# Filter Summary Report: TIA simple Z1 Z5 ZL

Generated by MacAnalog-Symbolix

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## Contents

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

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

# 2 HP

# 3 BP

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

$$H(s) = \frac{L_L R_1 s \left(R_4 g_m - 1\right)}{C_L L_L R_1 R_4 g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_4 s^2 + 2 L_L R_1 g_m s + L_L s + R_1 R_4 g_m + R_1 + R_4}$$

**Parameters:**

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

## 3.2 BP-2 $Z(s) = \left(R_1,\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_1 R_L s \left(R_4 g_m - 1\right)}{C_L L_L R_1 R_4 R_L g_m s^2 + C_L L_L R_1 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_1 R_4 g_m s + 2 L_L R_1 R_L g_m s + L_L R_1 s + L_L R_4 s + L_L R_L s + R_1 R_4 R_L g_m + R_1 R_L + R_4 R_L}$$

**Parameters:**

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

## 3.3 BP-3 $Z(s) = \left( \frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

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

**Parameters:**

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

## 3.4 BP-4 $Z(s) = \left( \frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{L_1 R_L s \left(R_4 g_m - 1\right)}{C_L L_1 R_4 R_L g_m s^2 + C_L L_1 R_L s^2 + C_L R_4 R_L s + L_1 R_4 g_m s + 2L_1 R_L g_m s + L_1 s + R_4 + R_L}$$

**Parameters:**

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

## 3.5 BP-5 $Z(s) = \left(L_1 s,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

**Parameters:**

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

## 3.6 BP-6 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

**Parameters:**

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

# 4 LP

## 4.1 LP-1 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

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

**Parameters:**

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

## 4.2 LP-2 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_L\left(R_4 g_m - 1\right)}{C_1 C_L R_4 R_L s^2 + C_1 R_4 s + C_1 R_L s + C_L R_4 R_L g_m s + C_L R_L s + R_4 g_m + 2R_L g_m + 1}$$

**Parameters:**

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

## 4.3 LP-3 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \infty,\ \frac{1}{C_L s}\right)$

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

**Parameters:**

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

### 4.4 LP-4 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_1 R_L \left(R_4 g_m - 1\right)}{C_1 C_L R_1 R_4 R_L s^2 + C_1 R_1 R_4 s + C_1 R_1 R_L s + C_L R_1 R_4 R_L g_m s + C_L R_1 R_L s + C_L R_4 R_L s + R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L}$$

**Parameters:**

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

# 5 BS

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

$$H(s) = \frac{R_1 \left(R_4 g_m - 1\right) \left(C_L L_L s^2 + 1\right)}{2 C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_L R_1 R_4 g_m s + C_L R_1 s + C_L R_4 s + 2 R_1 g_m + 1}$$

**Parameters:**

Q: $\frac{L_L \sqrt{\frac{1}{C_L L_L}} (2 R_1 g_m + 1)}{R_1 R_4 g_m + R_1 + R_4}$
wo: $\sqrt{\frac{1}{C_L L_L}}$
bandwidth: $\frac{R_1 R_4 g_m + R_1 + R_4}{L_L (2 R_1 g_m + 1)}$
K-LP: $\frac{R_1 (R_4 g_m - 1)}{2 R_1 g_m + 1}$
K-HP: $\frac{R_1 (R_4 g_m - 1)}{2 R_1 g_m + 1}$
K-BP: 0

Qz: None
Wz: $\sqrt{\frac{1}{C_L L_L}}$

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

$$H(s) = \frac{R_1 R_L \left(R_4 g_m - 1\right)\left(C_L L_L s^2 + 1\right)}{C_L L_L R_1 R_4 g_m s^2 + 2C_L L_L R_1 R_L g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_4 s^2 + C_L L_L R_L s^2 + C_L R_1 R_4 R_L g_m s + C_L R_1 R_L s + C_L R_4 R_L s + R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$$

**Parameters:**

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

## 5.3 BS-3 $Z(s) = \left(R_1,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

**Parameters:**

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

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

### 5.4 BS-4 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

**Parameters:**

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

## 6 GE

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

$$H(s) = \frac{R_1 \left(R_4 g_m - 1\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{2C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_L R_1 R_4 g_m s + 2C_L R_1 R_L g_m s + C_L R_1 s + C_L R_4 s + C_L R_L s + 2R_1 g_m + 1}$$

**Parameters:**

Q: $\frac{L_L \sqrt{\frac{1}{C_L L_L}} (2R_1 g_m + 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$

wo: $\sqrt{\frac{1}{C_L L_L}}$
bandwidth: $\frac{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}{L_L(2R_1 g_m + 1)}$
K-LP: $\frac{R_1(R_4 g_m - 1)}{2R_1 g_m + 1}$
K-HP: $\frac{R_1(R_4 g_m - 1)}{2R_1 g_m + 1}$
K-BP: $\frac{R_1 R_L(R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$
Qz: $\frac{L_L\sqrt{\frac{1}{C_L L_L}}}{R_L}$
Wz: $\sqrt{\frac{1}{C_L L_L}}$

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

$$H(s) = \frac{R_1\left(R_4 g_m - 1\right)\left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_L L_L R_1 R_4 g_m s^2 + 2C_L L_L R_1 R_L g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_4 s^2 + C_L L_L R_L s^2 + 2L_L R_1 g_m s + L_L s + R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$$

**Parameters:**

Q: $\frac{C_L\sqrt{\frac{1}{C_L L_L}}(R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}{2R_1 g_m + 1}$
wo: $\sqrt{\frac{1}{C_L L_L}}$
bandwidth: $\frac{2R_1 g_m + 1}{C_L(R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}$
K-LP: $\frac{R_1 R_L(R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$
K-HP: $\frac{R_1 R_L(R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$
K-BP: $\frac{R_1(R_4 g_m - 1)}{2R_1 g_m + 1}$
Qz: $C_L R_L\sqrt{\frac{1}{C_L L_L}}$
Wz: $\sqrt{\frac{1}{C_L L_L}}$

## 6.3 GE-3 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

**Parameters:**

Q: $\frac{L_4\sqrt{\frac{1}{C_4L_4}}(R_1g_m+1)}{2R_1R_Lg_m+R_1+R_L}$
wo: $\sqrt{\frac{1}{C_4L_4}}$
bandwidth: $\frac{2R_1R_Lg_m+R_1+R_L}{L_4(R_1g_m+1)}$
K-LP: $\frac{R_1R_Lg_m}{R_1g_m+1}$
K-HP: $\frac{R_1R_Lg_m}{R_1g_m+1}$
K-BP: $-\frac{R_1R_L}{2R_1R_Lg_m+R_1+R_L}$
Qz: $-L_4g_m\sqrt{\frac{1}{C_4L_4}}$
Wz: $\sqrt{\frac{1}{C_4L_4}}$

## 6.4 GE-4 $Z(s) = \left(L_1s + \frac{1}{C_1s},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1R_L\left(-C_4L_4s^2 + L_4g_ms - 1\right)}{2C_4L_4R_1R_Lg_ms^2 + C_4L_4R_1s^2 + C_4L_4R_Ls^2 + L_4R_1g_ms + L_4s + 2R_1R_Lg_m + R_1 + R_L}$$

**Parameters:**

Q: $\frac{C_4\sqrt{\frac{1}{C_4L_4}}(2R_1R_Lg_m+R_1+R_L)}{R_1g_m+1}$
wo: $\sqrt{\frac{1}{C_4L_4}}$
bandwidth: $\frac{R_1g_m+1}{C_4(2R_1R_Lg_m+R_1+R_L)}$
K-LP: $-\frac{R_1R_L}{2R_1R_Lg_m+R_1+R_L}$
K-HP: $-\frac{R_1R_L}{2R_1R_Lg_m+R_1+R_L}$
K-BP: $\frac{R_1R_Lg_m}{R_1g_m+1}$
Qz: $-\frac{C_4\sqrt{\frac{1}{C_4L_4}}}{g_m}$
Wz: $\sqrt{\frac{1}{C_4L_4}}$

## 6.5 GE-5 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

**Parameters:**

Q: $\frac{L_4 \sqrt{\frac{1}{C_4 L_4}} (R_1 g_m+1)}{R_1 R_4 g_m+2 R_1 R_L g_m+R_1+R_4+R_L}$
wo: $\sqrt{\frac{1}{C_4 L_4}}$
bandwidth: $\frac{R_1 R_4 g_m+2 R_1 R_L g_m+R_1+R_4+R_L}{L_4 (R_1 g_m+1)}$
K-LP: $\frac{R_1 R_L g_m}{R_1 g_m+1}$
K-HP: $\frac{R_1 R_L g_m}{R_1 g_m+1}$
K-BP: $\frac{R_1 R_L (R_4 g_m-1)}{R_1 R_4 g_m+2 R_1 R_L g_m+R_1+R_4+R_L}$
Qz: $\frac{L_4 g_m \sqrt{\frac{1}{C_4 L_4}}}{R_4 g_m-1}$
Wz: $\sqrt{\frac{1}{C_4 L_4}}$

## 6.6 GE-6 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1 R_L \left(-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4\right)}{2 C_4 L_4 R_1 R_4 R_L g_m s^2 + C_4 L_4 R_1 R_4 s^2 + C_4 L_4 R_4 R_L s^2 + L_4 R_1 R_4 g_m s + 2 L_4 R_1 R_L g_m s + L_4 R_1 s + L_4 R_4 s + L_4 R_L s + 2 R_1 R_4 R_L g_m + R_1 R_4 + R_4 R_L}$$

**Parameters:**

Q: $\frac{C_4 R_4 \sqrt{\frac{1}{C_4 L_4}} (2 R_1 R_L g_m+R_1+R_L)}{R_1 R_4 g_m+2 R_1 R_L g_m+R_1+R_4+R_L}$
wo: $\sqrt{\frac{1}{C_4 L_4}}$
bandwidth: $\frac{R_1 R_4 g_m+2 R_1 R_L g_m+R_1+R_4+R_L}{C_4 R_4 (2 R_1 R_L g_m+R_1+R_L)}$
K-LP: $-\frac{R_1 R_L}{2 R_1 R_L g_m+R_1+R_L}$
K-HP: $-\frac{R_1 R_L}{2 R_1 R_L g_m+R_1+R_L}$
K-BP: $\frac{R_1 R_L (R_4 g_m-1)}{R_1 R_4 g_m+2 R_1 R_L g_m+R_1+R_4+R_L}$
Qz: $-\frac{C_4 R_4 \sqrt{\frac{1}{C_4 L_4}}}{R_4 g_m-1}$

Wz: $\sqrt{\frac{1}{C_4 L_4}}$

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

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

**Parameters:**

Q: $\frac{C_4\sqrt{\frac{1}{C_4 L_4}}(R_1 R_4 g_m+2R_1 R_L g_m+R_1+R_4+R_L)}{R_1 g_m+1}$
wo: $\sqrt{\frac{1}{C_4 L_4}}$
bandwidth: $\frac{R_1 g_m+1}{C_4(R_1 R_4 g_m+2R_1 R_L g_m+R_1+R_4+R_L)}$
K-LP: $\frac{R_1 R_L(R_4 g_m-1)}{R_1 R_4 g_m+2R_1 R_L g_m+R_1+R_4+R_L}$
K-HP: $\frac{R_1 R_L(R_4 g_m-1)}{R_1 R_4 g_m+2R_1 R_L g_m+R_1+R_4+R_L}$
K-BP: $\frac{R_1 R_L g_m}{R_1 g_m+1}$
Qz: $\frac{C_4\sqrt{\frac{1}{C_4 L_4}}(R_4 g_m-1)}{g_m}$
Wz: $\sqrt{\frac{1}{C_4 L_4}}$

## 6.8 GE-8 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

**Parameters:**

Q: $\frac{L_4\sqrt{\frac{1}{C_4 L_4}}(R_1 R_4 g_m+2R_1 R_L g_m+R_1+R_4+R_L)}{R_4(2R_1 R_L g_m+R_1+R_L)}$
wo: $\sqrt{\frac{1}{C_4 L_4}}$
bandwidth: $\frac{R_4(2R_1 R_L g_m+R_1+R_L)}{L_4(R_1 R_4 g_m+2R_1 R_L g_m+R_1+R_4+R_L)}$
K-LP: $\frac{R_1 R_L(R_4 g_m-1)}{R_1 R_4 g_m+2R_1 R_L g_m+R_1+R_4+R_L}$

K-HP: $\frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$
K-BP: $-\frac{R_1 R_L}{2R_1 R_L g_m + R_1 + R_L}$
Qz: $\frac{L_4 \sqrt{\frac{1}{C_4 L_4}} (-R_4 g_m + 1)}{R_4}$
Wz: $\sqrt{\frac{1}{C_4 L_4}}$

## 6.9 GE-9 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

**Parameters:**

Q: $\frac{L_1 \sqrt{\frac{1}{C_1 L_1}} (R_4 g_m + 2R_L g_m + 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$
wo: $\sqrt{\frac{1}{C_1 L_1}}$
bandwidth: $\frac{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}{L_1 (R_4 g_m + 2R_L g_m + 1)}$
K-LP: $\frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2R_L g_m + 1}$
K-HP: $\frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2R_L g_m + 1}$
K-BP: $\frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$
Qz: $\frac{L_1 \sqrt{\frac{1}{C_1 L_1}}}{R_1}$
Wz: $\sqrt{\frac{1}{C_1 L_1}}$

