

# Filter Summary Report: CG,Test,simple,Z2,Z3

Generated by MacAnalog-Symbolix

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3.2	BP-2 $Z(s) = \left( \infty, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \right)$	2
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10.26INVALID-ORDER-26	$Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty \right)$	9
10.27INVALID-ORDER-27	$Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty \right)$	9
10.28INVALID-ORDER-28	$Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$	9
10.29INVALID-ORDER-29	$Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$	10
10.30INVALID-ORDER-30	$Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty \right)$	10
10.31INVALID-ORDER-31	$Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$	10
10.32INVALID-ORDER-32	$Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty \right)$	10
10.33INVALID-ORDER-33	$Z(s) = \left( \infty, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty \right)$	10
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10.37INVALID-ORDER-37	$Z(s) = \left( \infty, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$	10
10.38INVALID-ORDER-38	$Z(s) = \left( \infty, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty \right)$	10
10.39INVALID-ORDER-39	$Z(s) = \left( \infty, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$	11
10.40INVALID-ORDER-40	$Z(s) = \left( \infty, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty \right)$	11
10.41INVALID-ORDER-41	$Z(s) = \left( \infty, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty \right)$	11
10.42INVALID-ORDER-42	$Z(s) = \left( \infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty \right)$	11
10.43INVALID-ORDER-43	$Z(s) = \left( \infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty \right)$	11

10.44INVALID-ORDER-44	$Z(s) = \left( \infty, L_2s + R_2 + \frac{1}{C_2s}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty \right)$	11
10.45INVALID-ORDER-45	$Z(s) = \left( \infty, L_2s + R_2 + \frac{1}{C_2s}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty \right)$	11
10.46INVALID-ORDER-46	$Z(s) = \left( \infty, L_2s + R_2 + \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty \right)$	11
10.47INVALID-ORDER-47	$Z(s) = \left( \infty, L_2s + R_2 + \frac{1}{C_2s}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty \right)$	11
10.48INVALID-ORDER-48	$Z(s) = \left( \infty, L_2s + R_2 + \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty \right)$	11
10.49INVALID-ORDER-49	$Z(s) = \left( \infty, \frac{L_2s}{C_2L_2s^2+1} + R_2, R_3, \infty, \infty, \infty \right)$	12
10.50INVALID-ORDER-50	$Z(s) = \left( \infty, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{1}{C_3s}, \infty, \infty, \infty \right)$	12
10.51INVALID-ORDER-51	$Z(s) = \left( \infty, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty \right)$	12
10.52INVALID-ORDER-52	$Z(s) = \left( \infty, \frac{L_2s}{C_2L_2s^2+1} + R_2, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty \right)$	12
10.53INVALID-ORDER-53	$Z(s) = \left( \infty, \frac{L_2s}{C_2L_2s^2+1} + R_2, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty \right)$	12
10.54INVALID-ORDER-54	$Z(s) = \left( \infty, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty \right)$	12
10.55INVALID-ORDER-55	$Z(s) = \left( \infty, \frac{L_2s}{C_2L_2s^2+1} + R_2, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty \right)$	12
10.56INVALID-ORDER-56	$Z(s) = \left( \infty, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty \right)$	12
10.57INVALID-ORDER-57	$Z(s) = \left( \infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3, \infty, \infty, \infty \right)$	12
10.58INVALID-ORDER-58	$Z(s) = \left( \infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{1}{C_3s}, \infty, \infty, \infty \right)$	12
10.59INVALID-ORDER-59	$Z(s) = \left( \infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty \right)$	13
10.60INVALID-ORDER-60	$Z(s) = \left( \infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty \right)$	13
10.61INVALID-ORDER-61	$Z(s) = \left( \infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty \right)$	13
10.62INVALID-ORDER-62	$Z(s) = \left( \infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty \right)$	13
10.63INVALID-ORDER-63	$Z(s) = \left( \infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty \right)$	13
10.64INVALID-ORDER-64	$Z(s) = \left( \infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty \right)$	13

