_m) + s^3 (C_1 C_3 L_4 R_1 R_3 g_m + C_1 C_3 L_4 R_3 + 2C_1 C_4 L_4 R_1 R_3 g_m + 2C_1 C_4 L_4 R_3 + C_1 L_1 L_4 g_m) + s^2 (2C_1 L_1 R_3 g_m + C_1 L_4 R_1 g_m + C_1 L_4 + C_3 L_4 R_3 g_m + 2C_4 L_4 R_3 g_m) + s (2C_1 R_1 R_3 g_m + 2C_1 R_3 + L_4 g_m) + L_4 R_3 g_m}$$

$$\mathbf{10.661 \quad INVALID-ORDER-661} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 g_m s^4 + R_3 g_m + s^3 (C_1 C_4 L_1 R_3 R_4 g_m + C_1 C_4 L_4 R_1 R_3 g_m) + s^2 (C_1 C_4 R_1 R_3 R_4 g_m + C_1 L_1 R_3 g_m + C_4 L_4 R_3 g_m)}{C_1 C_3 C_4 L_1 L_4 R_3 g_m s^5 + g_m + s^4 (C_1 C_3 C_4 L_1 R_3 R_4 g_m + C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_4 R_3 + C_1 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 C_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 R_3 R_4 + C_1 C_3 L_1 R_3 g_m + 2C_1 C_4 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m + C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4 + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_3 + 2C_1 C_4 R_1 R_3 g_m + 2C_1 C_4 R_3 + C_1 L_1 g_m + C_4 L_4 g_m) + s (C_1 R_1 R_3 g_m + C_1 R_3 + C_3 R_3 R_3 g_m) + R_3 g_m}$$

$$\mathbf{10.662 \quad INVALID-ORDER-662} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_4 R_3 R_4 g_m s^3 + C_1 L_4 R_1 R_3 R_4 g_m s^2 + L_4 R_3 R_4 g_m s}{2R_3 R_4 g_m + s^4 (C_1 C_3 L_1 L_4 R_3 R_4 g_m + 2C_1 C_4 L_1 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_4 R_1 R_3 R_4 g_m + C_1 C_3 L_4 R_3 R_4 + 2C_1 C_4 L_4 R_1 R_3 R_4 g_m + 2C_1 C_4 L_4 R_3 R_4 + 2C_1 L_1 L_4 R_3 g_m + C_1 L_1 L_4 R_4 g_m) + s^2 (2C_1 L_1 R_3 R_4 g_m + 2C_1 L_4 R_1 R_3 g_m + C_1 L_4 R_1 R_4 g_m + 2C_1 L_4 R_3 + C_1 L_4 R_4 + C_3 L_4 R_3 R_4 g_m) + s (2C_1 R_1 R_3 R_4 g_m + 2C_1 R_3 R_4 + L_4 R_3 R_4 g_m) + L_4 R_3 R_4 g_m}$$

$$\mathbf{10.663 \quad INVALID-ORDER-663} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 R_4 g_m s^4 + R_3 R_4 g_m + s^3 (C_1 C_4 L_4 R_1 R_3 R_4 g_m + C_1 L_1 L_4 R_3 g_m) + s^2 (C_1 L_1 R_3 R_4 g_m + C_4 L_4 R_3 g_m)}{C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m s^5 + 2R_3 g_m + R_4 g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_4 R_3 R_4 + C_1 C_3 L_1 L_4 R_3 g_m + 2C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + C_1 C_3 L_4 R_1 R_3 g_m + C_1 C_3 L_4 R_3 + 2C_1 C_4 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_4 g_m + 2C_1 C_4 L_4 R_3 + C_1 L_1 g_m + C_4 L_4 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_3 + 2C_1 C_4 R_1 R_3 g_m + 2C_1 C_4 R_3 + C_1 L_1 g_m + C_4 L_4 g_m) + s (C_1 R_1 R_3 g_m + C_1 R_3 + C_3 R_3 R_3 g_m) + R_3 R_4 g_m}$$

$$\mathbf{10.664 \quad INVALID-ORDER-664} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_3 R_4 g_m s^4 + C_1 C_4 L_4 R_1 R_3 R_4 g_m s^3 + C_1 R_1 R_3 R_4 g_m s + R_3 R_4 g_m + s^2 (C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m s^5 + 2 R_3 g_m + R_4 g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_4 R_3 R_4 + 2 C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + 2 C_1 C_4 L_1 R_3 R_4 g_m + 2 C_1 C_4 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_4 g_m + 2 C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4 + C_3 C_4 L_4 R_3 R_4 g_m))}{C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m s^5 + 2 R_3 g_m + R_4 g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_4 R_3 R_4 + 2 C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + 2 C_1 C_4 L_1 R_3 R_4 g_m + 2 C_1 C_4 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_4 g_m + 2 C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4 + C_3 C_4 L_4 R_3 R_4 g_m)}$$

$$\mathbf{10.665 \quad INVALID-ORDER-665} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 R_3 R_4 g_m s^3 + R_4 g_m + s^2 (C_1 C_3 R_1 R_3 R_4 g_m + C_1 L_1 R_4 g_m) + s (C_1 R_1 R_4 g_m + C_3 R_3 R_4 g_m)}{2 g_m + s^3 (2 C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_1 R_4 g_m) + s^2 (2 C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2 C_1 C_3 R_3 + C_1 C_3 R_4 + 2 C_1 L_1 g_m) + s (2 C_1 R_1 g_m + 2 C_1 + 2 C_3 R_3 g_m + C_3 R_4 g_m)}$$

$$\mathbf{10.666 \quad INVALID-ORDER-666} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 R_3 g_m s^3 + g_m + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 L_1 g_m) + s (C_1 R_1 g_m + C_3 R_3 g_m)}{2 C_1 C_3 C_4 L_1 R_3 g_m s^4 + s^3 (2 C_1 C_3 C_4 R_1 R_3 g_m + 2 C_1 C_3 C_4 R_3 + C_1 C_3 L_1 g_m + 2 C_1 C_4 L_1 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2 C_1 C_4 R_1 g_m + 2 C_1 C_4 + 2 C_3 C_4 R_3 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

$$\mathbf{10.667 \quad INVALID-ORDER-667} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 R_3 R_4 g_m s^3 + R_4 g_m + s^2 (C_1 C_3 R_1 R_3 R_4 g_m + C_1 L_1 R_4 g_m) + s (C_1 R_1 R_4 g_m + C_3 R_3 R_4 g_m)}{2 C_1 C_3 C_4 L_1 R_3 R_4 g_m s^4 + 2 g_m + s^3 (2 C_1 C_3 C_4 R_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 R_3 R_4 + 2 C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_1 R_4 g_m + 2 C_1 C_4 L_1 R_4 g_m) + s^2 (2 C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + 2 C_1 C_3 R_3 + C_1 C_3 R_4 + 2 C_1 C_4 R_1 R_4 g_m + 2 C_1 C_4 R_4 + 2 C_1 L_1 g_m + 2 C_3 C_4 R_3 R_4 g_m) + s (2 C_1 R_1 g_m + 2 C_1 + 2 C_3 R_3 g_m + C_3 R_4 g_m)}$$

$$\mathbf{10.668 \quad INVALID-ORDER-668} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 R_3 R_4 g_m s^4 + g_m + s^3 (C_1 C_3 C_4 R_1 R_3 R_4 g_m + C_1 C_3 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + C_1 L_1 g_m + C_3 C_4 R_3 R_4 g_m) + s (C_1 R_1 g_m + C_3 R_3 g_m + C_4 R_4 g_m)}{s^4 (2 C_1 C_3 C_4 L_1 R_3 g_m + C_1 C_3 C_4 L_1 R_4 g_m) + s^3 (2 C_1 C_3 C_4 R_1 R_3 g_m + C_1 C_3 C_4 R_1 R_4 g_m + 2 C_1 C_3 C_4 R_3 + C_1 C_3 C_4 R_4 + C_1 C_3 L_1 g_m + 2 C_1 C_4 L_1 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2 C_1 C_4 R_1 g_m + 2 C_1 C_4 + 2 C_3 C_4 R_3 g_m + C_3 C_4 R_4 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

$$\mathbf{10.669 \quad INVALID-ORDER-669} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_4 R_3 g_m s^5 + g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 L_1 R_3 g_m + C_1 C_4 L_4 R_1 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 L_1 g_m + C_4 L_4 g_m) + s (C_1 R_1 g_m + C_3 R_3 g_m)}{C_1 C_3 C_4 L_1 L_4 g_m s^5 + s^4 (2 C_1 C_3 C_4 L_1 R_3 g_m + C_1 C_3 C_4 L_4 R_1 g_m + C_1 C_3 C_4 L_4) + s^3 (2 C_1 C_3 C_4 R_1 R_3 g_m + 2 C_1 C_3 C_4 R_3 + C_1 C_3 C_4 R_4 + C_1 C_3 L_1 g_m + 2 C_1 C_4 L_1 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2 C_1 C_4 R_1 g_m + 2 C_1 C_4 + 2 C_3 C_4 R_3 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

$$\mathbf{10.670 \quad INVALID-ORDER-670} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_4 R_3 g_m s^4 + L_4 g_m s + s^3 (C_1 C_3 L_4 R_1 R_3 g_m + C_1 L_1 L_4 g_m) + s^2 (C_1 L_4 R_1 g_m + C_3 L_4 R_3 g_m)}{2 C_1 C_3 C_4 L_1 L_4 R_3 g_m s^5 + 2 g_m + s^4 (2 C_1 C_3 C_4 L_4 R_1 R_3 g_m + 2 C_1 C_3 C_4 L_4 R_3 + C_1 C_3 L_1 L_4 g_m + 2 C_1 C_4 L_1 L_4 g_m) + s^3 (2 C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_4 R_1 g_m + C_1 C_3 L_4 + 2 C_1 C_4 L_4 R_1 g_m + 2 C_1 C_4 L_4 + 2 C_3 C_4 L_4 R_3 g_m) + s^2 (2 C_1 C_3 R_1 R_3 g_m + 2 C_1 C_3 R_3 + 2 C_1 L_1 g_m + C_3 L_4 g_m)}$$

$$\mathbf{10.671 \quad INVALID-ORDER-671} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_4 R_3 g_m s^5 + g_m + s^4 (C_1 C_3 C_4 L_1 R_3 R_4 g_m + C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 C_4 R_1 R_3 R_4 g_m + C_1 C_3 L_1 R_3 g_m + C_1 C_4 L_1 R_4 g_m + C_1 C_4 L_4 R_1 g_m + C_3 C_4 L_4 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_4 R_1 R_4 g_m + C_1 L_1 g_m + C_3 C_4 R_3 R_4 g_m + C_4 R_4 g_m) + s (C_3 R_3 g_m + C_4 R_4 g_m)}{C_1 C_3 C_4 L_1 L_4 g_m s^5 + s^4 (2 C_1 C_3 C_4 L_1 R_3 g_m + C_1 C_3 C_4 L_1 R_4 g_m + C_1 C_3 C_4 L_4 R_1 g_m + C_1 C_3 C_4 L_4) + s^3 (2 C_1 C_3 C_4 R_1 R_3 g_m + C_1 C_3 C_4 R_1 R_4 g_m + 2 C_1 C_3 C_4 R_3 + C_1 C_3 C_4 R_4 + C_1 C_3 L_1 g_m + 2 C_1 C_4 L_1 g_m + C_3 C_4 L_4 g_m) + s^2 (C_1 C_3 R_1 g_m + C_1 C_3 + 2 C_1 C_4 R_1 g_m + 2 C_1 C_4 + 2 C_3 C_4 R_3 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

$$\mathbf{10.672 \quad INVALID-ORDER-672} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_4 R_3 R_4 g_m s^4 + L_4 R_4 g_m s + s^3 (C_1 C_3 L_4 R_1 R_3 R_4 g_m + C_1 L_1 L_4 R_4 g_m)}{2 C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m s^5 + 2 R_4 g_m + s^4 (2 C_1 C_3 C_4 L_4 R_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_4 R_3 R_4 + 2 C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_1 L_4 R_4 g_m + 2 C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (2 C_1 C_3 L_1 R_3 R_4 g_m + 2 C_1 C_3 L_4 R_1 R_3 g_m + C_1 C_3 L_4 R_1 R_4 g_m + 2 C_1 C_3 L_4 R_3 + C_1 C_3 L_4 R_4 + 2 C_1 C_4 L_4 R_1 R_4 g_m + 2 C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4) + s^2 (2 C_1 C_3 R_1 R_3 R_4 g_m + 2 C_1 C_3 R_3 R_4 + 2 C_1 L_1 R_4 g_m + C_3 L_4 R_3 R_4 g_m) + s (C_3 R_3 R_4 g_m + C_4 R_4 g_m)}$$

$$\mathbf{10.673 \quad INVALID-ORDER-673} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m s^5 + R_4 g_m + s^4 (C_1 C_3 C_4 L_4 R_1 R_3 R_4 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + C_1 C_3 L_4 R_1 R_3 g_m + C_1 C_4 L_4 R_1 R_4 g_m + C_1 L_1 L_4 g_m + C_3 C_4 L_4 R_3 R_4 g_m) + s^2 (C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4 + 2 C_1 L_1 R_4 g_m + C_3 L_4 R_3 R_4 g_m) + s (C_3 R_3 R_4 g_m + C_4 R_4 g_m)}{2 g_m + s^5 (2 C_1 C_3 C_4 L_1 L_4 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_4 g_m) + s^4 (2 C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_4 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_4 R_3 + C_1 C_3 C_4 L_4 R_4 + C_1 C_3 L_1 L_4 g_m + 2 C_1 C_4 L_1 L_4 g_m) + s^3 (2 C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_1 R_4 g_m + C_1 C_3 L_4 R_1 g_m + C_1 C_3 L_4 + 2 C_1 C_4 L_4 R_1 g_m + 2 C_1 C_4 L_4 R_3 + C_1 C_4 L_4 R_4) + s^2 (2 C_1 C_3 R_1 R_3 g_m + 2 C_1 C_3 R_3 + 2 C_1 L_1 g_m + C_3 L_4 g_m) + s (C_3 g_m + 2 C_4 g_m)}$$

$$\mathbf{10.684 \quad INVALID-ORDER-684} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad L_3 s + \frac{1}{C_3 s}, \quad \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_4 g_m s^6 + C_1 C_3 C_4 L_3 L_4 R_1 R_4 g_m s^5 + C_1 R_1 R_4 g_m s + R_4 g_m + s^4 (C_1 C_3 L_1 L_3 R_4 g_m + C_1 C_4 L_1 L_3 R_4 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_4 g_m s^6 + 2g_m + s^5 (2C_1 C_3 C_4 L_1 L_3 R_4 g_m + C_1 C_3 C_4 L_1 L_4 R_4 g_m + 2C_1 C_3 C_4 L_3 L_4 R_1 g_m + 2C_1 C_3 C_4 L_3 L_4) + s^4 (2C_1 C_3 C_4 L_3 R_1 R_4 g_m + 2C_1 C_3 C_4 L_3 R_4 + C_1 C_3 C_4 L_4 R_1 R_4 g_m + C_1 C_3 C_4 L_4 R_4 + 2C_1 C_3 L_1 L_3 g_m + 2C_1 C_4 L_1 L_4 g_m + 2C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_1 L_3 R_4 g_m s^4 + R_4 g_m + s^3 (C_1 C_3 L_3 R_1 R_4 g_m + C_1 C_3 L_3 R_4 + 2C_1 L_1 L_3 g_m) + s^2 (C_1 L_1 R_4 g_m + 2C_1 L_3 R_1 g_m + 2C_1 L_3 + C_3 L_3 R_4 g_m) + s (C_1 R_1 R_4 g_m + C_1 R_4 + 2L_3 g_m))$$

$$\mathbf{10.685 \quad INVALID-ORDER-685} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 R_4 g_m s^3 + C_1 L_3 R_1 R_4 g_m s^2 + L_3 R_4 g_m s}{C_1 C_3 L_1 L_3 R_4 g_m s^4 + R_4 g_m + s^3 (C_1 C_3 L_3 R_1 R_4 g_m + C_1 C_3 L_3 R_4 + 2C_1 L_1 L_3 g_m) + s^2 (C_1 L_1 R_4 g_m + 2C_1 L_3 R_1 g_m + 2C_1 L_3 + C_3 L_3 R_4 g_m) + s (C_1 R_1 R_4 g_m + C_1 R_4 + 2L_3 g_m)}$$

$$\mathbf{10.686 \quad INVALID-ORDER-686} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 g_m s^3 + C_1 L_3 R_1 g_m s^2 + L_3 g_m s}{g_m + s^4 (C_1 C_3 L_1 L_3 g_m + 2C_1 C_4 L_1 L_3 g_m) + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + 2C_1 C_4 L_3 R_1 g_m + 2C_1 C_4 L_3) + s^2 (C_1 L_1 g_m + C_3 L_3 g_m + 2C_4 L_3 g_m) + s (C_1 R_1 g_m + C_1)}$$

$$\mathbf{10.687 \quad INVALID-ORDER-687} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 R_4 g_m s^3 + C_1 L_3 R_1 R_4 g_m s^2 + L_3 R_4 g_m s}{R_4 g_m + s^4 (C_1 C_3 L_1 L_3 R_4 g_m + 2C_1 C_4 L_1 L_3 R_4 g_m) + s^3 (C_1 C_3 L_3 R_1 R_4 g_m + C_1 C_3 L_3 R_4 + 2C_1 C_4 L_3 R_1 R_4 g_m + 2C_1 C_4 L_3 R_4 + 2C_1 L_1 L_3 g_m) + s^2 (C_1 L_1 R_4 g_m + 2C_1 L_3 R_1 g_m + 2C_1 L_3 + C_3 L_3 R_4 g_m + 2C_4 L_3 R_4 g_m) + s (C_1 R_1 R_4 g_m + C_1 R_4 + 2L_3 g_m)}$$

$$\mathbf{10.688 \quad INVALID-ORDER-688} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 R_4 g_m s^4 + L_3 g_m s + s^3 (C_1 C_4 L_3 R_1 R_4 g_m + C_1 L_1 L_3 g_m) + s^2 (C_1 L_3 R_1 g_m + C_4 L_3 R_4 g_m)}{C_1 C_3 C_4 L_1 L_3 R_4 g_m s^5 + g_m + s^4 (C_1 C_3 C_4 L_3 R_1 R_4 g_m + C_1 C_3 C_4 L_3 R_4 + C_1 C_3 L_1 L_3 g_m + 2C_1 C_4 L_1 L_3 g_m) + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + C_1 C_4 L_1 R_4 g_m + 2C_1 C_4 L_3 R_1 g_m + 2C_1 C_4 L_3 + C_3 C_4 L_3 R_4 g_m) + s^2 (C_1 C_4 R_1 R_4 g_m + C_1 C_4 R_4 + C_1 L_1 g_m + C_3 L_3 g_m + 2C_4 L_3 R_4 g_m)}$$

$$\mathbf{10.689 \quad INVALID-ORDER-689} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 g_m s^5 + C_1 C_4 L_3 L_4 R_1 g_m s^4 + C_1 L_3 R_1 g_m s^2 + L_3 g_m s + s^3 (C_1 L_1 L_3 g_m + C_4 L_3 L_4 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_3 L_4) + s^4 (C_1 C_3 L_1 L_3 g_m + 2C_1 C_4 L_1 L_3 g_m + C_1 C_4 L_1 L_4 g_m + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + 2C_1 C_4 L_3 R_1 g_m + 2C_1 C_4 L_3 + C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4) + s^2 (C_1 L_1 g_m + C_3 L_3 g_m + 2C_4 L_3 R_4 g_m)}$$

$$\mathbf{10.690 \quad INVALID-ORDER-690} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 L_4 g_m s^3 + C_1 L_3 L_4 R_1 g_m s^2 + L_3 L_4 g_m s}{2L_3 g_m + L_4 g_m + s^4 (C_1 C_3 L_1 L_3 L_4 g_m + 2C_1 C_4 L_1 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 L_4 R_1 g_m + C_1 C_3 L_3 L_4 + 2C_1 C_4 L_3 L_4 R_1 g_m + 2C_1 C_4 L_3 L_4) + s^2 (2C_1 L_1 L_3 g_m + C_1 L_1 L_4 g_m + C_3 L_3 L_4 g_m + 2C_4 L_3 L_4 g_m) + s (2C_1 L_3 R_1 g_m + 2C_1 L_3 + C_1 L_4 R_1 g_m + C_1 L_4)}$$

$$\mathbf{10.691 \quad INVALID-ORDER-691} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 g_m s^5 + L_3 g_m s + s^4 (C_1 C_4 L_1 L_3 R_4 g_m + C_1 C_4 L_3 L_4 R_1 g_m) + s^3 (C_1 C_4 L_3 R_1 R_4 g_m + C_1 L_1 L_3 g_m + C_4 L_3 L_4 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + g_m + s^5 (C_1 C_3 C_4 L_1 L_3 R_4 g_m + C_1 C_3 C_4 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_3 L_4) + s^4 (C_1 C_3 C_4 L_3 R_1 R_4 g_m + C_1 C_3 C_4 L_3 R_4 + C_1 C_3 L_1 L_3 g_m + 2C_1 C_4 L_1 L_3 g_m + C_1 C_4 L_1 L_4 g_m + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + C_1 C_4 L_1 R_4 g_m + 2C_1 C_4 L_3 R_4)}$$

$$\mathbf{10.692 \quad INVALID-ORDER-692} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 L_4 R_4 g_m s^3 + C_1 L_3 L_4 R_1 R_4 g_m s^2 + L_3 L_4 R_4 g_m s}{2L_3 R_4 g_m + L_4 R_4 g_m + s^4 (C_1 C_3 L_1 L_3 L_4 R_4 g_m + 2C_1 C_4 L_1 L_3 L_4 R_4 g_m) + s^3 (C_1 C_3 L_3 L_4 R_1 R_4 g_m + C_1 C_3 L_3 L_4 R_4 + 2C_1 C_4 L_3 L_4 R_1 R_4 g_m + 2C_1 C_4 L_3 L_4 R_4 + 2C_1 L_1 L_3 L_4 g_m) + s^2 (2C_1 L_1 L_3 R_4 g_m + C_1 L_1 L_4 R_4 g_m + 2C_1 L_3 L_4 R_1 g_m + 2C_1 L_3 L_4 + C_3 L_3 L_4 R_4 g_m + 2C_4 L_3 L_4 R_4 g_m)}$$

$$\mathbf{10.693 \quad INVALID-ORDER-693} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 R_4 g_m s^5 + L_3 R_4 g_m s + s^4 (C_1 C_4 L_3 L_4 R_1 R_4 g_m + C_1 L_1 L_3 L_4 g_m) + s^3 (C_1 C_4 L_3 R_1 R_4 g_m + C_1 C_4 L_3 R_4 + C_1 C_3 L_1 L_3 g_m + 2C_1 C_4 L_1 L_3 g_m + C_1 C_4 L_1 L_4 g_m + C_3 C_4 L_3 L_4 g_m) + s^2 (C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + C_1 C_4 L_1 R_4 g_m + 2C_1 C_4 L_3 R_4 + C_1 C_4 L_4 R_1 g_m + C_1 C_4 L_4) + s (2C_1 L_1 L_3 R_4 g_m + C_1 L_1 L_4 R_4 g_m + 2C_1 L_3 L_4 R_1 g_m + 2C_1 L_3 L_4 + C_3 L_3 L_4 R_4 g_m + 2C_4 L_3 L_4 R_4 g_m)}$$

10.704 **INVALID-ORDER-704** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_4 g_m s^6 + R_4 g_m + s^5 (C_1 C_3 C_4 L_1 L_4 R_3 R_4 g_m + C_1 C_3 C_4 L_1 L_3 R_4 g_m + 2C_1 C_3 C_4 L_1 L_4 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_4 g_m + 2C_1 C_3 C_4 L_3 L_4 R_1 g_m + 2C_1 C_3 C_4 L_3 L_4) + s^4 (2C_1 C_3 C_4 L_1 R_3 R_4 g_m + 2C_1 C_3 C_4 L_3 R_1 R_4 g_m + 2C_1 C_3 C_4 L_3 R_4 + 2C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_4 R_1 R_4 g_m + 2C_1 C_3 C_4 L_4 R_3 R_4 g_m)}{2C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + 2g_m + s^5 (2C_1 C_3 C_4 L_1 L_3 R_4 g_m + 2C_1 C_3 C_4 L_1 L_4 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_4 g_m + 2C_1 C_3 C_4 L_3 L_4 R_1 g_m + 2C_1 C_3 C_4 L_3 L_4) + s^4 (2C_1 C_3 C_4 L_1 R_3 R_4 g_m + 2C_1 C_3 C_4 L_3 R_1 R_4 g_m + 2C_1 C_3 C_4 L_3 R_4 + 2C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_4 R_1 R_4 g_m + 2C_1 C_3 C_4 L_4 R_3 R_4 g_m)}$$

10.705 **INVALID-ORDER-705** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 L_3 R_3 R_4 g_m s^3 + C_1 L_3 R_1 R_3 R_4 g_m s^2 + L_3 R_3 R_4 g_m s}{C_1 C_3 L_1 L_3 R_3 R_4 g_m s^4 + R_3 R_4 g_m + s^3 (C_1 C_3 L_3 R_1 R_3 R_4 g_m + C_1 C_3 L_3 R_3 R_4 + 2 C_1 L_1 L_3 R_3 g_m + C_1 L_1 L_3 R_4 g_m) + s^2 (C_1 L_1 R_3 R_4 g_m + 2 C_1 L_3 R_1 R_3 g_m + C_1 L_3 R_1 R_4 g_m + 2 C_1 L_3 R_3 + C_1 L_3 R_4 + C_3 L_3 R_3 R_4 g_m) + s (C_1 R_1 R_3 R_4 g_m + C_1 R_3 R_4 + 2 L_3 R_3 g_m + L_3 R_4 g_m)}$$

10.706 **INVALID-ORDER-706** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 L_3 R_3 g_m s^3 + C_1 L_3 R_1 R_3 g_m s^2 + L_3 R_3 g_m s}{R_3 g_m + s^4 (C_1 C_3 L_1 L_3 R_3 g_m + 2 C_1 C_4 L_1 L_3 R_3 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_3 + 2 C_1 C_4 L_3 R_1 R_3 g_m + 2 C_1 C_4 L_3 R_3 + C_1 L_1 L_3 g_m) + s^2 (C_1 L_1 R_3 g_m + C_1 L_3 R_1 g_m + C_1 L_3 + C_3 L_3 R_3 g_m + 2 C_4 L_3 R_3 g_m) + s (C_1 R_1 R_3 g_m + C_1 R_3 + L_3 g_m)}$$

10.707 INVALID-ORDER-707 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 L_3 R_3 R_4 g_m s^3 + C_1 L_3 R_1 R_3 R_4 g_m s^2 + L_3 R_3 R_4 g_m s}{R_3 R_4 g_m + s^4 (C_1 C_3 L_1 L_3 R_3 R_4 g_m + 2C_1 C_4 L_1 L_3 R_3 R_4 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 R_4 g_m + C_1 C_3 L_3 R_3 R_4 + 2C_1 C_4 L_3 R_1 R_3 R_4 g_m + 2C_1 C_4 L_3 R_3 R_4 + 2C_1 L_1 L_3 R_3 g_m + C_1 L_1 L_3 R_4 g_m) + s^2 (C_1 L_1 R_3 R_4 g_m + 2C_1 L_3 R_1 R_3 g_m + C_1 L_3 R_1 R_4 g_m + 2C_1 L_3 R_3 + C_1 L_3 R_4 + C_3 L_1 L_3 R_3 R_4 g_m) + s (C_1 L_1 R_3 R_4 + C_1 L_3 R_1 R_3 R_4 + C_3 L_1 L_3 R_3 R_4) + C_3 L_1 L_3 R_3 R_4}$$

10.708 **INVALID-ORDER-708** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_3 R_3 R_4 g_m s^4 + L_3 R_3 g_m s + s^3 (C_1 C_4 L_3 R_1 R_3 R_4 g_m + C_1 L_1 L_3 R_3 g_m) + s^2 (C_1 L_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m s^5 + R_3 g_m + s^4 (C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_3 R_3 R_4 + C_1 C_3 L_1 L_3 R_3 g_m + 2 C_1 C_4 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_3 R_4 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_3 + C_1 C_4 L_1 R_3 R_4 g_m + 2 C_1 C_4 L_3 R_1 R_3 g_m + C_1 C_4 L_3 R_1 R_4 g_m + 2 C_1 C_4 L_3 R_3 + C_1 C_4 L_3 g_m))}{C_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m s^5 + R_3 g_m + s^4 (C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_3 R_3 R_4 + C_1 C_3 L_1 L_3 R_3 g_m + 2 C_1 C_4 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_3 R_4 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_3 + C_1 C_4 L_1 R_3 R_4 g_m + 2 C_1 C_4 L_3 R_1 R_3 g_m + C_1 C_4 L_3 R_1 R_4 g_m + 2 C_1 C_4 L_3 R_3 + C_1 C_4 L_3 g_m)}$$

10.709 **INVALID-ORDER-709** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 R_3 g_m s^5 + C_1 C_4 L_3 L_4 R_1 R_3 g_m s^4 + C_1 L_3 R_1 R_3 g_m s^2 + L_3 R_3 g_m s + s^3 (C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m s^6 + R_3 g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_3 g_m + 2C_1 C_4 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_3 L_4 R_1 g_m + C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_3 + 2C_1 C_4 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_3 L_4 R_1 g_m + C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_3 g_m) + s^2 (C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m) + s (C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m) + s^0 (C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m))}{C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m s^6 + R_3 g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_3 g_m + 2C_1 C_4 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_3 L_4 R_1 g_m + C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_3 + 2C_1 C_4 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_3 L_4 R_1 g_m + C_1 C_4 L_3 L_4 + C_3 C_4 L_3 L_4 R_3 g_m) + s^2 (C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m) + s (C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m) + s^0 (C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m)}$$

10.710 **INVALID-ORDER-710** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 L_3 L_4 R_3 g_m s^3 + C_1 L_3 L_4 R_1 R_3 g_m s^2 + L_3 L_4 R_3 g_m s}{2L_3 R_3 g_m + L_4 R_3 g_m + s^4 (C_1 C_3 L_1 L_3 L_4 R_3 g_m + 2C_1 C_4 L_1 L_3 L_4 R_3 g_m) + s^3 (C_1 C_3 L_3 L_4 R_1 R_3 g_m + C_1 C_3 L_3 L_4 R_3 + 2C_1 C_4 L_3 L_4 R_1 R_3 g_m + 2C_1 C_4 L_3 L_4 R_3 + C_1 L_1 L_3 L_4 g_m) + s^2 (2C_1 L_1 L_3 R_3 g_m + C_1 L_1 L_4 R_3 g_m + C_1 L_3 L_4 R_1 g_m + C_1 L_3 L_4 + C_3 L_3 L_4 R_3 g_m + 2C_4 L_3 L_4 R_3 g_m) + s (C_1 L_1 L_3 L_4 R_3 g_m + C_1 L_1 L_4 R_3 g_m + C_1 L_3 L_4 R_1 g_m + C_1 L_3 L_4 + C_3 L_3 L_4 R_3 g_m + 2C_4 L_3 L_4 R_3 g_m) + C_1 L_1 L_3 L_4 R_3 g_m}$$

10.711 **INVALID-ORDER-711** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1}{C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m s^6 + R_3 g_m + s^5 (C_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m + C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_4 L_1 L_3 L_4 g_m)} + s^4 (C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_3 R_3 R_4 + C_1 C_3 L_1 L_3 R_3 g_m + 2 C_1 C_4 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_3 R_4 g_m + C_1 C_4 L_1 L_4 R_3 g_m + C_1 C_4 L_3$$