## 6.10 GE-10 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

**Parameters:**

Q: $\frac{C_1 \sqrt{\frac{1}{C_1 L_1}} (R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}{R_4 g_m + 2R_L g_m + 1}$

wo: $\sqrt{\frac{1}{C_1 L_1}}$
bandwidth: $\frac{R_4 g_m + 2R_L g_m + 1}{C_1(R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L)}$
K-LP: $\frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$
K-HP: $\frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$
K-BP: $\frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2R_L g_m + 1}$
Qz: $C_1 R_1 \sqrt{\frac{1}{C_1 L_1}}$
Wz: $\sqrt{\frac{1}{C_1 L_1}}$

# 7 AP

# 8 INVALID-NUMER

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

$$H(s) = \frac{R_1 R_L \left(-C_4 s + g_m\right)}{C_4 C_L R_1 R_L s^2 + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + C_L R_1 R_L g_m s + C_L R_L s + R_1 g_m + 1}$$

**Parameters:**

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

## 8.2 INVALID-NUMER-2 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(-C_4 R_4 s + R_4 g_m - 1\right)}{C_4 C_L R_1 R_4 s^2 + 2C_4 R_1 R_4 g_m s + C_4 R_4 s + C_L R_1 R_4 g_m s + C_L R_1 s + C_L R_4 s + 2R_1 g_m + 1}$$

**Parameters:**

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

## 8.3 INVALID-NUMER-3 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_1 R_L\left(-C_4 R_4 s + R_4 g_m - 1\right)}{C_4 C_L R_1 R_4 R_L s^2 + 2C_4 R_1 R_4 R_L g_m s + C_4 R_1 R_4 s + C_4 R_4 R_L s + C_L R_1 R_4 R_L g_m s + C_L R_1 R_L s + C_L R_4 R_L s + R_1 R_4 g_m + 2R_1 R_L g_m + R_1 + R_4 + R_L}$$

**Parameters:**

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

## 8.4 INVALID-NUMER-4 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_1 R_L \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_4 C_L R_1 R_4 R_L g_m s^2 + C_4 C_L R_1 R_L s^2 + C_4 C_L R_4 R_L s^2 + C_4 R_1 R_4 g_m s + 2 C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_4 s + C_4 R_L s + C_L R_1 R_L g_m s + C_L R_L s + R_1 g_m + 1}$$

**Parameters:**

Q: $\frac{C_4 C_L R_L \sqrt{\frac{R_1 g_m+1}{C_4 C_L R_L (R_1 R_4 g_m+R_1+R_4)}} (R_1 R_4 g_m+R_1+R_4)}{C_4 R_1 R_4 g_m+2 C_4 R_1 R_L g_m+C_4 R_1+C_4 R_4+C_4 R_L+C_L R_1 R_L g_m+C_L R_L}$

wo: $\sqrt{\frac{R_1 g_m+1}{C_4 C_L R_L (R_1 R_4 g_m+R_1+R_4)}}$

bandwidth: $\frac{C_4 R_1 R_4 g_m+2 C_4 R_1 R_L g_m+C_4 R_1+C_4 R_4+C_4 R_L+C_L R_1 R_L g_m+C_L R_L}{C_4 C_L R_L (R_1 R_4 g_m+R_1+R_4)}$

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

K-HP: 0

K-BP: $\frac{C_4 R_1 R_L (R_4 g_m-1)}{C_4 R_1 R_4 g_m+2 C_4 R_1 R_L g_m+C_4 R_1+C_4 R_4+C_4 R_L+C_L R_1 R_L g_m+C_L R_L}$

Qz: 0

Wz: None

## 8.5 INVALID-NUMER-5 $Z(s) = \left(\frac{R_1\left(L_1 s+\frac{1}{C_1 s}\right)}{L_1 s+R_1+\frac{1}{C_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s \left(R_4 g_m - 1\right) \left(C_L R_L s + 1\right)}{C_L L_1 R_4 g_m s^2 + 2 C_L L_1 R_L g_m s^2 + C_L L_1 s^2 + C_L R_4 s + C_L R_L s + 2 L_1 g_m s + 1}$$

**Parameters:**

Q: $\frac{C_L L_1 \sqrt{\frac{1}{C_L L_1 (R_4 g_m+2 R_L g_m+1)}} (R_4 g_m+2 R_L g_m+1)}{C_L R_4+C_L R_L+2 L_1 g_m}$

wo: $\sqrt{\frac{1}{C_L L_1 (R_4 g_m+2 R_L g_m+1)}}$

bandwidth: $\frac{C_L R_4+C_L R_L+2 L_1 g_m}{C_L L_1 (R_4 g_m+2 R_L g_m+1)}$

K-LP: 0

K-HP: $\frac{R_L (R_4 g_m-1)}{R_4 g_m+2 R_L g_m+1}$

K-BP: $\frac{L_1 (R_4 g_m-1)}{C_L R_4+C_L R_L+2 L_1 g_m}$

Qz: $C_L R_L \sqrt{\frac{1}{C_L L_1 (R_4 g_m+2 R_L g_m+1)}}$

Wz: None

## 8.6 INVALID-NUMER-6 $Z(s) = (\infty,\ R_2,\ \infty,\ \infty,\ \infty,\ R_L)$

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

**Parameters:**

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

## 8.7 INVALID-NUMER-7 $Z(s) = \left(\infty,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

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

**Parameters:**

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

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

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

**Parameters:**

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

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

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

K-LP: 0

K-HP: $-\frac{R_L}{2R_L g_m+1}$

K-BP: $\frac{L_1 R_L (R_4 g_m - 1)}{C_4 R_4 R_L + L_1 R_4 g_m + 2L_1 R_L g_m + L_1}$

Qz: $-\frac{C_4 R_4 \sqrt{\frac{R_4+R_L}{C_4 L_1 R_4 (2R_L g_m+1)}}}{R_4 g_m - 1}$

Wz: None

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

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

**Parameters:**

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

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

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

K-LP: 0

K-HP: $\frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2R_L g_m + 1}$

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

Qz: $\frac{C_4 \sqrt{\frac{1}{C_4 L_1 (R_4 g_m + 2R_L g_m + 1)}}(R_4 g_m - 1)}{g_m}$

Wz: None

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

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

**Parameters:**

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

## 8.11 INVALID-NUMER-11 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(R_4 g_m - 1\right)\left(C_L R_L s + 1\right)}{C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 s + C_L R_4 g_m s + 2 C_L R_L g_m s + C_L s + 2 g_m}$$

**Parameters:**

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

## 8.12 INVALID-NUMER-12 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(-C_4 s + g_m\right)}{C_1 C_4 R_L s^2 + C_1 s + 2C_4 R_L g_m s + C_4 s + g_m}$$

**Parameters:**

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

## 8.13 INVALID-NUMER-13 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_L\left(-C_4 s + g_m\right)}{C_1 C_4 R_L s^2 + C_1 C_L R_L s^2 + C_1 s + C_4 C_L R_L s^2 + 2C_4 R_L g_m s + C_4 s + C_L R_L g_m s + g_m}$$

**Parameters:**

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

## 8.14 INVALID-NUMER-14 $Z(s) = \left(\infty,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

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

**Parameters:**

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

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

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

**Parameters:**

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

## 8.16 INVALID-NUMER-16 $Z(s) = \left(\infty,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_L\left(-C_4 R_4 s + R_4 g_m - 1\right)}{C_1 C_4 R_4 R_L s^2 + C_1 C_L R_4 R_L s^2 + C_1 R_4 s + C_1 R_L s + C_4 C_L R_4 R_L s^2 + 2C_4 R_4 R_L g_m s + C_4 R_4 s + C_L R_4 R_L g_m s + C_L R_L s + R_4 g_m + 2R_L g_m + 1}$$

**Parameters:**

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

## 8.17 INVALID-NUMER-17 $Z(s) = \left(\infty,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 s + C_4 R_4 g_m s + 2C_4 R_L g_m s + C_4 s + g_m}$$

**Parameters:**

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

## 8.18 INVALID-NUMER-18 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(R_4 g_m - 1\right) \left(C_L R_L s + 1\right)}{C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_L R_1 R_4 g_m s + 2 C_L R_1 R_L g_m s + C_L R_1 s + C_L R_4 s + C_L R_L s + 2 R_1 g_m + 1}$$

**Parameters:**

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

## 8.19 INVALID-NUMER-19 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s + 1},\ \infty,\ R_L\right)$

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

**Parameters:**

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

## 8.20 INVALID-NUMER-20 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s+1},\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_1 R_L \left(-C_4 s + g_m\right)}{C_1 C_4 R_1 R_L s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_4 C_L R_1 R_L s^2 + 2 C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + C_L R_1 R_L g_m s + C_L R_L s + R_1 g_m + 1}$$

**Parameters:**

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

wo: $\sqrt{\frac{R_1 g_m+1}{R_1 R_L (C_1 C_4+C_1 C_L+C_4 C_L)}}$

bandwidth: $\frac{C_1 R_1+2 C_4 R_1 R_L g_m+C_4 R_1+C_4 R_L+C_L R_1 R_L g_m+C_L R_L}{R_1 R_L (C_1 C_4+C_1 C_L+C_4 C_L)}$

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

K-HP: 0

K-BP: $-\frac{C_4 R_1 R_L}{C_1 R_1+2 C_4 R_1 R_L g_m+C_4 R_1+C_4 R_L+C_L R_1 R_L g_m+C_L R_L}$

Qz: 0

Wz: None

## 8.21 INVALID-NUMER-21 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \infty,\ R_L\right)$

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

**Parameters:**

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

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

bandwidth: $\frac{C_1 R_1 R_4+C_1 R_1 R_L+2 C_4 R_1 R_4 R_L g_m+C_4 R_1 R_4+C_4 R_4 R_L}{C_1 C_4 R_1 R_4 R_L}$

K-LP: $\frac{R_1 R_L (R_4 g_m-1)}{R_1 R_4 g_m+2 R_1 R_L g_m+R_1+R_4+R_L}$

K-HP: 0

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

Qz: 0

Wz: None

## 8.22 INVALID-NUMER-22 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \infty,\ \frac{1}{C_L s}\right)$

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

**Parameters:**

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

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

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

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

K-HP: 0

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

Qz: 0

Wz: None

## 8.23 INVALID-NUMER-23 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

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

**Parameters:**

Q: $\frac{R_1 R_4 R_L \sqrt{\frac{R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L}{R_1 R_4 R_L (C_1 C_4 + C_1 C_L + C_4 C_L)}} (C_1 C_4 + C_1 C_L + C_4 C_L)}{C_1 R_1 R_4 + C_1 R_1 R_L + 2 C_4 R_1 R_4 R_L g_m + C_4 R_1 R_4 + C_4 R_4 R_L + C_L R_1 R_4 R_L g_m + C_L R_1 R_L + C_L R_4 R_L}$

wo: $\sqrt{\frac{R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L}{R_1 R_4 R_L (C_1 C_4 + C_1 C_L + C_4 C_L)}}$

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

K-LP: $\frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L}$

K-HP: 0

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

Qz: 0

Wz: None

## 8.24 INVALID-NUMER-24 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \infty,\ R_L\right)$

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

**Parameters:**

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

wo: $\sqrt{\frac{R_1 g_m + 1}{C_1 C_4 R_1 (R_4 + R_L)}}$

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

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

K-HP: 0

K-BP: $\frac{C_4 R_1 R_L (R_4 g_m - 1)}{C_1 R_1 + C_4 R_1 R_4 g_m + 2 C_4 R_1 R_L g_m + C_4 R_1 + C_4 R_4 + C_4 R_L}$

Qz: 0

Wz: None

## 8.25 INVALID-NUMER-25 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \frac{1}{C_L s}\right)$

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

**Parameters:**

Q: $\frac{\sqrt{2} C_1 C_L \sqrt{\frac{g_m}{C_1 C_L (R_1 R_4 g_m + R_1 + R_4)}} (R_1 R_4 g_m + R_1 + R_4)}{2 C_1 R_1 g_m + C_1 + C_L R_4 g_m + C_L}$

wo: $\sqrt{2} \sqrt{\frac{g_m}{C_1 C_L (R_1 R_4 g_m + R_1 + R_4)}}$

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

K-LP: $\frac{R_4 g_m - 1}{2 g_m}$

K-HP: 0

K-BP: $\frac{C_1 R_1 (R_4 g_m - 1)}{2 C_1 R_1 g_m + C_1 + C_L R_4 g_m + C_L}$

Qz: 0

Wz: None

## 8.26 INVALID-NUMER-26 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_L\left(R_4 g_m - 1\right)\left(C_1 R_1 s + 1\right)}{C_1 C_L R_1 R_4 R_L g_m s^2 + C_1 C_L R_1 R_L s^2 + C_1 C_L R_4 R_L s^2 + C_1 R_1 R_4 g_m s + 2 C_1 R_1 R_L g_m s + C_1 R_1 s + C_1 R_4 s + C_1 R_L s + C_L R_4 R_L g_m s + C_L R_L s + R_4 g_m + 2 R_L g_m + 1}$$