## 11 PolynomialError

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## 1 Examined $H(z)$ for CG Test simple Z2 Z3: $\frac{Z_2 Z_3 g_m + Z_3}{Z_2 g_m + 1}$

$$H(z) = \frac{Z_2 Z_3 g_m + Z_3}{Z_2 g_m + 1}$$

## 2 HP

## 3 BP

### 3.1 BP-1 $Z(s) = \left( \infty, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \right)$

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

**Parameters:**

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

### 3.2 BP-2 $Z(s) = \left( \infty, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \right)$

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

**Parameters:**

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

### 3.3 BP-3 $Z(s) = \left( \infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \right)$

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

**Parameters:**

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

$$\mathbf{3.4 \quad BP-4} \quad Z(s) = \left( \infty, \quad R_2 + \frac{1}{C_2 s}, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \infty, \quad \infty, \quad \infty \right)$$

**Parameters:**

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

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

$$\mathbf{3.5 \quad BP-5} \quad Z(s) = \left( \infty, \quad L_2 s + \frac{1}{C_2 s}, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \infty, \quad \infty, \quad \infty \right)$$

**Parameters:**

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

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

$$\mathbf{3.6 \quad BP-6} \quad Z(s) = \left( \infty, \quad L_2 s + R_2 + \frac{1}{C_2 s}, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \infty, \quad \infty, \quad \infty \right)$$

**Parameters:**

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

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

$$\mathbf{3.7 \quad BP-7} \quad Z(s) = \left( \infty, \quad \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \quad \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \quad \infty, \quad \infty, \quad \infty \right)$$

**Parameters:**

Q:  $C_3 R_3 \sqrt{\frac{1}{C_3 L_3}}$   
wo:  $\sqrt{\frac{1}{C_3 L_3}}$   
bandwidth:  $\frac{1}{C_3 R_3}$

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

K-LP: 0  
 K-HP: 0  
 K-BP:  $R_3$   
 Qz: 0  
 Wz: None

$$\mathbf{3.8 \quad BP-8} \quad Z(s) = \left( \infty, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \right)$$

**Parameters:**

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

## 4 LP

## 5 BS

$$\mathbf{5.1 \quad BS-1} \quad Z(s) = \left( \infty, R_2, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty \right)$$

**Parameters:**

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

$$\mathbf{5.2 \quad BS-2} \quad Z(s) = \left( \infty, \frac{1}{C_2 s}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty \right)$$

**Parameters:**

Q:  $\frac{L_3 \sqrt{\frac{1}{C_3 L_3}}}{R_3}$   
 wo:  $\sqrt{\frac{1}{C_3 L_3}}$   
 bandwidth:  $\frac{R_3}{L_3}$   
 K-LP:  $R_3$

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

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

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

K-HP:  $R_3$   
K-BP: 0  
Qz: None  
Wz:  $\sqrt{\frac{1}{C_3 L_3}}$

$$\mathbf{5.3 \quad BS-3} \quad Z(s) = \left( \infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty \right)$$

**Parameters:**

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

$$\mathbf{5.4 \quad BS-4} \quad Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty \right)$$

**Parameters:**

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

$$\mathbf{5.5 \quad BS-5} \quad Z(s) = \left( \infty, L_2 s + \frac{1}{C_2 s}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty \right)$$

**Parameters:**

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

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

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

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

**5.6 BS-6**  $Z(s) = \left( \infty, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty \right)$

**Parameters:**

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

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

**5.7 BS-7**  $Z(s) = \left( \infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty \right)$

**Parameters:**

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

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

**5.8 BS-8**  $Z(s) = \left( \infty, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty \right)$

**Parameters:**

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

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

## 6 GE

## 7 AP



## 8 INVALID-NUMER

## 9 INVALID-WZ

## 10 INVALID-ORDER

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

$$H(s) = R_3$$

10.2 INVALID-ORDER-2  $Z(s) = \left(\infty, R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$

$$H(s) = \frac{1}{C_3 s}$$

10.3 INVALID-ORDER-3  $Z(s) = \left(\infty, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$

$$H(s) = \frac{R_3}{C_3 R_3 s + 1}$$

10.4 INVALID-ORDER-4  $Z(s) = \left(\infty, R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$

$$H(s) = \frac{R_2 g_m + s (C_3 R_2 R_3 g_m + C_3 R_3) + 1}{s (C_3 R_2 g_m + C_3)}$$