10.712 INVALID-ORDER-712 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 L_3 L_4 R_3 R_4 g_m s^3 + C_1 L_3 L_4 R_1 R_3 R_4 g_m s^2 + L_3 L_4 R_3 R_4 g_m s + 2 L_3 R_3 R_4 g_m + L_4 R_3 R_4 g_m + s^4 (C_1 C_3 L_1 L_3 L_4 R_3 R_4 g_m + 2 C_1 C_4 L_1 L_3 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_3 L_4 R_1 R_3 R_4 g_m + C_1 C_3 L_3 L_4 R_3 R_4 + 2 C_1 C_4 L_3 L_4 R_1 R_3 R_4 g_m + 2 C_1 C_4 L_3 L_4 R_3 R_4 + 2 C_1 L_1 L_3 L_4 R_3 g_m + C_1 L_1 L_3 L_4 R_4 g_m) + s^2 (2 C_1 L_1 L_3 R_3 R_4 g_m + C_1 L_1 L_4 R_3 R_4 g_m +$$

10.713 **INVALID-ORDER-713** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^6 + R_3 R_4 g_m + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_3 L_4 R_3 R_4 + C_1 C_3 L_1 L_3 L_4 R_3 g_m + 2C_1 C_4 L_1 L_3 L_4 R_3 g_m + C_1 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_3 R_4 g_m + C_1 C_3 L_3 L_4 R_1 R_3 g_m + C_1 C_3 L_3 L_4 R_3 + C_1 C_4 L_1 L_4 R_3 R_4 g_m + 2C_1 C_4 L_3 L_4 R_3)}{...}$$

$$\mathbf{10.724 \quad INVALID-ORDER-724} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{2 R_3 g_m + R_4 g_m + s^6 (2 C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_3 L_4 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_3 C_4 L_3 L_4 R_4 + 2 C_1 C_4 L_1 L_3 L_4 g_m) + s^4 (2 C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_3 R_3 R_4 -$$

$$\mathbf{10.725 \quad INVALID-ORDER-725} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_3 R_4 g_m s^4 + C_1 C_3 L_3 R_1 R_3 R_4 g_m s^3 + C_1 R_1 R_3 R_4 g_m s + R_3 R_4 g_m + s^2 (C_1 L_1 R_3 R_4 g_m + C_3 L_3 R_3 R_4 g_m)}{2 R_3 g_m + R_4 g_m + s^4 (2 C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_3 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + 2 C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_1 R_4 g_m + 2 C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4) + s^2 (C_1 C_3 R_1 R_3 R_4 g_m + C_1 C_3 R_3 R_4 + 2 C_1 L_1 R_3 g_m + C_1 L_1 R_4 g_m + 2 C_3 L_3 R_3 g_m + C_3 L_3 R_4 g_m) + s (2 C_1 R_1 R_3 -$$

$$\mathbf{10.726 \quad INVALID-ORDER-726} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_3 g_m s^4 + C_1 C_3 L_3 R_1 R_3 g_m s^3 + C_1 R_1 R_3 g_m s + R_3 g_m + s^2 (C_1 L_1 R_3 g_m + C_3 L_3 R_3 g_m)}{2 C_1 C_3 C_4 L_1 L_3 R_3 g_m s^5 + g_m + s^4 (2 C_1 C_3 C_4 L_3 R_1 R_3 g_m + 2 C_1 C_3 C_4 L_3 R_3 + C_1 C_3 L_1 L_3 g_m) + s^3 (C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + 2 C_1 C_4 L_1 R_3 g_m + 2 C_3 C_4 L_3 R_3 g_m) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_3 + 2 C_1 C_4 R_1 R_3 g_m + 2 C_1 C_4 R_3 + C_1 L_1 g_m + C_3 L_3 g_m) + s (2 C_1 R_1 R_3 -$$

$$\mathbf{10.727 \quad INVALID-ORDER-727} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_3 R_4 g_m s^4 + C_1 C_3 L_3 R_1 R_3 R_4 g_m s^3 + C_1 R_1 R_3 R_4 g_m s + R_3 R_4 g_m + s^2 (C_1 L_1 R_3 R_4 g_m + C_3 L_3 R_3 R_4 g_m)}{2 C_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m s^5 + 2 R_3 g_m + R_4 g_m + s^4 (2 C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_3 R_3 R_4 + 2 C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_3 R_4 g_m) + s^3 (C_1 C_3 L_1 R_3 R_4 g_m + 2 C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_3 L_3 R_1 R_4 g_m + 2 C_1 C_3 L_3 R_3 + C_1 C_3 L_3 R_4 + 2 C_1 C_4 L_1 R_3 R_4 g_m + 2 C_3 C_4 L_3 R_3 R_4 -$$

$$\mathbf{10.728 \quad INVALID-ORDER-728} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m s^5 + R_3 g_m + s^4 (C_1 C_3 C_4 L_3 R_1 R_3 R_4 g_m + C_1 C_3 L_1 L_3 R_3 g_m) + s^3 (C_1 C_3 L_3 R_1 R_3 g_m + C_1 C_4 L_1 R_3 g_m)}{g_m + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_3 g_m + C_1 C_3 C_4 L_1 L_3 R_4 g_m) + s^4 (C_1 C_3 C_4 L_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_3 R_1 R_3 g_m + C_1 C_3 C_4 L_3 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_3 R_4 + C_1 C_3 L_1 L_3 g_m) + s^3 (C_1 C_3 C_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 R_3 R_4 + C_1 C_3 L_1 R_3 g_m + C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 -$$

$$\mathbf{10.729 \quad INVALID-ORDER-729} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m s^6 + C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m s^5 + C_1 R_1 R_3 g_m s + R_3 g_m + s^4 (C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_4 L_1 L_4 R_3 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + g_m + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_3 g_m + C_1 C_3 C_4 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_3 L_4) + s^4 (2 C_1 C_3 C_4 L_3 R_1 R_3 g_m + 2 C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_4 R_3 + C_1 C_3 L_1 L_3 g_m + C_1 C_4 L_1 L_4 g_m + C_3 C_4 L_3 L_4 g_m) + s^3 (C_1 C_3 L_1 R_3 -$$

$$\mathbf{10.730 \quad INVALID-ORDER-730} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_4 R_3 g_m s^5 + C_1 C_3 L_3 L_4 R_1 R_3 g_m s^4 + C_1 L_4 R_1 R_3 g_m s^2 + L_4 R_3 g_m s}{2 C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m s^6 + 2 R_3 g_m + s^5 (2 C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m + 2 C_1 C_3 C_4 L_3 L_4 R_3 + C_1 C_3 L_1 L_3 L_4 g_m) + s^4 (2 C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_4 R_3 g_m + C_1 C_3 L_3 L_4 R_1 g_m + C_1 C_3 L_3 L_4 + 2 C_1 C_4 L_1 L_4 R_3 g_m + 2 C_3 C_4 L_3 L_4 R_3 g_m) + s^3 (2 C_1 C_3 L_3 R_1 R_3 g_m + 2 C_1 C_3 L_3 R_3 -$$

$$\mathbf{10.731 \quad INVALID-ORDER-731} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_3 g_m s^6 + R_3 g_m + s^5 (C_1 C_3 C_4 L_1 L_3 R_3 R_4 g_m + C_1 C_3 C_4 L_3 L_4 R_1 R_3 g_m)}{C_1 C_3 C_4 L_1 L_3 L_4 g_m s^6 + g_m + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_3 g_m + C_1 C_3 C_4 L_1 L_3 R_4 g_m + C_1 C_3 C_4 L_1 L_4 R_3 g_m + C_1 C_3 C_4 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_3 L_4) + s^4 (C_1 C_3 C_4 L_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_3 R_1 R_3 g_m + C_1 C_3 C_4 L_3 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_3 R_3 + C_1 C_3 C_4 L_3 R_4 + C_1 C_3 C_4 L_4 R_1 R_3 g_m -$$

$$\mathbf{10.732 \quad INVALID-ORDER-732} \quad Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \quad \infty, \quad \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{2 C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m s^6 + 2 R_3 R_4 g_m + s^5 (2 C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_3 L_4 R_3 R_4 + 2 C_1 C_3 L_1 L_3 L_4 R_3 g_m + C_1 C_3 L_1 L_3 L_4 R_4 g_m) + s^4 (2 C_1 C_3 L_1 L_3 R_3 R_4 g_m + C_1 C_3 L_1 L_4 R_3 R_4 g_m + 2 C_1 C_3 L_3 L_4 R_1 R_3 g_m + C_1 C_3 L_3 L_4 R_1 R_4 g_m + 2 C_1 C_3 L_3 L_4 R_3 + C_1 C_3 L_3 L_4 R_4 -$$

$$\mathbf{10.742 \quad INVALID-ORDER-742} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad R_3, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_1 R_3 R_4 g_m s^3 + L_1 L_4 R_1 R_3 g_m s^2 + L_1 R_1 R_3 R_4 g_m s}{2 R_1 R_3 + R_1 R_4 + s^4 (2 C_1 C_4 L_1 L_4 R_1 R_3 + C_1 C_4 L_1 L_4 R_1 R_4) + s^3 (C_1 L_1 L_4 R_1 + 2 C_4 L_1 L_4 R_1 R_3 g_m + C_4 L_1 L_4 R_1 R_4 g_m + 2 C_4 L_1 L_4 R_3 + C_4 L_1 L_4 R_4) + s^2 (2 C_1 L_1 R_1 R_3 + C_1 L_1 R_1 R_4 + 2 C_4 L_4 R_1 R_3 + C_4 L_4 R_1 R_4 + L_1 L_4 R_1 g_m + L_1 L_4) + s (2 L_1 R_1 R_3 g_m + L_1 R_1 R_4 g_m)}$$

$$\mathbf{10.743 \quad INVALID-ORDER-743} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad R_3, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_1 R_3 R_4 g_m s^3 + L_1 R_1 R_3 R_4 g_m s}{2 R_1 R_3 + R_1 R_4 + s^4 (2 C_1 C_4 L_1 L_4 R_1 R_3 + C_1 C_4 L_1 L_4 R_1 R_4) + s^3 (2 C_1 C_4 L_1 R_1 R_3 R_4 + 2 C_4 L_1 L_4 R_1 R_3 g_m + C_4 L_1 L_4 R_1 R_4 g_m + 2 C_4 L_1 L_4 R_3 + C_4 L_1 L_4 R_4) + s^2 (2 C_1 L_1 R_1 R_3 + C_1 L_1 R_1 R_4 + 2 C_4 L_4 R_1 R_3 + C_4 L_4 R_1 R_4 + L_1 L_4 R_1 g_m + L_1 L_4) + s (2 L_1 R_1 R_3 g_m + L_1 R_1 R_4 g_m)}$$

$$\mathbf{10.744 \quad INVALID-ORDER-744} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s}{C_1 C_3 L_1 R_1 R_4 s^3 + 2 R_1 + s^2 (2 C_1 L_1 R_1 + C_3 L_1 R_1 R_4 g_m + C_3 L_1 R_4) + s (C_3 R_1 R_4 + 2 L_1 R_1 g_m + 2 L_1)}$$

$$\mathbf{10.745 \quad INVALID-ORDER-745} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s}{2 R_1 + s^3 (C_1 C_3 L_1 R_1 R_4 + 2 C_1 C_4 L_1 R_1 R_4) + s^2 (2 C_1 L_1 R_1 + C_3 L_1 R_1 R_4 g_m + C_3 L_1 R_4 + 2 C_4 L_1 R_1 R_4 g_m + 2 C_4 L_1 R_4) + s (C_3 R_1 R_4 + 2 C_4 R_1 R_4 + 2 L_1 R_1 g_m + 2 L_1)}$$

$$\mathbf{10.746 \quad INVALID-ORDER-746} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 R_1 R_4 g_m s + L_1 R_1 g_m}{C_1 C_3 C_4 L_1 R_1 R_4 s^3 + C_3 R_1 + 2 C_4 R_1 + s^2 (C_1 C_3 L_1 R_1 + 2 C_1 C_4 L_1 R_1 + C_3 C_4 L_1 R_1 R_4 g_m + C_3 C_4 L_1 R_4) + s (C_3 C_4 R_1 R_4 + C_3 L_1 R_1 g_m + C_3 L_1 + 2 C_4 L_1 R_1 g_m + 2 C_4 L_1)}$$

$$\mathbf{10.747 \quad INVALID-ORDER-747} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_1 g_m s^2 + L_1 R_1 g_m}{C_1 C_3 C_4 L_1 L_4 R_1 s^4 + C_3 R_1 + 2 C_4 R_1 + s^3 (C_3 C_4 L_1 L_4 R_1 g_m + C_3 C_4 L_1 L_4) + s^2 (C_1 C_3 L_1 R_1 + 2 C_1 C_4 L_1 R_1 + C_3 C_4 L_4 R_1) + s (C_3 L_1 R_1 g_m + C_3 L_1 + 2 C_4 L_1 R_1 g_m + 2 C_4 L_1)}$$

$$\mathbf{10.748 \quad INVALID-ORDER-748} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 g_m s^2}{2 R_1 + s^4 (C_1 C_3 L_1 L_4 R_1 + 2 C_1 C_4 L_1 L_4 R_1) + s^3 (C_3 L_1 L_4 R_1 g_m + C_3 L_1 L_4 + 2 C_4 L_1 L_4 R_1 g_m + 2 C_4 L_1 L_4) + s^2 (2 C_1 L_1 R_1 + C_3 L_4 R_1 + 2 C_4 L_4 R_1) + s (2 L_1 R_1 g_m + 2 L_1)}$$

$$\mathbf{10.749 \quad INVALID-ORDER-749} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_1 g_m s^2 + C_4 L_1 R_1 R_4 g_m s + L_1 R_1 g_m}{C_1 C_3 C_4 L_1 L_4 R_1 s^4 + C_3 R_1 + 2 C_4 R_1 + s^3 (C_1 C_3 C_4 L_1 R_1 R_4 + C_3 C_4 L_1 L_4 R_1 g_m + C_3 C_4 L_1 L_4) + s^2 (C_1 C_3 L_1 R_1 + 2 C_1 C_4 L_1 R_1 + C_3 C_4 L_1 R_1 R_4 g_m + C_3 C_4 L_1 R_4 + C_3 C_4 L_4 R_1) + s (C_3 C_4 R_1 R_4 + C_3 L_1 R_1 g_m + C_3 L_1 + 2 C_4 L_1 R_1 g_m + 2 C_4 L_1)}$$

$$\mathbf{10.750 \quad INVALID-ORDER-750} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 g_m s^2}{2 R_1 R_4 + s^4 (C_1 C_3 L_1 L_4 R_1 R_4 + 2 C_1 C_4 L_1 L_4 R_1 R_4) + s^3 (2 C_1 L_1 L_4 R_1 + C_3 L_1 L_4 R_1 R_4 g_m + C_3 L_1 L_4 R_4 + 2 C_4 L_1 L_4 R_1 R_4 g_m + 2 C_4 L_1 L_4 R_4) + s^2 (2 C_1 L_1 R_1 R_4 + C_3 L_4 R_1 R_4 + 2 C_4 L_4 R_1 R_4 + 2 L_1 L_4 R_1 g_m + 2 L_1 L_4) + s (2 L_1 R_1 R_4 g_m + 2 L_1 R_4 + 2 L_4 R_1)}$$

$$\mathbf{10.751 \quad INVALID-ORDER-751} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_1 R_4 g_m s^3 + L_1 L_4 R_1 g_m s^2 + L_1 R_1 R_4 g_m s}{C_1 C_3 C_4 L_1 L_4 R_1 R_4 s^5 + 2 R_1 + s^4 (C_1 C_3 L_1 L_4 R_1 + 2 C_1 C_4 L_1 L_4 R_1 + C_3 C_4 L_1 L_4 R_1 R_4 g_m + C_3 C_4 L_1 L_4 R_4) + s^3 (C_1 C_3 L_1 R_1 R_4 + C_3 C_4 L_4 R_1 R_4 + C_3 L_1 L_4 R_1 g_m + C_3 L_1 L_4 + 2 C_4 L_1 L_4 R_1 g_m + 2 C_4 L_1 L_4) + s^2 (2 C_1 L_1 R_1 + C_3 L_1 R_1 R_4 g_m + C_3 L_1 R_4 + C_3 L_4 R_1 + 2 C_4 L_1)}$$

$$\mathbf{10.752 \quad INVALID-ORDER-752} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_1 R_4 g_m s^3 + L_1 R_1 R_4 g_m s}{C_1 C_3 C_4 L_1 L_4 R_1 R_4 s^5 + 2R_1 + s^4 (2C_1 C_4 L_1 L_4 R_1 + C_3 C_4 L_1 L_4 R_1 R_4 g_m + C_3 C_4 L_1 L_4 R_4) + s^3 (C_1 C_3 L_1 R_1 R_4 + 2C_1 C_4 L_1 R_1 R_4 + C_3 C_4 L_4 R_1 R_4 + 2C_4 L_1 L_4 R_1 g_m + 2C_4 L_1 L_4) + s^2 (2C_1 L_1 R_1 + C_3 L_1 R_1 R_4 g_m + C_3 L_1 R_4 + 2C_4 L_1 R_1 R_4 g_m + 2C_4 L_1 R_4 + 2C_4 L_4 R_1) + s (C_3 R_1 R_3 R_4 + 2L_1 R_1 R_3 g_m + L_1 R_1 R_4 g_m + 2L_1 R_3 + L_1 R_4)}$$

$$\mathbf{10.753 \quad INVALID-ORDER-753} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_1 R_3 R_4 g_m s}{C_1 C_3 L_1 R_1 R_3 R_4 s^3 + 2R_1 R_3 + R_1 R_4 + s^2 (2C_1 L_1 R_1 R_3 + C_1 L_1 R_1 R_4 + C_3 L_1 R_1 R_3 R_4 g_m + C_3 L_1 R_3 R_4) + s (C_3 R_1 R_3 R_4 + 2L_1 R_1 R_3 g_m + L_1 R_1 R_4 g_m + 2L_1 R_3 + L_1 R_4)}$$

$$\mathbf{10.754 \quad INVALID-ORDER-754} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_1 R_3 g_m s}{R_1 + s^3 (C_1 C_3 L_1 R_1 R_3 + 2C_1 C_4 L_1 R_1 R_3) + s^2 (C_1 L_1 R_1 + C_3 L_1 R_1 R_3 g_m + C_3 L_1 R_3 + 2C_4 L_1 R_1 R_3 g_m + 2C_4 L_1 R_3) + s (C_3 R_1 R_3 + 2C_4 R_1 R_3 + L_1 R_1 g_m + L_1)}$$

$$\mathbf{10.755 \quad INVALID-ORDER-755} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 R_1 R_3 R_4 g_m s}{2R_1 R_3 + R_1 R_4 + s^3 (C_1 C_3 L_1 R_1 R_3 R_4 + 2C_1 C_4 L_1 R_1 R_3 R_4) + s^2 (2C_1 L_1 R_1 R_3 + C_1 L_1 R_1 R_4 + C_3 L_1 R_1 R_3 R_4 g_m + C_3 L_1 R_3 R_4 + 2C_4 L_1 R_1 R_3 R_4 g_m + 2C_4 L_1 R_3 R_4) + s (C_3 R_1 R_3 R_4 + 2C_4 R_1 R_3 R_4 + 2L_1 R_1 R_3 g_m + L_1 R_1 R_4 g_m + 2L_1 R_3 + L_1 R_4)}$$

$$\mathbf{10.756 \quad INVALID-ORDER-756} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 R_1 R_3 R_4 g_m s^2 + L_1 R_1 R_3 g_m s}{C_1 C_3 C_4 L_1 R_1 R_3 R_4 s^4 + R_1 + s^3 (C_1 C_3 L_1 R_1 R_3 + 2C_1 C_4 L_1 R_1 R_3 + C_1 C_4 L_1 R_1 R_4 + C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_3 C_4 L_1 R_3 R_4) + s^2 (C_1 L_1 R_1 + C_3 C_4 R_1 R_3 R_4 + C_3 L_1 R_1 R_3 g_m + C_3 L_1 R_3 + 2C_4 L_1 R_1 R_3 g_m + C_4 L_1 R_1 R_4 g_m + 2C_4 L_1 R_3 + C_4 L_1 R_4) + s (C_3 R_1 R_3 + 2C_4 R_1 R_3)}$$

$$\mathbf{10.757 \quad INVALID-ORDER-757} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_1 R_3 g_m s^3 + L_1 R_1 R_3 g_m s}{C_1 C_3 C_4 L_1 L_4 R_1 R_3 s^5 + R_1 + s^4 (C_1 C_4 L_1 L_4 R_1 + C_3 C_4 L_1 L_4 R_1 R_3 g_m + C_3 C_4 L_1 L_4 R_3) + s^3 (C_1 C_3 L_1 R_1 R_3 + 2C_1 C_4 L_1 R_1 R_3 + C_3 C_4 L_4 R_1 R_3 + C_4 L_1 L_4 R_1 g_m + C_4 L_1 L_4) + s^2 (C_1 L_1 R_1 + C_3 L_1 R_1 R_3 g_m + C_3 L_1 R_3 + 2C_4 L_1 R_1 R_3 g_m + 2C_4 L_1 R_3 + C_4 L_4 R_1) + s (C_3 R_1 R_3 R_4 + 2L_1 R_1 R_3 g_m + L_1 R_1 R_4 g_m + 2L_1 R_3 + L_1 R_4)}$$

$$\mathbf{10.758 \quad INVALID-ORDER-758} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_3 g_m s^2}{2R_1 R_3 + s^4 (C_1 C_3 L_1 L_4 R_1 R_3 + 2C_1 C_4 L_1 L_4 R_1 R_3) + s^3 (C_1 L_1 L_4 R_1 + C_3 L_1 L_4 R_1 R_3 g_m + C_3 L_1 L_4 R_3 + 2C_4 L_1 L_4 R_1 R_3 g_m + 2C_4 L_1 L_4 R_3) + s^2 (2C_1 L_1 R_1 R_3 + C_3 L_4 R_1 R_3 + 2C_4 L_4 R_1 R_3 + L_1 L_4 R_1 g_m + L_1 L_4) + s (2L_1 R_1 R_3 g_m + 2L_1 R_3 + L_4 R_1)}$$

$$\mathbf{10.759 \quad INVALID-ORDER-759} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_1 R_3 g_m s^3 + C_4 L_1 R_1 R_3 R_4 g_m s^2 + L_1 R_1 R_3 g_m s}{C_1 C_3 C_4 L_1 L_4 R_1 R_3 s^5 + R_1 + s^4 (C_1 C_3 C_4 L_1 R_1 R_3 R_4 + C_1 C_4 L_1 L_4 R_1 + C_3 C_4 L_1 L_4 R_1 R_3 g_m + C_3 C_4 L_1 L_4 R_3) + s^3 (C_1 C_3 L_1 R_1 R_3 + 2C_1 C_4 L_1 R_1 R_3 + C_1 C_4 L_1 R_1 R_4 + C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_3 C_4 L_1 R_3 R_4 + C_3 C_4 L_4 R_1 R_3 + C_4 L_1 L_4 R_1 g_m + C_4 L_1 L_4) + s^2 (C_1 L_1 R_1 + C_3 L_1 R_1 R_3 g_m + C_3 L_1 R_3 + 2C_4 L_1 R_1 R_3 g_m + 2C_4 L_1 R_3 + C_4 L_4 R_1) + s (C_3 R_1 R_3 R_4 + 2L_1 R_1 R_3 g_m + L_1 R_1 R_4 g_m + 2L_1 R_3 + L_1 R_4)}$$

$$\mathbf{10.760 \quad INVALID-ORDER-760} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_3 R_4 g_m s^2}{2R_1 R_3 R_4 + s^4 (C_1 C_3 L_1 L_4 R_1 R_3 R_4 + 2C_1 C_4 L_1 L_4 R_1 R_3 R_4) + s^3 (2C_1 L_1 L_4 R_1 R_3 + C_1 L_1 L_4 R_1 R_4 + C_3 L_1 L_4 R_1 R_3 R_4 g_m + C_3 L_1 L_4 R_3 R_4 + 2C_4 L_1 L_4 R_1 R_3 R_4 g_m + 2C_4 L_1 L_4 R_3 R_4) + s^2 (2C_1 L_1 R_1 R_3 R_4 + C_3 L_4 R_1 R_3 R_4 + 2C_4 L_4 R_1 R_3 R_4 + 2L_1 L_4 R_1 R_3 g_m + L_1 L_4 R_1) + s (C_3 R_1 R_3 R_4 + 2L_1 R_1 R_3 g_m + L_1 R_1 R_4 g_m + 2L_1 R_3 + L_1 R_4)}$$

$$\mathbf{10.761 \quad INVALID-ORDER-761} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_1 R_3 R_4 g_m s^3 + L_1 L_4 R_1 R_3 g_m s}{C_1 C_3 C_4 L_1 L_4 R_1 R_3 R_4 s^5 + 2R_1 R_3 + R_1 R_4 + s^4 (C_1 C_3 L_1 L_4 R_1 R_3 + 2C_1 C_4 L_1 L_4 R_1 R_3 + C_1 C_4 L_1 L_4 R_1 R_4 + C_3 C_4 L_1 L_4 R_1 R_3 R_4 g_m + C_3 C_4 L_1 L_4 R_3 R_4) + s^3 (C_1 C_3 L_1 R_1 R_3 R_4 + C_1 L_1 L_4 R_1 + C_3 C_4 L_4 R_1 R_3 R_4 + C_3 L_1 L_4 R_1 R_3 g_m + C_3 L_1 L_4 R_3 + 2C_4 L_1 L_4 R_1 R_3 g_m + 2C_4 L_1 L_4 R_3) + s^2 (C_1 L_1 R_1 + C_3 L_1 R_1 R_3 g_m + C_3 L_1 R_3 + 2C_4 L_1 R_1 R_3 g_m + 2C_4 L_1 R_3 + C_4 L_4 R_1) + s (C_3 R_1 R_3 R_4 + 2L_1 R_1 R_3 g_m + L_1 R_1 R_4 g_m + 2L_1 R_3 + L_1 R_4)}$$

$$\mathbf{10.762 \quad INVALID-ORDER-762} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_4 R_1 R_3 R_4 g_m s^3 + L_1 R_1 R_3 R_4 g_m s}{C_1 C_3 C_4 L_1 L_4 R_1 R_3 R_4 s^5 + 2 R_1 R_3 + R_1 R_4 + s^4 (2 C_1 C_4 L_1 L_4 R_1 R_3 + C_1 C_4 L_1 L_4 R_1 R_4 + C_3 C_4 L_1 L_4 R_1 R_3 R_4 g_m + C_3 C_4 L_1 L_4 R_3 R_4) + s^3 (C_1 C_3 L_1 R_1 R_3 R_4 + 2 C_1 C_4 L_1 R_1 R_3 R_4 + C_3 C_4 L_4 R_1 R_3 R_4 + 2 C_4 L_1 L_4 R_1 R_3 g_m + C_4 L_1 L_4 R_1 R_4 g_m + 2 C_4 L_1 L_4 R_3 + C_4 L_1 L_4 R_4)}$$

$$\mathbf{10.763 \quad INVALID-ORDER-763} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 R_1 R_3 R_4 g_m s^2 + L_1 R_1 R_4 g_m s}{2 R_1 + s^3 (2 C_1 C_3 L_1 R_1 R_3 + C_1 C_3 L_1 R_1 R_4) + s^2 (2 C_1 L_1 R_1 + 2 C_3 L_1 R_1 R_3 g_m + C_3 L_1 R_1 R_4 g_m + 2 C_3 L_1 R_3 + C_3 L_1 R_4) + s (2 C_3 R_1 R_3 + C_3 R_1 R_4 + 2 L_1 R_1 g_m + 2 L_1)}$$

$$\mathbf{10.764 \quad INVALID-ORDER-764} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 R_1 R_3 g_m s + L_1 R_1 g_m}{2 C_1 C_3 C_4 L_1 R_1 R_3 s^3 + C_3 R_1 + 2 C_4 R_1 + s^2 (C_1 C_3 L_1 R_1 + 2 C_1 C_4 L_1 R_1 + 2 C_3 C_4 L_1 R_1 R_3 g_m + 2 C_3 C_4 L_1 R_3) + s (2 C_3 C_4 R_1 R_3 + C_3 L_1 R_1 g_m + C_3 L_1 + 2 C_4 L_1 R_1 g_m + 2 C_4 L_1)}$$

$$\mathbf{10.765 \quad INVALID-ORDER-765} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 R_1 R_3 R_4 g_m s^2 + L_1 R_1 R_4 g_m s}{2 C_1 C_3 C_4 L_1 R_1 R_3 R_4 s^4 + 2 R_1 + s^3 (2 C_1 C_3 L_1 R_1 R_3 + C_1 C_3 L_1 R_1 R_4 + 2 C_1 C_4 L_1 R_1 R_4 + 2 C_3 C_4 L_1 R_1 R_3 R_4 g_m + 2 C_3 C_4 L_1 R_3 R_4) + s^2 (2 C_1 L_1 R_1 + 2 C_3 C_4 R_1 R_3 R_4 + 2 C_3 L_1 R_1 R_3 g_m + C_3 L_1 R_1 R_4 g_m + 2 C_3 L_1 R_3 + C_3 L_1 R_4 + 2 C_4 L_1 R_1 R_4 g_m + 2 C_4 L_1 R_4) + s (2 C_3 R_1 R_3 + C_3 R_1 R_4 + 2 L_1 R_1 g_m + 2 L_1)}$$

$$\mathbf{10.766 \quad INVALID-ORDER-766} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 R_1 R_3 R_4 g_m s^2 + L_1 R_1 g_m + s (C_3 L_1 R_1 R_3 g_m + C_4 L_1 R_1 R_4 g_m)}{C_3 R_1 + 2 C_4 R_1 + s^3 (2 C_1 C_3 C_4 L_1 R_1 R_3 + C_1 C_3 C_4 L_1 R_1 R_4) + s^2 (C_1 C_3 L_1 R_1 + 2 C_1 C_4 L_1 R_1 + 2 C_3 C_4 L_1 R_1 R_3 g_m + C_3 C_4 L_1 R_1 R_4 g_m + 2 C_3 C_4 L_1 R_3 + C_3 C_4 L_1 R_4) + s (2 C_3 C_4 R_1 R_3 + C_3 C_4 R_1 R_4 + C_3 L_1 R_1 g_m + C_3 L_1 + 2 C_4 L_1 R_1 g_m + 2 C_4 L_1)}$$

$$\mathbf{10.767 \quad INVALID-ORDER-767} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_4 R_1 R_3 g_m s^3 + C_3 L_1 R_1 R_3 g_m s + C_4 L_1 L_4 R_1 g_m s^2 + L_1 R_1 g_m}{C_1 C_3 C_4 L_1 L_4 R_1 s^4 + C_3 R_1 + 2 C_4 R_1 + s^3 (2 C_1 C_3 C_4 L_1 R_1 R_3 + C_3 C_4 L_1 L_4 R_1 g_m + C_3 C_4 L_1 L_4) + s^2 (C_1 C_3 L_1 R_1 + 2 C_1 C_4 L_1 R_1 + 2 C_3 C_4 L_1 R_1 R_3 g_m + 2 C_3 C_4 L_1 R_3 + C_3 C_4 L_4 R_1) + s (2 C_3 C_4 R_1 R_3 + C_3 L_1 R_1 g_m + C_3 L_1 + 2 C_4 L_1 R_1 g_m + 2 C_4 L_1)}$$

$$\mathbf{10.768 \quad INVALID-ORDER-768} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_4 R_1 R_3 g_m s^3 + L_1 L_4 R_1 g_m s^2}{2 C_1 C_3 C_4 L_1 L_4 R_1 R_3 s^5 + 2 R_1 + s^4 (C_1 C_3 L_1 L_4 R_1 + 2 C_1 C_4 L_1 L_4 R_1 + 2 C_3 C_4 L_1 L_4 R_1 R_3 g_m + 2 C_3 C_4 L_1 L_4 R_3) + s^3 (2 C_1 C_3 L_1 R_1 R_3 + 2 C_3 C_4 L_4 R_1 R_3 + C_3 L_1 L_4 R_1 g_m + C_3 L_1 L_4 + 2 C_4 L_1 L_4 R_1 g_m + 2 C_4 L_1 L_4) + s^2 (2 C_1 L_1 R_1 + 2 C_3 L_1 R_1 R_3 g_m + 2 C_3 L_1 R_3 + C_3 L_4 R_1)}$$