**Parameters:**

Q: $\frac{C_1 C_L R_L \sqrt{\frac{R_4 g_m + 2 R_L g_m + 1}{C_1 C_L R_L (R_1 R_4 g_m + R_1 + R_4)}} (R_1 R_4 g_m + R_1 + R_4)}{C_1 R_1 R_4 g_m + 2 C_1 R_1 R_L g_m + C_1 R_1 + C_1 R_4 + C_1 R_L + C_L R_4 R_L g_m + C_L R_L}$

wo: $\sqrt{\frac{R_4 g_m + 2 R_L g_m + 1}{C_1 C_L R_L (R_1 R_4 g_m + R_1 + R_4)}}$

bandwidth: $\frac{C_1 R_1 R_4 g_m + 2 C_1 R_1 R_L g_m + C_1 R_1 + C_1 R_4 + C_1 R_L + C_L R_4 R_L g_m + C_L R_L}{C_1 C_L R_L (R_1 R_4 g_m + R_1 + R_4)}$

K-LP: $\frac{R_L (R_4 g_m - 1)}{R_4 g_m + 2 R_L g_m + 1}$

K-HP: 0

K-BP: $\frac{C_1 R_1 R_L (R_4 g_m - 1)}{C_1 R_1 R_4 g_m + 2 C_1 R_1 R_L g_m + C_1 R_1 + C_1 R_4 + C_1 R_L + C_L R_4 R_L g_m + C_L R_L}$

Qz: 0

Wz: None

## 8.27 INVALID-NUMER-27 $Z(s) = \left(L_1 s,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

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

**Parameters:**

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

wo: $\sqrt{\frac{C_4 + C_L}{L_1 (C_1 C_4 + C_1 C_L + C_4 C_L)}}$

bandwidth: $\frac{g_m (2 C_4 + C_L)}{C_1 C_4 + C_1 C_L + C_4 C_L}$

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

K-HP: 0

K-BP: $-\frac{C_4}{g_m (2 C_4 + C_L)}$

Qz: 0

Wz: None

### 8.28 INVALID-NUMER-28 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

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

**Parameters:**

Q: $\frac{R_1 \sqrt{\frac{C_4+C_L}{L_1(C_1C_4+C_1C_L+C_4C_L)}}(C_1C_4+C_1C_L+C_4C_L)}{2C_4R_1g_m+C_4+C_LR_1g_m+C_L}$
wo: $\sqrt{\frac{C_4+C_L}{L_1(C_1C_4+C_1C_L+C_4C_L)}}$
bandwidth: $\frac{2C_4R_1g_m+C_4+C_LR_1g_m+C_L}{R_1(C_1C_4+C_1C_L+C_4C_L)}$
K-LP: $\frac{L_1g_m}{C_4+C_L}$
K-HP: 0
K-BP: $-\frac{C_4R_1}{2C_4R_1g_m+C_4+C_LR_1g_m+C_L}$
Qz: 0
Wz: None

# 9 INVALID-WZ

### 9.1 INVALID-WZ-1 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_L R_L s + 1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{2C_4C_LR_1R_4R_Lg_ms^2 + C_4C_LR_1R_4s^2 + C_4C_LR_4R_Ls^2 + 2C_4R_1R_4g_ms + C_4R_4s + C_LR_1R_4g_ms + 2C_LR_1R_Lg_ms + C_LR_1s + C_LR_4s + C_LR_Ls + 2R_1g_m + 1}$$

**Parameters:**

Q: $\frac{C_4C_LR_4\sqrt{\frac{2R_1g_m+1}{C_4C_LR_4(2R_1R_Lg_m+R_1+R_L)}}(2R_1R_Lg_m+R_1+R_L)}{2C_4R_1R_4g_m+C_4R_4+C_LR_1R_4g_m+2C_LR_1R_Lg_m+C_LR_1+C_LR_4+C_LR_L}$
wo: $\sqrt{\frac{2R_1g_m+1}{C_4C_LR_4(2R_1R_Lg_m+R_1+R_L)}}$
bandwidth: $\frac{2C_4R_1R_4g_m+C_4R_4+C_LR_1R_4g_m+2C_LR_1R_Lg_m+C_LR_1+C_LR_4+C_LR_L}{C_4C_LR_4(2R_1R_Lg_m+R_1+R_L)}$
K-LP: $\frac{R_1(R_4g_m-1)}{2R_1g_m+1}$
K-HP: $-\frac{R_1R_L}{2R_1R_Lg_m+R_1+R_L}$
K-BP: $\frac{R_1(-C_4R_4+C_LR_4R_Lg_m-C_LR_L)}{2C_4R_1R_4g_m+C_4R_4+C_LR_1R_4g_m+2C_LR_1R_Lg_m+C_LR_1+C_LR_4+C_LR_L}$

Qz: $\frac{C_4 C_L R_4 R_L \sqrt{\frac{2R_1 g_m+1}{C_4 C_L R_4 (2R_1 R_L g_m+R_1+R_L)}}}{C_4 R_4 - C_L R_4 R_L g_m + C_L R_L}$

Wz: $\sqrt{\frac{-R_4 g_m+1}{C_4 C_L R_4 R_L}}$

## 9.2 INVALID-WZ-2 $Z(s) = \left(\infty,\ R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 \left(C_4 s - g_m\right) \left(C_L R_L s + 1\right)}{2C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L R_L s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

**Parameters:**

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

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

bandwidth: $\frac{C_4 C_L R_L + 2C_4 L_1 g_m + C_L L_1 g_m}{C_4 C_L L_1 (2R_L g_m+1)}$

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

K-HP: $-\frac{R_L}{2R_L g_m+1}$

K-BP: $\frac{L_1(-C_4+C_L R_L g_m)}{C_4 C_L R_L + 2C_4 L_1 g_m + C_L L_1 g_m}$

Qz: $\frac{C_4 C_L R_L \sqrt{\frac{C_4+C_L}{C_4 C_L L_1 (2R_L g_m+1)}}}{C_4 - C_L R_L g_m}$

Wz: $\sqrt{-\frac{g_m}{C_4 C_L R_L}}$

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

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

**Parameters:**

Q: $\frac{C_4 C_L L_1 \sqrt{\frac{C_4+C_L}{C_4 C_L L_1 (R_4 g_m+2R_L g_m+1)}} (R_4 g_m+2R_L g_m+1)}{C_4 C_L R_4 + C_4 C_L R_L + 2C_4 L_1 g_m + C_L L_1 g_m}$

wo: $\sqrt{\frac{C_4+C_L}{C_4 C_L L_1 (R_4 g_m+2R_L g_m+1)}}$

bandwidth: $\frac{C_4C_LR_4+C_4C_LR_L+2C_4L_1g_m+C_LL_1g_m}{C_4C_LL_1(R_4g_m+2R_Lg_m+1)}$
K-LP: $\frac{L_1g_m}{C_4+C_L}$
K-HP: $\frac{R_L(R_4g_m-1)}{R_4g_m+2R_Lg_m+1}$
K-BP: $\frac{L_1(C_4R_4g_m-C_4+C_LR_Lg_m)}{C_4C_LR_4+C_4C_LR_L+2C_4L_1g_m+C_LL_1g_m}$
Qz: $\frac{C_4C_LR_L\sqrt{\frac{C_4+C_L}{C_4C_LL_1(R_4g_m+2R_Lg_m+1)}}(R_4g_m-1)}{C_4R_4g_m-C_4+C_LR_Lg_m}$
Wz: $\sqrt{\frac{g_m}{C_4C_LR_L(R_4g_m-1)}}$

## 9.4 INVALID-WZ-4 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4s},\ R_L+\frac{1}{C_Ls}\right)$

$$H(s) = \frac{(R_4g_m-1)(C_1R_1s+1)(C_LR_Ls+1)}{C_1C_LR_1R_4g_ms^2+2C_1C_LR_1R_Lg_ms^2+C_1C_LR_1s^2+C_1C_LR_4s^2+C_1C_LR_Ls^2+2C_1R_1g_ms+C_1s+C_LR_4g_ms+2C_LR_Lg_ms+C_Ls+2g_m}$$

**Parameters:**

Q: $\frac{\sqrt{2}C_1C_L\sqrt{\frac{g_m}{C_1C_L(R_1R_4g_m+2R_1R_Lg_m+R_1+R_4+R_L)}}(R_1R_4g_m+2R_1R_Lg_m+R_1+R_4+R_L)}{2C_1R_1g_m+C_1+C_LR_4g_m+2C_LR_Lg_m+C_L}$
wo: $\sqrt{2}\sqrt{\frac{g_m}{C_1C_L(R_1R_4g_m+2R_1R_Lg_m+R_1+R_4+R_L)}}$
bandwidth: $\frac{2C_1R_1g_m+C_1+C_LR_4g_m+2C_LR_Lg_m+C_L}{C_1C_L(R_1R_4g_m+2R_1R_Lg_m+R_1+R_4+R_L)}$
K-LP: $\frac{R_4g_m-1}{2g_m}$
K-HP: $\frac{R_1R_L(R_4g_m-1)}{R_1R_4g_m+2R_1R_Lg_m+R_1+R_4+R_L}$
K-BP: $\frac{C_1R_1R_4g_m-C_1R_1+C_LR_4R_Lg_m-C_LR_L}{2C_1R_1g_m+C_1+C_LR_4g_m+2C_LR_Lg_m+C_L}$
Qz: $\frac{\sqrt{2}C_1C_LR_1R_L\sqrt{\frac{g_m}{C_1C_L(R_1R_4g_m+2R_1R_Lg_m+R_1+R_4+R_L)}}}{C_1R_1+C_LR_L}$
Wz: $\sqrt{\frac{1}{C_1C_LR_1R_L}}$

## 9.5 INVALID-WZ-5 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4}{C_4R_4s+1},\ R_L\right)$

$$H(s) = -\frac{R_L(C_4s-g_m)(C_1R_1s+1)}{2C_1C_4R_1R_Lg_ms^2+C_1C_4R_1s^2+C_1C_4R_Ls^2+C_1R_1g_ms+C_1s+2C_4R_Lg_ms+C_4s+g_m}$$

**Parameters:**

Q: $\frac{C_1C_4\sqrt{\frac{g_m}{C_1C_4(2R_1R_Lg_m+R_1+R_L)}}(2R_1R_Lg_m+R_1+R_L)}{C_1R_1g_m+C_1+2C_4R_Lg_m+C_4}$

wo: $\sqrt{\frac{g_m}{C_1C_4(2R_1R_Lg_m+R_1+R_L)}}$

bandwidth: $\frac{C_1R_1g_m+C_1+2C_4R_Lg_m+C_4}{C_1C_4(2R_1R_Lg_m+R_1+R_L)}$

K-LP: $R_L$

K-HP: $-\frac{R_1R_L}{2R_1R_Lg_m+R_1+R_L}$

K-BP: $\frac{R_L(C_1R_1g_m-C_4)}{C_1R_1g_m+C_1+2C_4R_Lg_m+C_4}$

Qz: $-\frac{C_1C_4R_1\sqrt{\frac{g_m}{C_1C_4(2R_1R_Lg_m+R_1+R_L)}}}{C_1R_1g_m-C_4}$

Wz: $\sqrt{-\frac{g_m}{C_1C_4R_1}}$

## 9.6 INVALID-WZ-6 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ R_L\right)$

$$H(s) = -\frac{R_L\left(C_1R_1s+1\right)\left(C_4R_4s-R_4g_m+1\right)}{2C_1C_4R_1R_4R_Lg_ms^2+C_1C_4R_1R_4s^2+C_1C_4R_4R_Ls^2+C_1R_1R_4g_ms+2C_1R_1R_Lg_ms+C_1R_1s+C_1R_4s+C_1R_Ls+2C_4R_4R_Lg_ms+C_4R_4s+R_4g_m+2R_Lg_m+1}$$

**Parameters:**

Q: $\frac{C_1C_4R_4\sqrt{\frac{R_4g_m+2R_Lg_m+1}{C_1C_4R_4(2R_1R_Lg_m+R_1+R_L)}}(2R_1R_Lg_m+R_1+R_L)}{C_1R_1R_4g_m+2C_1R_1R_Lg_m+C_1R_1+C_1R_4+C_1R_L+2C_4R_4R_Lg_m+C_4R_4}$

wo: $\sqrt{\frac{R_4g_m+2R_Lg_m+1}{C_1C_4R_4(2R_1R_Lg_m+R_1+R_L)}}$

bandwidth: $\frac{C_1R_1R_4g_m+2C_1R_1R_Lg_m+C_1R_1+C_1R_4+C_1R_L+2C_4R_4R_Lg_m+C_4R_4}{C_1C_4R_4(2R_1R_Lg_m+R_1+R_L)}$

K-LP: $\frac{R_L(R_4g_m-1)}{R_4g_m+2R_Lg_m+1}$

K-HP: $-\frac{R_1R_L}{2R_1R_Lg_m+R_1+R_L}$

K-BP: $\frac{R_L(C_1R_1R_4g_m-C_1R_1-C_4R_4)}{C_1R_1R_4g_m+2C_1R_1R_Lg_m+C_1R_1+C_1R_4+C_1R_L+2C_4R_4R_Lg_m+C_4R_4}$