10.5 INVALID-ORDER-5  $Z(s) = \left(\infty, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$

$$H(s) = \frac{R_2 g_m + s^2 (C_3 L_3 R_2 g_m + C_3 L_3) + 1}{s (C_3 R_2 g_m + C_3)}$$

10.6 INVALID-ORDER-6  $Z(s) = \left(\infty, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$

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

10.7 INVALID-ORDER-7  $Z(s) = \left(\infty, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$

$$H(s) = \frac{R_2 g_m + s^2 (C_3 L_3 R_2 g_m + C_3 L_3) + s (C_3 R_2 R_3 g_m + C_3 R_3) + 1}{s (C_3 R_2 g_m + C_3)}$$

10.8 INVALID-ORDER-8  $Z(s) = \left(\infty, R_2, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$

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

$$10.9 \quad \text{INVALID-ORDER-9} \quad Z(s) = \left( \infty, \frac{1}{C_2 s}, R_3, \infty, \infty, \infty \right)$$

$$H(s) = R_3$$

$$10.10 \quad \text{INVALID-ORDER-10} \quad Z(s) = \left( \infty, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{1}{C_3 s}$$

$$10.11 \quad \text{INVALID-ORDER-11} \quad Z(s) = \left( \infty, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{R_3}{C_3 R_3 s + 1}$$

$$10.12 \quad \text{INVALID-ORDER-12} \quad Z(s) = \left( \infty, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$$

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

$$10.13 \quad \text{INVALID-ORDER-13} \quad Z(s) = \left( \infty, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$$

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

$$10.14 \quad \text{INVALID-ORDER-14} \quad Z(s) = \left( \infty, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty \right)$$

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

$$10.15 \quad \text{INVALID-ORDER-15} \quad Z(s) = \left( \infty, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{C_2 C_3 L_3 s^3 + g_m + s^2 (C_2 C_3 R_3 + C_3 L_3 g_m) + s (C_2 + C_3 R_3 g_m)}{C_2 C_3 s^2 + C_3 g_m s}$$

$$10.16 \quad \text{INVALID-ORDER-16} \quad Z(s) = \left( \infty, \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty \right)$$

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

$$10.17 \quad \text{INVALID-ORDER-17} \quad Z(s) = \left( \infty, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \infty, \infty \right)$$

$$H(s) = R_3$$

$$10.18 \quad \text{INVALID-ORDER-18} \quad Z(s) = \left( \infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{1}{C_3 s}$$

$$10.19 \quad \text{INVALID-ORDER-19} \quad Z(s) = \left( \infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{R_3}{C_3 R_3 s + 1}$$

$$10.20 \quad \text{INVALID-ORDER-20} \quad Z(s) = \left( \infty, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{C_2 C_3 R_2 R_3 s^2 + R_2 g_m + s (C_2 R_2 + C_3 R_2 R_3 g_m + C_3 R_3) + 1}{C_2 C_3 R_2 s^2 + s (C_3 R_2 g_m + C_3)}$$

$$10.21 \quad \text{INVALID-ORDER-21} \quad Z(s) = \left( \infty, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$$

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

$$10.22 \quad \text{INVALID-ORDER-22} \quad Z(s) = \left( \infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty \right)$$

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

$$10.23 \quad \text{INVALID-ORDER-23} \quad Z(s) = \left( \infty, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{C_2 C_3 L_3 R_2 s^3 + R_2 g_m + s^2 (C_2 C_3 R_2 R_3 + C_3 L_3 R_2 g_m + C_3 L_3) + s (C_2 R_2 + C_3 R_2 R_3 g_m + C_3 R_3) + 1}{C_2 C_3 R_2 s^2 + s (C_3 R_2 g_m + C_3)}$$

$$10.24 \quad \text{INVALID-ORDER-24} \quad Z(s) = \left( \infty, \frac{R_2}{C_2 R_2 s + 1}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty \right)$$

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

$$10.25 \quad \text{INVALID-ORDER-25} \quad Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty \right)$$

$$H(s) = R_3$$

$$10.26 \quad \text{INVALID-ORDER-26} \quad Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{1}{C_3 s}$$

$$10.27 \quad \text{INVALID-ORDER-27} \quad Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{R_3}{C_3 R_3 s + 1}$$

$$10.28 \quad \text{INVALID-ORDER-28} \quad Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{g_m + s^2 (C_2 C_3 R_2 R_3 g_m + C_2 C_3 R_3) + s (C_2 R_2 g_m + C_2 + C_3 R_3 g_m)}{C_3 g_m s + s^2 (C_2 C_3 R_2 g_m + C_2 C_3)}$$