$$\mathbf{10.769 \quad INVALID-ORDER-769} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_4 R_1 R_3 g_m s^3 + L_1 R_1 g_m + s^2 (C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_4 L_1 L_4 R_1 g_m) + s (C_3 L_1 R_1 R_3 g_m + C_4 L_1 R_1 R_4 g_m)}{C_1 C_3 C_4 L_1 L_4 R_1 s^4 + C_3 R_1 + 2 C_4 R_1 + s^3 (2 C_1 C_3 C_4 L_1 R_1 R_3 + C_1 C_3 C_4 L_1 R_1 R_4 + C_3 C_4 L_1 L_4 R_1 g_m + C_3 C_4 L_1 L_4) + s^2 (C_1 C_3 L_1 R_1 + 2 C_1 C_4 L_1 R_1 + 2 C_3 C_4 L_1 R_1 R_3 g_m + C_3 C_4 L_1 R_1 R_4 g_m + 2 C_3 C_4 L_1 R_3 + C_3 C_4 L_1 R_4 + C_3 C_4 L_4 R_1) + s (2 C_3 C_4 R_1 R_3 + C_3 C_4 R_1 R_4 + 2 L_1 R_1 g_m + 2 L_1)}$$

$$\mathbf{10.770 \quad INVALID-ORDER-770} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_4 R_1 R_3 R_4 g_m s^3 + L_1 L_4 R_1 R_4 g_m s^2}{2 C_1 C_3 C_4 L_1 L_4 R_1 R_3 R_4 s^5 + 2 R_1 R_4 + s^4 (2 C_1 C_3 L_1 L_4 R_1 R_3 + C_1 C_3 L_1 L_4 R_1 R_4 + 2 C_1 C_4 L_1 L_4 R_1 R_4 + 2 C_3 C_4 L_1 L_4 R_1 R_3 R_4 g_m + 2 C_3 C_4 L_1 L_4 R_3 R_4) + s^3 (2 C_1 C_3 L_1 R_1 R_3 R_4 + 2 C_1 L_1 L_4 R_1 + 2 C_3 C_4 L_4 R_1 R_3 R_4 + 2 C_3 L_1 L_4 R_1 R_3 g_m + C_3 L_1 L_4 R_1 R_4 g_m + 2 C_3 L_1 L_4 R_3 + 2 C_4 L_1 L_4 R_1 R_3 g_m + 2 C_4 L_1 L_4 R_1 R_4 g_m + 2 C_4 L_1 L_4 R_3 + 2 C_4 L_1 L_4 R_4)}$$

$$\mathbf{10.771 \quad INVALID-ORDER-771} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad R_3 + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_4 R_1 R_3 R_4 g_m s^4 + L_1 R_1 R_4 g_m s + s^3 (C_3 L_1 L_4 R_1 R_3 g_m + C_4 L_1 L_4 R_1 R_4 g_m) + s^2 (C_3 L_1 R_1 R_3 + C_4 L_1 R_1 R_4)}{2 R_1 + s^5 (2 C_1 C_3 C_4 L_1 L_4 R_1 R_3 + C_1 C_3 C_4 L_1 L_4 R_1 R_4) + s^4 (C_1 C_3 L_1 L_4 R_1 + 2 C_1 C_4 L_1 L_4 R_1 + 2 C_3 C_4 L_1 L_4 R_1 R_3 g_m + C_3 C_4 L_1 L_4 R_1 R_4 g_m + 2 C_3 C_4 L_1 L_4 R_3 + C_3 C_4 L_1 L_4 R_4) + s^3 (2 C_1 C_3 L_1 R_1 R_3 + C_1 C_3 L_1 R_1 R_4 + 2 C_3 C_4 L_4 R_1 R_3 + C_3 C_4 L_4 R_1 R_4 + C_3 L_1 L_4 R_1 g_m + 2 C_4 L_1 L_4 R_1 R_3 g_m + 2 C_4 L_1 L_4 R_1 R_4 g_m + 2 C_4 L_1 L_4 R_3 + 2 C_4 L_1 L_4 R_4)}$$

$$\mathbf{10.792 \quad INVALID-ORDER-792} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 R_1 R_4 g_m s^4 + L_1 L_3 R_1 R_4 g_m s^2}{C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_4 s^6 + R_1 R_4 + s^5 (2 C_1 C_4 L_1 L_3 L_4 R_1 + C_3 C_4 L_1 L_3 L_4 R_1 R_4 g_m + C_3 C_4 L_1 L_3 L_4 R_4) + s^4 (C_1 C_3 L_1 L_3 R_1 R_4 + 2 C_1 C_4 L_1 L_3 R_1 R_4 + C_1 C_4 L_1 L_4 R_1 R_4 + C_3 C_4 L_3 L_4 R_1 R_4 + 2 C_4 L_1 L_3 L_4 R_1 g_m + 2 C_4 L_1 L_3 L_4) + s^3 (2 C_1 L_1 L_3 R_1 + C_3 L_1 L_3 R_1 R_4 g_m + C_3 L_1 L_3 R_1 R_4)} + s^2 (2 C_1 C_3 L_1 R_1 + 2 C_3 L_1 R_1 R_3 g_m + C_3 L_1 R_1 R_4 g_m + 2 C_3 L_1 R_3 + C_3 L_1 R_4 + 2 C_3 L_3 R_1) + s (2 C_3 R_1 R_3 + C_3 R_1 R_4 + 2 L_1 R_1 g_m + 2 L_1)$$

$$\mathbf{10.793 \quad INVALID-ORDER-793} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_1 R_4 g_m s^3 + C_3 L_1 R_1 R_3 R_4 g_m s^2 + L_1 R_1 R_4 g_m s}{2 C_1 C_3 L_1 L_3 R_1 s^4 + 2 R_1 + s^3 (2 C_1 C_3 L_1 R_1 R_3 + C_1 C_3 L_1 R_1 R_4 + 2 C_3 L_1 L_3 R_1 g_m + 2 C_3 L_1 L_3) + s^2 (2 C_1 L_1 R_1 + 2 C_3 L_1 R_1 R_3 g_m + C_3 L_1 R_1 R_4 g_m + 2 C_3 L_1 R_3 + C_3 L_1 R_4 + 2 C_3 L_3 R_1) + s (2 C_3 R_1 R_3 + C_3 R_1 R_4 + 2 L_1 R_1 g_m + 2 L_1)}$$

$$\mathbf{10.794 \quad INVALID-ORDER-794} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_1 g_m s^2 + C_3 L_1 R_1 R_3 g_m s + L_1 R_1 g_m}{2 C_1 C_3 C_4 L_1 L_3 R_1 s^4 + C_3 R_1 + 2 C_4 R_1 + s^3 (2 C_1 C_3 C_4 L_1 R_1 R_3 + 2 C_3 C_4 L_1 L_3 R_1 g_m + 2 C_3 C_4 L_1 L_3) + s^2 (C_1 C_3 L_1 R_1 + 2 C_1 C_4 L_1 R_1 + 2 C_3 C_4 L_1 R_1 R_3 g_m + 2 C_3 C_4 L_1 R_3 + 2 C_3 C_4 L_3 R_1) + s (2 C_3 C_4 R_1 R_3 + C_3 L_1 R_1 g_m + C_3 L_1 + 2 C_4 L_1 R_1 g_m + 2 C_4 L_1)}$$

$$\mathbf{10.795 \quad INVALID-ORDER-795} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 R_1 R_4 g_m s^3 + C_3 L_1 R_1 R_3 R_4 g_m s^2 + L_1 R_1 R_4 g_m s}{2 C_1 C_3 C_4 L_1 L_3 R_1 R_4 s^5 + 2 R_1 + s^4 (2 C_1 C_3 C_4 L_1 R_1 R_3 R_4 + 2 C_1 C_3 L_1 L_3 R_1 + 2 C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2 C_3 C_4 L_1 L_3 R_4) + s^3 (2 C_1 C_3 L_1 R_1 R_3 + C_1 C_3 L_1 R_1 R_4 + 2 C_1 C_4 L_1 R_1 R_4 + 2 C_3 C_4 L_1 R_1 R_3 R_4 g_m + 2 C_3 C_4 L_1 R_3 R_4 + 2 C_3 C_4 L_3 R_1 R_4 + 2 C_3 L_1 L_3 R_1 g_m + 2 C_3 L_1 L_3) + s^2 (C_1 C_3 L_1 R_1 + 2 C_1 C_4 L_1 R_1 + 2 C_3 C_4 L_1 R_1 R_3 g_m + 2 C_3 C_4 L_1 R_3 + 2 C_3 C_4 L_3 R_1) + s (2 C_3 C_4 R_1 R_3 + C_3 L_1 R_1 g_m + C_3 L_1 + 2 C_4 L_1 R_1 g_m + 2 C_4 L_1)}$$

$$\mathbf{10.796 \quad INVALID-ORDER-796} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 R_1 R_4 g_m s^3 + L_1 R_1 g_m + s^2 (C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_3 L_1 L_3 R_1 g_m) + s (C_3 L_1 R_1 R_3 g_m + C_4 L_1 R_1 R_4 g_m)}{2 C_1 C_3 C_4 L_1 L_3 R_1 s^4 + C_3 R_1 + 2 C_4 R_1 + s^3 (2 C_1 C_3 C_4 L_1 R_1 R_3 + C_1 C_3 C_4 L_1 R_1 R_4 + 2 C_3 C_4 L_1 L_3 R_1 g_m + 2 C_3 C_4 L_1 L_3) + s^2 (C_1 C_3 L_1 R_1 + 2 C_1 C_4 L_1 R_1 + 2 C_3 C_4 L_1 R_1 R_3 g_m + C_3 C_4 L_1 R_1 R_4 g_m + 2 C_3 C_4 L_1 R_3 + C_3 C_4 L_1 R_4 + 2 C_3 C_4 L_3 R_1) + s (2 C_3 C_4 R_1 R_3 + C_3 C_4 R_1 R_4 + 2 L_1 R_1 g_m + 2 L_1)}$$

$$\mathbf{10.797 \quad INVALID-ORDER-797} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_1 g_m s^4 + C_3 C_4 L_1 L_4 R_1 R_3 g_m s^3 + C_3 L_1 R_1 R_3 g_m s + L_1 R_1 g_m + s^2 (C_3 L_1 L_3 R_1 g_m + C_4 L_1 L_4 R_1 g_m)}{C_3 R_1 + 2 C_4 R_1 + s^4 (2 C_1 C_3 C_4 L_1 L_3 R_1 + C_1 C_3 C_4 L_1 L_4 R_1) + s^3 (2 C_1 C_3 C_4 L_1 R_1 R_3 + 2 C_3 C_4 L_1 L_3 R_1 g_m + 2 C_3 C_4 L_1 L_3 + C_3 C_4 L_1 L_4 R_1 g_m + C_3 C_4 L_1 L_4) + s^2 (C_1 C_3 L_1 R_1 + 2 C_1 C_4 L_1 R_1 + 2 C_3 C_4 L_1 R_1 R_3 g_m + 2 C_3 C_4 L_1 R_3 + 2 C_3 C_4 L_3 R_1 + C_3 C_4 L_4 R_1) + s (2 C_3 C_4 R_1 R_3 + C_3 C_4 R_1 R_4 + 2 L_1 R_1 g_m + 2 L_1)}$$

$$\mathbf{10.798 \quad INVALID-ORDER-798} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 L_1 L_3 L_4 R_1 g_m s^4 + C_3 L_1 L_4 R_1 R_3 g_m s^3 + L_1 L_4 R_1 g_m s^2}{2 C_1 C_3 C_4 L_1 L_3 L_4 R_1 s^6 + 2 R_1 + s^5 (2 C_1 C_3 C_4 L_1 L_4 R_1 R_3 + 2 C_3 C_4 L_1 L_3 L_4 R_1 g_m + 2 C_3 C_4 L_1 L_3 L_4) + s^4 (2 C_1 C_3 L_1 L_3 R_1 + C_1 C_3 L_1 L_4 R_1 + 2 C_1 C_4 L_1 L_4 R_1 + 2 C_3 C_4 L_1 L_4 R_1 R_3 g_m + 2 C_3 C_4 L_1 L_4 R_3 + 2 C_3 C_4 L_3 L_4 R_1) + s^3 (2 C_1 C_3 L_1 R_1 R_3 + 2 C_3 C_4 L_4 R_1 R_3 + 2 C_3 L_1 L_3) + s^2 (C_1 C_3 L_1 R_1 + 2 C_1 C_4 L_1 R_1 + 2 C_3 C_4 L_1 R_1 R_3 g_m + C_3 C_4 L_1 R_1 R_4 g_m + 2 C_3 C_4 L_1 R_3 + C_3 C_4 L_1 R_4 + 2 C_3 C_4 L_3 R_1) + s (2 C_3 C_4 R_1 R_3 + C_3 C_4 R_1 R_4 + 2 L_1 R_1 g_m + 2 L_1)}$$

$$\mathbf{10.799 \quad INVALID-ORDER-799} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_1 g_m s^4 + L_1 R_1 g_m + s^3 (C_3 C_4 L_1 L_3 R_1 R_4 g_m + C_3 C_4 L_1 L_4 R_1 R_3 g_m) + s^2 (C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_3 L_1 L_3 R_1 g_m + C_4 L_1 L_4 R_1 g_m) + s (C_3 L_1 R_1 R_3 g_m + C_4 L_1 R_1 R_4 g_m)}{C_3 R_1 + 2 C_4 R_1 + s^4 (2 C_1 C_3 C_4 L_1 L_3 R_1 + C_1 C_3 C_4 L_1 L_4 R_1) + s^3 (2 C_1 C_3 C_4 L_1 R_1 R_3 + C_1 C_3 C_4 L_1 R_1 R_4 + 2 C_3 C_4 L_1 L_3 R_1 g_m + 2 C_3 C_4 L_1 L_3 + C_3 C_4 L_1 L_4 R_1 g_m + C_3 C_4 L_1 L_4) + s^2 (C_1 C_3 L_1 R_1 + 2 C_1 C_4 L_1 R_1 + 2 C_3 C_4 L_1 R_1 R_3 g_m + C_3 C_4 L_1 R_1 R_4 g_m + 2 C_3 C_4 L_1 R_3 + C_3 C_4 L_1 R_4 + 2 C_3 C_4 L_3 R_1) + s (2 C_3 C_4 R_1 R_3 + C_3 C_4 R_1 R_4 + 2 L_1 R_1 g_m + 2 L_1)}$$

$$\mathbf{10.800 \quad INVALID-ORDER-800} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_1 R_4 s^6 + 2 R_1 R_4 + s^5 (2 C_1 C_3 C_4 L_1 L_4 R_1 R_3 R_4 + 2 C_1 C_3 L_1 L_3 L_4 R_1 + 2 C_3 C_4 L_1 L_3 L_4 R_1 R_4 g_m + 2 C_3 C_4 L_1 L_3 L_4 R_4) + s^4 (2 C_1 C_3 L_1 L_3 R_1 R_4 + 2 C_1 C_3 L_1 L_4 R_1 R_3 + C_1 C_3 L_1 L_4 R_1 R_4 + 2 C_1 C_4 L_1 L_4 R_1 R_4 + 2 C_3 C_4 L_1 L_4 R_1 R_3 R_4 g_m + 2 C_3 C_4 L_1 L_4 R_3 R_4) + s^3 (2 C_1 C_3 L_1 R_1 R_3 + 2 C_3 C_4 L_4 R_1 R_3 + 2 C_3 L_1 L_3) + s^2 (C_1 C_3 L_1 R_1 + 2 C_1 C_4 L_1 R_1 + 2 C_3 C_4 L_1 R_1 R_3 g_m + C_3 C_4 L_1 R_1 R_4 g_m + 2 C_3 C_4 L_1 R_3 + C_3 C_4 L_1 R_4 + 2 C_3 C_4 L_3 R_1) + s (2 C_3 C_4 R_1 R_3 + C_3 C_4 R_1 R_4 + 2 L_1 R_1 g_m + 2 L_1)}$$

$$\mathbf{10.801 \quad INVALID-ORDER-801} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_1 R_4 g_m s^5 + L_1 R_1 R_4 g_m s + s^4 (C_3 C_4 L_1 L_4 R_1 R_3 R_4 g_m + C_3 L_1 L_3 R_1 R_4 g_m + C_4 L_1 L_4 R_1 R_4 g_m)}{2 C_1 C_3 C_4 L_1 L_3 L_4 R_1 s^6 + 2 R_1 + s^5 (2 C_1 C_3 C_4 L_1 L_4 R_1 R_3 + C_1 C_3 C_4 L_1 L_4 R_1 R_4 + 2 C_3 C_4 L_1 L_3 L_4 R_1 g_m + 2 C_3 C_4 L_1 L_3 L_4) + s^4 (2 C_1 C_3 L_1 L_3 R_1 + C_1 C_3 L_1 L_4 R_1 + 2 C_1 C_4 L_1 L_4 R_1 + 2 C_3 C_4 L_1 L_4 R_1 R_3 g_m + C_3 C_4 L_1 L_4 R_1 R_4 g_m + 2 C_3 C_4 L_1 L_4 R_3 + C_3 C_4 L_1 L_4 R_4 + 2 C_3 C_4 L_3 R_1) + s^3 (2 C_1 C_3 L_1 R_1 R_3 + 2 C_3 C_4 L_4 R_1 R_3 + 2 C_3 L_1 L_3) + s^2 (C_1 C_3 L_1 R_1 + 2 C_1 C_4 L_1 R_1 + 2 C_3 C_4 L_1 R_1 R_3 g_m + C_3 C_4 L_1 R_1 R_4 g_m + 2 C_3 C_4 L_1 R_3 + C_3 C_4 L_1 R_4 + 2 C_3 C_4 L_3 R_1) + s (2 C_3 C_4 R_1 R_3 + C_3 C_4 R_1 R_4 + 2 L_1 R_1 g_m + 2 L_1)}$$

$$\mathbf{10.802 \quad INVALID-ORDER-802} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{2C_1 C_3 C_4 L_1 L_3 L_4 R_1 s^6 + 2R_1 + s^5 (2C_1 C_3 C_4 L_1 L_3 R_1 R_4 + 2C_1 C_3 C_4 L_1 L_4 R_1 R_3 + C_1 C_3 C_4 L_1 L_4 R_1 R_4 + 2C_3 C_4 L_1 L_3 L_4 R_1 g_m + 2C_3 C_4 L_1 L_3 L_4) + s^4 (2C_1 C_3 C_4 L_1 R_1 R_3 R_4 + 2C_1 C_3 L_1 L_3 R_1 + 2C_1 C_4 L_1 L_4 R_1 + 2C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2C_3 C_4 L_1 L_3 R_4 + 2C_3 C_4 L_1 L_4 R_1)}{2C_1 C_3 C_4 L_1 L_3 L_4 R_1 s^6 + 2R_1 + s^5 (2C_1 C_3 C_4 L_1 L_3 R_1 R_4 + 2C_1 C_3 C_4 L_1 L_4 R_1 R_3 + C_1 C_3 C_4 L_1 L_4 R_1 R_4 + 2C_3 C_4 L_1 L_3 L_4 R_1 g_m + 2C_3 C_4 L_1 L_3 L_4) + s^4 (2C_1 C_3 C_4 L_1 R_1 R_3 R_4 + 2C_1 C_3 L_1 L_3 R_1 + 2C_1 C_4 L_1 L_4 R_1 + 2C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2C_3 C_4 L_1 L_3 R_4 + 2C_3 C_4 L_1 L_4 R_1)}$$

$$\mathbf{10.803 \quad INVALID-ORDER-803} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 R_1 R_3 R_4 g_m s^2}{C_1 C_3 L_1 L_3 R_1 R_3 R_4 s^4 + R_1 R_3 R_4 + s^3 (2C_1 L_1 L_3 R_1 R_3 + C_1 L_1 L_3 R_1 R_4 + C_3 L_1 L_3 R_1 R_3 R_4 g_m + C_3 L_1 L_3 R_3 R_4) + s^2 (C_1 L_1 R_1 R_3 R_4 + C_3 L_3 R_1 R_3 R_4 + 2L_1 L_3 R_1 R_3 g_m + L_1 L_3 R_1 R_4 g_m + 2L_1 L_3 R_3 + L_1 L_3 R_4) + s (L_1 R_1 R_3 R_4 g_m + L_1 R_3 R_4 + 2L_3 R_1 R_3 + L_3 R_1 R_4)}$$

$$\mathbf{10.804 \quad INVALID-ORDER-804} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 R_1 R_3 g_m s^2}{R_1 R_3 + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 + 2C_1 C_4 L_1 L_3 R_1 R_3) + s^3 (C_1 L_1 L_3 R_1 + C_3 L_1 L_3 R_1 R_3 g_m + C_3 L_1 L_3 R_3 + 2C_4 L_1 L_3 R_1 R_3 g_m + 2C_4 L_1 L_3 R_3) + s^2 (C_1 L_1 R_1 R_3 + C_3 L_3 R_1 R_3 + 2C_4 L_3 R_1 R_3 + L_1 L_3 R_1 g_m + L_1 L_3) + s (L_1 R_1 R_3 g_m + L_1 R_3 + L_3 R_1)}$$

$$\mathbf{10.805 \quad INVALID-ORDER-805} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 R_1 R_3 R_4 g_m s^2}{R_1 R_3 R_4 + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 R_4 + 2C_1 C_4 L_1 L_3 R_1 R_3 R_4) + s^3 (2C_1 L_1 L_3 R_1 R_3 + C_1 L_1 L_3 R_1 R_4 + C_3 L_1 L_3 R_1 R_3 R_4 g_m + C_3 L_1 L_3 R_3 R_4 + 2C_4 L_1 L_3 R_1 R_3 R_4 g_m + 2C_4 L_1 L_3 R_3 R_4) + s^2 (C_1 L_1 R_1 R_3 R_4 + C_3 L_3 R_1 R_3 R_4 + 2C_4 L_3 R_1 R_3 R_4 + 2L_1 L_3 R_1 R_3 g_m + L_1 L_3 R_1 R_4)}$$

$$\mathbf{10.806 \quad INVALID-ORDER-806} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 R_1 R_3 R_4 g_m s^3 + L_1 L_3 R_1 R_3 g_m s^2}{C_1 C_3 C_4 L_1 L_3 R_1 R_3 R_4 s^5 + R_1 R_3 + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 + 2C_1 C_4 L_1 L_3 R_1 R_3 + C_1 C_4 L_1 L_3 R_1 R_4 + C_3 C_4 L_1 L_3 R_1 R_3 R_4 g_m + C_3 C_4 L_1 L_3 R_3 R_4) + s^3 (C_1 C_4 L_1 R_1 R_3 R_4 + C_1 L_1 L_3 R_1 + C_3 C_4 L_3 R_1 R_3 R_4 + C_3 L_1 L_3 R_1 R_3 g_m + C_3 L_1 L_3 R_3 + 2C_4 L_1 L_3 R_1 R_3 g_m + C_4 L_1 L_3 R_3)}$$

$$\mathbf{10.807 \quad INVALID-ORDER-807} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_4 L_1 L_3 L_4 R_1 R_3 g_m s^4 + L_1 L_3 R_1 R_3 g_m s^2}{C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 s^6 + R_1 R_3 + s^5 (C_1 C_4 L_1 L_3 L_4 R_1 + C_3 C_4 L_1 L_3 L_4 R_1 R_3 g_m + C_3 C_4 L_1 L_3 L_4 R_3) + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 + 2C_1 C_4 L_1 L_3 R_1 R_3 + C_1 C_4 L_1 L_4 R_1 R_3 + C_3 C_4 L_3 L_4 R_1 R_3 + C_4 L_1 L_3 L_4 R_1 g_m + C_4 L_1 L_3 L_4) + s^3 (C_1 L_1 L_3 R_1 + C_3 L_1 L_3 R_1 R_3 g_m + C_3 L_1 L_3 R_3)}$$

$$\mathbf{10.808 \quad INVALID-ORDER-808} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 L_4 R_1 R_3 g_m s^2}{2L_3 R_1 R_3 + L_4 R_1 R_3 + s^4 (C_1 C_3 L_1 L_3 L_4 R_1 R_3 + 2C_1 C_4 L_1 L_3 L_4 R_1 R_3) + s^3 (C_1 L_1 L_3 L_4 R_1 + C_3 L_1 L_3 L_4 R_1 R_3 g_m + C_3 L_1 L_3 L_4 R_3 + 2C_4 L_1 L_3 L_4 R_1 R_3 g_m + 2C_4 L_1 L_3 L_4 R_3) + s^2 (2C_1 L_1 L_3 R_1 R_3 + C_1 L_1 L_4 R_1 R_3 + C_3 L_3 L_4 R_1 R_3 + 2C_4 L_3 L_4 R_1 R_3 + L_1 L_3 L_4 R_1 g_m + L_1 L_3 L_4 R_3)}$$

$$\mathbf{10.809 \quad INVALID-ORDER-809} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{2C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 s^6 + R_1 R_3 + s^5 (C_1 C_3 C_4 L_1 L_3 R_1 R_3 R_4 + C_1 C_4 L_1 L_3 L_4 R_1 + C_3 C_4 L_1 L_3 L_4 R_1 R_3 g_m + C_3 C_4 L_1 L_3 L_4 R_3) + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 + 2C_1 C_4 L_1 L_3 R_1 R_3 + C_1 C_4 L_1 L_4 R_1 R_3 + C_3 C_4 L_3 L_4 R_1 R_3 + C_4 L_1 L_3 L_4 R_1 g_m + C_4 L_1 L_3 L_4) + s^3 (C_1 L_1 L_3 R_1 + C_3 L_1 L_3 R_1 R_3 g_m + C_3 L_1 L_3 R_3)}$$

$$\mathbf{10.810 \quad INVALID-ORDER-810} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{L_1 L_3 L_4 R_1 R_3 R_4 g_m s^2}{2L_3 R_1 R_3 R_4 + L_4 R_1 R_3 R_4 + s^4 (C_1 C_3 L_1 L_3 L_4 R_1 R_3 R_4 + 2C_1 C_4 L_1 L_3 L_4 R_1 R_3 R_4) + s^3 (2C_1 L_1 L_3 L_4 R_1 R_3 + C_1 L_1 L_3 L_4 R_1 R_4 + C_3 L_1 L_3 L_4 R_1 R_3 R_4 g_m + C_3 L_1 L_3 L_4 R_3 R_4 + 2C_4 L_1 L_3 L_4 R_1 R_3 R_4 g_m + 2C_4 L_1 L_3 L_4 R_3 R_4) + s^2 (2C_1 L_1 L_3 R_1 R_3 R_4 + C_1 L_1 L_4 R_1 R_3 R_4 + C_3 L_3 L_4 R_1 R_3 R_4 g_m + C_3 L_3 L_4 R_3 R_4 + C_3 C_4 L_3 L_4 R_1 R_3)}$$

$$\mathbf{10.811 \quad INVALID-ORDER-811} \quad Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{2C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 R_4 s^6 + R_1 R_3 R_4 + s^5 (C_1 C_3 L_1 L_3 L_4 R_1 R_3 + 2C_1 C_4 L_1 L_3 L_4 R_1 R_3 + C_1 C_4 L_1 L_3 L_4 R_1 R_4 + C_3 C_4 L_1 L_3 L_4 R_1 R_3 R_4 g_m + C_3 C_4 L_1 L_3 L_4 R_3 R_4) + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 R_4 + C_1 C_4 L_1 L_4 R_1 R_3 R_4 + C_1 L_1 L_3 L_4 R_1 + C_3 C_4 L_3 L_4 R_1 R_3 R_4 + C_3 L_1 L_3 L_4 R_1 R_3)}$$

10.822 INVALID-ORDER-822 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{1}{2R_1R_3 + R_1R_4 + s^6(2C_1C_3C_4L_1L_3L_4R_1R_3 + C_1C_3C_4L_1L_3L_4R_1R_4) + s^5(2C_1C_3C_4L_1L_3R_1R_3R_4 + 2C_1C_4L_1L_3L_4R_1 + 2C_3C_4L_1L_3L_4R_1R_3g_m + C_3C_4L_1L_3L_4R_1R_4g_m + 2C_3C_4L_1L_3L_4R_3 + C_3C_4L_1L_3L_4R_4) + s^4(2C_1C_3L_1L_3R_1R_3 + C_1C_3L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_3 + C_1C_4L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_3 + C_1C_4L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_3 + C_1C_4L_1L_3R_1R_4) + s^3(2C_1C_3L_1L_3R_1R_3 + C_1C_3L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_3 + C_1C_4L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_3 + C_1C_4L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_3 + C_1C_4L_1L_3R_1R_4) + s^2(2C_1C_3L_1L_3R_1R_3 + C_1C_3L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_3 + C_1C_4L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_3 + C_1C_4L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_3 + C_1C_4L_1L_3R_1R_4) + s(2C_1C_3L_1L_3R_1R_3 + C_1C_3L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_3 + C_1C_4L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_3 + C_1C_4L_1L_3R_1R_4 + 2C_1C_4L_1L_3R_1R_3 + C_1C_4L_1L_3R_1R_4) + 1}$$

10.823 INVALID-ORDER-823 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_1 L_3 R_1 R_3 R_4 g_m s^3 + L_1 R_1 R_3 R_4 g_m s}{2 R_1 R_3 + R_1 R_4 + s^4 (2 C_1 C_3 L_1 L_3 R_1 R_3 + C_1 C_3 L_1 L_3 R_1 R_4) + s^3 (C_1 C_3 L_1 R_1 R_3 R_4 + 2 C_3 L_1 L_3 R_1 R_3 g_m + C_3 L_1 L_3 R_1 R_4 g_m + 2 C_3 L_1 L_3 R_3 + C_3 L_1 L_3 R_4) + s^2 (2 C_1 L_1 R_1 R_3 + C_1 L_1 R_1 R_4 + C_3 L_1 R_1 R_3 R_4 g_m + C_3 L_1 R_3 R_4 + 2 C_3 L_3 R_1 R_3 + C_3 L_3 R_1 R_4) + s (C_3 R_1 R_3 R_4)}$$

10.824 INVALID-ORDER-824 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_1 L_3 R_1 R_3 g_m s^3 + L_1 R_1 R_3 g_m s}{2C_1 C_3 C_4 L_1 L_3 R_1 R_3 s^5 + R_1 + s^4 (C_1 C_3 L_1 L_3 R_1 + 2C_3 C_4 L_1 L_3 R_1 R_3 g_m + 2C_3 C_4 L_1 L_3 R_3) + s^3 (C_1 C_3 L_1 R_1 R_3 + 2C_1 C_4 L_1 R_1 R_3 + 2C_3 C_4 L_3 R_1 R_3 + C_3 L_1 L_3 R_1 g_m + C_3 L_1 L_3) + s^2 (C_1 L_1 R_1 + C_3 L_1 R_1 R_3 g_m + C_3 L_1 R_3 + C_3 L_3 R_1 + 2C_4 L_1 R_1 R_3 g_m + 2C_4 L_1 R_3) + s}$$

10.825 INVALID-ORDER-825 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_1 L_3 R_1 R_3 R_4 g_m s^3 + L_1 R_1 R_3 R_4 g_m s}{2C_1 C_3 C_4 L_1 L_3 R_1 R_3 R_4 s^5 + 2R_1 R_3 + R_1 R_4 + s^4 (2C_1 C_3 L_1 L_3 R_1 R_3 + C_1 C_3 L_1 L_3 R_1 R_4 + 2C_3 C_4 L_1 L_3 R_1 R_3 R_4 g_m + 2C_3 C_4 L_1 L_3 R_3 R_4) + s^3 (C_1 C_3 L_1 R_1 R_3 R_4 + 2C_1 C_4 L_1 R_1 R_3 R_4 + 2C_3 C_4 L_3 R_1 R_3 R_4 + 2C_3 L_1 L_3 R_1 R_3 g_m + C_3 L_1 L_3 R_1 R_4 g_m + 2C_3 L_1 L_3 R_3 + C_3 L_1 L_3 R_4 g_m)}$$