Qz: $\frac{C_1C_4R_1R_4\sqrt{\frac{R_4g_m+2R_Lg_m+1}{C_1C_4R_4(2R_1R_Lg_m+R_1+R_L)}}}{-C_1R_1R_4g_m+C_1R_1+C_4R_4}$

Wz: $\sqrt{\frac{-R_4g_m+1}{C_1C_4R_1R_4}}$

### 9.7 INVALID-WZ-7 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ R_L\right)$

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

**Parameters:**

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

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

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

K-LP: $R_L$

K-HP: $\frac{R_1 R_L (R_4 g_m - 1)}{R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L}$

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

Qz: $\frac{C_1 C_4 R_1 \sqrt{\frac{g_m}{C_1 C_4 (R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L)}} (R_4 g_m - 1)}{C_1 R_1 g_m + C_4 R_4 g_m - C_4}$

Wz: $\sqrt{\frac{g_m}{C_1 C_4 R_1 (R_4 g_m - 1)}}$

# 10 INVALID-ORDER

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

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

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

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

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

$$H(s) = \frac{R_1 R_L \left(R_4 g_m - 1\right)}{C_L R_1 R_4 R_L g_m s + C_L R_1 R_L s + C_L R_4 R_L s + R_1 R_4 g_m + 2 R_1 R_L g_m + R_1 + R_4 + R_L}$$

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

$$H(s) = \frac{R_1 \left(R_4 g_m - 1\right) \left(C_L R_L s + 1\right)}{C_L R_1 R_4 g_m s + 2 C_L R_1 R_L g_m s + C_L R_1 s + C_L R_4 s + C_L R_L s + 2 R_1 g_m + 1}$$

### 10.5 INVALID-ORDER-5 $Z(s) = \left(L_1 s,\ \infty,\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

### 10.6 INVALID-ORDER-6 $Z(s) = \left(L_1 s,\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

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

### 10.7 INVALID-ORDER-7 $Z(s) = \left(L_1 s,\ \infty,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_4 s - g_m\right) \left(C_L R_L s + 1\right)}{s \left(2 C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_L s + 2 C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L\right)}$$

### 10.8 INVALID-ORDER-8 $Z(s) = \left(L_1 s,\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_4 s - g_m\right) \left(C_L L_L s^2 + 1\right)}{s \left(2 C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 s + 2 C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L\right)}$$

### 10.9 INVALID-ORDER-9 $Z(s) = \left(L_1 s,\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 s\left(-C_4 s + g_m\right)}{C_4 C_L L_L R_1 s^3 + 2C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + C_4 R_1 s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

### 10.10 INVALID-ORDER-10 $Z(s) = \left(L_1 s,\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1\left(C_4 s - g_m\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{s\left(2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + 2C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_L s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L\right)}$$

### 10.11 INVALID-ORDER-11 $Z(s) = \left(L_1 s,\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_1 R_L s\left(-C_4 s + g_m\right)}{C_4 C_L L_L R_1 R_L s^3 + 2C_4 L_L R_1 R_L g_m s^2 + C_4 L_L R_1 s^2 + C_4 L_L R_L s^2 + C_4 R_1 R_L s + C_L L_L R_1 R_L g_m s^2 + C_L L_L R_L s^2 + L_L R_1 g_m s + L_L s + R_1 R_L g_m + R_L}$$

### 10.12 INVALID-ORDER-12 $Z(s) = \left(L_1 s,\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{R_1\left(C_4 s - g_m\right)\left(C_L L_L R_L s^2 + L_L s + R_L\right)}{2C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_L s^3 + 2C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

### 10.13 INVALID-ORDER-13 $Z(s) = \left(L_1 s,\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{R_1 R_L\left(C_4 s - g_m\right)\left(C_L L_L s^2 + 1\right)}{2C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_L s^3 + C_4 C_L R_1 R_L s^2 + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_L R_1 R_L g_m s + C_L R_L s + R_1 g_m}$$

### 10.14 INVALID-ORDER-14 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

### 10.15 INVALID-ORDER-15 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_L L_L s^2 + 1\right) \left(C_4 R_4 s - R_4 g_m + 1\right)}{2C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L R_1 R_4 s^2 + 2C_4 R_1 R_4 g_m s + C_4 R_4 s + 2C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_L R_1 R_4 g_m s + C_L R_1 s + C_L R_4 s + 2R_1 g_m + 1}$$

### 10.16 INVALID-ORDER-16 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L R_1 s \left(-C_4 R_4 s + R_4 g_m - 1\right)}{C_4 C_L L_L R_1 R_4 s^3 + 2C_4 L_L R_1 R_4 g_m s^2 + C_4 L_L R_4 s^2 + C_4 R_1 R_4 s + C_L L_L R_1 R_4 g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_4 s^2 + 2L_L R_1 g_m s + L_L s + R_1 R_4 g_m + R_1 + R_4}$$

### 10.17 INVALID-ORDER-17 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_4 R_4 s - R_4 g_m + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{2C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_4 s^3 + 2C_4 C_L R_1 R_4 R_L g_m s^2 + C_4 C_L R_1 R_4 s^2 + C_4 C_L R_4 R_L s^2 + 2C_4 R_1 R_4 g_m s + C_4 R_4 s + 2C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_L R_1 R_4 g_m s + 2C$$

### 10.18 INVALID-ORDER-18 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_1 R_L s \left(-C_4 R_4 s + R_4 g_m - 1\right)}{C_4 C_L L_L R_1 R_4 R_L s^3 + 2C_4 L_L R_1 R_4 R_L g_m s^2 + C_4 L_L R_1 R_4 s^2 + C_4 L_L R_4 R_L s^2 + C_4 R_1 R_4 R_L s + C_L L_L R_1 R_4 R_L g_m s^2 + C_L L_L R_1 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_1 R_4 g_m s + 2L_L R_1$$

### 10.19 INVALID-ORDER-19 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = -\frac{R_1 \left(C_4 R_4 s - R_4 g_m + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{2C_4 C_L L_L R_1 R_4 R_L g_m s^3 + C_4 C_L L_L R_1 R_4 s^3 + C_4 C_L L_L R_4 R_L s^3 + 2C_4 L_L R_1 R_4 g_m s^2 + C_4 L_L R_4 s^2 + 2C_4 R_1 R_4 R_L g_m s + C_4 R_1 R_4 s + C_4 R_4 R_L s + C_L L_L R_1 R_4 g_m s^2 + 2C_L L_L$$

### 10.20 INVALID-ORDER-20 $Z(s) = \left(\frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{R_1 R_L\left(C_L L_L s^2+1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{2C_4 C_L L_L R_1 R_4 R_L g_m s^3 + C_4 C_L L_L R_1 R_4 s^3 + C_4 C_L L_L R_4 R_L s^3 + C_4 C_L R_1 R_4 R_L s^2 + 2C_4 R_1 R_4 R_L g_m s + C_4 R_1 R_4 s + C_4 R_4 R_L s + C_L L_L R_1 R_4 g_m s^2 + 2C_L L_L R_1 R_L g_m s^2 +}$$

### 10.21 INVALID-ORDER-21 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

### 10.22 INVALID-ORDER-22 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s\left(C_4 C_L R_1 R_4 g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L\right)}$$

### 10.23 INVALID-ORDER-23 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(C_L R_L s+1\right)\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s\left(C_4 C_L R_1 R_4 g_m s + 2C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + C_4 C_L R_L s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L\right)}$$

### 10.24 INVALID-ORDER-24 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(C_L L_L s^2+1\right)\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s\left(2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 R_4 g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L\right)}$$

### 10.25 INVALID-ORDER-25 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 s\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + 2C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + C_4 R_1 R_4 g_m s + C_4 R_1 s + C_4 R_4 s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

### 10.26 INVALID-ORDER-26 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s \left(2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 R_4 g_m s + 2C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + C_4 C_L R_L s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L\right)}$$

### 10.27 INVALID-ORDER-27 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_1 R_L s \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_4 C_L L_L R_1 R_4 R_L g_m s^3 + C_4 C_L L_L R_1 R_L s^3 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_1 R_4 g_m s^2 + 2C_4 L_L R_1 R_L g_m s^2 + C_4 L_L R_1 s^2 + C_4 L_L R_4 s^2 + C_4 L_L R_L s^2 + C_4 R_1 R_4 R_L g_m s + C_4 R_1 R_L$$

### 10.28 INVALID-ORDER-28 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{R_1 \left(C_4 R_4 g_m s - C_4 s + g_m\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_4 C_L L_L R_1 R_4 g_m s^3 + 2C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L L_L R_L s^3 + 2C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + C_4 R_1 R_4 g_m s + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_4 s$$

### 10.29 INVALID-ORDER-29 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{R_1 R_L \left(C_L L_L s^2 + 1\right) \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_4 C_L L_L R_1 R_4 g_m s^3 + 2C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L L_L R_L s^3 + C_4 C_L R_1 R_4 R_L g_m s^2 + C_4 C_L R_1 R_L s^2 + C_4 C_L R_4 R_L s^2 + C_4 R_1 R_4 g_m s + 2C_4 R_1$$

### 10.30 INVALID-ORDER-30 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{s \left(C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_1 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L\right)}$$

### 10.31 INVALID-ORDER-31 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_1 R_L \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_L s^3 + C_4 C_L R_1 R_L s^2 + C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_L s + C_L R_1 R_L g_m s + C_L R_L s + R_1 g_m + 1}$$

### 10.32 INVALID-ORDER-32 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_L R_L s + 1\right) \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{s \left(C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + 2C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_L s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L\right)}$$

### 10.33 INVALID-ORDER-33 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{s \left(C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + 2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L\right)}$$

### 10.34 INVALID-ORDER-34 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 s \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_1 s^3 + C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + C_4 R_1 s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

### 10.35 INVALID-ORDER-35 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{s \left(C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + 2C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + 2C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_L s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L\right)}$$

### 10.36 INVALID-ORDER-36 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_1 R_L s \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_1 R_L s^3 + C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_1 R_L g_m s^2 + C_4 L_L R_1 s^2 + C_4 L_L R_1}$$

### 10.37 INVALID-ORDER-37 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{R_1 \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_L s^3 + C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2 C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + 2 C_4 R_1 R_L g_m s + C_4 R_1}$$

### 10.38 INVALID-ORDER-38 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{R_1 R_L \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_L s^3 + 2 C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_L s^3 + C_4 C_L R_1 R_L s^2 + C_4 L_4 R_1 g_m s^2 + C_4 L}$$

### 10.39 INVALID-ORDER-39 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

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

### 10.40 INVALID-ORDER-40 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_1 R_L \left(-C_4 L_4 s^2 + L_4 g_m s - 1\right)}{C_4 C_L L_4 R_1 R_L s^3 + 2 C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_L s^2 + C_L L_4 R_1 R_L g_m s^2 + C_L L_4 R_L s^2 + C_L R_1 R_L s + L_4 R_1 g_m s + L_4 s + 2 R_1 R_L g_m + R_1 + R_L}$$

### 10.41 INVALID-ORDER-41 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_L R_L s + 1\right) \left(C_4 L_4 s^2 - L_4 g_m s + 1\right)}{2C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_L s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 g_m s^2 + C_L L_4 s^2 + 2C_L R_1 R_L g_m s + C_L R_1 s + C_L R_L s + 2R_1 g_m + 1}$$

### 10.42 INVALID-ORDER-42 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 - L_4 g_m s + 1\right)}{2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 g_m s^2 + C_L L_4 s^2 + 2C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_L R_1 s + 2R_1 g_m + 1}$$

### 10.43 INVALID-ORDER-43 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L R_1 s \left(-C_4 L_4 s^2 + L_4 g_m s - 1\right)}{C_4 C_L L_4 L_L R_1 s^4 + 2C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_1 s^2 + C_L L_4 L_L R_1 g_m s^3 + C_L L_4 L_L s^3 + C_L L_L R_1 s^2 + L_4 R_1 g_m s + L_4 s + 2L_L R_1 g_m s + L_L s + R_1}$$

### 10.44 INVALID-ORDER-44 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_4 L_4 s^2 - L_4 g_m s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + 2C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_L s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 g_m s^2 + C_L L_4 s^2 + 2C_L L_L R_1 g_m s^2 + C$$

### 10.45 INVALID-ORDER-45 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_1 R_L s \left(-C_4 L_4 s^2 + L_4 g_m s - 1\right)}{C_4 C_L L_4 L_L R_1 R_L s^4 + 2C_4 L_4 L_L R_1 R_L g_m s^3 + C_4 L_4 L_L R_1 s^3 + C_4 L_4 L_L R_L s^3 + C_4 L_4 R_1 R_L s^2 + C_L L_4 L_L R_1 R_L g_m s^3 + C_L L_4 L_L R_L s^3 + C_L L_L R_1 R_L s^2 + L_4 L_L R_1 g_m s^2 + L_4 L_$$

### 10.46 INVALID-ORDER-46 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{R_1 \left(C_4 L_4 s^2 - L_4 g_m s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L}{2C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_L s^4 + 2C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + 2C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_L s^2 + C_L L_4 L_L R_1 g_m s^3 + C_L L_}$$