**10.29 INVALID-ORDER-29**  $Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$

$$H(s) = \frac{C_3 L_3 g_m s^2 + g_m + s^3 (C_2 C_3 L_3 R_2 g_m + C_2 C_3 L_3) + s (C_2 R_2 g_m + C_2)}{C_3 g_m s + s^2 (C_2 C_3 R_2 g_m + C_2 C_3)}$$

**10.30 INVALID-ORDER-30**  $Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty \right)$

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

**10.31 INVALID-ORDER-31**  $Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$

$$H(s) = \frac{g_m + s^3 (C_2 C_3 L_3 R_2 g_m + C_2 C_3 L_3) + s^2 (C_2 C_3 R_2 R_3 g_m + C_2 C_3 R_3 + C_3 L_3 g_m) + s (C_2 R_2 g_m + C_2 + C_3 R_3 g_m)}{C_3 g_m s + s^2 (C_2 C_3 R_2 g_m + C_2 C_3)}$$

**10.32 INVALID-ORDER-32**  $Z(s) = \left( \infty, R_2 + \frac{1}{C_2 s}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty \right)$

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

**10.33 INVALID-ORDER-33**  $Z(s) = \left( \infty, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty \right)$

$$H(s) = R_3$$

**10.34 INVALID-ORDER-34**  $Z(s) = \left( \infty, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty \right)$

$$H(s) = \frac{1}{C_3 s}$$

**10.35 INVALID-ORDER-35**  $Z(s) = \left( \infty, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty \right)$

$$H(s) = \frac{R_3}{C_3 R_3 s + 1}$$

**10.36 INVALID-ORDER-36**  $Z(s) = \left( \infty, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$

$$H(s) = \frac{C_2 C_3 L_2 R_3 g_m s^3 + g_m + s^2 (C_2 C_3 R_3 + C_2 L_2 g_m) + s (C_2 + C_3 R_3 g_m)}{C_2 C_3 L_2 g_m s^3 + C_2 C_3 s^2 + C_3 g_m s}$$

**10.37 INVALID-ORDER-37**  $Z(s) = \left( \infty, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$

$$H(s) = \frac{C_2 C_3 L_2 L_3 g_m s^4 + C_2 C_3 L_3 s^3 + C_2 s + g_m + s^2 (C_2 L_2 g_m + C_3 L_3 g_m)}{C_2 C_3 L_2 g_m s^3 + C_2 C_3 s^2 + C_3 g_m s}$$

**10.38 INVALID-ORDER-38**  $Z(s) = \left( \infty, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty \right)$

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

**10.39 INVALID-ORDER-39**  $Z(s) = \left( \infty, L_2s + \frac{1}{C_2s}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty \right)$

$$H(s) = \frac{C_2C_3L_2L_3g_ms^4 + g_m + s^3(C_2C_3L_2R_3g_m + C_2C_3L_3) + s^2(C_2C_3R_3 + C_2L_2g_m + C_3L_3g_m) + s(C_2 + C_3R_3g_m)}{C_2C_3L_2g_ms^3 + C_2C_3s^2 + C_3g_ms}$$

**10.40 INVALID-ORDER-40**  $Z(s) = \left( \infty, L_2s + \frac{1}{C_2s}, \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \infty, \infty, \infty \right)$

$$H(s) = \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}$$

**10.41 INVALID-ORDER-41**  $Z(s) = \left( \infty, L_2s + R_2 + \frac{1}{C_2s}, R_3, \infty, \infty, \infty \right)$

$$H(s) = R_3$$

**10.42 INVALID-ORDER-42**  $Z(s) = \left( \infty, L_2s + R_2 + \frac{1}{C_2s}, \frac{1}{C_3s}, \infty, \infty, \infty \right)$

$$H(s) = \frac{1}{C_3s}$$

**10.43 INVALID-ORDER-43**  $Z(s) = \left( \infty, L_2s + R_2 + \frac{1}{C_2s}, \frac{R_3}{C_3R_3s + 1}, \infty, \infty, \infty \right)$