10.826 INVALID-ORDER-826 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 L_1 L_3 R_1 R_3 R_4 g_m s^4 + C_3 L_1 L_3 R_1 R_3 g_m s^3}{R_1 + s^5 (2C_1 C_3 C_4 L_1 L_3 R_1 R_3 + C_1 C_3 C_4 L_1 L_3 R_1 R_4) + s^4 (C_1 C_3 C_4 L_1 R_1 R_3 R_4 + C_1 C_3 L_1 L_3 R_1 + 2C_3 C_4 L_1 L_3 R_1 R_3 g_m + C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2C_3 C_4 L_1 L_3 R_3 + C_3 C_4 L_1 L_3 R_4) + s^3 (C_1 C_3 L_1 R_1 R_3 + 2C_1 C_4 L_1 R_1 R_3 + C_1 C_4 L_1 R_1 R_4 + C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_3 C_4 L_1 R_1 R_3 R_4 g_m)}.$$

10.827 INVALID-ORDER-827 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_3 C_4 L_1 L_3 L_4 R_1 R_3 g_m s^5 + L_1 R_1 R_3 g_m s + s^3 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 s^6 + R_1 + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_1 R_3 + C_1 C_3 C_4 L_1 L_4 R_1 R_3 + C_3 C_4 L_1 L_3 L_4 R_1 g_m + C_3 C_4 L_1 L_3 L_4) + s^4 (C_1 C_3 L_1 L_3 R_1 + C_1 C_4 L_1 L_4 R_1 + 2 C_3 C_4 L_1 L_3 R_1 R_3 g_m + 2 C_3 C_4 L_1 L_3 R_3 + C_3 C_4 L_1 L_4 R_1 R_3 g_m + C_3 C_4 L_1 L_4 R_3 + C_3 C_4 L_3 L_4 R_1) + s^3 (C_1 C_3 L_1$$

10.828 INVALID-ORDER-828 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_1 L_3 L_4 R_1 R_3 g_m s^4 + L_1 L_4 R_1 R_3 g_m s^2}{2C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 s^6 + 2R_1 R_3 + s^5 (C_1 C_3 L_1 L_3 L_4 R_1 + 2C_3 C_4 L_1 L_3 L_4 R_1 R_3 g_m + 2C_3 C_4 L_1 L_3 L_4 R_3) + s^4 (2C_1 C_3 L_1 L_3 R_1 R_3 + C_1 C_3 L_1 L_4 R_1 R_3 + 2C_1 C_4 L_1 L_4 R_1 R_3 + 2C_3 C_4 L_3 L_4 R_1 R_3 + C_3 L_1 L_3 L_4 R_1 g_m + C_3 L_1 L_3 L_4) + s^3 (C_1 L_1 L_4 R_1 + 2C_3 L_1 L_3 R_1 R_3 g_m +$$

10.829 INVALID-ORDER-829 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_1 s^6 + R_1 + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_1 R_3 + C_1 C_3 C_4 L_1 L_3 R_1 R_4 + C_1 C_3 C_4 L_1 L_4 R_1 R_3 + C_3 C_4 L_1 L_3 L_4 R_1 g_m + C_3 C_4 L_1 L_3 L_4) + s^4 (C_1 C_3 C_4 L_1 R_1 R_3 R_4 + C_1 C_3 L_1 L_3 R_1 + C_1 C_4 L_1 L_4 R_1 + 2 C_3 C_4 L_1 L_3 R_1 R_3 g_m + C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2 C_3 C_4 L_1 L_3 R_3 + C_3 C_4 L_1 L_3 R_4)}{C_1 C_3 C_4 L_1 L_3 L_4 R_1 s^6 + R_1 + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_1 R_3 + C_1 C_3 C_4 L_1 L_3 R_1 R_4 + C_1 C_3 C_4 L_1 L_4 R_1 R_3 + C_3 C_4 L_1 L_3 L_4 R_1 g_m + C_3 C_4 L_1 L_3 L_4) + s^4 (C_1 C_3 C_4 L_1 R_1 R_3 R_4 + C_1 C_3 L_1 L_3 R_1 + C_1 C_4 L_1 L_4 R_1 + 2 C_3 C_4 L_1 L_3 R_1 R_3 g_m + C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2 C_3 C_4 L_1 L_3 R_3 + C_3 C_4 L_1 L_3 R_4)}$$

10.830 INVALID-ORDER-830 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{2C_1C_3C_4L_1L_3L_4R_1R_3R_4s^6 + 2R_1R_3R_4 + s^5(2C_1C_3L_1L_3L_4R_1R_3 + C_1C_3L_1L_3L_4R_1R_4 + 2C_3C_4L_1L_3L_4R_1R_3R_4g_m + 2C_3C_4L_1L_3L_4R_3R_4) + s^4(2C_1C_3L_1L_3R_1R_3R_4 + C_1C_3L_1L_4R_1R_3R_4 + 2C_1C_4L_1L_4R_1R_3R_4 + 2C_3C_4L_3L_4R_1R_3R_4 + 2C_3L_1L_3L_4R_1R_3g_m +$$

10.831 INVALID-ORDER-831 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{1}{2R_1 R_3 + R_1 R_4 + s^6(2C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 + C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_4) + s^5(C_1 C_3 C_4 L_1 L_4 R_1 R_3 R_4 + C_1 C_3 L_1 L_3 L_4 R_1 + 2C_3 C_4 L_1 L_3 L_4 R_1 R_3 g_m + C_3 C_4 L_1 L_3 L_4 R_1 R_4 g_m + 2C_3 C_4 L_1 L_3 L_4 R_3 + C_3 C_4 L_1 L_3 L_4 R_4) + s^4(2C_1 C_3 L_1 L_3 R_1 R_3 + C_1 C_3 L_1 L_3 R_1 R_4 + C_1 C_3 L_1$$

10.832 INVALID-ORDER-832 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{2R_1R_3 + R_1R_4 + s^6(2C_1C_3C_4L_1L_3L_4R_1R_3 + C_1C_3C_4L_1L_3L_4R_1R_4) + s^5(2C_1C_3C_4L_1L_3R_1R_3R_4 + C_1C_3C_4L_1L_4R_1R_3R_4 + 2C_3C_4L_1L_3L_4R_1R_3g_m + C_3C_4L_1L_3L_4R_1R_4g_m + 2C_3C_4L_1L_3L_4R_3 + C_3C_4L_1L_3L_4R_4) + s^4(2C_1C_3L_1L_3R_1R_3 + C_1C_3L_1L_3R_1R_4 + 2C_1C_3L_1L_3R_3R_4 + C_1C_3L_1L_3R_3R_4 + 2C_1C_3L_1L_3R_4R_3 + C_1C_3L_1L_3R_4R_4) + s^3(2C_1C_3L_1L_3R_3g_m + C_1C_3L_1L_3R_4g_m + 2C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4) + s^2(2C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4) + s(C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4) + C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4}{2R_1R_3 + R_1R_4 + s^6(2C_1C_3C_4L_1L_3L_4R_1R_3 + C_1C_3C_4L_1L_3L_4R_1R_4) + s^5(2C_1C_3C_4L_1L_3R_1R_3R_4 + C_1C_3C_4L_1L_4R_1R_3R_4 + 2C_3C_4L_1L_3L_4R_1R_3g_m + C_3C_4L_1L_3L_4R_1R_4g_m + 2C_3C_4L_1L_3L_4R_3 + C_3C_4L_1L_3L_4R_4) + s^4(2C_1C_3L_1L_3R_1R_3 + C_1C_3L_1L_3R_1R_4 + 2C_1C_3L_1L_3R_3R_4 + C_1C_3L_1L_3R_3R_4 + 2C_1C_3L_1L_3R_4R_3 + C_1C_3L_1L_3R_4R_4) + s^3(2C_1C_3L_1L_3R_3g_m + C_1C_3L_1L_3R_4g_m + 2C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4) + s^2(2C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4) + s(C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4) + C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4}$$

10.833 INVALID-ORDER-833 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, R_3, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 R_1 R_3 g_m s^2 + L_1 R_3 g_m s + R_1 R_3 g_m}{R_1 g_m + s^3 (2C_1 C_4 L_1 R_1 R_3 g_m + 2C_1 C_4 L_1 R_3) + s^2 (C_1 L_1 R_1 g_m + C_1 L_1 + 2C_4 L_1 R_3 g_m) + s (2C_4 R_1 R_3 g_m + 2C_4 R_3 + L_1 g_m) + 1}$$

10.834 INVALID-ORDER-834 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, R_3, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 R_1 R_3 R_4 g_m s^2 + L_1 R_3 R_4 g_m s + R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^3 (2C_1 C_4 L_1 R_1 R_3 R_4 g_m + 2C_1 C_4 L_1 R_3 R_4) + s^2 (2C_1 L_1 R_1 R_3 g_m + C_1 L_1 R_1 R_4 g_m + 2C_1 L_1 R_3 + C_1 L_1 R_4 + 2C_4 L_1 R_3 R_4 g_m) + s (2C_4 R_1 R_3 R_4 g_m + 2C_4 R_3 R_4 + 2L_1 R_3 g_m + L_1 R_4 g_m)}$$

10.835 INVALID-ORDER-835 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, R_3, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 R_1 R_3 R_4 g_m s^3 + R_1 R_3 g_m + s^2 (C_1 L_1 R_1 R_3 g_m + C_4 L_1 R_3 R_4 g_m) + s (C_4 R_1 R_3 R_4 g_m + L_1 R_3 g_m)}{R_1 g_m + s^3 (2 C_1 C_4 L_1 R_1 R_3 g_m + C_1 C_4 L_1 R_1 R_4 g_m + 2 C_1 C_4 L_1 R_3 + C_1 C_4 L_1 R_4) + s^2 (C_1 L_1 R_1 g_m + C_1 L_1 + 2 C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m) + s (2 C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2 C_4 R_3 + C_4 R_4 + L_1 g_m) + 1}$$

10.836 INVALID-ORDER-836 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, R_3, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 R_3 g_m s^4 + C_4 L_1 L_4 R_3 g_m s^3 + L_1 R_3 g_m s + R_1 R_3 g_m + s^2 (C_1 L_1 R_1 R_3 g_m + C_4 L_4 R_1 R_3 g_m)}{R_1 g_m + s^4 (C_1 C_4 L_1 L_4 R_1 g_m + C_1 C_4 L_1 L_4) + s^3 (2C_1 C_4 L_1 R_1 R_3 g_m + 2C_1 C_4 L_1 R_3 + C_4 L_1 L_4 g_m) + s^2 (C_1 L_1 R_1 g_m + C_1 L_1 + 2C_4 L_1 R_3 g_m + C_4 L_4 R_1 g_m + C_4 L_4) + s (2C_4 R_1 R_3 g_m + 2C_4 R_3 + L_1 g_m) + 1}$$

10.837 INVALID-ORDER-837 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, R_3, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 L_4 R_1 R_3 g_m s^3 + L_1 L_4 R_3 g_m s^2 + L_4 R_1 R_3 g_m s}{2R_1 R_3 g_m + 2R_3 + s^4 (2C_1 C_4 L_1 L_4 R_1 R_3 g_m + 2C_1 C_4 L_1 L_4 R_3) + s^3 (C_1 L_1 L_4 R_1 g_m + C_1 L_1 L_4 + 2C_4 L_1 L_4 R_3 g_m) + s^2 (2C_1 L_1 R_1 R_3 g_m + 2C_1 L_1 R_3 + 2C_4 L_4 R_1 R_3 g_m + 2C_4 L_4 R_3 + L_1 L_4 g_m) + s (2L_1 R_3 g_m + L_4 R_1 g_m + L_4)}$$

10.838 INVALID-ORDER-838 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, R_3, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 R_3 g_m s^4 + R_1 R_3 g_m + s^3 (C_1 C_4 L_1 R_1 R_3 R_4 g_m + C_4 L_1 L_4 R_3 g_m) + s^2 (C_1 L_1 R_1 R_3 g_m + C_4 L_1 R_3 R_4 g_m + C_4 L_4 R_1 R_3 g_m) + s (C_4 R_1 R_3 R_4 g_m + L_1 R_3 g_m)}{R_1 g_m + s^4 (C_1 C_4 L_1 L_4 R_1 g_m + C_1 C_4 L_1 L_4) + s^3 (2 C_1 C_4 L_1 R_1 R_3 g_m + C_1 C_4 L_1 R_1 R_4 g_m + 2 C_1 C_4 L_1 R_3 + C_1 C_4 L_1 R_4 + C_4 L_1 L_4 g_m) + s^2 (C_1 L_1 R_1 g_m + C_1 L_1 + 2 C_4 L_1 R_3 g_m + C_4 L_1 R_4 g_m + C_4 L_4 R_1 g_m + C_4 L_4) + s (2 C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2 C_4 R_3 + C_4 R_4 + L_1)}$$

10.839 INVALID-ORDER-839 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, R_3, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 L_4 R_1 R_3 R_4 g_m s^3 + L_1 L_4 R_3 R_4 g_m s^2 + L_4 R_1 R_3 R_4 g_m s}{2R_1 R_3 R_4 g_m + 2R_3 R_4 + s^4 (2C_1 C_4 L_1 L_4 R_1 R_3 R_4 g_m + 2C_1 C_4 L_1 L_4 R_3 R_4) + s^3 (2C_1 L_1 L_4 R_1 R_3 g_m + C_1 L_1 L_4 R_1 R_4 g_m + 2C_1 L_1 L_4 R_3 + C_1 L_1 L_4 R_4 + 2C_4 L_1 L_4 R_3 R_4 g_m) + s^2 (2C_1 L_1 R_1 R_3 R_4 g_m + 2C_1 L_1 R_3 R_4 + 2C_4 L_4 R_1 R_3 R_4 g_m + 2C_4 L_4 R_3 R_4 + 2L_1 L_4 R_3 g_m + L_1 L_4 R_3 R_4) + s (2C_1 L_1 R_1 R_3 R_4 + 2C_4 L_4 R_1 R_3 R_4 + 2L_1 L_4 R_3 R_4) + 2L_1 L_4 R_3 R_4}$$

$$\mathbf{10.840 \quad INVALID-ORDER-840} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad R_3, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 R_3 R_4 g_m s^4 + R_1 R_3 R_4 g_m + s^3 (C_1 L_1 L_4 R_1 R_3 g_m + C_4 L_1 L_4 R_3 R_4 g_m) + s^2 (C_1 L_1 R_1 R_3 R_4 g_m + C_4 L_4 R_1 R_3 R_4 g_m + L_1 L_4 R_3 g_m) + s (L_1 R_3 R_4 g_m + L_4 R_1 R_3 g_m)}{2 R_1 R_3 g_m + R_1 R_4 g_m + 2 R_3 + R_4 + s^4 (2 C_1 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_4 L_1 L_4 R_1 R_4 g_m + 2 C_1 C_4 L_1 L_4 R_3 + C_1 C_4 L_1 L_4 R_4) + s^3 (C_1 L_1 L_4 R_1 g_m + C_1 L_1 L_4 + 2 C_4 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (2 C_1 L_1 R_1 R_3 g_m + C_1 L_1 R_1 R_4 g_m + 2 C_1 L_1 R_3 + C_1 L_1 R_4 + 2 C_4 L_4 R_1 R_3 g_m)}$$

$$\mathbf{10.841 \quad INVALID-ORDER-841} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad R_3, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 R_3 R_4 g_m s^4 + C_4 L_1 L_4 R_3 R_4 g_m s^3 + L_1 R_3 R_4 g_m s + R_1 R_3 R_4 g_m + s^2 (C_1 L_1 R_1 R_3 R_4 g_m + C_4 L_4 R_1 R_3 R_4 g_m)}{2 R_1 R_3 g_m + R_1 R_4 g_m + 2 R_3 + R_4 + s^4 (2 C_1 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_4 L_1 L_4 R_1 R_4 g_m + 2 C_1 C_4 L_1 L_4 R_3 + C_1 C_4 L_1 L_4 R_4) + s^3 (2 C_1 C_4 L_1 R_1 R_3 R_4 g_m + 2 C_1 C_4 L_1 R_3 R_4 + 2 C_4 L_1 L_4 R_3 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (2 C_1 L_1 R_1 R_3 g_m + C_1 L_1 R_1 R_4 g_m + 2 C_1 L_1 R_3 + C_1 L_1 R_4 + 2 C_4 L_4 R_1 R_3 g_m)}$$

$$\mathbf{10.842 \quad INVALID-ORDER-842} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_1 R_4 g_m s^2 + L_1 R_4 g_m s + R_1 R_4 g_m}{2 R_1 g_m + s^3 (C_1 C_3 L_1 R_1 R_4 g_m + C_1 C_3 L_1 R_4) + s^2 (2 C_1 L_1 R_1 g_m + 2 C_1 L_1 + C_3 L_1 R_4 g_m) + s (C_3 R_1 R_4 g_m + C_3 R_4 + 2 L_1 g_m) + 2}$$

$$\mathbf{10.843 \quad INVALID-ORDER-843} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_1 g_m s^2 + L_1 g_m s + R_1 g_m}{s^3 (C_1 C_3 L_1 R_1 g_m + C_1 C_3 L_1 + 2 C_1 C_4 L_1 R_1 g_m + 2 C_1 C_4 L_1) + s^2 (C_3 L_1 g_m + 2 C_4 L_1 g_m) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.844 \quad INVALID-ORDER-844} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_1 R_4 g_m s^2 + L_1 R_4 g_m s + R_1 R_4 g_m}{2 R_1 g_m + s^3 (C_1 C_3 L_1 R_1 R_4 g_m + C_1 C_3 L_1 R_4 + 2 C_1 C_4 L_1 R_1 R_4 g_m + 2 C_1 C_4 L_1 R_4) + s^2 (2 C_1 L_1 R_1 g_m + 2 C_1 L_1 + C_3 L_1 R_4 g_m + 2 C_4 L_1 R_4 g_m) + s (C_3 R_1 R_4 g_m + C_3 R_4 + 2 C_4 R_1 R_4 g_m + 2 C_4 R_4 + 2 L_1 g_m) + 2}$$

$$\mathbf{10.845 \quad INVALID-ORDER-845} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 R_1 R_4 g_m s^3 + R_1 g_m + s^2 (C_1 L_1 R_1 g_m + C_4 L_1 R_4 g_m) + s (C_4 R_1 R_4 g_m + L_1 g_m)}{s^4 (C_1 C_3 C_4 L_1 R_1 R_4 g_m + C_1 C_3 C_4 L_1 R_4) + s^3 (C_1 C_3 L_1 R_1 g_m + C_1 C_3 L_1 + 2 C_1 C_4 L_1 R_1 g_m + 2 C_1 C_4 L_1 + C_3 C_4 L_1 R_4 g_m) + s^2 (C_3 C_4 R_1 R_4 g_m + C_3 C_4 R_4 + C_3 L_1 g_m + 2 C_4 L_1 g_m) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.846 \quad INVALID-ORDER-846} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_4 L_1 L_4 g_m s^3 + L_1 g_m s + R_1 g_m + s^2 (C_1 L_1 R_1 g_m + C_4 L_4 R_1 g_m)}{C_3 C_4 L_1 L_4 g_m s^4 + s^5 (C_1 C_3 C_4 L_1 L_4 R_1 g_m + C_1 C_3 C_4 L_1 L_4) + s^3 (C_1 C_3 L_1 R_1 g_m + C_1 C_3 L_1 + 2 C_1 C_4 L_1 R_1 g_m + 2 C_1 C_4 L_1 + C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2 (C_3 L_1 g_m + 2 C_4 L_1 g_m) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.847 \quad INVALID-ORDER-847} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_4 R_1 g_m s^3 + L_1 L_4 g_m s^2 + L_4 R_1 g_m s}{2 L_1 g_m s + 2 R_1 g_m + s^4 (C_1 C_3 L_1 L_4 R_1 g_m + C_1 C_3 L_1 L_4 + 2 C_1 C_4 L_1 L_4 R_1 g_m + 2 C_1 C_4 L_1 L_4) + s^3 (C_3 L_1 L_4 g_m + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_1 L_1 R_1 g_m + 2 C_1 L_1 + C_3 L_4 R_1 g_m + C_3 L_4 + 2 C_4 L_4 R_1 g_m + 2 C_4 L_4) + 2}$$

$$\mathbf{10.848 \quad INVALID-ORDER-848} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 g_m s^4 + R_1 g_m + s^3 (C_1 C_4 L_1 R_1 R_4 g_m + C_4 L_1 L_4 g_m) + s^2 (C_1 L_1 R_1 g_m + C_4 L_1 R_4 g_m + C_4 L_4 R_1 g_m) + s (C_4 R_1 R_4 g_m + L_1 g_m)}{s^5 (C_1 C_3 C_4 L_1 L_4 R_1 g_m + C_1 C_3 C_4 L_1 L_4) + s^4 (C_1 C_3 C_4 L_1 R_1 R_4 g_m + C_1 C_3 C_4 L_1 R_4 + C_3 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 L_1 R_1 g_m + C_1 C_3 L_1 + 2 C_1 C_4 L_1 R_1 g_m + 2 C_1 C_4 L_1 + C_3 C_4 L_1 R_4 g_m + C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2 (C_3 C_4 R_1 R_4 g_m + C_3 C_4 R_4 + C_3 L_1 g_m + 2 C_4 L_1 g_m) + s (C_3 R_1 g_m + C_3 + 2 C_4 R_1 g_m + 2 C_4)}$$

$$\mathbf{10.849 \quad INVALID-ORDER-849} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_4 R_1 R_4 g_m s^3 + L_1 L_4 R_4 g_m s^2 + L_4 R_1 R_4 g_m s}{2 R_1 R_4 g_m + 2 R_4 + s^4 (C_1 C_3 L_1 L_4 R_1 R_4 g_m + C_1 C_3 L_1 L_4 R_4 + 2 C_1 C_4 L_1 L_4 R_1 R_4 g_m + 2 C_1 C_4 L_1 L_4 R_4) + s^3 (2 C_1 L_1 L_4 R_1 g_m + 2 C_1 L_1 L_4 + C_3 L_1 L_4 R_4 g_m + 2 C_4 L_1 L_4 R_4 g_m) + s^2 (2 C_1 L_1 R_1 R_4 g_m + 2 C_1 L_1 R_4 + C_3 L_4 R_1 R_4 g_m + C_3 L_4 R_4 + 2 C_4 L_4 R_1 R_4 g_m + 2 C_4 L_4 R_4 + L_4 R_1 R_4 g_m) + s (L_1 R_4 g_m + L_4 R_1 g_m) + R_1 R_4 g_m}$$

$$\mathbf{10.850 \quad INVALID-ORDER-850} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + R_1 R_4 g_m + s^3 (C_1 L_1 L_4 R_1 g_m + C_4 L_1 L_4 R_4 g_m) + s^2 (C_1 L_1 R_1 R_4 g_m + C_4 L_4 R_1 R_4 g_m + L_1 L_4 g_m) + s (L_1 R_4 g_m + L_4 R_1 g_m) + R_1 R_4 g_m}{2 R_1 g_m + s^5 (C_1 C_3 C_4 L_1 L_4 R_1 R_4 g_m + C_1 C_3 C_4 L_1 L_4 R_4) + s^4 (C_1 C_3 L_1 L_4 R_1 g_m + C_1 C_3 L_1 L_4 + 2 C_1 C_4 L_1 L_4 R_1 g_m + 2 C_1 C_4 L_1 L_4 + C_3 C_4 L_1 L_4 R_4 g_m) + s^3 (C_1 C_3 L_1 R_1 R_4 g_m + C_1 C_3 L_1 R_4 + C_3 C_4 L_4 R_1 R_4 g_m + C_3 C_4 L_4 R_4 + C_3 L_1 L_4 g_m + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_1 L_1 R_1 g_m + 2 C_1 L_1 + C_3 L_1 R_1 g_m + C_3 L_1 + C_4 L_1 R_1 g_m + C_4 L_1 + L_4 R_1 g_m) + s (L_1 R_1 g_m + L_4 R_1) + R_1}$$

$$\mathbf{10.851 \quad INVALID-ORDER-851} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{1}{C_3 s}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + C_4 L_1 L_4 R_4 g_m s^3 + L_1 R_4 g_m s + R_1 R_4 g_m + s^2 (C_1 L_1 R_1 R_4 g_m + C_4 L_4 R_1 R_4 g_m) + s (L_1 R_4 g_m + L_4 R_1 g_m) + R_1 R_4 g_m}{2 R_1 g_m + s^5 (C_1 C_3 C_4 L_1 L_4 R_1 R_4 g_m + C_1 C_3 C_4 L_1 L_4 R_4) + s^4 (2 C_1 C_4 L_1 L_4 R_1 g_m + 2 C_1 C_4 L_1 L_4 + C_3 C_4 L_1 L_4 R_4 g_m) + s^3 (C_1 C_3 L_1 R_1 R_4 g_m + C_1 C_3 L_1 R_4 + 2 C_1 C_4 L_1 R_1 R_4 g_m + 2 C_1 C_4 L_1 R_4 + C_3 C_4 L_4 R_1 R_4 g_m + C_3 C_4 L_4 R_4 + 2 C_4 L_1 L_4 g_m) + s^2 (2 C_1 L_1 R_1 g_m + 2 C_1 L_1 + C_3 L_1 R_1 g_m + C_3 L_1 + C_4 L_1 R_1 g_m + C_4 L_1 + L_4 R_1 g_m) + s (L_1 R_1 g_m + L_4 R_1) + R_1}$$

$$\mathbf{10.852 \quad INVALID-ORDER-852} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_1 R_3 R_4 g_m s^2 + L_1 R_3 R_4 g_m s + R_1 R_3 R_4 g_m}{2 R_1 R_3 g_m + R_1 R_4 g_m + 2 R_3 + R_4 + s^3 (C_1 C_3 L_1 R_1 R_3 R_4 g_m + C_1 C_3 L_1 R_3 R_4) + s^2 (2 C_1 L_1 R_1 R_3 g_m + C_1 L_1 R_1 R_4 g_m + 2 C_1 L_1 R_3 + C_1 L_1 R_4 + C_3 L_1 R_3 R_4 g_m) + s (C_3 R_1 R_3 R_4 g_m + C_3 R_3 R_4 + 2 L_1 R_3 g_m + L_1 R_4 g_m) + R_1 R_3 R_4 g_m}$$

$$\mathbf{10.853 \quad INVALID-ORDER-853} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_1 R_3 g_m s^2 + L_1 R_3 g_m s + R_1 R_3 g_m}{R_1 g_m + s^3 (C_1 C_3 L_1 R_1 R_3 g_m + C_1 C_3 L_1 R_3 + 2 C_1 C_4 L_1 R_1 R_3 g_m + 2 C_1 C_4 L_1 R_3) + s^2 (C_1 L_1 R_1 g_m + C_1 L_1 + C_3 L_1 R_3 g_m + 2 C_4 L_1 R_3 g_m) + s (C_3 R_1 R_3 g_m + C_3 R_3 + 2 C_4 R_1 R_3 g_m + 2 C_4 R_3 + L_1 g_m) + 1}$$

$$\mathbf{10.854 \quad INVALID-ORDER-854} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 R_1 R_3 R_4 g_m s^2 + L_1 R_3 R_4 g_m s + R_1 R_3 R_4 g_m}{2 R_1 R_3 g_m + R_1 R_4 g_m + 2 R_3 + R_4 + s^3 (C_1 C_3 L_1 R_1 R_3 R_4 g_m + C_1 C_3 L_1 R_3 R_4 + 2 C_1 C_4 L_1 R_1 R_3 R_4 g_m + 2 C_1 C_4 L_1 R_3 R_4) + s^2 (2 C_1 L_1 R_1 R_3 g_m + C_1 L_1 R_1 R_4 g_m + 2 C_1 L_1 R_3 + C_1 L_1 R_4 + C_3 L_1 R_3 R_4 g_m + 2 C_4 L_1 R_3 R_4 g_m) + s (C_3 R_1 R_3 R_4 g_m + C_3 R_3 R_4 + 2 C_4 R_1 R_3 R_4 g_m + 2 C_4 R_3 R_4 + L_1 R_3 g_m + L_1 R_4 g_m) + R_1 R_3 R_4 g_m}$$

$$\mathbf{10.855 \quad INVALID-ORDER-855} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 R_1 R_3 R_4 g_m s^3 + R_1 R_3 g_m + s^2 (C_1 L_1 R_1 R_3 g_m + C_4 L_1 R_3 R_4 g_m) + s (C_4 R_1 R_3 R_4 g_m + L_1 R_3 g_m) + R_1 R_3 g_m}{R_1 g_m + s^4 (C_1 C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 R_3 R_4) + s^3 (C_1 C_3 L_1 R_1 R_3 g_m + C_1 C_3 L_1 R_3 + 2 C_1 C_4 L_1 R_1 R_3 g_m + C_1 C_4 L_1 R_1 R_4 g_m + 2 C_1 C_4 L_1 R_3 + C_1 C_4 L_1 R_4 + C_3 C_4 L_1 R_3 R_4 g_m) + s^2 (C_1 L_1 R_1 g_m + C_1 L_1 + C_3 C_4 R_1 R_3 R_4 g_m + C_3 C_4 R_3 R_4 + C_3 L_1 R_3 g_m + 2 C_4 L_1 R_3 g_m) + s (L_1 R_1 g_m + L_4 R_1) + R_1}$$

$$\mathbf{10.856 \quad INVALID-ORDER-856} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 R_3 g_m s^4 + C_4 L_1 L_4 R_3 g_m s^3 + L_1 R_3 g_m s + R_1 R_3 g_m + s^2 (C_1 L_1 R_1 R_3 g_m + C_4 L_4 R_1 R_3 g_m) + s (L_1 R_4 g_m + L_4 R_1 g_m) + R_1 R_3 g_m}{R_1 g_m + s^5 (C_1 C_3 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_3) + s^4 (C_1 C_4 L_1 L_4 R_1 g_m + C_1 C_4 L_1 L_4 + C_3 C_4 L_1 L_4 R_3 g_m) + s^3 (C_1 C_3 L_1 R_1 R_3 g_m + C_1 C_3 L_1 R_3 + 2 C_1 C_4 L_1 R_1 R_3 g_m + 2 C_1 C_4 L_1 R_3 + C_3 C_4 L_4 R_1 R_3 g_m + C_3 C_4 L_4 R_3 + C_4 L_1 L_4 g_m) + s^2 (C_1 L_1 R_1 g_m + C_1 L_1 + C_3 L_1 R_1 g_m + C_3 L_1 + C_4 L_1 R_1 g_m + C_4 L_1 + L_4 R_1 g_m) + s (L_1 R_1 g_m + L_4 R_1) + R_1}$$

$$\mathbf{10.857 \quad INVALID-ORDER-857} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{R_3}{C_3 R_3 s + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_4 R_1 R_3 g_m s^3 + L_1 L_4 R_3 g_m s^2 + L_4 R_1 R_3 g_m s}{2 R_1 R_3 g_m + 2 R_3 + s^4 (C_1 C_3 L_1 L_4 R_1 R_3 g_m + C_1 C_3 L_1 L_4 R_3 + 2 C_1 C_4 L_1 L_4 R_1 R_3 g_m + 2 C_1 C_4 L_1 L_4 R_3) + s^3 (C_1 L_1 L_4 R_1 g_m + C_1 L_1 L_4 + C_3 L_1 L_4 R_3 g_m + 2 C_4 L_1 L_4 R_3 g_m) + s^2 (2 C_1 L_1 R_1 R_3 g_m + 2 C_1 L_1 R_3 + C_3 L_4 R_1 R_3 g_m + C_3 L_4 R_3 + 2 C_4 L_4 R_1 R_3 g_m + 2 C_4 L_4 R_3 + L_4 R_1 R_3 g_m) + s (L_1 R_4 g_m + L_4 R_1 g_m) + R_1}$$