### 10.47 INVALID-ORDER-47 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{R_1 R_L \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 - L_4 g_m s +}{2C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_4 R_1 R_L s^3 + 2C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_L s^2 + C_L L_4 L_L R_1 g_m s^3 + C_L L_4 L_L s^3 + C_L L_4}$$

### 10.48 INVALID-ORDER-48 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m\right)}{s \left(C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_1 R_4 g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L\right)}$$

### 10.49 INVALID-ORDER-49 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

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

### 10.50 INVALID-ORDER-50 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

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

### 10.51 INVALID-ORDER-51 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

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

### 10.52 INVALID-ORDER-52 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 s \left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m\right)}{C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2 C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + C_4 R_1 R_4 g_m s + C_4 R_1 s +$$

### 10.53 INVALID-ORDER-53 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m\right)}{s \left(C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + 2 C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 R_4 g_m s + 2 C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + C_4 C_L R_L s + 2 C_4 R_1 g_m + C_4 + C_L R_1 g_m$$

### 10.54 INVALID-ORDER-54 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_1 R_L s \left($$
$$C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_1 R_4 R_L g_m s^3 + C_4 C_L L_L R_1 R_L s^3 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_1 R_L g_m s^2 + C_4 L_4 R_L s^2$$

### 10.55 INVALID-ORDER-55 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{R_1 \left(C_L L_L R_L s^2 + L_L s + R_L\right) \left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s -$$
$$C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_1 R_4 g_m s^3 + 2 C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L L_L R_L s^3 + C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2 C_4 L_L R_1 g$$

### 10.56 INVALID-ORDER-56 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{R_1 R_L \left(C_L$$
$$C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_L s^3 + C_4 C_L L_L R_1 R_4 g_m s^3 + 2C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L L_L R_L s^3 -$$

### 10.57 INVALID-ORDER-57 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

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

### 10.58 INVALID-ORDER-58 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

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

### 10.59 INVALID-ORDER-59 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

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

### 10.60 INVALID-ORDER-60 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_L L_L s^2 + 1\right)\left(C_4 L_4 R_4 s^2 - L_4 R_4 g_m s + L_4 s + R_4\right)}{2C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_1 R_4 s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + C_4 L_4 R_4 s^2 + 2C_L L_4 L_L R_1 g_m s^3 + C_L L_4 L_L s^3 + C_L L_4 R_1 R_4 g_m s^2 + C_L L_4 R_1 s^2 + C_L L_4$$

### 10.61 INVALID-ORDER-61 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 s \left(-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4\right)}{C_4 C_L L_4 L_L R_1 R_4 s^4 + 2C_4 L_4 L_L R_1 R_4 g_m s^3 + C_4 L_4 L_L R_4 s^3 + C_4 L_4 R_1 R_4 s^2 + C_L L_4 L_L R_1 R_4 g_m s^3 + C_L L_4 L_L R_1 s^3 + C_L L_4 L_L R_4 s^3 + C_L L_L R_1 R_4 s^2 + 2L_4 L_L R_1 g_m s^2 + L_4 L_L$$

### 10.62 INVALID-ORDER-62 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_L L_L s^2 + C\right.}{2C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L_4 L_L R_4 s^4 + 2C_4 C_L L_4 R_1 R_4 R_L g_m s^3 + C_4 C_L L_4 R_1 R_4 s^3 + C_4 C_L L_4 R_4 R_L s^3 + 2C_4 L_4 R_1 R_4 g_m s^2 + C_4 L_4 R_4 s^2 + 2C_L L_4 L_L R_1 g_m s^3 + C_L L_4$$

### 10.63 INVALID-ORDER-63 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

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

### 10.64 INVALID-ORDER-64 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{2C_4 C_L L_4 L_L R_1 R_4 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 R_4 s^4 + C_4 C_L L_4 L_L R_4 R_L s^4 + 2C_4 L_4 L_L R_1 R_4 g_m s^3 + C_4 L_4 L_L R_4 s^3 + 2C_4 L_4 R_1 R_4 R_L g_m s^2 + C_4 L_4 R_1 R_4 s^2 + C_4 L_4 R_4 R_L s^2 + C$$

### 10.65 INVALID-ORDER-65 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

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

**10.66 INVALID-ORDER-66** $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

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

**10.67 INVALID-ORDER-67** $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

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

**10.68 INVALID-ORDER-68** $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

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

**10.69 INVALID-ORDER-69** $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(C_L L_L s^2 + 1\right)\left(C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1\right)}{2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 R_4 g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 g_m s^2 + C_L L_4 s^2 + 2C_L L_L R_1 g_m s^2 + C_L L_L}$$

**10.70 INVALID-ORDER-70** $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L R_1 s\left(C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1\right)}{C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_1 R_4 g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + C_L L_4 L_L R_1 g_m s^3 + C_L L_4 L_L s^3}$$

### 10.71 INVALID-ORDER-71 $Z(s) = \left( \frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s +}{2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 R_4 g_m s^3 + 2C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L L_4 R_L s^3 + 2C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 R_1 g_r}$$

### 10.72 INVALID-ORDER-72 $Z(s) = \left( \frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

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

### 10.73 INVALID-ORDER-73 $Z(s) = \left( \frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{R_1}{C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + 2C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 L_L R_L s^4 + 2C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_1 R_4 g_m s^2 + 2C_4 L_4 R_1 I}$$

### 10.74 INVALID-ORDER-74 $Z(s) = \left( \frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

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

### 10.75 INVALID-ORDER-75 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1,\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

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

### 10.76 INVALID-ORDER-76 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

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

### 10.77 INVALID-ORDER-77 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_L R_L s + 1\right) \left(-C_4 L_4 R_4 g_m s^2 + C_4 L_4 s^2 + C_4 R_4 s - R_4 g_m +\right.}{C_4 C_L L_4 R_1 R_4 g_m s^3 + 2C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L R_1 R_4 R_L g_m s^2 + C_4 C_L R_1 R_4 s^2 + C_4 C_L R_4 R_L s^2 + 2C_4 L_4 R_1 g_m s^2 + C}$$

### 10.78 INVALID-ORDER-78 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_L L_L s^2 + 1\right) \left(-C_4 L_4 R_4 g_m s^2 + C_4 L_4 s^2 + C_4 R_4 s - R_4 g_m +\right.}{2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 R_4 g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + 2C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L R_1 R_4 s^2 + 2C_4 L_4 R_1 g_m s^2 + C_4}$$

### 10.79 INVALID-ORDER-79 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 s \left(C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m -\right.}{C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L_4 L_L R_1 s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_L R_1 R_4 s^3 + 2C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_1 R_4 g_m s^2 + C_4 L_4 R_1 s^2 + C_4 L_4 R_4 s^2 + 2C_4 L_L R_1}$$

### 10.80 INVALID-ORDER-80 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_L L_L s^2 +\right.}{2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 R_4 g_m s^3 + 2C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_1 s^3 + C_4 C_L L_4 R_4 s^3 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_4 s$$

**10.81 INVALID-ORDER-81** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}} \right)$

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

**10.82 INVALID-ORDER-82** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

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

**10.83 INVALID-ORDER-83** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1} + R_1,\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

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

**10.84 INVALID-ORDER-84** $Z(s) = \left( \frac{R_1\left(L_1 s+\frac{1}{C_1 s}\right)}{L_1 s+R_1+\frac{1}{C_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{L_1 R_L s \left(R_4 g_m - 1\right)}{L_1 R_4 g_m s + 2 L_1 R_L g_m s + L_1 s + R_4 + R_L}$$

**10.85 INVALID-ORDER-85** $Z(s) = \left( \frac{R_1\left(L_1 s+\frac{1}{C_1 s}\right)}{L_1 s+R_1+\frac{1}{C_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

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

**10.86 INVALID-ORDER-86** $Z(s) = \left( \frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

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

**10.87 INVALID-ORDER-87** $Z(s) = \left( \frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 s \left(R_4 g_m - 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{2 C_L L_1 L_L g_m s^3 + C_L L_1 R_4 g_m s^2 + 2 C_L L_1 R_L g_m s^2 + C_L L_1 s^2 + C_L L_L s^2 + C_L R_4 s + C_L R_L s + 2 L_1 g_m s + 1}$$

**10.88 INVALID-ORDER-88** $Z(s) = \left( \frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_1 L_L R_L s^2 \left(R_4 g_m - 1\right)}{C_L L_1 L_L R_4 R_L g_m s^3 + C_L L_1 L_L R_L s^3 + C_L L_L R_4 R_L s^2 + L_1 L_L R_4 g_m s^2 + 2 L_1 L_L R_L g_m s^2 + L_1 L_L s^2 + L_1 R_4 R_L g_m s + L_1 R_L s + L_L R_4 s + L_L R_L s + R_4 R_L}$$

**10.89 INVALID-ORDER-89** $Z(s) = \left( \frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{L_1 s \left(R_4 g_m - 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_L L_1 L_L R_4 g_m s^3 + 2 C_L L_1 L_L R_L g_m s^3 + C_L L_1 L_L s^3 + C_L L_L R_4 s^2 + C_L L_L R_L s^2 + 2 L_1 L_L g_m s^2 + L_1 R_4 g_m s + 2 L_1 R_L g_m s + L_1 s + L_L s + R_4 + R_L}$$

**10.90 INVALID-ORDER-90** $Z(s) = \left( \frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{L_1 R_L s \left(R_4 g_m - 1\right) \left(C_L L_L s^2 + 1\right)}{C_L L_1 L_L R_4 g_m s^3 + 2 C_L L_1 L_L R_L g_m s^3 + C_L L_1 L_L s^3 + C_L L_1 R_4 R_L g_m s^2 + C_L L_1 R_L s^2 + C_L L_L R_4 s^2 + C_L L_L R_L s^2 + C_L R_4 R_L s + L_1 R_4 g_m s + 2 L_1 R_L g_m s + L_1 s + R_4 + R_L}$$

### 10.91 INVALID-ORDER-91 $Z(s) = \left(\infty,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

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

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

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

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

$$H(s) = \frac{L_1 L_L s^2\left(-C_4 s + g_m\right)}{C_4 C_L L_1 L_L s^4 + 2C_4 L_1 L_L g_m s^3 + C_4 L_1 s^2 + C_4 L_L s^2 + C_L L_1 L_L g_m s^3 + C_L L_L s^2 + L_1 g_m s + 1}$$

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

$$H(s) = -\frac{L_1\left(C_4 s - g_m\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{2C_4 C_L L_1 L_L g_m s^3 + 2C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_L s^2 + C_4 C_L R_L s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

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

$$H(s) = \frac{L_1 L_L R_L s^2\left(-C_4 s + g_m\right)}{C_4 C_L L_1 L_L R_L s^4 + 2C_4 L_1 L_L R_L g_m s^3 + C_4 L_1 L_L s^3 + C_4 L_1 R_L s^2 + C_4 L_L R_L s^2 + C_L L_1 L_L R_L g_m s^3 + C_L L_L R_L s^2 + L_1 L_L g_m s^2 + L_1 R_L g_m s + L_L s + R_L}$$

### 10.96 INVALID-ORDER-96 $Z(s) = \left(\infty,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{L_1 s\left(C_4 s - g_m\right)\left(C_L L_L R_L s^2 + L_L s + R_L\right)}{2C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_L R_L s^3 + 2C_4 L_1 L_L g_m s^3 + 2C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 L_L s^2 + C_4 R_L s + C_L L_1 L_L g_m s^3 + C_L L_L s^2 + L_1 g_m s + 1}$$

**10.97 INVALID-ORDER-97** $Z(s) = \left(\infty,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{L_1 R_L s\left(C_4 s - g_m\right)\left(C_L L_L s^2+1\right)}{2C_4C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_1 R_L s^3 + C_4 C_L L_L R_L s^3 + 2C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 R_L s + C_L L_1 L_L g_m s^3 + C_L L_1 R_L g_m s^2 + C_L L_L s^2 + C_L R_L s + L_1 g_}$$

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

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

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

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

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

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

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

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

**10.102 INVALID-ORDER-102** $Z(s) = \left(\infty,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

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

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

$$H(s) = -\frac{L_1 s \left(C_4 R_4 s - R_4 g_m + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{2C_4 C_L L_1 L_L R_4 g_m s^4 + 2C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_4 s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L R_4 R_L s^2 + 2C_4 L_1 R_4 g_m s^2 + C_4 R_4 s + 2C_L L_1 L_L g_m s^3 + C_L L_1 R_4 g_m s^2 + 2C_L L_1 R_L g_m}$$

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

$$H(s) = \frac{L_1 L_L R_L s^2 \left(-C_4 R_4 s + R_4 g_m - 1\right)}{C_4 C_L L_1 L_L R_4 R_L s^4 + 2C_4 L_1 L_L R_4 R_L g_m s^3 + C_4 L_1 L_L R_4 s^3 + C_4 L_1 R_4 R_L s^2 + C_4 L_L R_4 R_L s^2 + C_L L_1 L_L R_4 R_L g_m s^3 + C_L L_1 L_L R_L s^3 + C_L L_L R_4 R_L s^2 + L_1 L_L R_4 g_m s^2 + 2L_1}$$