$$H(s) = \frac{R_3}{C_3R_3s + 1}$$

**10.44 INVALID-ORDER-44**  $Z(s) = \left( \infty, L_2s + R_2 + \frac{1}{C_2s}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty \right)$

$$H(s) = \frac{C_2C_3L_2R_3g_ms^3 + g_m + s^2(C_2C_3R_2R_3g_m + C_2C_3R_3 + C_2L_2g_m) + s(C_2R_2g_m + C_2 + C_3R_3g_m)}{C_2C_3L_2g_ms^3 + C_3g_ms + s^2(C_2C_3R_2g_m + C_2C_3)}$$

**10.45 INVALID-ORDER-45**  $Z(s) = \left( \infty, L_2s + R_2 + \frac{1}{C_2s}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty \right)$

$$H(s) = \frac{C_2C_3L_2L_3g_ms^4 + g_m + s^3(C_2C_3L_3R_2g_m + C_2C_3L_3) + s^2(C_2L_2g_m + C_3L_3g_m) + s(C_2R_2g_m + C_2)}{C_2C_3L_2g_ms^3 + C_3g_ms + s^2(C_2C_3R_2g_m + C_2C_3)}$$

**10.46 INVALID-ORDER-46**  $Z(s) = \left( \infty, L_2s + R_2 + \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2 + 1}, \infty, \infty, \infty \right)$

$$H(s) = \frac{L_3s}{C_3L_3s^2 + 1}$$

**10.47 INVALID-ORDER-47**  $Z(s) = \left( \infty, L_2s + R_2 + \frac{1}{C_2s}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty \right)$

$$H(s) = \frac{C_2C_3L_2L_3g_ms^4 + g_m + s^3(C_2C_3L_2R_3g_m + C_2C_3L_3R_2g_m + C_2C_3L_3) + s^2(C_2C_3R_2R_3g_m + C_2C_3R_3 + C_2L_2g_m + C_3L_3g_m) + s(C_2R_2g_m + C_2 + C_3R_3g_m)}{C_2C_3L_2g_ms^3 + C_3g_ms + s^2(C_2C_3R_2g_m + C_2C_3)}$$

**10.48 INVALID-ORDER-48**  $Z(s) = \left( \infty, L_2s + R_2 + \frac{1}{C_2s}, \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}, \infty, \infty, \infty \right)$

$$H(s) = \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2 + 1}$$

$$10.49 \quad \text{INVALID-ORDER-49} \quad Z(s) = \left( \infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, R_3, \infty, \infty, \infty \right)$$

$$H(s) = R_3$$

$$10.50 \quad \text{INVALID-ORDER-50} \quad Z(s) = \left( \infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{1}{C_3 s}$$

$$10.51 \quad \text{INVALID-ORDER-51} \quad Z(s) = \left( \infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{R_3}{C_3 R_3 s + 1}$$

$$10.52 \quad \text{INVALID-ORDER-52} \quad Z(s) = \left( \infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{R_2 g_m + s^3 (C_2 C_3 L_2 R_2 R_3 g_m + C_2 C_3 L_2 R_3) + s^2 (C_2 L_2 R_2 g_m + C_2 L_2 + C_3 L_2 R_3 g_m) + s (C_3 R_2 R_3 g_m + C_3 R_3 + L_2 g_m) + 1}{C_3 L_2 g_m s^2 + s^3 (C_2 C_3 L_2 R_2 g_m + C_2 C_3 L_2) + s (C_3 R_2 g_m + C_3)}$$

$$10.53 \quad \text{INVALID-ORDER-53} \quad Z(s) = \left( \infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{C_3 L_2 L_3 g_m s^3 + L_2 g_m s + R_2 g_m + s^4 (C_2 C_3 L_2 L_3 R_2 g_m + C_2 C_3 L_2 L_3) + s^2 (C_2 L_2 R_2 g_m + C_2 L_2 + C_3 L_3 R_2 g_m + C_3 L_3) + 1}{C_3 L_2 g_m s^2 + s^3 (C_2 C_3 L_2 R_2 g_m + C_2 C_3 L_2) + s (C_3 R_2 g_m + C_3)}$$

$$10.54 \quad \text{INVALID-ORDER-54} \quad Z(s) = \left( \infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty \right)$$