10.858 INVALID-ORDER-858 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, \frac{R_3}{C_3 R_3 s + 1}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 R_3 g_m s^4 + R_1 R_3 g_m + s^3 (C_1 C_4 L_1 R_1 R_3 R_4 g_m + C_4 L_1 L_4 R_3 g_m)}{R_1 g_m + s^5 (C_1 C_3 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_3) + s^4 (C_1 C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 R_3 R_4 + C_1 C_4 L_1 L_4 R_1 g_m + C_1 C_4 L_1 L_4 + C_3 C_4 L_1 L_4 R_3 g_m) + s^3 (C_1 C_3 L_1 R_1 R_3 g_m + C_1 C_3 L_1 R_3 + 2C_1 C_4 L_1 R_1 R_3 g_m + C_1 C_4 L_1 R_1 R_4 g_m + 2C_1 C_4 L_1 R_3 + C_1 C_4 L_1 R_4 +$$

10.859 INVALID-ORDER-859 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 L_4 R_1 R_3 R_4 g_m s^3 + L_1 L_4 R_3 R_4 g_m s^2 + L_4 R_1 R_3 R_4 g_m s}{2R_1 R_3 R_4 g_m + 2R_3 R_4 + s^4 (C_1 C_3 L_1 L_4 R_1 R_3 R_4 g_m + C_1 C_3 L_1 L_4 R_3 R_4 + 2C_1 C_4 L_1 L_4 R_1 R_3 R_4 g_m + 2C_1 C_4 L_1 L_4 R_3 R_4) + s^3 (2C_1 L_1 L_4 R_1 R_3 g_m + C_1 L_1 L_4 R_1 R_4 g_m + 2C_1 L_1 L_4 R_3 + C_1 L_1 L_4 R_4 + C_3 L_1 L_4 R_3 R_4 g_m + 2C_4 L_1 L_4 R_3 R_4 g_m) + s^2 (2C_1 L_1 R_1 R_3 R_4 g_m + 2C_1 L_1 R_1 R_3 R_4 + 2C_1 L_1 R_1 R_4 + 2C_1 L_1 R_3 R_4 + 2C_1 L_1 R_4 + 2C_3 L_1 R_1 R_3 R_4 g_m + 2C_3 L_1 R_1 R_3 R_4 + 2C_3 L_1 R_1 R_4 + 2C_3 L_1 R_3 R_4 + 2C_3 L_1 R_4 + 2C_4 L_1 R_1 R_3 R_4 g_m + 2C_4 L_1 R_1 R_3 R_4 + 2C_4 L_1 R_1 R_4 + 2C_4 L_1 R_3 R_4 + 2C_4 L_1 R_4)}$$

10.860 INVALID-ORDER-860 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 R_3 R_4 g_m s^4 + i}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^5 (C_1 C_3 C_4 L_1 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 L_4 R_3 R_4) + s^4 (C_1 C_3 L_1 L_4 R_1 R_3 g_m + C_1 C_3 L_1 L_4 R_3 + 2C_1 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_4 L_1 L_4 R_1 R_4 g_m + 2C_1 C_4 L_1 L_4 R_3 + C_1 C_4 L_1 L_4 R_4 + C_3 C_4 L_1 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_1 R_1 R_3 R_4 g_m + C_1 C_3 L_1 R_1 R_4 g_m + C_1 C_3 L_1 R_3 R_4 g_m + C_1 C_3 L_1 R_4 g_m + C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_3 C_4 L_1 R_1 R_4 g_m + C_3 C_4 L_1 R_3 R_4 g_m + C_3 C_4 L_1 R_4 g_m) + s^2 (C_1 C_3 L_1 R_1 R_3 + C_1 C_3 L_1 R_1 R_4 + C_1 C_3 L_1 R_3 R_4 + C_1 C_3 L_1 R_4 + C_3 C_4 L_1 R_1 R_3 + C_3 C_4 L_1 R_1 R_4 + C_3 C_4 L_1 R_3 R_4 + C_3 C_4 L_1 R_4) + s (C_1 C_3 L_1 R_1 + C_1 C_3 L_1 R_3 + C_1 C_3 L_1 R_4 + C_3 C_4 L_1 R_1 + C_3 C_4 L_1 R_3 + C_3 C_4 L_1 R_4) + C_1 C_3 L_1 + C_3 C_4 L_1}.$$

10.861 INVALID-ORDER-861 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, \frac{R_3}{C_3 R_3 s + 1}, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 R_3 R_4 g_m s^4 + 2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^5 (C_1 C_3 C_4 L_1 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 L_4 R_3 R_4) + s^4 (2C_1 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_4 L_1 L_4 R_1 R_4 g_m + 2C_1 C_4 L_1 L_4 R_3 + C_1 C_4 L_1 L_4 R_4 + C_3 C_4 L_1 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_1 R_1 R_3 R_4 g_m + C_1 C_3 L_1 R_3 R_4 + 2C_1 C_4 L_1 R_1 R_3 R_4 g_m + C_1 C_3 L_1 R_1 R_3 R_4)}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^5 (C_1 C_3 C_4 L_1 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 L_4 R_3 R_4) + s^4 (2C_1 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_4 L_1 L_4 R_1 R_4 g_m + 2C_1 C_4 L_1 L_4 R_3 + C_1 C_4 L_1 L_4 R_4 + C_3 C_4 L_1 L_4 R_3 R_4 g_m) + s^3 (C_1 C_3 L_1 R_1 R_3 R_4 g_m + C_1 C_3 L_1 R_3 R_4 + 2C_1 C_4 L_1 R_1 R_3 R_4 g_m + C_1 C_3 L_1 R_1 R_3 R_4)}$$

10.862 INVALID-ORDER-862 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, R_3 + \frac{1}{C_3 s}, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 L_1 R_1 R_3 R_4 g_m s^3 + R_1 R_4 g_m + s^2 (C_1 L_1 R_1 R_4 g_m + C_3 L_1 R_3 R_4 g_m) + s (C_3 R_1 R_3 R_4 g_m + L_1 R_4 g_m)}{2 R_1 g_m + s^3 (2 C_1 C_3 L_1 R_1 R_3 g_m + C_1 C_3 L_1 R_1 R_4 g_m + 2 C_1 C_3 L_1 R_3 + C_1 C_3 L_1 R_4) + s^2 (2 C_1 L_1 R_1 g_m + 2 C_1 L_1 + 2 C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m) + s (2 C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2 C_3 R_3 + C_3 R_4 + 2 L_1 g_m) + 2}$$

10.863 INVALID-ORDER-863 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, R_3 + \frac{1}{C_3 s}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 L_1 R_1 R_3 g_m s^3 + R_1 g_m + s^2 (C_1 L_1 R_1 g_m + C_3 L_1 R_3 g_m) + s (C_3 R_1 R_3 g_m + L_1 g_m)}{s^4 (2C_1 C_3 C_4 L_1 R_1 R_3 g_m + 2C_1 C_3 C_4 L_1 R_3) + s^3 (C_1 C_3 L_1 R_1 g_m + C_1 C_3 L_1 + 2C_1 C_4 L_1 R_1 g_m + 2C_1 C_4 L_1 + 2C_3 C_4 L_1 R_3 g_m) + s^2 (2C_3 C_4 R_1 R_3 g_m + 2C_3 C_4 R_3 + C_3 L_1 g_m + 2C_4 L_1 g_m) + s (C_3 R_1 g_m + C_3 + 2C_4 R_1 g_m + 2C_4)}$$

10.864 INVALID-ORDER-864 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, R_3 + \frac{1}{C_3 s}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 L_1 R_1 R_3 R_4 g_m s^3 + R_1 R_4 g_m + s^2 (C_1 L_1 R_1 R_4 g_m + C_3 L_1 R_3 R_4 g_m) + s (C_3 R_1 R_3 R_4 g_m + L_1 R_4 g_m)}{2 R_1 g_m + s^4 (2 C_1 C_3 C_4 L_1 R_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_1 R_3 R_4) + s^3 (2 C_1 C_3 L_1 R_1 R_3 g_m + C_1 C_3 L_1 R_1 R_4 g_m + 2 C_1 C_3 L_1 R_3 + C_1 C_3 L_1 R_4 + 2 C_1 C_4 L_1 R_1 R_4 g_m + 2 C_1 C_4 L_1 R_4 + 2 C_3 C_4 L_1 R_3 R_4 g_m) + s^2 (2 C_1 L_1 R_1 g_m + 2 C_1 L_1 + 2 C_3 C_4 R_1 R_3 R_4 g_m + 2 C_3 C_4 R_3 R_4 + 2 C_3 L_1 R_1 R_3 g_m) + s (2 C_1 R_1 R_3 R_4 g_m + L_1 R_4 g_m) + R_1 R_4 g_m}$$

10.865 INVALID-ORDER-865 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, R_3 + \frac{1}{C_3 s}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 C_4 L_1 R_1 R_3 R_4 g_m s^4 + R_1 g_m + s^3 (C_1 C_3 L_1 R_1 R_3 g_m + C_1 C_4 L_1 R_1 R_4 g_m + C_3 C_4 L_1 R_3 R_4 g_m) + s^2 (C_1 L_1 R_1 g_m + C_3 C_4 R_1 R_3 R_4 g_m + C_3 L_1 R_3 g_m + C_4 L_1 R_4 g_m) + s (C_3 R_1 R_3 g_m + C_4 R_1 R_4 g_m + L_1 g_m)}{s^4 (2C_1 C_3 C_4 L_1 R_1 R_3 g_m + C_1 C_3 C_4 L_1 R_1 R_4 g_m + 2C_1 C_3 C_4 L_1 R_3 + C_1 C_3 C_4 L_1 R_4) + s^3 (C_1 C_3 L_1 R_1 g_m + C_1 C_3 L_1 + 2C_1 C_4 L_1 R_1 g_m + 2C_1 C_4 L_1 + 2C_3 C_4 L_1 R_3 g_m + C_3 C_4 L_1 R_4 g_m) + s^2 (2C_3 C_4 R_1 R_3 g_m + C_3 C_4 R_1 R_4 g_m + 2C_3 C_4 R_3 + C_3 C_4 R_4 + C_3 L_1 g_m + 2C_4 L_1 g_m)}$$

10.866 INVALID-ORDER-866 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, R_3 + \frac{1}{C_3 s}, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_4 R_1 R_3 g_m s^5 + R_1 g_m + s^4 (C_1 C_4 L_1 L_4 R_1 g_m + C_3 C_4 L_1 L_4 R_3 g_m) + s^3 (C_1 C_3 L_1 R_1 R_3 g_m + C_3 C_4 L_4 R_1 R_3 g_m + C_4 L_1 L_4 g_m) + s^2 (C_1 L_1 R_1 g_m + C_3 L_1 R_3 g_m + C_4 L_4 R_1 g_m) + s (C_3 R_1 R_3 g_m + L_1 g_m)}{s^5 (C_1 C_3 C_4 L_1 L_4 R_1 g_m + C_1 C_3 C_4 L_1 L_4) + s^4 (2 C_1 C_3 C_4 L_1 R_1 R_3 g_m + 2 C_1 C_3 C_4 L_1 R_3 + C_3 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 L_1 R_1 g_m + C_1 C_3 L_1 + 2 C_1 C_4 L_1 R_1 g_m + 2 C_1 C_4 L_1 + 2 C_3 C_4 L_1 R_3 g_m + C_3 C_4 L_4 R_1 g_m + C_3 C_4 L_4) + s^2 (2 C_3 C_4 R_1 R_3 g_m + 2 C_3 C_4 R_3 + C_3 L_1 g_m + 2 C_4 L_1)}$$

$$\mathbf{10.885 \quad INVALID-ORDER-885} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 R_1 R_4 g_m s^4 + L_3 R_1 g_m s + s^3 (C_1 L_1 L_3 R_1 g_m + C_4 L_1 L_3 R_4 g_m) + s^2 (C_4 L_3 R_1 R_4 g_m + L_1 L_3 g_m)}{R_1 g_m + s^5 (C_1 C_3 C_4 L_1 L_3 R_1 R_4 g_m + C_1 C_3 C_4 L_1 L_3 R_4) + s^4 (C_1 C_3 L_1 L_3 R_1 g_m + C_1 C_3 L_1 L_3 + 2C_1 C_4 L_1 L_3 R_1 g_m + 2C_1 C_4 L_1 L_3 + C_3 C_4 L_1 L_3 R_4 g_m) + s^3 (C_1 C_4 L_1 R_1 R_4 g_m + C_1 C_4 L_1 R_4 + C_3 C_4 L_3 R_1 R_4 g_m + C_3 C_4 L_3 R_4 + C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m) + s^2 (C_1 L_1 R_1 g_m + C_1 L_1 R_4 + C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m) + s (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m) + C_4 L_1 L_3 g_m}$$

$$\mathbf{10.886 \quad INVALID-ORDER-886} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 R_1 g_m s^5 + C_4 L_1 L_3 L_4 g_m s^4 + L_1 L_3 g_m s^2 + L_3 R_1 g_m s + s^3 (C_1 L_1 L_3 R_1 g_m + C_4 L_3 L_4 R_1 g_m)}{C_3 C_4 L_1 L_3 L_4 g_m s^5 + L_1 g_m s + R_1 g_m + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_1 L_3 L_4) + s^4 (C_1 C_3 L_1 L_3 R_1 g_m + C_1 C_3 L_1 L_3 + 2C_1 C_4 L_1 L_3 R_1 g_m + 2C_1 C_4 L_1 L_3 + C_1 C_4 L_1 L_4 R_1 g_m + C_1 C_4 L_1 L_4 + C_3 C_4 L_3 L_4 R_1 g_m + C_3 C_4 L_3 L_4) + s^3 (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_3 g_m) + s^2 (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_3 g_m) + s (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m) + C_4 L_1 L_3 g_m}$$

$$\mathbf{10.887 \quad INVALID-ORDER-887} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 L_4 R_1 g_m s^3 + L_1 L_3 L_4 g_m s^2 + L_3 L_4 R_1 g_m s}{2L_3 R_1 g_m + 2L_3 + L_4 R_1 g_m + L_4 + s^4 (C_1 C_3 L_1 L_3 L_4 R_1 g_m + C_1 C_3 L_1 L_3 L_4 + 2C_1 C_4 L_1 L_3 L_4 R_1 g_m + 2C_1 C_4 L_1 L_3 L_4) + s^3 (C_3 L_1 L_3 L_4 g_m + 2C_4 L_1 L_3 L_4 g_m) + s^2 (2C_1 L_1 L_3 R_1 g_m + 2C_1 L_1 L_3 + C_1 L_1 L_4 R_1 g_m + C_1 L_1 L_4 + C_3 L_3 L_4 R_1 g_m + C_3 L_3 L_4 + 2C_4 L_3 L_4 R_1 g_m + 2C_4 L_3 L_4 R_1 g_m) + s (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_3 g_m) + C_4 L_1 L_3 g_m}$$

$$\mathbf{10.888 \quad INVALID-ORDER-888} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 R_1 g_m s^5 + L_3 R_1 g_m s + s^4 (C_1 C_4 L_1 L_3 R_1 R_4 g_m + C_4 L_1 L_3 L_4 g_m)}{R_1 g_m + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_1 L_3 L_4) + s^5 (C_1 C_3 C_4 L_1 L_3 R_1 R_4 g_m + C_1 C_3 C_4 L_1 L_3 R_4 + C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_1 g_m + C_1 C_3 L_1 L_3 + 2C_1 C_4 L_1 L_3 R_1 g_m + 2C_1 C_4 L_1 L_3 + C_1 C_4 L_1 L_4 R_1 g_m + C_1 C_4 L_1 L_4 + C_3 C_4 L_1 L_3 R_4 g_m + C_3 C_4 L_3 L_4 R_1 g_m) + s^3 (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_3 g_m) + s^2 (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_3 g_m) + s (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_3 g_m) + C_4 L_1 L_3 g_m}$$

$$\mathbf{10.889 \quad INVALID-ORDER-889} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 L_4 R_1 R_4 g_m s^3 + L_1 L_3 L_4 R_4 g_m s^2 + L_3 L_4 R_1 R_4 g_m s}{2L_3 R_1 R_4 g_m + 2L_3 R_4 + L_4 R_1 R_4 g_m + L_4 R_4 + s^4 (C_1 C_3 L_1 L_3 L_4 R_1 R_4 g_m + C_1 C_3 L_1 L_3 L_4 R_4 + 2C_1 C_4 L_1 L_3 L_4 R_1 R_4 g_m + 2C_1 C_4 L_1 L_3 L_4 R_4) + s^3 (2C_1 L_1 L_3 L_4 R_1 g_m + 2C_1 L_1 L_3 L_4 + C_3 L_1 L_3 L_4 R_4 g_m + 2C_4 L_1 L_3 L_4 R_4 g_m) + s^2 (2C_1 L_1 L_3 R_1 R_4 g_m + 2C_1 L_1 L_3 R_4 + C_1 L_1 L_4 R_1 R_4 g_m + C_1 L_1 L_4 R_4 + C_3 L_1 L_3 R_1 R_4 g_m + C_3 L_1 L_3 R_4 + C_3 L_1 L_4 R_1 R_4 g_m + C_3 L_1 L_4 R_4) + s (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_3 g_m) + C_4 L_1 L_3 g_m}$$

$$\mathbf{10.890 \quad INVALID-ORDER-890} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 R_1 R_4 g_m s^5 + L_3 R_1 g_m s + s^4 (C_1 C_4 L_1 L_3 R_1 R_4 g_m + C_4 L_1 L_3 L_4 g_m)}{R_1 R_4 g_m + R_4 + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_4 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_4) + s^5 (C_1 C_3 L_1 L_3 L_4 R_1 g_m + C_1 C_3 L_1 L_3 L_4 + 2C_1 C_4 L_1 L_3 L_4 R_1 g_m + 2C_1 C_4 L_1 L_3 L_4 + C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_1 R_4 g_m + C_1 C_3 L_1 L_3 R_4 + C_1 C_4 L_1 L_4 R_1 R_4 g_m + C_1 C_4 L_1 L_4 R_4 + C_3 L_1 L_3 R_1 R_4 g_m + C_3 L_1 L_3 R_4 + C_3 L_1 L_4 R_1 R_4 g_m + C_3 L_1 L_4 R_4) + s^3 (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_3 g_m) + s^2 (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_3 g_m) + s (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_3 g_m) + C_4 L_1 L_3 g_m}$$

$$\mathbf{10.891 \quad INVALID-ORDER-891} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 s}{C_3 L_3 s^2 + 1}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 R_1 R_4 g_m s^5 + L_3 R_1 g_m s + s^4 (C_1 C_4 L_1 L_3 R_1 R_4 g_m + C_4 L_1 L_3 L_4 g_m)}{R_1 R_4 g_m + R_4 + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_4 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_4) + s^5 (2C_1 C_4 L_1 L_3 L_4 R_1 g_m + 2C_1 C_4 L_1 L_3 L_4 + C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_1 R_4 g_m + C_1 C_3 L_1 L_3 R_4 + 2C_1 C_4 L_1 L_3 R_1 R_4 g_m + 2C_1 C_4 L_1 L_3 R_4 + C_1 C_4 L_1 L_4 R_1 R_4 g_m + C_1 C_4 L_1 L_4 R_4 + C_3 L_1 L_3 R_1 R_4 g_m + C_3 L_1 L_3 R_4 + C_3 L_1 L_4 R_1 R_4 g_m + C_3 L_1 L_4 R_4) + s^3 (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_3 g_m) + s^2 (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_3 g_m) + s (C_3 L_1 L_3 g_m + 2C_4 L_1 L_3 g_m + C_4 L_1 L_3 g_m) + C_4 L_1 L_3 g_m}$$

$$\mathbf{10.892 \quad INVALID-ORDER-892} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 R_4 g_m s^4 + R_1 R_4 g_m + s^3 (C_1 C_3 L_1 R_1 R_3 R_4 g_m + C_3 L_1 L_3 R_4 g_m) + s^2 (C_1 L_1 R_1 R_4 g_m + C_3 L_1 R_3 R_4 g_m + C_3 L_3 R_1 R_4 g_m) + s (C_3 R_1 R_3 R_4 g_m + L_1 R_4 g_m)}{2R_1 g_m + s^4 (2C_1 C_3 L_1 L_3 R_1 g_m + 2C_1 C_3 L_1 L_3) + s^3 (2C_1 C_3 L_1 R_1 R_3 g_m + C_1 C_3 L_1 R_1 R_4 g_m + 2C_1 C_3 L_1 R_3 + C_1 C_3 L_1 R_4 + 2C_3 L_1 L_3 g_m) + s^2 (2C_1 L_1 R_1 g_m + 2C_1 L_1 + 2C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m + 2C_3 L_3 R_1 g_m + 2C_3 L_3) + s (2C_3 R_1 R_3 g_m + C_3 R_1 R_4 g_m + 2C_3 R_3 + C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m + 2C_3 R_3 + C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m) + C_4 L_1 L_3 g_m}$$

$$\mathbf{10.893 \quad INVALID-ORDER-893} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad L_3 s + R_3 + \frac{1}{C_3 s}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 g_m s^4 + R_1 g_m + s^3 (C_1 C_3 L_1 R_1 R_3 g_m + C_3 L_1 L_3 g_m) + s^2 (C_1 L_1 R_1 g_m + C_3 L_1 R_3 g_m + C_3 L_3 R_1 g_m) + s (C_3 R_1 R_3 g_m + L_1 g_m)}{s^5 (2C_1 C_3 C_4 L_1 L_3 R_1 g_m + 2C_1 C_3 C_4 L_1 L_3) + s^4 (2C_1 C_3 C_4 L_1 R_1 R_3 g_m + 2C_1 C_3 C_4 L_1 R_3 + 2C_3 C_4 L_1 L_3 g_m) + s^3 (C_1 C_3 L_1 R_1 g_m + C_1 C_3 L_1 + 2C_1 C_4 L_1 R_1 g_m + 2C_1 C_4 L_1 + 2C_3 C_4 L_1 R_3 g_m + 2C_3 C_4 L_3 R_1 g_m + 2C_3 C_4 L_3) + s^2 (2C_3 C_4 R_1 R_3 g_m + 2C_3 C_4 R_3 + C_3 L_1 g_m + C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m + 2C_3 R_3 + C_3 L_1 R_3 g_m + C_3 L_1 R_4 g_m) + C_4 L_1 L_3 g_m}$$

10.894 INVALID-ORDER-894 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 R_4 g_m s^4 + R_1 R_4 g_m + s^3 (C_1 C_3 L_1 R_1 R_3 R_4 g_m + 2 R_1 g_m + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_1 L_3 R_4) + s^4 (2 C_1 C_3 C_4 L_1 R_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_1 R_3 R_4 + 2 C_1 C_3 L_1 L_3 R_1 g_m + 2 C_1 C_3 L_1 L_3 + 2 C_3 C_4 L_1 L_3 R_4 g_m) + s^3 (2 C_1 C_3 L_1 R_1 R_3 g_m + C_1 C_3 L_1 R_1 R_4 g_m + 2 C_1 C_3 L_1 R_3 + C_1 C_3 L_1 R_4 + 2 C_1 C_4 L_1 R_1 R_4 g_m + 2 C_1 C_4 L_1 R_1 R_4) + s^2 (2 C_1 C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_1 L_3 R_4) + s (2 C_1 C_3 C_4 L_1 R_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_1 R_3 R_4 + 2 C_1 C_3 L_1 L_3 R_1 g_m + 2 C_1 C_3 L_1 L_3 + 2 C_3 C_4 L_1 L_3 R_4 g_m) + C_1 C_3 L_1 L_3 R_1 R_4 g_m + R_1 R_4 g_m}{2 R_1 g_m + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_1 L_3 R_4) + s^4 (2 C_1 C_3 C_4 L_1 R_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_1 R_3 R_4 + 2 C_1 C_3 L_1 L_3 R_1 g_m + 2 C_1 C_3 L_1 L_3 + 2 C_3 C_4 L_1 L_3 R_4 g_m) + s^3 (2 C_1 C_3 L_1 R_1 R_3 g_m + C_1 C_3 L_1 R_1 R_4 g_m + 2 C_1 C_3 L_1 R_3 + C_1 C_3 L_1 R_4 + 2 C_1 C_4 L_1 R_1 R_4 g_m + 2 C_1 C_4 L_1 R_1 R_4) + s^2 (2 C_1 C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_1 L_3 R_4) + s (2 C_1 C_3 C_4 L_1 R_1 R_3 R_4 g_m + 2 C_1 C_3 C_4 L_1 R_3 R_4 + 2 C_1 C_3 L_1 L_3 R_1 g_m + 2 C_1 C_3 L_1 L_3 + 2 C_3 C_4 L_1 L_3 R_4 g_m) + C_1 C_3 L_1 L_3 R_1 R_4 g_m + R_1 R_4 g_m}$$

10.895 INVALID-ORDER-895 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 R_1 R_4 g_m s^5 + R_1 g_m + s^4 (C_1 C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_1 C_3 L_1 L_3 R_1 g_m + C_3 C_4 L_1 L_3 R_4 g_m) + s^3 (C_1 C_3 L_1 R_1 R_3 g_m + C_1 C_4 L_1 R_1 R_4 g_m + C_3 C_4 L_1 R_3 R_4 g_m + C_3 C_4 L_3 R_1 R_4 g_m + C_3 L_1 L_3 g_m) + s^2 (C_1 L_1 R_1 g_m + C_3 C_4 L_1 L_3 g_m)}{s^5 (2 C_1 C_3 C_4 L_1 L_3 R_1 g_m + 2 C_1 C_3 C_4 L_1 L_3) + s^4 (2 C_1 C_3 C_4 L_1 R_1 R_3 g_m + C_1 C_3 C_4 L_1 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_1 R_3 + C_1 C_3 C_4 L_1 R_4 + 2 C_3 C_4 L_1 L_3 g_m) + s^3 (C_1 C_3 L_1 R_1 g_m + C_1 C_3 L_1 + 2 C_1 C_4 L_1 R_1 g_m + 2 C_1 C_4 L_1 + 2 C_3 C_4 L_1 R_3 g_m + C_3 C_4 L_1 R_4 g_m + 2 C_3 C_4 L_3 R_1 g_m + 2 C_3 C_4 L_3 R_1)}.$$

10.896 INVALID-ORDER-896 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

[illegible]

10.897 INVALID-ORDER-897 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_4 R_1 g_m s^5 + L_4 R_1 g_m s + s^4 (C_1 C_3 L_1 L_4 R_1 R_3 g_m}{2 R_1 g_m + s^6 (2 C_1 C_3 C_4 L_1 L_3 L_4 R_1 g_m + 2 C_1 C_3 C_4 L_1 L_3 L_4) + s^5 (2 C_1 C_3 C_4 L_1 L_4 R_1 R_3 g_m + 2 C_1 C_3 C_4 L_1 L_4 R_3 + 2 C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (2 C_1 C_3 L_1 L_3 R_1 g_m + 2 C_1 C_3 L_1 L_3 + C_1 C_3 L_1 L_4 R_1 g_m + C_1 C_3 L_1 L_4 + 2 C_1 C_4 L_1 L_4 R_1 g_m + 2 C_1 C_4 L_1 L_4 + 2 C_3 C_4 L_1 L_4 R_3 g_m + 2 C_3$$

10.898 INVALID-ORDER-898 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_1 g_m s^6 + R_1 g_m + s^5 (C_1 C_3 C_4 L_1 L_3 R_1 R_4 g_m + C_1 C_3 C_4 L_1 L_4 R_1 R_3 g_m + C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_1 C_3 L_1 L_3 R_1 g_m + C_1 C_4 L_1 L_4 R_1 g_m + C_3 C_4 L_1 L_3 R_4 g_m + C_3 C_4 L_1 L_4 R_3 g_m + C_3 C_4 L_3 L_4 R_1 g_m) + s^3 (C_1 C_3 L_1 R_1 R_3 g_m + C_1 C_4 L_1 R_1 R_3 g_m)}{s^5 (2C_1 C_3 C_4 L_1 L_3 R_1 g_m + 2C_1 C_3 C_4 L_1 L_3 + C_1 C_3 C_4 L_1 L_4 R_1 g_m + C_1 C_3 C_4 L_1 L_4) + s^4 (2C_1 C_3 C_4 L_1 R_1 R_3 g_m + C_1 C_3 C_4 L_1 R_1 R_4 g_m + 2C_1 C_3 C_4 L_1 R_3 + C_1 C_3 C_4 L_1 R_4 + 2C_3 C_4 L_1 L_3 g_m + C_3 C_4 L_1 L_4 g_m) + s^3 (C_1 C_3 L_1 R_1 g_m + C_1 C_3 L_1 + 2C_1 C_4 L_1 R_1 g_m + 2C_1$$

10.899 INVALID-ORDER-899 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{2R_1 R_4 g_m + 2R_4 + s^6 (2C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_4 g_m + 2C_1 C_3 C_4 L_1 L_3 L_4 R_4) + s^5 (2C_1 C_3 C_4 L_1 L_4 R_1 R_3 R_4 g_m + 2C_1 C_3 C_4 L_1 L_4 R_3 R_4 + 2C_1 C_3 L_1 L_3 L_4 R_1 g_m + 2C_1 C_3 L_1 L_3 L_4 + 2C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (2C_1 C_3 L_1 L_3 R_1 R_4 g_m + 2C_1 C_3 L_1 L_3 R_4 + 2C_1 C_3 L_1 L_4 R_1 R_3 g_m +$$

10.900 INVALID-ORDER-900 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_4 g_m s^6 + R_1 R_4 g_m + s^5 (C_1 C_3 C_4 L_1 L_4 R_1 R_3 R_4 g_m + C_1 C_3 L_1 L_3 L_4 R_1 g_m + C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_1 R_4 g_m + C_1 C_3 L_1 L_4 R_1 R_3 g_m + C_1 C_3 L_1 L_4 R_4 g_m + C_3 C_4 L_1 L_3 L_4 R_1 g_m + C_3 C_4 L_1 L_3 L_4 R_4 g_m) + s^3 (2C_1 C_3 C_4 L_1 L_3 L_4 R_1 g_m + 2C_1 C_3 C_4 L_1 L_3 L_4) + s^2 (2C_1 C_3 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_1 R_4 g_m + 2C_1 C_3 C_4 L_1 L_4 R_3 + C_1 C_3 C_4 L_1 L_4 R_4 + 2C_3 C_4 L_1 L_3 L_4 g_m) + s (2C_1 C_3 L_1 L_3 R_1 g_m + 2C_1 C_3 L_1 L_3 + C_1 C_3 L_1 L_4 R_1 g_m + C_1 C_3 L_1 L_4 + 2C_1 C_4 L_1 L_4 R_1 g_m + 2C_1 C_4 L_1 L_4 R_4 g_m) + 1}{2R_1 g_m + s^6 (2C_1 C_3 C_4 L_1 L_3 L_4 R_1 g_m + 2C_1 C_3 C_4 L_1 L_3 L_4) + s^5 (2C_1 C_3 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_1 R_4 g_m + 2C_1 C_3 C_4 L_1 L_4 R_3 + C_1 C_3 C_4 L_1 L_4 R_4 + 2C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (2C_1 C_3 L_1 L_3 R_1 g_m + 2C_1 C_3 L_1 L_3 + C_1 C_3 L_1 L_4 R_1 g_m + C_1 C_3 L_1 L_4 + 2C_1 C_4 L_1 L_4 R_1 g_m + 2C_1 C_4 L_1 L_4 R_4 g_m) + s^3 (2C_1 C_3 C_4 L_1 L_3 L_4 R_1 g_m + 2C_1 C_3 C_4 L_1 L_3 L_4) + s^2 (2C_1 C_3 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_1 R_4 g_m + 2C_1 C_3 C_4 L_1 L_4 R_3 + C_1 C_3 C_4 L_1 L_4 R_4 + 2C_3 C_4 L_1 L_3 L_4 g_m) + s (2C_1 C_3 L_1 L_3 R_1 g_m + 2C_1 C_3 L_1 L_3 + C_1 C_3 L_1 L_4 R_1 g_m + C_1 C_3 L_1 L_4 + 2C_1 C_4 L_1 L_4 R_1 g_m + 2C_1 C_4 L_1 L_4 R_4 g_m) + 1}.$$