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

$$H(s) = -\frac{L_1 s \left(C_4 R_4 s - R_4 g_m + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right.}{2C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_4 s^4 + C_4 C_L L_L R_4 R_L s^3 + 2C_4 L_1 L_L R_4 g_m s^3 + 2C_4 L_1 R_4 R_L g_m s^2 + C_4 L_1 R_4 s^2 + C_4 L_L R_4 s^2 + C_4 R_4 R_L s + C_L L_1 L_L R_4 g_m s^3 + 2C_L L}$$

### 10.106 INVALID-ORDER-106 $Z(s) = \left(\infty,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{L_1 R_L s \left(C_L L_L s^2 + 1\right) \left(C_4 R_4 s - R_4 g_m +\right.}{2C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_4 s^4 + C_4 C_L L_1 R_4 R_L s^3 + C_4 C_L L_L R_4 R_L s^3 + 2C_4 L_1 R_4 R_L g_m s^2 + C_4 L_1 R_4 s^2 + C_4 R_4 R_L s + C_L L_1 L_L R_4 g_m s^3 + 2C_L L_1 L_L R_L g_m s^3 +}$$

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

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

### 10.108 INVALID-ORDER-108 $Z(s) = \left(\infty,\ \frac{R_2}{C_2R_2s+1},\ \infty,\ \infty,\ \infty,\ L_Ls + \frac{1}{C_Ls}\right)$

$$H(s) = \frac{L_1\left(C_LL_Ls^2+1\right)\left(C_4R_4g_ms - C_4s + g_m\right)}{2C_4C_LL_1L_Lg_ms^3 + C_4C_LL_1R_4g_ms^2 + C_4C_LL_1s^2 + C_4C_LL_Ls^2 + C_4C_LR_4s + 2C_4L_1g_ms + C_4 + C_LL_1g_ms + C_L}$$

### 10.109 INVALID-ORDER-109 $Z(s) = \left(\infty,\ \frac{R_2}{C_2R_2s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_Ls}{C_LL_Ls^2+1}\right)$

$$H(s) = \frac{L_1L_Ls^2\left(C_4R_4g_ms - C_4s + g_m\right)}{C_4C_LL_1L_LR_4g_ms^4 + C_4C_LL_1L_Ls^4 + C_4C_LL_LR_4s^3 + 2C_4L_1L_Lg_ms^3 + C_4L_1R_4g_ms^2 + C_4L_1s^2 + C_4L_Ls^2 + C_4R_4s + C_LL_1L_Lg_ms^3 + C_LL_Ls^2 + L_1g_ms + 1}$$

### 10.110 INVALID-ORDER-110 $Z(s) = \left(\infty,\ \frac{R_2}{C_2R_2s+1},\ \infty,\ \infty,\ \infty,\ L_Ls + R_L + \frac{1}{C_Ls}\right)$

$$H(s) = \frac{L_1\left(C_LL_Ls^2 + C_LR_Ls + 1\right)\left(C_4R_4g_ms - C_4s + g_m\right)}{2C_4C_LL_1L_Lg_ms^3 + C_4C_LL_1R_4g_ms^2 + 2C_4C_LL_1R_Lg_ms^2 + C_4C_LL_1s^2 + C_4C_LL_Ls^2 + C_4C_LR_4s + C_4C_LR_Ls + 2C_4L_1g_ms + C_4 + C_LL_1g_ms + C_L}$$

### 10.111 INVALID-ORDER-111 $Z(s) = \left(\infty,\ \frac{R_2}{C_2R_2s+1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$

$$H(s) = \frac{L_1L_LR_Ls^2\left(C_4R_4g_ms - C_4s + g_m\right)}{C_4C_LL_1L_LR_4R_Lg_ms^4 + C_4C_LL_1L_LR_Ls^4 + C_4C_LL_LR_4R_Ls^3 + C_4L_1L_LR_4g_ms^3 + 2C_4L_1L_LR_Lg_ms^3 + C_4L_1L_Ls^3 + C_4L_1R_4R_Lg_ms^2 + C_4L_1R_Ls^2 + C_4L_LR_4s^2 + C_4L_LR_L}$$

### 10.112 INVALID-ORDER-112 $Z(s) = \left(\infty,\ \frac{R_2}{C_2R_2s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$

$$H(s) = \frac{L_1s\left(C_4R_4g_ms - C_4s + g_m\right)\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{C_4C_LL_1L_LR_4g_ms^4 + 2C_4C_LL_1L_LR_Lg_ms^4 + C_4C_LL_1L_Ls^4 + C_4C_LL_LR_4s^3 + C_4C_LL_LR_Ls^3 + 2C_4L_1L_Lg_ms^3 + C_4L_1R_4g_ms^2 + 2C_4L_1R_Lg_ms^2 + C_4L_1s^2 + C_4L_Ls^2 + C_4R$$

### 10.113 INVALID-ORDER-113 $Z(s) = \left(\infty,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{L_1 R_L s \left(C_L L_L s^2+1\right)\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_4 C_L L_1 L_L R_4 g_m s^4 + 2C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_L s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L L_L R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_1 R_4 g_m s^2 + 2C_4 L_1}$$

### 10.114 INVALID-ORDER-114 $Z(s) = \left(\infty,\ R_2+\frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

### 10.115 INVALID-ORDER-115 $Z(s) = \left(\infty,\ R_2+\frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

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

### 10.116 INVALID-ORDER-116 $Z(s) = \left(\infty,\ R_2+\frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

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

### 10.117 INVALID-ORDER-117 $Z(s) = \left(\infty,\ R_2+\frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L+\frac{1}{C_L s}\right)$

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

### 10.118 INVALID-ORDER-118 $Z(s) = \left(\infty,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

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

### 10.119 INVALID-ORDER-119 $Z(s) = \left(\infty,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

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

### 10.120 INVALID-ORDER-120 $Z(s) = \left(\infty,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

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

### 10.121 INVALID-ORDER-121 $Z(s) = \left(\infty,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_L R_L s^2 \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_L R_L s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 L_1 L_4 L_L g_m s^4 + C_4 L_1 L_4 R_L g_m s^3 + 2 C_4 L_1 L_L R_L g_m s^3 + C_4 L_1 L_L s^3 + C_4 L_1 R_L s^2 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s$$

### 10.122 INVALID-ORDER-122 $Z(s) = \left(\infty,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{L_1 s \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_4 C_L L_1 L_4 L_L g_m s^5 + 2 C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_L s^3 + C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 L_L g_m s^3 + 2 C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 L_L$$

### 10.123 INVALID-ORDER-123 $Z(s) = \left(\infty,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{L_1 R_L s \left(C_L L_L s^2 + 1\right)\left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 R_L g_m s^4 + 2C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_1 R_L s^3 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + C_4 C_L L_L R_L s^3 + C_4 L_1 L_4 g_m s^3 + 2C_4 L}$$

### 10.124 INVALID-ORDER-124 $Z(s) = \left(\infty,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

### 10.125 INVALID-ORDER-125 $Z(s) = \left(\infty,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

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

### 10.126 INVALID-ORDER-126 $Z(s) = \left(\infty,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

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

### 10.127 INVALID-ORDER-127 $Z(s) = \left(\infty,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

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

### 10.128 INVALID-ORDER-128 $Z(s) = \left(\infty,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

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

### 10.129 INVALID-ORDER-129 $Z(s) = \left(\infty,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

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

### 10.130 INVALID-ORDER-130 $Z(s) = \left(\infty,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

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

### 10.131 INVALID-ORDER-131 $Z(s) = \left(\infty,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_L R_L s \left(-C_4 L_4 s^2 + L_4 g_m s - 1\right)}{C_4 C_L L_1 L_4 L_L R_L s^4 + 2C_4 L_1 L_4 L_L R_L g_m s^3 + C_4 L_1 L_4 L_L s^3 + C_4 L_1 L_4 R_L s^2 + C_4 L_4 L_L R_L s^2 + C_L L_1 L_4 L_L R_L g_m s^3 + C_L L_1 L_L R_L s^2 + C_L L_4 L_L R_L s^2 + L_1 L_4 L_L g_m s^2 + L_1 L_4$$

### 10.132 INVALID-ORDER-132 $Z(s) = \left(\infty,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = -\frac{L_1 s \left(C_4 L_4 s^2 - L_4 g_m s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R\right.}{2C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_4 L_L R_L s^4 + 2C_4 L_1 L_4 L_L g_m s^4 + 2C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + C_L L_1 L_4 L_L g_m s^4 + 2C_L L$$

### 10.133 INVALID-ORDER-133 $Z(s) = \left(\infty,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

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

### 10.134 INVALID-ORDER-134 $Z(s) = \left(\infty,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

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

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

### 10.136 INVALID-ORDER-136 $Z(s) = \left(\infty,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

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

### 10.137 INVALID-ORDER-137 $Z(s) = \left(\infty,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

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

### 10.138 INVALID-ORDER-138 $Z(s) = \left(\infty,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

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

### 10.139 INVALID-ORDER-139 $Z(s) = \left(\infty,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

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

### 10.140 INVALID-ORDER-140 $Z(s) = \left(\infty,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

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

### 10.141 INVALID-ORDER-141 $Z(s) = \left(\infty,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_L R_L s^2}{C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_L s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_1 L_4 L_L g_m s^4 + C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_L R_4 g_m s^3 + 2 C_4 L_$$

### 10.142 INVALID-ORDER-142 $Z(s) = \left(\infty,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{L_1 s \left(C_L L_L R_L s^2 + L_L s + R_L\right) \left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s$$
$$C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_L R_4 g_m s^4 + 2 C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + C_4 C_L L_L R_L s^3 + C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 L_L g_m s^3 + C_4 L_$$

### 10.143 INVALID-ORDER-143 $Z(s) = \left(\infty,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{L_1 R_L s \left(C$$
$$C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_4 g_m s^4 + 2C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_L s^3 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_$$

### 10.144 INVALID-ORDER-144 $Z(s) = \left(\infty,\ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L\right)$

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

### 10.145 INVALID-ORDER-145 $Z(s) = \left(\infty,\ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

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

### 10.146 INVALID-ORDER-146 $Z(s) = \left(\infty,\ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

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

### 10.147 INVALID-ORDER-147 $Z(s) = \left(\infty,\ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

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

### 10.148 INVALID-ORDER-148 $Z(s) = \left(\infty,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

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

### 10.149 INVALID-ORDER-149 $Z(s) = \left(\infty,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_L s \left(-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4\right)}{C_4 C_L L_1 L_4 L_L R_4 s^4 + 2C_4 L_1 L_4 L_L R_4 g_m s^3 + C_4 L_1 L_4 R_4 s^2 + C_4 L_4 L_L R_4 s^2 + C_L L_1 L_4 L_L R_4 g_m s^3 + C_L L_1 L_4 L_L s^3 + C_L L_1 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2L_1 L_4 L_L g_m s^2 + L_1 L_4 R}$$

### 10.150 INVALID-ORDER-150 $Z(s) = \left(\infty,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 s \left(C_L L_L s^2 +\right.}{2C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + 2C_4 C_L L_1 L_4 R_4 R_L g_m s^4 + C_4 C_L L_1 L_4 R_4 s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_L s^3 + 2C_4 L_1 L_4 R_4 g_m s^3 + C_4 L_4 R_4 s^2 + 2C_L L_1 L_4 L_L g_m s^4 + C_L L_1 L}$$

### 10.151 INVALID-ORDER-151 $Z(s) = \left(\infty,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_L R_L s \left(-C\right.}{C_4 C_L L_1 L_4 L_L R_4 R_L s^4 + 2C_4 L_1 L_4 L_L R_4 R_L g_m s^3 + C_4 L_1 L_4 L_L R_4 s^3 + C_4 L_1 L_4 R_4 R_L s^2 + C_4 L_4 L_L R_4 R_L s^2 + C_L L_1 L_4 L_L R_4 R_L g_m s^3 + C_L L_1 L_4 L_L R_L s^3 + C_L L_1 L_L R_4 R_L s^2 +}$$

### 10.152 INVALID-ORDER-152 $Z(s) = \left(\infty,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

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

### 10.153 INVALID-ORDER-153 $Z(s) = \left(\infty,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{2C_4C_LL_1L_4L_LR_4R_Lg_ms^5 + C_4C_LL_1L_4L_LR_4s^5 + C_4C_LL_1L_4R_4R_Ls^4 + C_4C_LL_4L_LR_4R_Ls^4 + 2C_4L_1L_4R_4R_Lg_ms^3 + C_4L_1L_4R_4s^3 + C_4L_4R_4R_Ls^2 + C_LL_1L_4L_LR_4g_ms^4}$$

### 10.154 INVALID-ORDER-154 $Z(s) = \left(\infty,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1R_Ls\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1\right)}{C_4L_1L_4R_4g_ms^3 + 2C_4L_1L_4R_Lg_ms^3 + C_4L_1L_4s^3 + C_4L_4R_4s^2 + C_4L_4R_Ls^2 + L_1L_4g_ms^2 + L_1R_4g_ms + 2L_1R_Lg_ms + L_1s + L_4s + R_4 + R_L}$$