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

$$10.55 \quad \text{INVALID-ORDER-55} \quad Z(s) = \left( \infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{R_2 g_m + s^4 (C_2 C_3 L_2 L_3 R_2 g_m + C_2 C_3 L_2 L_3) + s^3 (C_2 C_3 L_2 R_2 R_3 g_m + C_2 C_3 L_2 R_3 + C_3 L_2 L_3 g_m) + s^2 (C_2 L_2 R_2 g_m + C_2 L_2 + C_3 L_2 R_3 g_m + C_3 L_3 R_2 g_m + C_3 L_3) + s (C_3 R_2 R_3 g_m + C_3 R_3 + L_2 g_m) + 1}{C_3 L_2 g_m s^2 + s^3 (C_2 C_3 L_2 R_2 g_m + C_2 C_3 L_2) + s (C_3 R_2 g_m + C_3)}$$

$$10.56 \quad \text{INVALID-ORDER-56} \quad Z(s) = \left( \infty, \frac{C_2 L_2 R_2 s^2 + L_2 s + R_2}{C_2 L_2 s^2 + 1}, \frac{C_3 L_3 R_3 s^2 + L_3 s + R_3}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty \right)$$

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

$$10.57 \quad \text{INVALID-ORDER-57} \quad Z(s) = \left( \infty, \frac{R_2 (C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3, \infty, \infty, \infty \right)$$

$$H(s) = R_3$$

$$10.58 \quad \text{INVALID-ORDER-58} \quad Z(s) = \left( \infty, \frac{R_2 (C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{1}{C_3 s}$$

$$10.59 \quad \text{INVALID-ORDER-59} \quad Z(s) = \left( \infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{R_3}{C_3R_3s+1}$$

$$10.60 \quad \text{INVALID-ORDER-60} \quad Z(s) = \left( \infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{R_2g_m + s^3(C_2C_3L_2R_2R_3g_m + C_2C_3L_2R_3) + s^2(C_2C_3R_2R_3 + C_2L_2R_2g_m + C_2L_2) + s(C_2R_2 + C_3R_2R_3g_m + C_3R_3) + 1}{C_2C_3R_2s^2 + s^3(C_2C_3L_2R_2g_m + C_2C_3L_2) + s(C_3R_2g_m + C_3)}$$

$$10.61 \quad \text{INVALID-ORDER-61} \quad Z(s) = \left( \infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{C_2C_3L_3R_2s^3 + C_2R_2s + R_2g_m + s^4(C_2C_3L_2L_3R_2g_m + C_2C_3L_2L_3) + s^2(C_2L_2R_2g_m + C_2L_2 + C_3L_3R_2g_m + C_3L_3) + 1}{C_2C_3R_2s^2 + s^3(C_2C_3L_2R_2g_m + C_2C_3L_2) + s(C_3R_2g_m + C_3)}$$

$$10.62 \quad \text{INVALID-ORDER-62} \quad Z(s) = \left( \infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{L_3s}{C_3L_3s^2+1}$$

$$10.63 \quad \text{INVALID-ORDER-63} \quad Z(s) = \left( \infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{R_2g_m + s^4(C_2C_3L_2L_3R_2g_m + C_2C_3L_2L_3) + s^3(C_2C_3L_2R_2R_3g_m + C_2C_3L_2R_3 + C_2C_3L_3R_2) + s^2(C_2C_3R_2R_3 + C_2L_2R_2g_m + C_2L_2 + C_3L_3R_2g_m + C_3L_3) + s(C_2R_2 + C_3R_2R_3g_m + C_3R_3) + 1}{C_2C_3R_2s^2 + s^3(C_2C_3L_2R_2g_m + C_2C_3L_2) + s(C_3R_2g_m + C_3)}$$

$$10.64 \quad \text{INVALID-ORDER-64} \quad Z(s) = \left( \infty, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{C_3L_3R_3s^2+L_3s+R_3}{C_3L_3s^2+1}, \infty, \infty, \infty \right)$$

$$H(s) = \frac{C_3L_3R_3s^2 + L_3s + R_3}{C_3L_3s^2+1}$$

## 11 PolynomialError