10.901 INVALID-ORDER-901 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{2R_1g_m + s^6(2C_1C_3C_4L_1L_3L_4R_1g_m + 2C_1C_3C_4L_1L_3L_4) + s^5(2C_1C_3C_4L_1L_3R_1R_4g_m + 2C_1C_3C_4L_1L_3R_4 + 2C_1C_3C_4L_1L_4R_1R_3g_m + C_1C_3C_4L_1L_4R_1R_4g_m + 2C_1C_3C_4L_1L_4R_3 + C_1C_3C_4L_1L_4R_4 + 2C_3C_4L_1L_3L_4g_m) + s^4(2C_1C_3C_4L_1R_1R_3R_4g_m + 2C_1C_3C_4L_1R_1R_3R_4)}{2R_1g_m + s^6(2C_1C_3C_4L_1L_3L_4R_1g_m + 2C_1C_3C_4L_1L_3L_4) + s^5(2C_1C_3C_4L_1L_3R_1R_4g_m + 2C_1C_3C_4L_1L_3R_4 + 2C_1C_3C_4L_1L_4R_1R_3g_m + C_1C_3C_4L_1L_4R_1R_4g_m + 2C_1C_3C_4L_1L_4R_3 + C_1C_3C_4L_1L_4R_4 + 2C_3C_4L_1L_3L_4g_m) + s^4(2C_1C_3C_4L_1R_1R_3R_4g_m + 2C_1C_3C_4L_1R_1R_3R_4)}$$

10.902 INVALID-ORDER-902 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 L_3 R_1 R_3 R_4 g_m s^3 + L_1 L_3 R_3 R_4 g_m s^2 + L_3 R_1 R_3 R_4 g_m s}{R_1 R_3 R_4 g_m + R_3 R_4 + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 R_4 g_m + C_1 C_3 L_1 L_3 R_3 R_4) + s^3 (2C_1 L_1 L_3 R_1 R_3 g_m + C_1 L_1 L_3 R_1 R_4 g_m + 2C_1 L_1 L_3 R_3 + C_1 L_1 L_3 R_4 + C_3 L_1 L_3 R_3 R_4 g_m) + s^2 (C_1 L_1 R_1 R_3 R_4 g_m + C_1 L_1 R_3 R_4 + C_3 L_3 R_1 R_3 R_4 g_m + C_3 L_3 R_3 R_4 + 2L_1 L_3 R_3 g_m + L_1 L_3 R_4 g_m) + s (C_1 L_1 R_1 R_3 R_4 + C_3 L_3 R_1 R_3 R_4 + 2L_1 L_3 R_3 + L_1 L_3 R_4) + R_1 R_3 R_4}$$

$$\mathbf{10.903 \quad INVALID-ORDER-903} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 R_1 R_3 g_m s^3 + L_1 L_3 R_3 g_m s^2 + L_3 R_1 R_3 g_m s}{R_1 R_3 g_m + R_3 + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 g_m + C_1 C_3 L_1 L_3 R_3 + 2C_1 C_4 L_1 L_3 R_1 R_3 g_m + 2C_1 C_4 L_1 L_3 R_3) + s^3 (C_1 L_1 L_3 R_1 g_m + C_1 L_1 L_3 + C_3 L_1 L_3 R_3 g_m + 2C_4 L_1 L_3 R_3 g_m) + s^2 (C_1 L_1 R_1 R_3 g_m + C_1 L_1 R_3 + C_3 L_3 R_1 R_3 g_m + C_3 L_3 R_3 + 2C_4 L_3 R_1 R_3 g_m + 2C_4 L_3 R_3 + L_1 L_3 g_m)}$$

$$\mathbf{10.904 \quad INVALID-ORDER-904} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4}{C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 R_1 R_3 R_4 g_m s^3 + L_1 L_3 R_3 R_4 g_m s^2 + L_3 R_1 R_3 R_4 g_m s}{R_1 R_3 R_4 g_m + R_3 R_4 + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 R_4 g_m + C_1 C_3 L_1 L_3 R_3 R_4 + 2C_1 C_4 L_1 L_3 R_1 R_3 R_4 g_m + 2C_1 C_4 L_1 L_3 R_3 R_4) + s^3 (2C_1 L_1 L_3 R_1 R_3 g_m + C_1 L_1 L_3 R_1 R_4 g_m + 2C_1 L_1 L_3 R_3 + C_1 L_1 L_3 R_4 + C_3 L_1 L_3 R_3 R_4 g_m + 2C_4 L_1 L_3 R_3 R_4 g_m) + s^2 (C_1 L_1 R_1 R_3 R_4 g_m + C_1 L_1 R_3 R_4 + C_3 L_3 R_1 R_3 R_4 g_m + C_3 L_3 R_3 + 2C_4 L_3 R_1 R_3 g_m + 2C_4 L_3 R_3 + L_1 L_3 R_1 R_3 g_m)}$$

$$\mathbf{10.905 \quad INVALID-ORDER-905} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 R_1 R_3 R_4 g_m s^4 + L_3 R_1 R_3 R_4 g_m s^3}{R_1 R_3 g_m + R_3 + s^5 (C_1 C_3 C_4 L_1 L_3 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 L_3 R_3 R_4) + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 g_m + C_1 C_3 L_1 L_3 R_3 + 2C_1 C_4 L_1 L_3 R_1 R_3 g_m + C_1 C_4 L_1 L_3 R_1 R_4 g_m + 2C_1 C_4 L_1 L_3 R_3 + C_1 C_4 L_1 L_3 R_4 + C_3 C_4 L_1 L_3 R_3 R_4 g_m) + s^3 (C_1 C_4 L_1 R_1 R_3 R_4 g_m + C_1 C_4 L_1 R_3 R_4 + C_1 L_1 R_1 R_3 R_4 g_m)}$$

$$\mathbf{10.906 \quad INVALID-ORDER-906} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4 R_1 R_3 g_m s^5 + C_4 L_1 R_1 R_3 g_m s^4}{R_1 R_3 g_m + R_3 + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_3) + s^5 (C_1 C_4 L_1 L_3 L_4 R_1 g_m + C_1 C_4 L_1 L_3 L_4 + C_3 C_4 L_1 L_3 L_4 R_3 g_m) + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 g_m + C_1 C_3 L_1 L_3 R_3 + 2C_1 C_4 L_1 L_3 R_1 R_3 g_m + 2C_1 C_4 L_1 L_3 R_3 + C_1 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_4 L_1 L_4 R_3 + C_3 C_4 L_1 L_3 L_4 R_3 g_m)}$$

$$\mathbf{10.907 \quad INVALID-ORDER-907} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 s}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 L_4 R_1 R_3 g_m s^3 + L_1 L_3 L_4 R_3 g_m s^2 + L_3 L_4 R_1 R_3 g_m s}{2L_3 R_1 R_3 g_m + 2L_3 R_3 + L_4 R_1 R_3 g_m + L_4 R_3 + s^4 (C_1 C_3 L_1 L_3 L_4 R_1 R_3 g_m + C_1 C_3 L_1 L_3 L_4 R_3 + 2C_1 C_4 L_1 L_3 L_4 R_1 R_3 g_m + 2C_1 C_4 L_1 L_3 L_4 R_3) + s^3 (C_1 L_1 L_3 L_4 R_1 g_m + C_1 L_1 L_3 L_4 + C_3 L_1 L_3 L_4 R_3 g_m + 2C_4 L_1 L_3 L_4 R_3 g_m) + s^2 (2C_1 L_1 L_3 R_1 R_3 g_m + 2C_1 L_1 L_3 R_3 + C_1 L_1 L_3 R_4)}$$

$$\mathbf{10.908 \quad INVALID-ORDER-908} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad L_4 s + R_4 + \frac{1}{C_4 s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 L_4 R_1 R_3 R_4 g_m s^4 + L_3 R_1 R_3 R_4 g_m s^3}{R_1 R_3 g_m + R_3 + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_3) + s^5 (C_1 C_3 C_4 L_1 L_3 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 L_3 R_3 R_4 + C_1 C_4 L_1 L_3 L_4 R_1 g_m + C_1 C_4 L_1 L_3 L_4 + C_3 C_4 L_1 L_3 L_4 R_3 g_m) + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 g_m + C_1 C_3 L_1 L_3 R_3 + 2C_1 C_4 L_1 L_3 R_1 R_3 g_m + C_1 C_4 L_1 L_3 R_3)}$$

$$\mathbf{10.909 \quad INVALID-ORDER-909} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 L_4 R_1 R_3 R_4 g_m s^4 + L_3 R_1 R_3 R_4 g_m s^3}{2L_3 R_1 R_3 R_4 g_m + 2L_3 R_3 R_4 + L_4 R_1 R_3 R_4 g_m + L_4 R_3 R_4 + s^4 (C_1 C_3 L_1 L_3 L_4 R_1 R_3 R_4 g_m + C_1 C_3 L_1 L_3 L_4 R_3 R_4 + 2C_1 C_4 L_1 L_3 L_4 R_1 R_3 R_4 g_m + 2C_1 C_4 L_1 L_3 L_4 R_3 R_4) + s^3 (2C_1 L_1 L_3 L_4 R_1 R_3 g_m + C_1 L_1 L_3 L_4 R_1 R_4 g_m + 2C_1 L_1 L_3 L_4 R_3 + C_1 L_1 L_3 L_4 R_4 + C_3 L_1 L_3 L_4 R_3 R_4 g_m)}$$

$$\mathbf{10.910 \quad INVALID-ORDER-910} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 L_4 R_1 R_3 R_4 g_m s^4 + L_3 R_1 R_3 R_4 g_m s^3}{R_1 R_3 R_4 g_m + R_3 R_4 + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4) + s^5 (C_1 C_3 L_1 L_3 L_4 R_1 R_3 g_m + C_1 C_3 L_1 L_3 L_4 R_3 + 2C_1 C_4 L_1 L_3 L_4 R_1 R_3 g_m + C_1 C_4 L_1 L_3 L_4 R_1 R_4 g_m + 2C_1 C_4 L_1 L_3 L_4 R_3 + C_1 C_4 L_1 L_3 L_4 R_4 + C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 R_4 g_m + C_1 C_3 L_1 L_3 R_3 R_4 + 2C_1 C_4 L_1 L_3 R_1 R_3 R_4 g_m + 2C_1 C_4 L_1 L_3 R_3 R_4)}$$

$$\mathbf{10.911 \quad INVALID-ORDER-911} \quad Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \quad \infty, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1 L_1 L_3 L_4 R_1 R_3 R_4 g_m s^4 + L_3 R_1 R_3 R_4 g_m s^3}{R_1 R_3 R_4 g_m + R_3 R_4 + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4) + s^5 (2C_1 C_4 L_1 L_3 L_4 R_1 R_3 g_m + C_1 C_4 L_1 L_3 L_4 R_1 R_4 g_m + 2C_1 C_4 L_1 L_3 L_4 R_3 + C_1 C_4 L_1 L_3 L_4 R_4 + C_3 C_4 L_1 L_3 L_4 R_3 R_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 R_4 g_m + C_1 C_3 L_1 L_3 R_3 R_4 + 2C_1 C_4 L_1 L_3 R_1 R_3 R_4 g_m + 2C_1 C_4 L_1 L_3 R_3 R_4)}$$

10.922 INVALID-ORDER-922 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 R_3 R_4 g_m s^4 + C_3 L_1 L_3 R_3 R_4 g_m s^3 + L_1 R_3 R_4 g_m s + R_1 R_3 R_4 g_m + s^2 (C_1 L_1 R_1 R_3 R_4 g_m + C_3 L_3 R_1 R_3 R_4 g_m)}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^4 (2C_1 C_3 L_1 L_3 R_1 R_3 g_m + C_1 C_3 L_1 L_3 R_1 R_4 g_m + 2C_1 C_3 L_1 L_3 R_3 + C_1 C_3 L_1 L_3 R_4) + s^3 (C_1 C_3 L_1 R_1 R_3 R_4 g_m + C_1 C_3 L_1 R_3 R_4 + 2C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_3 R_4 g_m) + s^2 (2C_1 L_1 R_1 R_3 g_m + C_1 L_1 R_1 R_4 g_m + 2C_1 L_1 R_3 + C_1 L_1 R_4 + C_3)}$$

10.923 INVALID-ORDER-923 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 R_3 g_m s^4 + C_3 L_1 L_3 R_3 g_m s^3 + L_1 R_3 g_m s + R_1 R_3 g_m + s^2 (C_1 L_1 R_1 R_3 g_m + C_3 L_3 R_1 R_3 g_m)}{R_1 g_m + s^5 (2C_1 C_3 C_4 L_1 L_3 R_1 R_3 g_m + 2C_1 C_3 C_4 L_1 L_3 R_3) + s^4 (C_1 C_3 L_1 L_3 R_1 g_m + C_1 C_3 L_1 L_3 + 2C_3 C_4 L_1 L_3 R_3 g_m) + s^3 (C_1 C_3 L_1 R_1 R_3 g_m + C_1 C_3 L_1 R_3 + 2C_1 C_4 L_1 R_1 R_3 g_m + 2C_1 C_4 L_1 R_3 + 2C_3 C_4 L_3 R_1 R_3 g_m + 2C_3 C_4 L_3 R_3 + C_3 L_1 L_3 g_m) + s^2 (C_1 L_1 R_1 g_m + C_1 L_1}$$

10.924 INVALID-ORDER-924 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 R_3 R_4 g_m s}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^5 (2C_1 C_3 C_4 L_1 L_3 R_1 R_3 R_4 g_m + 2C_1 C_3 C_4 L_1 L_3 R_3 R_4) + s^4 (2C_1 C_3 L_1 L_3 R_1 R_3 g_m + C_1 C_3 L_1 L_3 R_1 R_4 g_m + 2C_1 C_3 L_1 L_3 R_3 + C_1 C_3 L_1 L_3 R_4 + 2C_3 C_4 L_1 L_3 R_3 R_4 g_m) + s^3 (C_1 C_3 L_1 R_1 R_3 R_4 g_m + C_1 C_3 L_1 R_3 R_4 + 2C_1 C_4 L_1 R_1 R_3 R_4 g_m)}$$

10.925 INVALID-ORDER-925 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 R_1 R_3 R_4 g_m s^5 + R_1 R_3 g_m + s^4 (C_1 C_3 L_1 L_3 R_1 R_3)}{R_1 g_m + s^5 (2C_1 C_3 C_4 L_1 L_3 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2C_1 C_3 C_4 L_1 L_3 R_3 + C_1 C_3 C_4 L_1 L_3 R_4) + s^4 (C_1 C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 R_3 R_4 + C_1 C_3 L_1 L_3 R_1 g_m + C_1 C_3 L_1 L_3 + 2C_3 C_4 L_1 L_3 R_3 g_m + C_3 C_4 L_1 L_3 R_4 g_m) + s^3 (C_1 C_3 L_1 R_1 R_3 g_m + C_1 C_3 L_1 R_3 + 2$$

10.926 INVALID-ORDER-926 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 g_m s^6 + C_3 C_4 L_1 L_3 L_4 R_3 g_m s^5 + L_1 R_3 g_m s^4}{R_1 g_m + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_1 L_3 L_4) + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_1 R_3 g_m + 2 C_1 C_3 C_4 L_1 L_3 R_3 + C_1 C_3 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_3 + C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 L_1 L_3 R_1 g_m + C_1 C_3 L_1 L_3 + C_1 C_4 L_1 L_4 R_1 g_m + C_1 C_4 L_1 L_4 + 2 C_3 C_4 L_1 L_3 R_3 g_m + C_3 C_4 L_1 L_3 R_3)}$$

10.927 INVALID-ORDER-927 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 L_4 R_1 R_3 g_m s^5}{2R_1 R_3 g_m + 2R_3 + s^6 (2C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 g_m + 2C_1 C_3 C_4 L_1 L_3 L_4 R_3) + s^5 (C_1 C_3 L_1 L_3 L_4 R_1 g_m + C_1 C_3 L_1 L_3 L_4 + 2C_3 C_4 L_1 L_3 L_4 R_3 g_m) + s^4 (2C_1 C_3 L_1 L_3 R_1 R_3 g_m + 2C_1 C_3 L_1 L_3 R_3 + C_1 C_3 L_1 L_4 R_1 R_3 g_m + C_1 C_3 L_1 L_4 R_3 + 2C_1 C_4 L_1 L_4 R_1 R_3 g_m + 2C_1 C_4 L_1 L_4 R_3)}$$

10.928 INVALID-ORDER-928 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{R_1 g_m + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_1 L_3 L_4) + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_1 L_3 R_3 + C_1 C_3 C_4 L_1 L_3 R_4 + C_1 C_3 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_3 + C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 R_3 R_4 + C_1 C_3 C_4 L_1 R_1 R_4 g_m + C_1 C_3 C_4 L_1 R_1 R_4) + s^3 (C_1 C_3 C_4 L_1 R_1 R_3 + C_1 C_3 C_4 L_1 R_1 R_4 + C_1 C_3 C_4 L_1 R_3 R_4 + C_1 C_3 C_4 L_1 R_1 R_4) + s^2 (C_1 C_3 C_4 L_1 R_1 R_3 + C_1 C_3 C_4 L_1 R_1 R_4 + C_1 C_3 C_4 L_1 R_3 R_4) + s (C_1 C_3 C_4 L_1 R_1 R_3 + C_1 C_3 C_4 L_1 R_1 R_4 + C_1 C_3 C_4 L_1 R_3 R_4) + C_1 C_3 C_4 L_1 R_1 R_3 + C_1 C_3 C_4 L_1 R_1 R_4 + C_1 C_3 C_4 L_1 R_3 R_4}{R_1 g_m + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_1 L_3 L_4) + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2 C_1 C_3 C_4 L_1 L_3 R_3 + C_1 C_3 C_4 L_1 L_3 R_4 + C_1 C_3 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_4 R_3 + C_3 C_4 L_1 L_3 L_4 g_m) + s^4 (C_1 C_3 C_4 L_1 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 R_3 R_4 + C_1 C_3 C_4 L_1 R_1 R_4 g_m + C_1 C_3 C_4 L_1 R_1 R_4) + s^3 (C_1 C_3 C_4 L_1 R_1 R_3 + C_1 C_3 C_4 L_1 R_1 R_4 + C_1 C_3 C_4 L_1 R_3 R_4 + C_1 C_3 C_4 L_1 R_1 R_4) + s^2 (C_1 C_3 C_4 L_1 R_1 R_3 + C_1 C_3 C_4 L_1 R_1 R_4 + C_1 C_3 C_4 L_1 R_3 R_4) + s (C_1 C_3 C_4 L_1 R_1 R_3 + C_1 C_3 C_4 L_1 R_1 R_4 + C_1 C_3 C_4 L_1 R_3 R_4) + C_1 C_3 C_4 L_1 R_1 R_3 + C_1 C_3 C_4 L_1 R_1 R_4 + C_1 C_3 C_4 L_1 R_3 R_4}$$

10.929 INVALID-ORDER-929 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{2R_1R_3R_4g_m + 2R_3R_4 + s^6(2C_1C_3C_4L_1L_3L_4R_1R_3R_4g_m + 2C_1C_3C_4L_1L_3L_4R_3R_4) + s^5(2C_1C_3L_1L_3L_4R_1R_3g_m + C_1C_3L_1L_3L_4R_1R_4g_m + 2C_1C_3L_1L_3L_4R_3 + C_1C_3L_1L_3L_4R_4 + 2C_3C_4L_1L_3L_4R_3R_4g_m) + s^4(2C_1C_3L_1L_3R_1R_3R_4g_m + 2C_1C_3L_1L_3R_3R_4 + C_1C_3L_1L_3R_4R_3 + C_1C_3L_1L_3R_4R_4)}{2R_1R_3R_4g_m + 2R_3R_4 + s^6(2C_1C_3C_4L_1L_3L_4R_1R_3R_4g_m + 2C_1C_3C_4L_1L_3L_4R_3R_4) + s^5(2C_1C_3L_1L_3L_4R_1R_3g_m + C_1C_3L_1L_3L_4R_1R_4g_m + 2C_1C_3L_1L_3L_4R_3 + C_1C_3L_1L_3L_4R_4 + 2C_3C_4L_1L_3L_4R_3R_4g_m) + s^4(2C_1C_3L_1L_3R_1R_3R_4g_m + 2C_1C_3L_1L_3R_3R_4 + C_1C_3L_1L_3R_4R_3 + C_1C_3L_1L_3R_4R_4)}$$

10.930 INVALID-ORDER-930 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^6(2C_1C_3C_4L_1L_3L_4R_1R_3g_m + C_1C_3C_4L_1L_3L_4R_1R_4g_m + 2C_1C_3C_4L_1L_3L_4R_3 + C_1C_3C_4L_1L_3L_4R_4) + s^5(C_1C_3C_4L_1L_4R_1R_3R_4g_m + C_1C_3C_4L_1L_4R_3R_4 + C_1C_3L_1L_3L_4R_1g_m + C_1C_3L_1L_3L_4 + 2C_3C_4L_1L_3L_4R_3g_m + C_3C_4L_1L_3L_4R_4)}{s^6(2C_1C_3C_4L_1L_3L_4R_1R_3g_m + C_1C_3C_4L_1L_3L_4R_1R_4g_m + 2C_1C_3C_4L_1L_3L_4R_3 + C_1C_3C_4L_1L_3L_4R_4) + s^5(C_1C_3C_4L_1L_4R_1R_3R_4g_m + C_1C_3C_4L_1L_4R_3R_4 + C_1C_3L_1L_3L_4R_1g_m + C_1C_3L_1L_3L_4 + 2C_3C_4L_1L_3L_4R_3g_m + C_3C_4L_1L_3L_4R_4) + s^4(C_1C_3C_4L_1L_3L_4R_1R_3R_4g_m + C_1C_3C_4L_1L_3L_4R_1R_4R_4g_m + C_1C_3C_4L_1L_3L_4R_3R_4 + C_1C_3C_4L_1L_3L_4R_4R_4) + s^3(C_1C_3C_4L_1L_3L_4R_1R_3R_4 + C_1C_3C_4L_1L_3L_4R_1R_4 + C_1C_3C_4L_1L_3L_4R_3 + C_1C_3C_4L_1L_3L_4R_4) + s^2(C_1C_3C_4L_1L_3L_4R_1 + C_1C_3C_4L_1L_3L_4R_3 + C_1C_3C_4L_1L_3L_4R_4) + s(C_1C_3C_4L_1L_3L_4) + 1}$$

10.931 INVALID-ORDER-931 $Z(s) = \left(\frac{C_1 L_1 R_1 s^2 + L_1 s + R_1}{C_1 L_1 s^2 + 1}, \infty, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \frac{R_4 (C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^6(2C_1C_3C_4L_1L_3L_4R_1R_3g_m + C_1C_3C_4L_1L_3L_4R_1R_4g_m + 2C_1C_3C_4L_1L_3L_4R_3 + C_1C_3C_4L_1L_3L_4R_4) + s^5(2C_1C_3C_4L_1L_3R_1R_3R_4g_m + 2C_1C_3C_4L_1L_3R_3R_4 + C_1C_3C_4L_1L_4R_1R_3R_4g_m + C_1C_3C_4L_1L_4R_3R_4 + 2C_3C_4L_1L_3L_4R_4)}{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^6(2C_1C_3C_4L_1L_3L_4R_1R_3g_m + C_1C_3C_4L_1L_3L_4R_1R_4g_m + 2C_1C_3C_4L_1L_3L_4R_3 + C_1C_3C_4L_1L_3L_4R_4) + s^5(2C_1C_3C_4L_1L_3R_1R_3R_4g_m + 2C_1C_3C_4L_1L_3R_3R_4 + C_1C_3C_4L_1L_4R_1R_3R_4g_m + C_1C_3C_4L_1L_4R_3R_4 + 2C_3C_4L_1L_3L_4R_4)}$$

10.932 INVALID-ORDER-932 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, R_3, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 R_1 R_3 g_m s^2 + R_1 R_3 g_m}{R_1 g_m + s^3 (2C_1 C_4 L_1 R_1 R_3 g_m + 2C_1 C_4 L_1 R_3) + s^2 (2C_1 C_4 R_1 R_3 + C_1 L_1 R_1 g_m + C_1 L_1) + s (C_1 R_1 + 2C_4 R_1 R_3 g_m + 2C_4 R_3) + 1}$$

10.933 INVALID-ORDER-933 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \infty, R_3, \frac{R_4}{C_4R_4s+1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 R_1 R_3 R_4 g_m s^2 + R_1 R_3 R_4 g_m}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^3 (2C_1 C_4 L_1 R_1 R_3 R_4 g_m + 2C_1 C_4 L_1 R_3 R_4) + s^2 (2C_1 C_4 R_1 R_3 R_4 + 2C_1 L_1 R_1 R_3 g_m + C_1 L_1 R_1 R_4 g_m + 2C_1 L_1 R_3 + C_1 L_1 R_4) + s (2C_1 R_1 R_3 + C_1 R_1 R_4 + 2C_4 R_1 R_3 R_4 g_m + 2C_4 R_3 R_4)}$$

10.934 INVALID-ORDER-934 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, R_3, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 R_1 R_3 R_4 g_m s^3 + C_1 L_1 R_1 R_3 g_m s^2 + C_4 R_1 R_3 R_4 g_m s + R_1 R_3 g_m}{R_1 g_m + s^3 (2C_1 C_4 L_1 R_1 R_3 g_m + C_1 C_4 L_1 R_1 R_4 g_m + 2C_1 C_4 L_1 R_3 + C_1 C_4 L_1 R_4) + s^2 (2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4 + C_1 L_1 R_1 g_m + C_1 L_1) + s (C_1 R_1 + 2C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2C_4 R_3 + C_4 R_4) + 1}$$

10.935 INVALID-ORDER-935 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, R_3, L_4 s + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 R_3 g_m s^4 + R_1 R_3 g_m + s^2 (C_1 L_1 R_1 R_3 g_m + C_4 L_4 R_1 R_3 g_m)}{R_1 g_m + s^4 (C_1 C_4 L_1 L_4 R_1 g_m + C_1 C_4 L_1 L_4) + s^3 (2C_1 C_4 L_1 R_1 R_3 g_m + 2C_1 C_4 L_1 R_3 + C_1 C_4 L_4 R_1) + s^2 (2C_1 C_4 R_1 R_3 + C_1 L_1 R_1 g_m + C_1 L_1 + C_4 L_4 R_1 g_m + C_4 L_4) + s (C_1 R_1 + 2C_4 R_1 R_3 g_m + 2C_4 R_3) + 1}$$

10.936 INVALID-ORDER-936 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \infty, R_3, \frac{L_4s}{C_4L_4s^2+1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 L_4 R_1 R_3 g_m s^3 + L_4 R_1 R_3 g_m s}{2R_1 R_3 g_m + 2R_3 + s^4 (2C_1 C_4 L_1 L_4 R_1 R_3 g_m + 2C_1 C_4 L_1 L_4 R_3) + s^3 (2C_1 C_4 L_4 R_1 R_3 + C_1 L_1 L_4 R_1 g_m + C_1 L_1 L_4) + s^2 (2C_1 L_1 R_1 R_3 g_m + 2C_1 L_1 R_3 + C_1 L_4 R_1 + 2C_4 L_4 R_1 R_3 g_m + 2C_4 L_4 R_3) + s (2C_1 R_1 R_3 + L_4 R_1 g_m + L_4)}$$

10.937 INVALID-ORDER-937 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, R_3, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 R_3 g_m s^4 + C_1 C_4 L_1 R_1 R_3 R_4 g_m s^3 + C_4 R_1 R_3 R_4 g_m s + R_1 R_3 g_m + s^2 (C_1 L_1 R_1 R_3 g_m + C_4 L_4 R_1 R_3 g_m)}{R_1 g_m + s^4 (C_1 C_4 L_1 L_4 R_1 g_m + C_1 C_4 L_1 L_4) + s^3 (2C_1 C_4 L_1 R_1 R_3 g_m + C_1 C_4 L_1 R_1 R_4 g_m + 2C_1 C_4 L_1 R_3 + C_1 C_4 L_1 R_4 + C_1 C_4 L_4 R_1) + s^2 (2C_1 C_4 R_1 R_3 + C_1 C_4 R_1 R_4 + C_1 L_1 R_1 g_m + C_1 L_1 + C_4 L_4 R_1 g_m + C_4 L_4) + s (C_1 R_1 + 2C_4 R_1 R_3 g_m + C_4 R_1 R_4 g_m + 2C_4 R_3 + C_4}$$

10.938 INVALID-ORDER-938 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, R_3, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 L_4 R_1 R_3 R_4 g_m s^3 + L_4 R_1 R_3 R_4 g_m s}{2R_1 R_3 R_4 g_m + 2R_3 R_4 + s^4 (2C_1 C_4 L_1 L_4 R_1 R_3 R_4 g_m + 2C_1 C_4 L_1 L_4 R_3 R_4) + s^3 (2C_1 C_4 L_4 R_1 R_3 R_4 + 2C_1 L_1 L_4 R_1 R_3 g_m + C_1 L_1 L_4 R_1 R_4 g_m + 2C_1 L_1 L_4 R_3 + C_1 L_1 L_4 R_4) + s^2 (2C_1 L_1 R_1 R_3 R_4 g_m + 2C_1 L_1 R_3 R_4 + 2C_1 L_4 R_1 R_3 + C_1 L_4 R_1 R_4 + 2C_4 L_4 R_1 R_3 R_4 g_m + 2C_4 L_4 R_1 R_4 + 2C_4 L_4 R_3 R_4) + s (2C_1 L_1 R_1 R_3 R_4 + 2C_1 L_1 R_3 R_4 + 2C_1 L_4 R_1 R_3 + C_1 L_4 R_1 R_4 + 2C_4 L_4 R_1 R_3 R_4 + 2C_4 L_4 R_1 R_4 + 2C_4 L_4 R_3 R_4) + 2C_4 L_4 R_1 R_3 R_4}$$