### 10.155 INVALID-ORDER-155 $Z(s) = \left(\infty,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1s\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1\right)}{C_4C_LL_1L_4R_4g_ms^4 + C_4C_LL_1L_4s^4 + C_4C_LL_4R_4s^3 + 2C_4L_1L_4g_ms^3 + C_4L_4s^2 + C_LL_1L_4g_ms^3 + C_LL_1R_4g_ms^2 + C_LL_1s^2 + C_LL_4s^2 + C_LR_4s + 2L_1g_ms + 1}$$

### 10.156 INVALID-ORDER-156 $Z(s) = \left(\infty,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{L_1R_Ls\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1\right)}{C_4C_LL_1L_4R_4R_Lg_ms^4 + C_4C_LL_1L_4R_Ls^4 + C_4C_LL_4R_4R_Ls^3 + C_4L_1L_4R_4g_ms^3 + 2C_4L_1L_4R_Lg_ms^3 + C_4L_1L_4s^3 + C_4L_4R_4s^2 + C_4L_4R_Ls^2 + C_LL_1L_4R_Lg_ms^3 + C_LL_1R_4R}$$

### 10.157 INVALID-ORDER-157 $Z(s) = \left(\infty,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1s\left(C_LR_Ls+1\right)\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1\right)}{C_4C_LL_1L_4R_4g_ms^4 + 2C_4C_LL_1L_4R_Lg_ms^4 + C_4C_LL_1L_4s^4 + C_4C_LL_4R_4s^3 + C_4C_LL_4R_Ls^3 + 2C_4L_1L_4g_ms^3 + C_4L_4s^2 + C_LL_1L_4g_ms^3 + C_LL_1R_4g_ms^2 + 2C_LL_1R_Lg_ms^2 +}$$

### 10.158 INVALID-ORDER-158 $Z(s) = \left(\infty,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s+\frac{1}{C_L s}\right)$

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

### 10.159 INVALID-ORDER-159 $Z(s) = \left(\infty,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

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

### 10.160 INVALID-ORDER-160 $Z(s) = \left(\infty,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s+R_L+\frac{1}{C_L s}\right)$

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

### 10.161 INVALID-ORDER-161 $Z(s) = \left(\infty,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_4 C_L L_1 L_4 L_L R_4 R_L g_m s^5 + C_4 C_L L_1 L_4 L_L R_L s^5 + C_4 C_L L_4 L_L R_4 R_L s^4 + C_4 L_1 L_4 L_L R_4 g_m s^4 + 2C_4 L_1 L_4 L_L R_L g_m s^4 + C_4 L_1 L_4 L_L s^4 + C_4 L_1 L_4 R_4 R_L g_m s^3 + C_4 L_1 L_4 R_L s^3 + C$$

### 10.162 INVALID-ORDER-162 $Z(s) = \left(\infty,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}+R_L\right)$

$$H(s) = \frac{L_1}{C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + 2C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 L_L R_L s^4 + 2C_4 L_1 L_4 L_L g_m s^4 + C_4 L_1 L_4 R_4 g_m s^3 + 2C_4 L_1 L_4 R_L g_m s^3 + C_4 L$$

### 10.163 INVALID-ORDER-163 $Z(s) = \left(\infty,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_4C_LL_1L_4L_LR_4g_ms^5 + 2C_4C_LL_1L_4L_LR_Lg_ms^5 + C_4C_LL_1L_4L_Ls^5 + C_4C_LL_1L_4R_4R_Lg_ms^4 + C_4C_LL_1L_4R_Ls^4 + C_4C_LL_4L_LR_4s^4 + C_4C_LL_4L_LR_Ls^4 + C_4C_LL_4R_4R_Ls^3 +$$

### 10.164 INVALID-ORDER-164 $Z(s) = (\infty,\ \infty,\ R_3,\ \infty,\ \infty,\ R_L)$

$$H(s) = \frac{L_1R_Ls\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 - C_4R_4s + R_4g_m - 1\right)}{C_4L_1L_4R_4g_ms^3 + 2C_4L_1L_4R_Lg_ms^3 + C_4L_1L_4s^3 + 2C_4L_1R_4R_Lg_ms^2 + C_4L_1R_4s^2 + C_4L_4R_4s^2 + C_4L_4R_Ls^2 + C_4R_4R_Ls + L_1R_4g_ms + 2L_1R_Lg_ms + L_1s + R_4 + R_L}$$

### 10.165 INVALID-ORDER-165 $Z(s) = \left(\infty,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1s\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 - C_4R_4s + R_4g_m - 1\right)}{C_4C_LL_1L_4R_4g_ms^4 + C_4C_LL_1L_4s^4 + C_4C_LL_1R_4s^3 + C_4C_LL_4R_4s^3 + 2C_4L_1L_4g_ms^3 + 2C_4L_1R_4g_ms^2 + C_4L_4s^2 + C_4R_4s + C_LL_1R_4g_ms^2 + C_LL_1s^2 + C_LR_4s + 2L_1g_ms +$$

### 10.166 INVALID-ORDER-166 $Z(s) = \left(\infty,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1R_Ls\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 - C_4R_4s + R_4g_m -\right.}{C_4C_LL_1L_4R_4R_Lg_ms^4 + C_4C_LL_1L_4R_Ls^4 + C_4C_LL_1R_4R_Ls^3 + C_4C_LL_4R_4R_Ls^3 + C_4L_1L_4R_4g_ms^3 + 2C_4L_1L_4R_Lg_ms^3 + C_4L_1L_4s^3 + 2C_4L_1R_4R_Lg_ms^2 + C_4L_1R_4s^2 + C_4L$$

### 10.167 INVALID-ORDER-167 $Z(s) = \left(\infty,\ \infty,\ R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1s\left(C_LR_Ls+1\right)\left(-C_4L_4R_4g_ms^2 + C_4L_4s^2 + C_4R_4s - R_4g_m -\right.}{C_4C_LL_1L_4R_4g_ms^4 + 2C_4C_LL_1L_4R_Lg_ms^4 + C_4C_LL_1L_4s^4 + 2C_4C_LL_1R_4R_Lg_ms^3 + C_4C_LL_1R_4s^3 + C_4C_LL_4R_4s^3 + C_4C_LL_4R_Ls^3 + C_4C_LR_4R_Ls^2 + 2C_4L_1L_4g_ms^3 + 2C$$

### 10.168 INVALID-ORDER-168 $Z(s) = \left(\infty,\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

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

### 10.169 INVALID-ORDER-169 $Z(s) = \left(\infty,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_1 L_L s^2 \left(C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m\right.}{C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_1 L_L R_4 s^4 + C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_1 L_4 L_L g_m s^4 + C_4 L_1 L_4 R_4 g_m s^3 + C_4 L_1 L_4 s^3 + 2C_4 L_1 L_L R_4 g_m s^3 + C_4 L_1 R_4 s^2 + C_4 L_}$$

### 10.170 INVALID-ORDER-170 $Z(s) = \left(\infty,\ \infty,\ R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 s \left(C_L L_L s^2 +\right.}{2C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 R_4 g_m s^4 + 2C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 L_4 s^4 + 2C_4 C_L L_1 L_L R_4 g_m s^4 + 2C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_4 s^3 + C_4 C_L L_4 L_L s^4 + C_4 C_L L}$$

### 10.171 INVALID-ORDER-171 $Z(s) = \left(\infty,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_4 C_L L_1 L_4 L_L R_4 R_L g_m s^5 + C_4 C_L L_1 L_4 L_L R_L s^5 + C_4 C_L L_1 L_L R_4 R_L s^4 + C_4 C_L L_4 L_L R_4 R_L s^4 + C_4 L_1 L_4 L_L R_4 g_m s^4 + 2C_4 L_1 L_4 L_L R_L g_m s^4 + C_4 L_1 L_4 L_L s^4 + C_4 L_1 L_4 R_4 R_L g_m}$$

### 10.172 INVALID-ORDER-172 $Z(s) = \left(\infty,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = -\frac{}{C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + 2C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + 2C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_4 s^4 + C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_4 R_L s}$$

### 10.173 INVALID-ORDER-173 $Z(s) = \left(\infty,\ \infty,\ R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_4C_LL_1L_4L_LR_4g_ms^5 + 2C_4C_LL_1L_4L_LR_Lg_ms^5 + C_4C_LL_1L_4L_Ls^5 + C_4C_LL_1L_4R_4R_Lg_ms^4 + C_4C_LL_1L_4R_Ls^4 + 2C_4C_LL_1L_LR_4R_Lg_ms^4 + C_4C_LL_1L_LR_4s^4 + C_4C_LL_1R$$

### 10.174 INVALID-ORDER-174 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(R_4g_m - 1\right)}{C_1R_4s + C_1R_Ls + R_4g_m + 2R_Lg_m + 1}$$

### 10.175 INVALID-ORDER-175 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(R_4g_m - 1\right)\left(C_LL_Ls^2 + 1\right)}{C_1C_LL_Ls^3 + C_1C_LR_4s^2 + C_1s + 2C_LL_Lg_ms^2 + C_LR_4g_ms + C_Ls + 2g_m}$$

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

$$H(s) = \frac{L_Ls\left(R_4g_m - 1\right)}{C_1C_LL_LR_4s^3 + C_1L_Ls^2 + C_1R_4s + C_LL_LR_4g_ms^2 + C_LL_Ls^2 + 2L_Lg_ms + R_4g_m + 1}$$

### 10.177 INVALID-ORDER-177 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(R_4g_m - 1\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{C_1C_LL_Ls^3 + C_1C_LR_4s^2 + C_1C_LR_Ls^2 + C_1s + 2C_LL_Lg_ms^2 + C_LR_4g_ms + 2C_LR_Lg_ms + C_Ls + 2g_m}$$

### 10.178 INVALID-ORDER-178 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_L s \left(R_4 g_m - 1\right)}{C_1 C_L L_L R_4 R_L s^3 + C_1 L_L R_4 s^2 + C_1 L_L R_L s^2 + C_1 R_4 R_L s + C_L L_L R_4 R_L g_m s^2 + C_L L_L R_L s^2 + L_L R_4 g_m s + 2 L_L R_L g_m s + L_L s + R_4 R_L g_m + R_L}$$

### 10.179 INVALID-ORDER-179 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{\left(R_4 g_m - 1\right)\left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 L_L s^2 + C_1 R_4 s + C_1 R_L s + C_L L_L R_4 g_m s^2 + 2 C_L L_L R_L g_m s^2 + C_L L_L s^2 + 2 L_L g_m s + R_4 g_m + 2 R_L g_m + 1}$$

### 10.180 INVALID-ORDER-180 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{R_L \left(R_4 g_m - 1\right)\left(C_L L_L s^2 + 1\right)}{C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 C_L R_4 R_L s^2 + C_1 R_4 s + C_1 R_L s + C_L L_L R_4 g_m s^2 + 2 C_L L_L R_L g_m s^2 + C_L L_L s^2 + C_L R_4 R_L g_m s + C_L R_L s + R_4 g_m + 2 R_L g_m + 1}$$

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

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

### 10.182 INVALID-ORDER-182 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3}{C_3 R_3 s + 1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_4 s - g_m\right)\left(C_L R_L s + 1\right)}{s\left(C_1 C_4 C_L R_L s^2 + C_1 C_4 s + C_1 C_L s + 2 C_4 C_L R_L g_m s + C_4 C_L s + 2 C_4 g_m + C_L g_m\right)}$$

### 10.183 INVALID-ORDER-183 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ L_Ls + \frac{1}{C_Ls}\right)$

$$H(s) = -\frac{(C_4s - g_m)\left(C_LL_Ls^2 + 1\right)}{s\left(C_1C_4C_LL_Ls^3 + C_1C_4s + C_1C_Ls + 2C_4C_LL_Lg_ms^2 + C_4C_Ls + 2C_4g_m + C_Lg_m\right)}$$

### 10.184 INVALID-ORDER-184 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ \frac{L_Ls}{C_LL_Ls^2+1}\right)$

$$H(s) = \frac{L_Ls\left(-C_4s + g_m\right)}{C_1C_4L_Ls^3 + C_1C_LL_Ls^3 + C_1s + C_4C_LL_Ls^3 + 2C_4L_Lg_ms^2 + C_4s + C_LL_Lg_ms^2 + g_m}$$

### 10.185 INVALID-ORDER-185 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ L_Ls + R_L + \frac{1}{C_Ls}\right)$

$$H(s) = -\frac{(C_4s - g_m)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{s\left(C_1C_4C_LL_Ls^3 + C_1C_4C_LR_Ls^2 + C_1C_4s + C_1C_Ls + 2C_4C_LL_Lg_ms^2 + 2C_4C_LR_Lg_ms + C_4C_Ls + 2C_4g_m + C_Lg_m\right)}$$

### 10.186 INVALID-ORDER-186 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$

$$H(s) = \frac{L_LR_Ls\left(-C_4s + g_m\right)}{C_1C_4L_LR_Ls^3 + C_1C_LL_LR_Ls^3 + C_1L_Ls^2 + C_1R_Ls + C_4C_LL_LR_Ls^3 + 2C_4L_LR_Lg_ms^2 + C_4L_Ls^2 + C_4R_Ls + C_LL_LR_Lg_ms^2 + L_Lg_ms + R_Lg_m}$$