10.939 INVALID-ORDER-939 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, R_3, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_4 R_1 R_3 R_4 g_m s^4 + C_1 L_1 L_4 R_1 R_3 g_m s^3 + L_4 R_1 R_3 g_m s + R_1 R_3 R_4 g_m + s^2 (C_1 L_1 R_1 R_3 R_4 g_m + C_4 L_4 R_1 R_3 R_4 g_m)}{2 R_1 R_3 g_m + R_1 R_4 g_m + 2 R_3 + R_4 + s^4 (2 C_1 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_4 L_1 L_4 R_1 R_4 g_m + 2 C_1 C_4 L_1 L_4 R_3 + C_1 C_4 L_1 L_4 R_4) + s^3 (2 C_1 C_4 L_4 R_1 R_3 + C_1 C_4 L_4 R_1 R_4 + C_1 L_1 L_4 R_1 g_m + C_1 L_1 L_4) + s^2 (2 C_1 L_1 R_1 R_3 g_m + C_1 L_1 R_1 R_4 g_m + 2 C_1 L_1 R_3 + C_1 L_1 R_4 + C_1 L_4 R_1 + 2 C_4 L_4 R_1 + 2 C_4 L_4 R_3 + 2 C_4 L_4 R_4) + s (2 C_1 L_1 R_3 + C_1 L_1 R_4 + C_1 L_4 R_1 + C_1 L_4 R_3 + C_1 L_4 R_4) + 2 C_4 L_4 R_1 + 2 C_4 L_4 R_3 + 2 C_4 L_4 R_4}$$

$$\mathbf{10.940 \quad INVALID-ORDER-940} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad R_3, \quad \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_4L_1L_4R_1R_3R_4g_ms^4 + R_1R_3R_4g_m + s^2(C_1L_1R_1R_3R_4g_m + C_4L_4R_1R_3R_4g_m)}{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^4(2C_1C_4L_1L_4R_1R_3g_m + C_1C_4L_1L_4R_1R_4g_m + 2C_1C_4L_1L_4R_3 + C_1C_4L_1L_4R_4) + s^3(2C_1C_4L_1R_1R_3R_4g_m + 2C_1C_4L_1R_3R_4 + 2C_1C_4L_4R_1R_3 + C_1C_4L_4R_1R_4) + s^2(2C_1C_4R_1R_3R_4 + 2C_1L_1R_1R_3g_m + C_1L_1R_1R_4g_m + 2C_1L_1R_1R_3R_4) + s(2C_1R_1R_3R_4 + 2C_1R_1R_4g_m + 2C_1R_1R_3R_4) + 2}$$

$$\mathbf{10.941 \quad INVALID-ORDER-941} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{1}{C_3s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1L_1R_1R_4g_ms^2 + R_1R_4g_m}{2R_1g_m + s^3(C_1C_3L_1R_1R_4g_m + C_1C_3L_1R_4) + s^2(C_1C_3R_1R_4 + 2C_1L_1R_1g_m + 2C_1L_1) + s(2C_1R_1 + C_3R_1R_4g_m + C_3R_4) + 2}$$

$$\mathbf{10.942 \quad INVALID-ORDER-942} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{1}{C_3s}, \quad \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1L_1R_1g_ms^2 + R_1g_m}{s^3(C_1C_3L_1R_1g_m + C_1C_3L_1 + 2C_1C_4L_1R_1g_m + 2C_1C_4L_1) + s^2(C_1C_3R_1 + 2C_1C_4R_1) + s(C_3R_1g_m + C_3 + 2C_4R_1g_m + 2C_4) + 2}$$

$$\mathbf{10.943 \quad INVALID-ORDER-943} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{1}{C_3s}, \quad \frac{R_4}{C_4R_4s+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1L_1R_1R_4g_ms^2 + R_1R_4g_m}{2R_1g_m + s^3(C_1C_3L_1R_1R_4g_m + C_1C_3L_1R_4 + 2C_1C_4L_1R_1R_4g_m + 2C_1C_4L_1R_4) + s^2(C_1C_3R_1R_4 + 2C_1C_4R_1R_4 + 2C_1L_1R_1g_m + 2C_1L_1) + s(2C_1R_1 + C_3R_1R_4g_m + C_3R_4 + 2C_4R_1R_4g_m + 2C_4R_4) + 2}$$

$$\mathbf{10.944 \quad INVALID-ORDER-944} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{1}{C_3s}, \quad R_4 + \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_4L_1R_1R_4g_ms^3 + C_1L_1R_1g_ms^2 + C_4R_1R_4g_ms + R_1g_m}{s^4(C_1C_3C_4L_1R_1R_4g_m + C_1C_3C_4L_1R_4) + s^3(C_1C_3C_4R_1R_4 + C_1C_3L_1R_1g_m + C_1C_3L_1 + 2C_1C_4L_1R_1g_m + 2C_1C_4L_1) + s^2(C_1C_3R_1 + 2C_1C_4R_1 + C_3C_4R_1R_4g_m + C_3C_4R_4) + s(C_3R_1g_m + C_3 + 2C_4R_1g_m + 2C_4) + 2}$$

$$\mathbf{10.945 \quad INVALID-ORDER-945} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{1}{C_3s}, \quad L_4s + \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_4L_1L_4R_1g_ms^4 + R_1g_m + s^2(C_1L_1R_1g_m + C_4L_4R_1g_m)}{C_1C_3C_4L_4R_1s^4 + s^5(C_1C_3C_4L_1L_4R_1g_m + C_1C_3C_4L_1L_4) + s^3(C_1C_3L_1R_1g_m + C_1C_3L_1 + 2C_1C_4L_1R_1g_m + 2C_1C_4L_1 + C_3C_4L_4R_1g_m + C_3C_4L_4) + s^2(C_1C_3R_1 + 2C_1C_4R_1) + s(C_3R_1g_m + C_3 + 2C_4R_1g_m + 2C_4) + 2}$$

$$\mathbf{10.946 \quad INVALID-ORDER-946} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{1}{C_3s}, \quad \frac{L_4s}{C_4L_4s^2+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1L_1L_4R_1g_ms^3 + L_4R_1g_ms}{2C_1R_1s + 2R_1g_m + s^4(C_1C_3L_1L_4R_1g_m + C_1C_3L_1L_4 + 2C_1C_4L_1L_4R_1g_m + 2C_1C_4L_1L_4) + s^3(C_1C_3L_4R_1 + 2C_1C_4L_4R_1) + s^2(2C_1L_1R_1g_m + 2C_1L_1 + C_3L_4R_1g_m + C_3L_4 + 2C_4L_4R_1g_m + 2C_4L_4) + 2}$$

$$\mathbf{10.947 \quad INVALID-ORDER-947} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{1}{C_3s}, \quad L_4s + R_4 + \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1R_1R_4g_ms^3 + C_4R_1R_4g_ms + R_1g_m + s^2(C_1L_1R_1g_m + C_4L_4R_1g_m)}{s^5(C_1C_3C_4L_1L_4R_1g_m + C_1C_3C_4L_1L_4) + s^4(C_1C_3C_4L_1R_1R_4g_m + C_1C_3C_4L_1R_4 + C_1C_3C_4L_4R_1) + s^3(C_1C_3C_4R_1R_4 + C_1C_3L_1R_1g_m + C_1C_3L_1 + 2C_1C_4L_1R_1g_m + 2C_1C_4L_1 + C_3C_4L_4R_1g_m + C_3C_4L_4) + s^2(C_1C_3R_1 + 2C_1C_4R_1 + C_3C_4R_1R_4g_m + C_3C_4R_4) + s(C_3R_1g_m + C_3 + 2C_4R_1g_m + 2C_4) + 2}$$

$$\mathbf{10.948 \quad INVALID-ORDER-948} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{1}{C_3s}, \quad \frac{L_4R_4s}{C_4L_4R_4s^2+L_4s+R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1L_1L_4R_1R_4g_ms^3 + L_4R_1R_4g_ms}{2R_1R_4g_m + 2R_4 + s^4(C_1C_3L_1L_4R_1R_4g_m + C_1C_3L_1L_4R_4 + 2C_1C_4L_1L_4R_1R_4g_m + 2C_1C_4L_1L_4R_4) + s^3(C_1C_3L_4R_1R_4 + 2C_1C_4L_4R_1R_4 + 2C_1L_1L_4R_1g_m + 2C_1L_1L_4) + s^2(2C_1L_1R_1R_4g_m + 2C_1L_1R_4 + 2C_1L_4R_1 + C_3L_4R_1R_4g_m + C_3L_4R_4 + 2C_4L_4R_1R_4g_m + 2C_4L_4R_4) + s(C_3R_1R_4g_m + C_3R_4 + 2C_4R_1R_4g_m + 2C_4R_4) + 2}$$

$$\mathbf{10.949 \quad INVALID-ORDER-949} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{1}{C_3s}, \quad \frac{C_4L_4R_4s^2+L_4s+R_4}{C_4L_4s^2+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_4L_1L_4R_1R_4g_ms^4 + C_1L_1L_4R_1g_ms^3 + L_4R_1g_ms + R_1R_4g_m + s^2(C_1L_1R_1R_4g_m + C_4L_4R_1R_4g_m)}{2R_1g_m + s^5(C_1C_3C_4L_1L_4R_1R_4g_m + C_1C_3C_4L_1L_4R_4) + s^4(C_1C_3C_4L_4R_1R_4 + C_1C_3L_1L_4R_1g_m + C_1C_3L_1L_4 + 2C_1C_4L_1L_4R_1g_m + 2C_1C_4L_1L_4) + s^3(C_1C_3L_1R_1R_4g_m + C_1C_3L_1R_4 + C_1C_3L_4R_1 + 2C_1C_4L_4R_1 + C_3C_4L_4R_1R_4g_m + C_3C_4L_4R_4) + s^2(C_1C_3R_1R_4 + 2C_1C_4R_1R_4g_m + C_3C_4R_1R_4g_m + C_3C_4R_4)} + 1$$

$$\mathbf{10.950 \quad INVALID-ORDER-950} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{1}{C_3s}, \quad \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_4L_1L_4R_1R_4g_ms^4 + R_1R_4g_m + s^2(C_1L_1R_1R_4g_m + C_4L_4R_1R_4g_m)}{2R_1g_m + s^5(C_1C_3C_4L_1L_4R_1R_4g_m + C_1C_3C_4L_1L_4R_4) + s^4(C_1C_3C_4L_4R_1R_4 + 2C_1C_4L_1L_4R_1g_m + 2C_1C_4L_1L_4) + s^3(C_1C_3L_1R_1R_4g_m + C_1C_3L_1R_4 + 2C_1C_4L_1R_1R_4g_m + 2C_1C_4L_1R_4 + 2C_1C_4L_4R_1 + C_3C_4L_4R_1R_4g_m + C_3C_4L_4R_4) + s^2(C_1C_3R_1R_4 + 2C_1C_4R_1R_4g_m + C_3C_4R_1R_4g_m + C_3C_4R_4)} + 1$$

$$\mathbf{10.951 \quad INVALID-ORDER-951} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3}{C_3R_3s+1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1L_1R_1R_3R_4g_ms^2 + R_1R_3R_4g_m}{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^3(C_1C_3L_1R_1R_3R_4g_m + C_1C_3L_1R_3R_4) + s^2(C_1C_3R_1R_3R_4 + 2C_1L_1R_1R_3g_m + C_1L_1R_1R_4g_m + 2C_1L_1R_3 + C_1L_1R_4) + s(2C_1R_1R_3 + C_1R_1R_4 + C_3R_1R_3R_4g_m + C_3R_3R_4)} + 1$$

$$\mathbf{10.952 \quad INVALID-ORDER-952} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3}{C_3R_3s+1}, \quad \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1L_1R_1R_3g_ms^2 + R_1R_3g_m}{R_1g_m + s^3(C_1C_3L_1R_1R_3g_m + C_1C_3L_1R_3 + 2C_1C_4L_1R_1R_3g_m + 2C_1C_4L_1R_3) + s^2(C_1C_3R_1R_3 + 2C_1C_4R_1R_3 + C_1L_1R_1g_m + C_1L_1) + s(C_1R_1 + C_3R_1R_3g_m + C_3R_3 + 2C_4R_1R_3g_m + 2C_4R_3) + 1}$$

$$\mathbf{10.953 \quad INVALID-ORDER-953} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3}{C_3R_3s+1}, \quad \frac{R_4}{C_4R_4s+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1L_1R_1R_3R_4g_ms^2 + R_1R_3R_4g_m}{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^3(C_1C_3L_1R_1R_3R_4g_m + C_1C_3L_1R_3R_4 + 2C_1C_4L_1R_1R_3R_4g_m + 2C_1C_4L_1R_3R_4) + s^2(C_1C_3R_1R_3R_4 + 2C_1C_4R_1R_3R_4 + 2C_1L_1R_1R_3g_m + C_1L_1R_1R_4g_m + 2C_1L_1R_3 + C_1L_1R_4) + s(2C_1R_1R_3 + C_1R_1R_4 + C_3R_1R_3R_4g_m + C_3R_3R_4)} + 1$$

$$\mathbf{10.954 \quad INVALID-ORDER-954} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3}{C_3R_3s+1}, \quad R_4 + \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_4L_1R_1R_3R_4g_ms^3 + C_1L_1R_1R_3g_ms^2 + C_4R_1R_3R_4g_ms + R_1R_3g_m}{R_1g_m + s^4(C_1C_3C_4L_1R_1R_3R_4g_m + C_1C_3C_4L_1R_3R_4) + s^3(C_1C_3C_4R_1R_3R_4 + C_1C_3L_1R_1R_3g_m + C_1C_3L_1R_3 + 2C_1C_4L_1R_1R_3g_m + C_1C_4L_1R_1R_4g_m + 2C_1C_4L_1R_3 + C_1C_4L_1R_4) + s^2(C_1C_3R_1R_3 + 2C_1C_4R_1R_3 + C_1C_4R_1R_4 + C_1L_1R_1g_m + C_1L_1 + C_3C_4R_1R_3g_m + C_3C_4R_1R_4g_m + C_3C_4R_4)} + 1$$

$$\mathbf{10.955 \quad INVALID-ORDER-955} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3}{C_3R_3s+1}, \quad L_4s + \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_4L_1L_4R_1R_3g_ms^4 + R_1R_3g_m + s^2(C_1L_1R_1R_3g_m + C_4L_4R_1R_3g_m)}{R_1g_m + s^5(C_1C_3C_4L_1L_4R_1R_3g_m + C_1C_3C_4L_1L_4R_3) + s^4(C_1C_3C_4L_4R_1R_3 + C_1C_4L_1L_4R_1g_m + C_1C_4L_1L_4) + s^3(C_1C_3L_1R_1R_3g_m + C_1C_3L_1R_3 + 2C_1C_4L_1R_1R_3g_m + 2C_1C_4L_1R_3 + C_1C_4L_4R_1 + C_3C_4L_4R_1R_3g_m + C_3C_4L_4R_3) + s^2(C_1C_3R_1R_3 + 2C_1C_4R_1R_3 + C_1C_4R_1R_4 + C_1L_1R_1g_m + C_1L_1 + C_3C_4R_1R_3g_m + C_3C_4R_1R_4g_m + C_3C_4R_4)} + 1$$

$$\mathbf{10.956 \quad INVALID-ORDER-956} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3}{C_3R_3s+1}, \quad \frac{L_4s}{C_4L_4s^2+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1L_1L_4R_1R_3g_ms^3 + L_4R_1R_3g_ms}{2R_1R_3g_m + 2R_3 + s^4(C_1C_3L_1L_4R_1R_3g_m + C_1C_3L_1L_4R_3 + 2C_1C_4L_1L_4R_1R_3g_m + 2C_1C_4L_1L_4R_3) + s^3(C_1C_3L_4R_1R_3 + 2C_1C_4L_4R_1R_3 + C_1L_1L_4R_1g_m + C_1L_1L_4) + s^2(2C_1L_1R_1R_3g_m + 2C_1L_1R_3 + C_1L_4R_1 + C_3L_4R_1R_3g_m + C_3L_4R_3 + 2C_4L_4R_1R_3g_m + 2C_4L_4R_3)} + 1$$

$$\mathbf{10.957 \quad INVALID-ORDER-957} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3}{C_3R_3s+1}, \quad L_4s + R_4 + \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_4L_1L_4R_1R_3g_ms^4 + C_1C_4L_1R_1R_3R_4g_ms^3 + C_4R_1R_3R_4g_ms + R_1R_3g_m}{R_1g_m + s^5(C_1C_3C_4L_1L_4R_1R_3g_m + C_1C_3C_4L_1L_4R_3) + s^4(C_1C_3C_4L_1R_1R_3R_4g_m + C_1C_3C_4L_1R_3R_4 + C_1C_3C_4L_4R_1R_3 + C_1C_4L_1L_4R_1g_m + C_1C_4L_1L_4) + s^3(C_1C_3C_4R_1R_3R_4 + C_1C_3L_1R_1R_3g_m + C_1C_3L_1R_3 + 2C_1C_4L_1R_1R_3g_m + C_1C_4L_1R_1R_4g_m + 2C_1C_4L_1R_3 + C_1C_4L_4R_1 + C_3C_4L_4R_1R_3g_m + C_3C_4L_4R_3) + s^2(C_1C_3R_1R_3 + 2C_1C_4R_1R_3 + C_1C_4R_1R_4 + C_1L_1R_1g_m + C_1L_1 + C_3C_4R_1R_3g_m + C_3C_4R_1R_4g_m + C_3C_4R_4)} + 1$$

$$\mathbf{10.985 \quad INVALID-ORDER-985} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{L_3s}{C_3L_3s^2+1}, \quad L_4s + \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_4L_1L_3L_4R_1g_ms^5 + L_3R_1g_ms + s^3(C_1L_1L_3R_1g_m + C_4L_3L_4R_1g_m)}{C_1C_3C_4L_3L_4R_1s^5 + C_1R_1s + R_1g_m + s^6(C_1C_3C_4L_1L_3L_4R_1g_m + C_1C_3C_4L_1L_3L_4) + s^4(C_1C_3L_1L_3R_1g_m + C_1C_3L_1L_3 + 2C_1C_4L_1L_3R_1g_m + 2C_1C_4L_1L_3 + C_1C_4L_1L_4R_1g_m + C_1C_4L_1L_4 + C_3C_4L_3L_4R_1g_m + C_3C_4L_3L_4) + s^3(C_1C_3L_3R_1 + 2C_1C_4L_3R_1 + C_1C_4L_3R_1)}$$

$$\mathbf{10.986 \quad INVALID-ORDER-986} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{L_3s}{C_3L_3s^2+1}, \quad \frac{L_4s}{C_4L_4s^2+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1L_1L_3L_4R_1g_ms^3 + L_3L_4R_1g_ms}{2L_3R_1g_m + 2L_3 + L_4R_1g_m + L_4 + s^4(C_1C_3L_1L_3L_4R_1g_m + C_1C_3L_1L_3L_4 + 2C_1C_4L_1L_3L_4R_1g_m + 2C_1C_4L_1L_3L_4) + s^3(C_1C_3L_3L_4R_1 + 2C_1C_4L_3L_4R_1) + s^2(2C_1L_1L_3R_1g_m + 2C_1L_1L_3 + C_1L_1L_4R_1g_m + C_1L_1L_4 + C_3L_3L_4R_1g_m + C_3L_3L_4 + 2C_4L_3L_4R_1g_m + 2C_4L_3L_4)}$$

$$\mathbf{10.987 \quad INVALID-ORDER-987} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{L_3s}{C_3L_3s^2+1}, \quad L_4s + R_4 + \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_4L_1L_3L_4R_1g_ms^5 + C_1C_4L_1L_3R_1R_4g_ms^4 + C_1C_4L_1L_3R_1R_4g_ms}{R_1g_m + s^6(C_1C_3C_4L_1L_3L_4R_1g_m + C_1C_3C_4L_1L_3L_4) + s^5(C_1C_3C_4L_1L_3R_1R_4g_m + C_1C_3C_4L_1L_3R_4 + C_1C_3C_4L_3L_4R_1) + s^4(C_1C_3C_4L_3R_1R_4 + C_1C_3L_1L_3R_1g_m + C_1C_3L_1L_3 + 2C_1C_4L_1L_3R_1g_m + 2C_1C_4L_1L_3 + C_1C_4L_1L_4R_1g_m + C_1C_4L_1L_4 + C_3C_4L_3L_4R_1g_m + C_3C_4L_3L_4)}$$

$$\mathbf{10.988 \quad INVALID-ORDER-988} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{L_3s}{C_3L_3s^2+1}, \quad \frac{L_4R_4s}{C_4L_4R_4s^2+L_4s+R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1L_1L_3L_4R_1R_4g_ms^3 + L_3L_4R_1R_4g_ms}{2L_3R_1R_4g_m + 2L_3R_4 + L_4R_1R_4g_m + L_4R_4 + s^4(C_1C_3L_1L_3L_4R_1R_4g_m + C_1C_3L_1L_3L_4R_4 + 2C_1C_4L_1L_3L_4R_1R_4g_m + 2C_1C_4L_1L_3L_4R_4) + s^3(C_1C_3L_3L_4R_1R_4 + 2C_1C_4L_3L_4R_1R_4 + 2C_1L_1L_3L_4R_1g_m + 2C_1L_1L_3L_4) + s^2(2C_1L_1L_3R_1R_4g_m + 2C_1L_1L_3R_4 + C_1L_1L_4R_1R_4g_m + C_1L_1L_4R_4)}$$

$$\mathbf{10.989 \quad INVALID-ORDER-989} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{L_3s}{C_3L_3s^2+1}, \quad \frac{C_4L_4R_4s^2+L_4s+R_4}{C_4L_4s^2+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1L_1L_3L_4R_1R_4g_ms^3 + L_3L_4R_1R_4g_ms}{R_1R_4g_m + R_4 + s^6(C_1C_3C_4L_1L_3L_4R_1R_4g_m + C_1C_3C_4L_1L_3L_4R_4) + s^5(C_1C_3C_4L_3L_4R_1R_4 + C_1C_3L_1L_3L_4R_1g_m + C_1C_3L_1L_3L_4 + 2C_1C_4L_1L_3L_4R_1g_m + 2C_1C_4L_1L_3L_4) + s^4(C_1C_3L_1L_3R_1R_4g_m + C_1C_3L_1L_3R_4 + C_1C_3L_3L_4R_1 + C_1C_4L_1L_4R_1R_4g_m + C_1C_4L_1L_4R_4)}$$

$$\mathbf{10.990 \quad INVALID-ORDER-990} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{L_3s}{C_3L_3s^2+1}, \quad \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_4L_1L_3L_4R_1R_4g_ms^3 + L_3L_4R_1R_4g_ms}{R_1R_4g_m + R_4 + s^6(C_1C_3C_4L_1L_3L_4R_1R_4g_m + C_1C_3C_4L_1L_3L_4R_4) + s^5(C_1C_3C_4L_3L_4R_1R_4 + 2C_1C_4L_1L_3L_4R_1g_m + 2C_1C_4L_1L_3L_4) + s^4(C_1C_3L_1L_3R_1R_4g_m + C_1C_3L_1L_3R_4 + 2C_1C_4L_1L_3R_1R_4g_m + 2C_1C_4L_1L_3R_4 + C_1C_4L_1L_4R_1R_4g_m + C_1C_4L_1L_4R_4 + 2C_1C_4L_3L_4R_1R_4g_m + 2C_1C_4L_3L_4R_4)}$$

$$\mathbf{10.991 \quad INVALID-ORDER-991} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad L_3s + R_3 + \frac{1}{C_3s}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_3L_1L_3R_1R_4g_ms^4 + C_1C_3L_1R_1R_3R_4g_ms^3 + C_3R_1R_3R_4g_ms + R_1R_4g_m + s^2(C_1L_1R_1R_4g_m + C_3L_3R_1R_4g_m)}{2R_1g_m + s^4(2C_1C_3L_1L_3R_1g_m + 2C_1C_3L_1L_3) + s^3(2C_1C_3L_1R_1R_3g_m + C_1C_3L_1R_1R_4g_m + 2C_1C_3L_1R_3 + C_1C_3L_1R_4 + 2C_1C_3L_3R_1) + s^2(2C_1C_3R_1R_3 + C_1C_3R_1R_4 + 2C_1L_1R_1g_m + 2C_1L_1 + 2C_3L_3R_1g_m + 2C_3L_3) + s(2C_1R_1 + 2C_3R_1R_3g_m + C_3R_1R_4g_m + 2C_3R_1R_4)}$$

$$\mathbf{10.992 \quad INVALID-ORDER-992} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad L_3s + R_3 + \frac{1}{C_3s}, \quad \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_3L_1L_3R_1g_ms^4 + C_1C_3L_1R_1R_3g_ms^3 + C_3R_1R_3g_ms + R_1g_m + s^2(C_1L_1R_1g_m + C_3L_3R_1g_m)}{s^5(2C_1C_3C_4L_1L_3R_1g_m + 2C_1C_3C_4L_1L_3) + s^4(2C_1C_3C_4L_1R_1R_3g_m + 2C_1C_3C_4L_1R_3 + 2C_1C_3C_4L_3R_1) + s^3(2C_1C_3C_4R_1R_3 + C_1C_3L_1R_1g_m + C_1C_3L_1 + 2C_1C_4L_1R_1g_m + 2C_1C_4L_1 + 2C_3C_4L_3R_1g_m + 2C_3C_4L_3) + s^2(C_1C_3R_1 + 2C_1C_4R_1 + 2C_3C_4R_1R_3g_m + 2C_3C_4R_1R_4)}$$

$$\mathbf{10.993 \quad INVALID-ORDER-993} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad L_3s + R_3 + \frac{1}{C_3s}, \quad \frac{R_4}{C_4R_4s+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_3L_1L_3R_1R_4g_ms^4 + C_1C_3L_1R_1R_3R_4g_ms^3 + C_3R_1R_3R_4g_ms + R_1R_4g_m + s^2(C_1L_1R_1R_4g_m + C_3L_3R_1R_4g_m)}{2R_1g_m + s^5(2C_1C_3C_4L_1L_3R_1R_4g_m + 2C_1C_3C_4L_1L_3R_4) + s^4(2C_1C_3C_4L_1R_1R_3R_4g_m + 2C_1C_3C_4L_1R_3R_4 + 2C_1C_3C_4L_3R_1R_4 + 2C_1C_3L_1L_3R_1g_m + 2C_1C_3L_1L_3) + s^3(2C_1C_3C_4R_1R_3R_4 + 2C_1C_3L_1R_1R_3g_m + C_1C_3L_1R_1R_4g_m + 2C_1C_3L_1R_3 + C_1C_3L_1R_4 + 2C_1C_4L_1L_3R_1R_4g_m + 2C_1C_4L_1L_3R_4 + C_1C_4L_1L_4R_1R_4g_m + C_1C_4L_1L_4R_4)}$$

10.1003 INVALID-ORDER-1003 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 L_3 R_1 R_3 R_4 g_m s^3 + L_3 R_1 R_3 R_4 g_m s}{R_1 R_3 R_4 g_m + R_3 R_4 + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 R_4 g_m + C_1 C_3 L_1 L_3 R_3 R_4 + 2 C_1 C_4 L_1 L_3 R_1 R_3 R_4 g_m + 2 C_1 C_4 L_1 L_3 R_3 R_4) + s^3 (C_1 C_3 L_3 R_1 R_3 R_4 + 2 C_1 C_4 L_3 R_1 R_3 R_4 + 2 C_1 L_1 L_3 R_1 R_3 g_m + C_1 L_1 L_3 R_1 R_4 g_m + 2 C_1 L_1 L_3 R_3 + C_1 L_1 L_3 R_4) + s^2 (C_1 L_1 R_1 R_3 R_4 g_m + C_1 L_1 R_3 R_4 g_m)}$$

10.1004 INVALID-ORDER-1004 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \infty, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, R_4 + \frac{1}{C_4s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_3 R_1 R_4}{R_1 R_3 g_m + R_3 + s^5 (C_1 C_3 C_4 L_1 L_3 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 L_3 R_3 R_4) + s^4 (C_1 C_3 C_4 L_3 R_1 R_3 R_4 + C_1 C_3 L_1 L_3 R_1 R_3 g_m + C_1 C_3 L_1 L_3 R_3 + 2 C_1 C_4 L_1 L_3 R_1 R_3 g_m + C_1 C_4 L_1 L_3 R_1 R_4 g_m + 2 C_1 C_4 L_1 L_3 R_3 + C_1 C_4 L_1 L_3 R_4) + s^3 (C_1 C_3 L_3 R_1 R_3 + C_1 C_4 L_1 R_1 R_3 R_4 g_m + C_1 C_4 L_1 R_1 R_3 R_4)}{1}$$

10.1005 INVALID-ORDER-1005 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \infty, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, L_4s + \frac{1}{C_4s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_4 L_1 L_3 L_4}{R_1 R_3 g_m + R_3 + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_3)} + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 R_3 + C_1 C_4 L_1 L_3 L_4 R_1 g_m + C_1 C_4 L_1 L_3 L_4) + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 g_m + C_1 C_3 L_1 L_3 R_3 + 2 C_1 C_4 L_1 L_3 R_1 R_3 g_m + 2 C_1 C_4 L_1 L_3 R_3 + C_1 C_4 L_1 L_4 R_1 R_3 g_m + C_1 C_4 L_1 L_4 R_3 + C_1 C_4$$

10.1006 INVALID-ORDER-1006 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{C_1 L_1 L_3 L_4 R_1 R_3 g_m s^3 + L_3 L_4 R_1 R_3 g_m s}{2L_3 R_1 R_3 g_m + 2L_3 R_3 + L_4 R_1 R_3 g_m + L_4 R_3 + s^4 (C_1 C_3 L_1 L_3 L_4 R_1 R_3 g_m + C_1 C_3 L_1 L_3 L_4 R_3 + 2C_1 C_4 L_1 L_3 L_4 R_1 R_3 g_m + 2C_1 C_4 L_1 L_3 L_4 R_3) + s^3 (C_1 C_3 L_3 L_4 R_1 R_3 + 2C_1 C_4 L_3 L_4 R_1 R_3 + C_1 L_1 L_3 L_4 R_1 g_m + C_1 L_1 L_3 L_4) + s^2 (2C_1 L_1 L_3 R_1 R_3 g_m + 2C_1 L_1 L_3 R_3 + C_1 L_1)}$$

10.1007 INVALID-ORDER-1007 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{R_1 R_3 g_m + R_3 + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_3) + s^5 (C_1 C_3 C_4 L_1 L_3 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 L_3 R_3 R_4 + C_1 C_3 C_4 L_3 L_4 R_1 R_3 + C_1 C_4 L_1 L_3 L_4 R_1 g_m + C_1 C_4 L_1 L_3 L_4) + s^4 (C_1 C_3 C_4 L_3 R_1 R_3 R_4 + C_1 C_3 L_1 L_3 R_1 R_3 g_m + C_1 C_3 L_1 L_3 R_3 + 2 C_1 C_4 L_1 L_3 R_1)}{R_1 R_3 g_m + R_3 + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_3) + s^5 (C_1 C_3 C_4 L_1 L_3 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 L_3 R_3 R_4 + C_1 C_3 C_4 L_3 L_4 R_1 R_3 + C_1 C_4 L_1 L_3 L_4 R_1 g_m + C_1 C_4 L_1 L_3 L_4) + s^4 (C_1 C_3 C_4 L_3 R_1 R_3 R_4 + C_1 C_3 L_1 L_3 R_1 R_3 g_m + C_1 C_3 L_1 L_3 R_3 + 2 C_1 C_4 L_1 L_3 R_1)}$$

10.1008 INVALID-ORDER-1008 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{2L_3R_1R_3R_4g_m + 2L_3R_3R_4 + L_4R_1R_3R_4g_m + L_4R_3R_4 + s^4(C_1C_3L_1L_3L_4R_1R_3R_4g_m + C_1C_3L_1L_3L_4R_3R_4 + 2C_1C_4L_1L_3L_4R_1R_3R_4g_m + 2C_1C_4L_1L_3L_4R_3R_4) + s^3(C_1C_3L_3L_4R_1R_3R_4 + 2C_1C_4L_3L_4R_1R_3R_4 + 2C_1L_1L_3L_4R_1R_3g_m + C_1L_1L_3L_4R_1R_4g_m + 2C_1L_1L_3L_4R_3R_4) + s^2(C_1C_3L_1L_3L_4R_1R_3R_4g_m + C_1C_3L_1L_3L_4R_3R_4 + 2C_1C_4L_1L_3L_4R_1R_3R_4g_m + 2C_1C_4L_1L_3L_4R_3R_4) + s(C_1C_3L_3L_4R_1R_3R_4 + 2C_1C_4L_3L_4R_1R_3R_4 + 2C_1L_1L_3L_4R_1R_3g_m + C_1L_1L_3L_4R_1R_4g_m + 2C_1L_1L_3L_4R_3R_4) + C_1C_3L_1L_3L_4R_1R_3R_4g_m + C_1C_3L_1L_3L_4R_3R_4}{2L_3R_1R_3R_4g_m + 2L_3R_3R_4 + L_4R_1R_3R_4g_m + L_4R_3R_4 + s^4(C_1C_3L_1L_3L_4R_1R_3R_4g_m + C_1C_3L_1L_3L_4R_3R_4 + 2C_1C_4L_1L_3L_4R_1R_3R_4g_m + 2C_1C_4L_1L_3L_4R_3R_4) + s^3(C_1C_3L_3L_4R_1R_3R_4 + 2C_1C_4L_3L_4R_1R_3R_4 + 2C_1L_1L_3L_4R_1R_3g_m + C_1L_1L_3L_4R_1R_4g_m + 2C_1L_1L_3L_4R_3R_4) + s^2(C_1C_3L_1L_3L_4R_1R_3R_4g_m + C_1C_3L_1L_3L_4R_3R_4 + 2C_1C_4L_1L_3L_4R_1R_3R_4g_m + 2C_1C_4L_1L_3L_4R_3R_4) + s(C_1C_3L_3L_4R_1R_3R_4 + 2C_1C_4L_3L_4R_1R_3R_4 + 2C_1L_1L_3L_4R_1R_3g_m + C_1L_1L_3L_4R_1R_4g_m + 2C_1L_1L_3L_4R_3R_4) + C_1C_3L_1L_3L_4R_1R_3R_4g_m + C_1C_3L_1L_3L_4R_3R_4}$$

10.1009 INVALID-ORDER-1009 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{1}{R_1 R_3 R_4 g_m + R_3 R_4 + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4) + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 + C_1 C_3 L_1 L_3 L_4 R_1 R_3 g_m + C_1 C_3 L_1 L_3 L_4 R_3 + 2C_1 C_4 L_1 L_3 L_4 R_1 R_3 g_m + C_1 C_4 L_1 L_3 L_4 R_1 R_4 g_m + 2C_1 C_4 L_1 L_3 L_4 R_3 + C_1 C_4 L_1 L_3 L_4 R_4) + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 g_m + C_1 C_3 L_1 L_3 R_1 R_4 g_m + C_1 C_3 L_1 L_3 R_3 + C_1 C_3 L_1 L_3 R_4) + s^3 (C_1 C_3 L_1 R_1 R_3 g_m + C_1 C_3 L_1 R_1 R_4 g_m + C_1 C_3 L_1 R_3 + C_1 C_3 L_1 R_4) + s^2 (C_1 C_3 R_1 R_3 g_m + C_1 C_3 R_1 R_4 g_m + C_1 C_3 R_3 + C_1 C_3 R_4) + s (C_1 C_3 R_3 + C_1 C_3 R_4) + C_1 C_3}.$$

10.1010 INVALID-ORDER-1010 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \frac{R_4(C_4 L_4 s^2 + 1)}{C_4 L_4 s^2 + C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{R_1 R_3 R_4 g_m + R_3 R_4 + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4) + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 + 2 C_1 C_4 L_1 L_3 L_4 R_1 R_3 g_m + C_1 C_4 L_1 L_3 L_4 R_1 R_4 g_m + 2 C_1 C_4 L_1 L_3 L_4 R_3 + C_1 C_4 L_1 L_3 L_4 R_4) + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 R_4 g_m + C_1 C_3 L_1 L_3 R_3 R_4 + 2 C_1 C_4 L_1 L_3 R_1 R_3 R_4)}{R_1 R_3 R_4 g_m + R_3 R_4 + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 R_4 g_m + C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4) + s^5 (C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 + 2 C_1 C_4 L_1 L_3 L_4 R_1 R_3 g_m + C_1 C_4 L_1 L_3 L_4 R_1 R_4 g_m + 2 C_1 C_4 L_1 L_3 L_4 R_3 + C_1 C_4 L_1 L_3 L_4 R_4) + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 R_4 g_m + C_1 C_3 L_1 L_3 R_3 R_4 + 2 C_1 C_4 L_1 L_3 R_1 R_3 R_4)}$$

10.1011 INVALID-ORDER-1011 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \infty, \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, R_4, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 R_3 R_4 g_m s^4 + C_1 L_1 L_3 R_1 R_4 g_m s^3 + L_3 R_1 R_4 g_m s + R_1 R_3 R_4 g_m + s^2 (C_1 L_1 R_1 R_3 R_4 g_m + C_3 L_3 R_1 R_3 R_4 g_m)}{2R_1 R_3 g_m + R_1 R_4 g_m + 2R_3 + R_4 + s^4 (2C_1 C_3 L_1 L_3 R_1 R_3 g_m + C_1 C_3 L_1 L_3 R_1 R_4 g_m + 2C_1 C_3 L_1 L_3 R_3 + C_1 C_3 L_1 L_3 R_4) + s^3 (2C_1 C_3 L_3 R_1 R_3 + C_1 C_3 L_3 R_1 R_4 + 2C_1 L_1 L_3 R_1 g_m + 2C_1 L_1 L_3) + s^2 (2C_1 L_1 R_1 R_3 g_m + C_1 L_1 R_1 R_4 g_m + 2C_1 L_1 R_3 + C_1 L_1 R_4 + 2C_1 L_3 R_1 + 2C_1 L_3 R_4) + s (2C_1 R_1 R_3 + 2C_1 R_1 R_4 + 2C_1 R_3 + 2C_1 R_4) + 2C_1 g_m}$$

10.1012 INVALID-ORDER-1012 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 L_1 L_3 R_1 R_3 g_m s^4 + C_1 L_1 L_3 R_1 g_m s^3 + L_3 R_1 g_m s + R_1 R_3 g_m + s^2 (C_1 L_1 R_1 R_3 g_m + C_3 L_3 R_1 R_3 g_m)}{R_1 g_m + s^5 (2C_1 C_3 C_4 L_1 L_3 R_1 R_3 g_m + 2C_1 C_3 C_4 L_1 L_3 R_3) + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 + C_1 C_3 L_1 L_3 R_1 g_m + C_1 C_3 L_1 L_3 + 2C_1 C_4 L_1 L_3 R_1 g_m + 2C_1 C_4 L_1 L_3) + s^3 (C_1 C_3 L_3 R_1 + 2C_1 C_4 L_1 R_1 R_3 g_m + 2C_1 C_4 L_1 R_3 + 2C_1 C_4 L_3 R_1 + 2C_3 C_4 L_3 R_1 R_3 g_m + 2C_3 C_4 L_3 R_3) + s^2 (2C_1 C_3 C_4 L_1 L_3 R_1 R_3 g_m + 2C_1 C_3 C_4 L_1 L_3 R_3) + s (C_1 C_3 C_4 L_1 L_3 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_3 R_3) + C_1 C_3 C_4 L_1 L_3 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_3 R_3}$$

10.1013 INVALID-ORDER-1013 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \frac{R_4}{C_4 R_4 s + 1}, \infty, \infty \right)$

$$H(s) = \frac{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^5(2C_1C_3C_4L_1L_3R_1R_3R_4g_m + 2C_1C_3C_4L_1L_3R_3R_4) + s^4(2C_1C_3C_4L_3R_1R_3R_4 + 2C_1C_3L_1L_3R_1R_3g_m + C_1C_3L_1L_3R_1R_4g_m + 2C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4 + 2C_1C_4L_1L_3R_1R_4g_m + 2C_1C_4L_1L_3R_4) + s^3(2C_1C_3L_3R_1R_3 + C_1C_3L_3R_1R_4 + 2C_1C_3L_3R_3 + C_1C_3L_3R_4) + s^2(2C_1C_3L_1L_3R_1R_3 + C_1C_3L_1L_3R_1R_4 + 2C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4) + s(2C_1C_3L_1L_3R_1R_3 + C_1C_3L_1L_3R_1R_4 + 2C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4) + 2C_1C_3L_1L_3R_1R_3 + 2C_1C_3L_1L_3R_1R_4 + 2C_1C_3L_1L_3R_3 + 2C_1C_3L_1L_3R_4}{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^5(2C_1C_3C_4L_1L_3R_1R_3R_4g_m + 2C_1C_3C_4L_1L_3R_3R_4) + s^4(2C_1C_3C_4L_3R_1R_3R_4 + 2C_1C_3L_1L_3R_1R_3g_m + C_1C_3L_1L_3R_1R_4g_m + 2C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4 + 2C_1C_4L_1L_3R_1R_4g_m + 2C_1C_4L_1L_3R_4) + s^3(2C_1C_3L_3R_1R_3 + C_1C_3L_3R_1R_4 + 2C_1C_3L_3R_3 + C_1C_3L_3R_4) + s^2(2C_1C_3L_1L_3R_1R_3 + C_1C_3L_1L_3R_1R_4 + 2C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4) + s(2C_1C_3L_1L_3R_1R_3 + C_1C_3L_1L_3R_1R_4 + 2C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4) + 2C_1C_3L_1L_3R_1R_3 + 2C_1C_3L_1L_3R_1R_4 + 2C_1C_3L_1L_3R_3 + 2C_1C_3L_1L_3R_4}$$

10.1014 INVALID-ORDER-1014 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, R_4 + \frac{1}{C_4 s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 R_1 R_3 R_4 g_m s^5 + R_1 R_3 g_m + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 g_m + C_1 C_4 L_1 L_3 R_1 R_4 g_m) + s^3 (C_1 C_4 L_1 R_1 R_3 g_m + C_1 C_3 L_1 L_3 R_1 R_4 g_m) + s^2 (C_1 C_3 C_4 L_1 L_3 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2C_1 C_3 C_4 L_1 L_3 R_3 + C_1 C_3 C_4 L_1 L_3 R_4) + s (2C_1 C_3 C_4 L_3 R_1 R_3 + C_1 C_3 C_4 L_3 R_1 R_4 + C_1 C_3 L_1 L_3 R_1 g_m + C_1 C_3 L_1 L_3 + 2C_1 C_4 L_1 L_3 R_1 g_m + 2C_1 C_4 L_1 L_3) + s^0 (C_1 C_3 L_3 R_1 + 2C_1 C_4 L_1 R_1 R_3 g_m + C_1 C_4 L_1 R_1 R_3)}{R_1 g_m + s^5 (2C_1 C_3 C_4 L_1 L_3 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2C_1 C_3 C_4 L_1 L_3 R_3 + C_1 C_3 C_4 L_1 L_3 R_4) + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 + C_1 C_3 C_4 L_3 R_1 R_4 + C_1 C_3 L_1 L_3 R_1 g_m + C_1 C_3 L_1 L_3 + 2C_1 C_4 L_1 L_3 R_1 g_m + 2C_1 C_4 L_1 L_3) + s^3 (C_1 C_3 L_3 R_1 + 2C_1 C_4 L_1 R_1 R_3 g_m + C_1 C_4 L_1 R_1 R_3)}$$

10.1015 INVALID-ORDER-1015 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \infty, \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, L_4s + \frac{1}{C_4s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 g_m s^6 + C_1 C_4 L_1 L_3 L_4 R_1 g_m s^5 + L_3 R_1 g_m s + R_1 R_3 g_m + s^4 (C_1 C_3 L_1 L_3 R_1 R_3 g_m + C_1 R_1 g_m + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_1 L_3 L_4) + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_1 R_3 g_m + 2 C_1 C_3 C_4 L_1 L_3 R_3 + C_1 C_3 C_4 L_3 L_4 R_1) + s^4 (2 C_1 C_3 C_4 L_3 R_1 R_3 + C_1 C_3 L_1 L_3 R_1 g_m + C_1 C_3 L_1 L_3 + 2 C_1 C_4 L_1 L_3 R_1 g_m + 2 C_1 C_4 L_1 L_3 + C_1 C_4 L_1 L_4 R_1 g_m + C_1 C_4 L_1 L_4 + C_3 C_4 L_3 L_4))}{R_1 g_m + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_1 L_3 L_4) + s^5 (2 C_1 C_3 C_4 L_1 L_3 R_1 R_3 g_m + 2 C_1 C_3 C_4 L_1 L_3 R_3 + C_1 C_3 C_4 L_3 L_4 R_1) + s^4 (2 C_1 C_3 C_4 L_3 R_1 R_3 + C_1 C_3 L_1 L_3 R_1 g_m + C_1 C_3 L_1 L_3 + 2 C_1 C_4 L_1 L_3 R_1 g_m + 2 C_1 C_4 L_1 L_3 + C_1 C_4 L_1 L_4 R_1 g_m + C_1 C_4 L_1 L_4 + C_3 C_4 L_3 L_4)}$$

10.1016 INVALID-ORDER-1016 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{2R_1 R_3 g_m + 2R_3 + s^6 (2C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 g_m + 2C_1 C_3 C_4 L_1 L_3 L_4 R_3) + s^5 (2C_1 C_3 C_4 L_3 L_4 R_1 R_3 + C_1 C_3 L_1 L_3 L_4 R_1 g_m + C_1 C_3 L_1 L_3 L_4 + 2C_1 C_4 L_1 L_3 L_4 R_1 g_m + 2C_1 C_4 L_1 L_3 L_4) + s^4 (2C_1 C_3 L_1 L_3 R_1 R_3 g_m + 2C_1 C_3 L_1 L_3 R_3 + C_1 C_3 L_3 L_4 R_1 + 2C_1 C_4 L_1 L_4 R_1 R_3 g_m}$$

10.1017 INVALID-ORDER-1017 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \infty, \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, L_4s + R_4 + \frac{1}{C_4s}, \infty, \infty \right)$

$$H(s) = \frac{C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 g_m s^6 + R_1 R_3 g_m + s^5 (C_1 C_3 C_4 L_1 L_3 R_1 R_3 R_4 g_m + C_1 C_4 L_1 L_3 L_4 R_1 R_3 g_m)}{R_1 g_m + s^6 (C_1 C_3 C_4 L_1 L_3 L_4 R_1 g_m + C_1 C_3 C_4 L_1 L_3 L_4) + s^5 (2C_1 C_3 C_4 L_1 L_3 R_1 R_3 g_m + C_1 C_3 C_4 L_1 L_3 R_1 R_4 g_m + 2C_1 C_3 C_4 L_1 L_3 R_3 + C_1 C_3 C_4 L_1 L_3 R_4 + C_1 C_3 C_4 L_3 L_4 R_1) + s^4 (2C_1 C_3 C_4 L_3 R_1 R_3 + C_1 C_3 C_4 L_3 R_1 R_4 + C_1 C_3 L_1 L_3 R_1 g_m + C_1 C_3 L_1 L_3 + 2C_1 C_4 L_1 L_3 R_1 g_m)}$$

10.1018 INVALID-ORDER-1018 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \frac{L_4 R_4 s}{C_4 L_4 R_4 s^2 + L_4 s + R_4}, \infty, \infty \right)$

$$H(s) = \frac{2R_1 R_3 R_4 g_m + 2R_3 R_4 + s^6 (2C_1 C_3 C_4 L_1 L_3 L_4 R_1 R_3 R_4 g_m + 2C_1 C_3 C_4 L_1 L_3 L_4 R_3 R_4) + s^5 (2C_1 C_3 C_4 L_3 L_4 R_1 R_3 R_4 + 2C_1 C_3 L_1 L_3 L_4 R_1 R_3 g_m + C_1 C_3 L_1 L_3 L_4 R_1 R_4 g_m + 2C_1 C_3 L_1 L_3 L_4 R_3 + C_1 C_3 L_1 L_3 L_4 R_4 + 2C_1 C_4 L_1 L_3 L_4 R_1 R_4 g_m + 2C_1 C_4 L_1 L_3 L_4 R_4) + s^4 (2C_1 C_3$$

10.1019 INVALID-ORDER-1019 $Z(s) = \left(\frac{R_1(C_1 L_1 s^2 + 1)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \infty, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \frac{C_4 L_4 R_4 s^2 + L_4 s + R_4}{C_4 L_4 s^2 + 1}, \infty, \infty \right)$

$$H(s) = \frac{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^6(2C_1C_3C_4L_1L_3L_4R_1R_3g_m + C_1C_3C_4L_1L_3L_4R_1R_4g_m + 2C_1C_3C_4L_1L_3L_4R_3 + C_1C_3C_4L_1L_3L_4R_4) + s^5(2C_1C_3C_4L_3L_4R_1R_3 + C_1C_3C_4L_3L_4R_1R_4 + C_1C_3L_1L_3L_4R_1g_m + C_1C_3L_1L_3L_4 + 2C_1C_4L_1L_3L_4R_1g_m + 2C_1C_4L_1L_3L_4R_1R_4 + C_1C_4L_1L_3L_4R_1R_3 + C_1C_4L_1L_3L_4R_1R_4 + C_1C_4L_1L_3L_4R_1g_m + C_1C_4L_1L_3L_4R_1R_4 + C_1C_4L_1L_3L_4R_1R_3 + C_1C_4L_1L_3L_4R_1R_4)}{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^6(2C_1C_3C_4L_1L_3L_4R_1R_3g_m + C_1C_3C_4L_1L_3L_4R_1R_4g_m + 2C_1C_3C_4L_1L_3L_4R_3 + C_1C_3C_4L_1L_3L_4R_4) + s^5(2C_1C_3C_4L_3L_4R_1R_3 + C_1C_3C_4L_3L_4R_1R_4 + C_1C_3L_1L_3L_4R_1g_m + C_1C_3L_1L_3L_4 + 2C_1C_4L_1L_3L_4R_1g_m + 2C_1C_4L_1L_3L_4R_1R_4 + C_1C_4L_1L_3L_4R_1R_3 + C_1C_4L_1L_3L_4R_1R_4 + C_1C_4L_1L_3L_4R_1g_m + C_1C_4L_1L_3L_4R_1R_4 + C_1C_4L_1L_3L_4R_1R_3 + C_1C_4L_1L_3L_4R_1R_4)}$$

10.1020 INVALID-ORDER-1020 $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \infty, \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, \infty, \infty \right)$

$$H(s) = \frac{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^6(2C_1C_3C_4L_1L_3L_4R_1R_3g_m + C_1C_3C_4L_1L_3L_4R_1R_4g_m + 2C_1C_3C_4L_1L_3L_4R_3 + C_1C_3C_4L_1L_3L_4R_4) + s^5(2C_1C_3C_4L_1L_3R_1R_3R_4g_m + 2C_1C_3C_4L_1L_3R_3R_4 + 2C_1C_3C_4L_3L_4R_1R_3 + C_1C_3C_4L_3L_4R_1R_4 + 2C_1C_4L_1L_3L_4R_1g_m}$$

$$\mathbf{10.1021 \quad INVALID-ORDER-1021} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad R_4, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_3L_1L_3R_1R_3R_4g_ms^4 + R_1R_3R_4g_m + s^2(C_1L_1R_1R_3R_4g_m + C_3L_3R_1R_3R_4g_m)}{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^4(2C_1C_3L_1L_3R_1R_3g_m + C_1C_3L_1L_3R_1R_4g_m + 2C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4) + s^3(C_1C_3L_1R_1R_3R_4g_m + C_1C_3L_1R_3R_4 + 2C_1C_3L_3R_1R_3 + C_1C_3L_3R_1R_4) + s^2(C_1C_3R_1R_3R_4 + 2C_1L_1R_1R_3g_m + C_1L_1R_1R_4g_m + 2C_1L_1R_3g_m)}$$

$$\mathbf{10.1022 \quad INVALID-ORDER-1022} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_3L_1L_3R_1R_3g_ms^4 + R_1R_3g_m + s^2(C_1L_1R_1R_3g_m + C_3L_3R_1R_3g_m)}{R_1g_m + s^5(2C_1C_3C_4L_1L_3R_1R_3g_m + 2C_1C_3C_4L_1L_3R_3) + s^4(2C_1C_3C_4L_3R_1R_3 + C_1C_3L_1L_3R_1g_m + C_1C_3L_1L_3) + s^3(C_1C_3L_1R_1R_3g_m + C_1C_3L_1R_3 + C_1C_3L_3R_1 + 2C_1C_4L_1R_1R_3g_m + 2C_1C_4L_1R_3 + 2C_3C_4L_3R_1R_3g_m + 2C_3C_4L_3R_3) + s^2(C_1C_3R_1R_3 + 2C_1C_3R_1R_3g_m)}$$

$$\mathbf{10.1023 \quad INVALID-ORDER-1023} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad \frac{R_4}{C_4R_4s+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_3L_1L_3R_1R_3R_4g_ms^4 + R_1R_3R_4g_m + s^2(C_1L_1R_1R_3R_4g_m + C_3L_3R_1R_3R_4g_m)}{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^5(2C_1C_3C_4L_1L_3R_1R_3R_4g_m + 2C_1C_3C_4L_1L_3R_3R_4) + s^4(2C_1C_3C_4L_3R_1R_3R_4 + 2C_1C_3L_1L_3R_1R_3g_m + C_1C_3L_1L_3R_1R_4g_m + 2C_1C_3L_1L_3R_3 + C_1C_3L_1L_3R_4) + s^3(C_1C_3L_1R_1R_3R_4g_m + C_1C_3L_1R_3R_4 + 2C_1C_3L_3R_1R_3 + C_1C_3L_3R_1R_4) + s^2(C_1C_3R_1R_3R_4 + 2C_1L_1R_1R_3g_m + C_1L_1R_1R_4g_m + 2C_1L_1R_3g_m)}$$

$$\mathbf{10.1024 \quad INVALID-ORDER-1024} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad R_4 + \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_3C_4L_1L_3R_1R_3R_4g_ms^4 + R_1R_3R_4g_m + s^2(C_1L_1R_1R_3R_4g_m + C_3L_3R_1R_3R_4g_m)}{R_1g_m + s^5(2C_1C_3C_4L_1L_3R_1R_3g_m + C_1C_3C_4L_1L_3R_1R_4g_m + 2C_1C_3C_4L_1L_3R_3 + C_1C_3C_4L_1L_3R_4) + s^4(C_1C_3C_4L_1R_1R_3R_4g_m + C_1C_3C_4L_1R_3R_4 + 2C_1C_3C_4L_3R_1R_3 + C_1C_3C_4L_3R_1R_4 + C_1C_3L_1L_3R_1g_m + C_1C_3L_1L_3) + s^3(C_1C_3C_4R_1R_3R_4 + C_1C_3L_1R_1R_3g_m + C_1C_3L_1R_3g_m)}$$

$$\mathbf{10.1025 \quad INVALID-ORDER-1025} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad L_4s + \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_3C_4L_1L_3L_4R_1R_3g_ms^4 + R_1R_3R_4g_m + s^2(C_1L_1R_1R_3R_4g_m + C_3L_3R_1R_3R_4g_m)}{R_1g_m + s^6(C_1C_3C_4L_1L_3L_4R_1g_m + C_1C_3C_4L_1L_3L_4) + s^5(2C_1C_3C_4L_1L_3R_1R_3g_m + 2C_1C_3C_4L_1L_3R_3 + C_1C_3C_4L_1L_4R_1R_3g_m + C_1C_3C_4L_1L_4R_3 + C_1C_3C_4L_3L_4R_1) + s^4(2C_1C_3C_4L_3R_1R_3 + C_1C_3C_4L_4R_1R_3 + C_1C_3L_1L_3R_1g_m + C_1C_3L_1L_3 + C_1C_4L_1L_4R_1g_m + C_1C_4L_1L_4R_3 + C_1C_4L_1L_4R_4) + s^3(C_1C_3C_4R_1R_3R_4 + C_1C_3L_1R_1R_3g_m + C_1C_3L_1R_3g_m)}$$

$$\mathbf{10.1026 \quad INVALID-ORDER-1026} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad \frac{L_4s}{C_4L_4s^2+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_3C_4L_1L_3L_4R_1R_3g_ms^4 + R_1R_3R_4g_m + s^2(C_1L_1R_1R_3R_4g_m + C_3L_3R_1R_3R_4g_m)}{2R_1R_3g_m + 2R_3 + s^6(2C_1C_3C_4L_1L_3L_4R_1R_3g_m + 2C_1C_3C_4L_1L_3L_4R_3) + s^5(2C_1C_3C_4L_3L_4R_1R_3 + C_1C_3L_1L_3L_4R_1g_m + C_1C_3L_1L_3L_4) + s^4(2C_1C_3L_1L_3R_1R_3g_m + 2C_1C_3L_1L_3R_3 + C_1C_3L_1L_4R_1R_3g_m + C_1C_3L_1L_4R_3 + C_1C_3L_3L_4R_1 + 2C_1C_4L_1L_4R_1R_3g_m + C_1C_4L_1L_4R_3 + C_1C_4L_1L_4R_4) + s^3(C_1C_3C_4R_1R_3R_4 + C_1C_3L_1R_1R_3g_m + C_1C_3L_1R_3g_m)}$$

$$\mathbf{10.1027 \quad INVALID-ORDER-1027} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad L_4s + R_4 + \frac{1}{C_4s}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_3C_4L_1L_3L_4R_1R_3g_ms^4 + R_1R_3R_4g_m + s^2(C_1L_1R_1R_3R_4g_m + C_3L_3R_1R_3R_4g_m)}{R_1g_m + s^6(C_1C_3C_4L_1L_3L_4R_1g_m + C_1C_3C_4L_1L_3L_4) + s^5(2C_1C_3C_4L_1L_3R_1R_3g_m + C_1C_3C_4L_1L_3R_1R_4g_m + 2C_1C_3C_4L_1L_3R_3 + C_1C_3C_4L_1L_3R_4 + C_1C_3C_4L_1L_4R_1R_3g_m + C_1C_3C_4L_1L_4R_3 + C_1C_3C_4L_3L_4R_1) + s^4(C_1C_3C_4L_1R_1R_3R_4g_m + C_1C_3C_4L_1R_3R_4 + 2C_1C_3C_4L_3R_1R_3 + C_1C_3C_4L_3R_1R_4 + C_1C_3L_1L_3R_1g_m + C_1C_3L_1L_3R_3 + C_1C_3L_1L_4R_1R_3g_m + C_1C_3L_1L_4R_3 + C_1C_3L_3L_4R_1 + 2C_1C_4L_1L_4R_1R_3g_m + C_1C_4L_1L_4R_3 + C_1C_4L_1L_4R_4) + s^3(C_1C_3C_4R_1R_3R_4 + C_1C_3L_1R_1R_3g_m + C_1C_3L_1R_3g_m)}$$

$$\mathbf{10.1028 \quad INVALID-ORDER-1028} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad \frac{L_4R_4s}{C_4L_4R_4s^2+L_4s+R_4}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_3C_4L_1L_3L_4R_1R_3g_ms^4 + R_1R_3R_4g_m + s^2(C_1L_1R_1R_3R_4g_m + C_3L_3R_1R_3R_4g_m)}{2R_1R_3R_4g_m + 2R_3R_4 + s^6(2C_1C_3C_4L_1L_3L_4R_1R_3R_4g_m + 2C_1C_3C_4L_1L_3L_4R_3R_4) + s^5(2C_1C_3C_4L_3L_4R_1R_3R_4 + 2C_1C_3L_1L_3L_4R_1R_3g_m + C_1C_3L_1L_3L_4R_1R_4g_m + 2C_1C_3L_1L_3L_4R_3 + C_1C_3L_1L_3L_4R_4) + s^4(2C_1C_3L_1L_3R_1R_3R_4g_m + 2C_1C_3L_1L_3R_3R_4 + C_1C_3L_1L_4R_1R_3g_m + C_1C_3L_1L_4R_3 + C_1C_3L_3L_4R_1 + 2C_1C_4L_1L_4R_1R_3g_m + C_1C_4L_1L_4R_3 + C_1C_4L_1L_4R_4) + s^3(C_1C_3C_4R_1R_3R_4 + C_1C_3L_1R_1R_3g_m + C_1C_3L_1R_3g_m)}$$

$$\mathbf{10.1029 \quad INVALID-ORDER-1029} \quad Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \quad \infty, \quad \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \quad \frac{C_4L_4R_4s^2+L_4s+R_4}{C_4L_4s^2+1}, \quad \infty, \quad \infty \right)$$

$$H(s) = \frac{C_1C_3C_4L_1L_3L_4R_1R_3g_ms^4 + R_1R_3R_4g_m + s^2(C_1L_1R_1R_3R_4g_m + C_3L_3R_1R_3R_4g_m)}{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^6(2C_1C_3C_4L_1L_3L_4R_1R_3g_m + C_1C_3C_4L_1L_3L_4R_1R_4g_m + 2C_1C_3C_4L_1L_3L_4R_3 + C_1C_3C_4L_1L_3L_4R_4) + s^5(C_1C_3C_4L_1L_4R_1R_3R_4g_m + C_1C_3C_4L_1L_4R_3R_4 + 2C_1C_3C_4L_3L_4R_1R_3 + C_1C_3C_4L_3L_4R_1R_4 + C_1C_3L_1L_3L_4R_1g_m + C_1C_3L_1L_3L_4R_3 + C_1C_3L_1L_4R_1R_3g_m + C_1C_3L_1L_4R_3 + C_1C_3L_3L_4R_1 + 2C_1C_4L_1L_4R_1R_3g_m + C_1C_4L_1L_4R_3 + C_1C_4L_1L_4R_4) + s^4(C_1C_3C_4R_1R_3R_4 + C_1C_3L_1R_1R_3g_m + C_1C_3L_1R_3g_m)}$$

10.1030 INVALID-ORDER-1030

$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \infty, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \frac{R_4(C_4L_4s^2+1)}{C_4L_4s^2+C_4R_4s+1}, \infty, \infty \right)$$

$$H(s) = \frac{}{2R_1R_3g_m + R_1R_4g_m + 2R_3 + R_4 + s^6(2C_1C_3C_4L_1L_3L_4R_1R_3g_m + C_1C_3C_4L_1L_3L_4R_1R_4g_m + 2C_1C_3C_4L_1L_3L_4R_3 + C_1C_3C_4L_1L_3L_4R_4) + s^5(2C_1C_3C_4L_1L_3R_1R_3R_4g_m + 2C_1C_3C_4L_1L_3R_3R_4 + C_1C_3C_4L_1L_4R_1R_3R_4g_m + C_1C_3C_4L_1L_4R_3R_4 + 2C_1C_3C_4L_3L_4R_1R_3R_4g_m + C_1C_3C_4L_3L_4R_3R_4 + 2C_1C_3C_4L_3L_4R_3 + C_1C_3C_4L_3L_4R_4) + s^4(2C_1C_3C_4L_1L_3R_1R_3R_4 + 2C_1C_3C_4L_1L_3R_3R_4 + C_1C_3C_4L_1L_4R_1R_3R_4 + C_1C_3C_4L_1L_4R_3R_4 + 2C_1C_3C_4L_3L_4R_1R_3R_4 + 2C_1C_3C_4L_3L_4R_3R_4 + 2C_1C_3C_4L_3L_4R_3 + C_1C_3C_4L_3L_4R_4) + s^3(2C_1C_3C_4L_1L_3R_1R_3 + 2C_1C_3C_4L_1L_3R_3 + C_1C_3C_4L_1L_4R_1R_3 + C_1C_3C_4L_1L_4R_3 + 2C_1C_3C_4L_3L_4R_1R_3 + 2C_1C_3C_4L_3L_4R_3 + 2C_1C_3C_4L_3L_4R_3 + C_1C_3C_4L_3L_4R_4) + s^2(2C_1C_3C_4L_1L_3R_1 + 2C_1C_3C_4L_1L_3R_3 + C_1C_3C_4L_1L_4R_1R_3 + C_1C_3C_4L_1L_4R_3 + 2C_1C_3C_4L_3L_4R_1R_3 + 2C_1C_3C_4L_3L_4R_3 + 2C_1C_3C_4L_3L_4R_3 + C_1C_3C_4L_3L_4R_4) + s(C_1C_3C_4L_1L_3R_1 + C_1C_3C_4L_1L_3R_3 + C_1C_3C_4L_1L_4R_1R_3 + C_1C_3C_4L_1L_4R_3 + C_1C_3C_4L_3L_4R_1R_3 + C_1C_3C_4L_3L_4R_3 + C_1C_3C_4L_3L_4R_3 + C_1C_3C_4L_3L_4R_4) + C_1C_3C_4L_1L_3R_1 + C_1C_3C_4L_1L_3R_3 + C_1C_3C_4L_1L_4R_1R_3 + C_1C_3C_4L_1L_4R_3 + C_1C_3C_4L_3L_4R_1R_3 + C_1C_3C_4L_3L_4R_3 + C_1C_3C_4L_3L_4R_3 + C_1C_3C_4L_3L_4R_4}$$

11 PolynomialError