### 10.187 INVALID-ORDER-187 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$

$$H(s) = -\frac{(C_4s - g_m)\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{C_1C_4C_LL_LR_Ls^4 + C_1C_4L_Ls^3 + C_1C_4R_Ls^2 + C_1C_LL_Ls^3 + C_1s + 2C_4C_LL_LR_Lg_ms^3 + C_4C_LL_Ls^3 + 2C_4L_Lg_ms^2 + 2C_4R_Lg_ms + C_4s + C_LL_Lg_ms^2 + g_m}$$

### 10.188 INVALID-ORDER-188 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3}{C_3 R_3 s+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{R_L\left(C_4 s - g_m\right)\left(C_L L_L s^2+1\right)}{C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 R_L s^2 + C_1 C_L L_L s^3 + C_1 C_L R_L s^2 + C_1 s + 2C_4 C_L L_L R_L g_m s^3 + C_4 C_L L_L s^3 + C_4 C_L R_L s^2 + 2C_4 R_L g_m s + C_4 s + C_L L_L g_m s^2 + C_L R_L g_m s + g_m}$$

### 10.189 INVALID-ORDER-189 $Z(s) = \left(\infty,\ \infty,\ R_3+\frac{1}{C_3 s},\ \infty,\ \infty,\ R_L+\frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_L R_L s+1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 R_4 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 s + 2C_4 C_L R_4 R_L g_m s^2 + C_4 C_L R_4 s^2 + 2C_4 R_4 g_m s + C_L R_4 g_m s + 2C_L R_L g_m s + C_L s + 2g_m}$$

### 10.190 INVALID-ORDER-190 $Z(s) = \left(\infty,\ \infty,\ R_3+\frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s+\frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_L L_L s^2+1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 R_4 s^2 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + C_1 s + 2C_4 C_L L_L R_4 g_m s^3 + C_4 C_L R_4 s^2 + 2C_4 R_4 g_m s + 2C_L L_L g_m s^2 + C_L R_4 g_m s + C_L s + 2g_m}$$

### 10.191 INVALID-ORDER-191 $Z(s) = \left(\infty,\ \infty,\ R_3+\frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L s\left(-C_4 R_4 s + R_4 g_m - 1\right)}{C_1 C_4 L_L R_4 s^3 + C_1 C_L L_L R_4 s^3 + C_1 L_L s^2 + C_1 R_4 s + C_4 C_L L_L R_4 s^3 + 2C_4 L_L R_4 g_m s^2 + C_4 R_4 s + C_L L_L R_4 g_m s^2 + C_L L_L s^2 + 2L_L g_m s + R_4 g_m + 1}$$

### 10.192 INVALID-ORDER-192 $Z(s) = \left(\infty,\ \infty,\ R_3+\frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s+R_L+\frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_4 R_4 s - R_4 g_m + 1\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 R_4 s^2 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 s + 2C_4 C_L L_L R_4 g_m s^3 + 2C_4 C_L R_4 R_L g_m s^2 + C_4 C_L R_4 s^2 + 2C_4 R_4 g_m s + 2C$$

### 10.193 INVALID-ORDER-193 $Z(s) = \left(\infty,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_L s \left(-C_4 R_4 s + R_4 g_m - 1\right)}{C_1 C_4 L_L R_4 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_L R_4 s^2 + C_1 L_L R_L s^2 + C_1 R_4 R_L s + C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_L R_4 R_L g_m s^2 + C_4 L_L R_4 s^2 + C_4 R_4 R_L s + C_L L_L R_4 R_L g_m s^2 + C_L L_L$$

### 10.194 INVALID-ORDER-194 $Z(s) = \left(\infty,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = -\frac{\left(C_4 R_4 s - R_4 g_m + 1\right)\left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_L R_4 s^3 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 L_L s^2 + C_1 R_4 s + C_1 R_L s + 2 C_4 C_L L_L R_4 R_L g_m s^3 + C_4 C_L L_L R_4 s^3 + 2 C_4 L_L R_4 g_m$$

### 10.195 INVALID-ORDER-195 $Z(s) = \left(\infty,\ \infty,\ R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{R_L\left(C_L L_L s^2 + 1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 C_L R_4 R_L s^2 + C_1 R_4 s + C_1 R_L s + 2 C_4 C_L L_L R_4 R_L g_m s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L R_4 R_L s^2 + 2 C_4$$

### 10.196 INVALID-ORDER-196 $Z(s) = \left(\infty,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_4 R_4 g_m s - C_4 s + g_m}{s\left(C_1 C_4 C_L R_4 s^2 + C_1 C_4 s + C_1 C_L s + C_4 C_L R_4 g_m s + C_4 C_L s + 2 C_4 g_m + C_L g_m\right)}$$

### 10.197 INVALID-ORDER-197 $Z(s) = \left(\infty,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_L\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_L R_L s^2 + C_1 s + C_4 C_L R_4 R_L g_m s^2 + C_4 C_L R_L s^2 + C_4 R_4 g_m s + 2 C_4 R_L g_m s + C_4 s + C_L R_L g_m s + g_m}$$

**10.198 INVALID-ORDER-198** $Z(s) = \left(\infty,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(C_L R_L s + 1)\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s\left(C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + C_1 C_4 s + C_1 C_L s + C_4 C_L R_4 g_m s + 2 C_4 C_L R_L g_m s + C_4 C_L s + 2 C_4 g_m + C_L g_m\right)}$$

**10.199 INVALID-ORDER-199** $Z(s) = \left(\infty,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_L L_L s^2 + 1\right)\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s\left(C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 s + C_1 C_L s + 2 C_4 C_L L_L g_m s^2 + C_4 C_L R_4 g_m s + C_4 C_L s + 2 C_4 g_m + C_L g_m\right)}$$

**10.200 INVALID-ORDER-200** $Z(s) = \left(\infty,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 L_L s^3 + C_1 C_4 R_4 s^2 + C_1 C_L L_L s^3 + C_1 s + C_4 C_L L_L R_4 g_m s^3 + C_4 C_L L_L s^3 + 2 C_4 L_L g_m s^2 + C_4 R_4 g_m s + C_4 s + C_L L_L g_m s^2 + g_m}$$

**10.201 INVALID-ORDER-201** $Z(s) = \left(\infty,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_L L_L s^2 + C_L R_L s + 1\right)\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s\left(C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + C_1 C_4 s + C_1 C_L s + 2 C_4 C_L L_L g_m s^2 + C_4 C_L R_4 g_m s + 2 C_4 C_L R_L g_m s + C_4 C_L s + 2 C_4 g_m + C_L g_m\right)}$$

**10.202 INVALID-ORDER-202** $Z(s) = \left(\infty,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_L s\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_L R_4 s^3 + C_1 C_4 L_L R_L s^3 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_L R_L s^3 + C_1 L_L s^2 + C_1 R_L s + C_4 C_L L_L R_4 R_L g_m s^3 + C_4 C_L L_L R_L s^3 + C_4 L_L R_4 g_m s^2 + 2 C_4 L_L}$$

**10.203 INVALID-ORDER-203** $Z(s) = \left(\infty,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{\left(C_4 R_4 g_m s - C_4 s + g_m\right)\left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 L_L s^3 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_L L_L s^3 + C_1 s + C_4 C_L L_L R_4 g_m s^3 + 2 C_4 C_L L_L R_L g_m s^3 + C_4 C_L L_L s^3 + 2 C_4 L_L g_m s^2 + C_4 L}$$

### 10.204 INVALID-ORDER-204 $Z(s) = \left(\infty,\ \infty,\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{R_L\left(C_L L_L s^2 + 1\right)\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_L L_L s^3 + C_1 C_L R_L s^2 + C_1 s + C_4 C_L L_L R_4 g_m s^3 + 2 C_4 C_L L_L R_L g_m s^3 + C_4 C_L L_L s^3 +$$

### 10.205 INVALID-ORDER-205 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ R_L\right)$

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

### 10.206 INVALID-ORDER-206 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

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

### 10.207 INVALID-ORDER-207 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_L\left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 L_4 s^3 + C_1 C_4 R_L s^2 + C_1 C_L R_L s^2 + C_1 s + C_4 C_L L_4 R_L g_m s^3 + C_4 C_L R_L s^2 + C_4 L_4 g_m s^2 + 2 C_4 R_L g_m s + C_4 s + C_L R_L g_m s + g_m}$$

### 10.208 INVALID-ORDER-208 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2 + 1},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

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

### 10.209 INVALID-ORDER-209 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

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

### 10.210 INVALID-ORDER-210 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L s\left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 L_4 s^3 + C_1 C_4 L_L s^3 + C_1 C_L L_L s^3 + C_1 s + C_4 C_L L_4 L_L g_m s^4 + C_4 C_L L_L s^3 + C_4 L_4 g_m s^2 + 2 C_4 L_L g_m s^2 + C_4 s + C_L L_L g_m s^2 + g_m}$$

### 10.211 INVALID-ORDER-211 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_L L_L s^2 + C_L R_L s + 1\right)\left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{s\left(C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_L s^2 + C_1 C_4 s + C_1 C_L s + C_4 C_L L_4 g_m s^2 + 2 C_4 C_L L_L g_m s^2 + 2 C_4 C_L R_L g_m s + C_4 C_L s + 2 C_4 g_m + C_L g_m\right)}$$

### 10.212 INVALID-ORDER-212 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_L s\left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_L s^3 + C_1 C_4 L_L R_L s^3 + C_1 C_L L_L R_L s^3 + C_1 L_L s^2 + C_1 R_L s + C_4 C_L L_4 L_L R_L g_m s^4 + C_4 C_L L_L R_L s^3 + C_4 L_4 L_L g_m s^3 + C_4 L_4 R_L$$

### 10.213 INVALID-ORDER-213 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{\left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)\left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 L_4 s^3 + C_1 C_4 L_L s^3 + C_1 C_4 R_L s^2 + C_1 C_L L_L s^3 + C_1 s + C_4 C_L L_4 L_L g_m s^4 + 2 C_4 C_L L_L R_L g_m s^3 + C_4 C_L L_L s^3 + C_4 L_4 g_m s^2 + 2 C_4 L$$

### 10.214 INVALID-ORDER-214 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{R_L\left(C_L L_L s^2+1\right)\left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 L_4 s^3 + C_1 C_4 R_L s^2 + C_1 C_L L_L s^3 + C_1 C_L R_L s^2 + C_1 s + C_4 C_L L_4 L_L g_m s^4 + C_4 C_L L_4 R_L g_m s^3 + 2 C_4 C_L L_L R_L g$$

### 10.215 INVALID-ORDER-215 $Z(s) = \left(\infty,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L\right)$

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

### 10.216 INVALID-ORDER-216 $Z(s) = \left(\infty,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

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

### 10.217 INVALID-ORDER-217 $Z(s) = \left(\infty,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

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

### 10.218 INVALID-ORDER-218 $Z(s) = \left(\infty,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_L R_L s+1\right)\left(C_4 L_4 s^2 - L_4 g_m s + 1\right)}{C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_4 s^3 + C_1 C_L R_L s^2 + C_1 s + 2 C_4 C_L L_4 R_L g_m s^3 + C_4 C_L L_4 s^3 + 2 C_4 L_4 g_m s^2 + C_L L_4 g_m s^2 + 2 C_L R_L g_m s + C_L s + 2 g_m}$$

### 10.219 INVALID-ORDER-219 $Z(s) = \left(\infty,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_L L_L s^2 + 1\right)\left(C_4 L_4 s^2 - L_4 g_m s + 1\right)}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 L_4 s^3 + C_1 C_L L_4 s^3 + C_1 C_L L_L s^3 + C_1 s + 2C_4 C_L L_4 L_L g_m s^4 + C_4 C_L L_4 s^3 + 2C_4 L_4 g_m s^2 + C_L L_4 g_m s^2 + 2C_L L_L g_m s^2 + C_L s + 2g_m}$$

### 10.220 INVALID-ORDER-220 $Z(s) = \left(\infty,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s\left(-C_4 L_4 s^2 + L_4 g_m s - 1\right)}{C_1 C_4 L_4 L_L s^4 + C_1 C_L L_4 L_L s^4 + C_1 L_4 s^2 + C_1 L_L s^2 + C_4 C_L L_4 L_L s^4 + 2C_4 L_4 L_L g_m s^3 + C_4 L_4 s^2 + C_L L_4 L_L g_m s^3 + C_L L_L s^2 + L_4 g_m s + 2L_L g_m s + 1}$$

### 10.221 INVALID-ORDER-221 $Z(s) = \left(\infty,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_4 L_4 s^2 - L_4 g_m s + 1\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_4 s^3 + C_1 C_L L_L s^3 + C_1 C_L R_L s^2 + C_1 s + 2C_4 C_L L_4 L_L g_m s^4 + 2C_4 C_L L_4 R_L g_m s^3 + C_4 C_L L_4 s^3 + 2C_4 L_4 g_m s^2 + C$$

### 10.222 INVALID-ORDER-222 $Z(s) = \left(\infty,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_L s\left(-C_4 L_4 s^2 + L_4 g_m s - 1\right)}{C_1 C_4 L_4 L_L R_L s^4 + C_1 C_L L_4 L_L R_L s^4 + C_1 L_4 L_L s^3 + C_1 L_4 R_L s^2 + C_1 L_L R_L s^2 + C_4 C_L L_4 L_L R_L s^4 + 2C_4 L_4 L_L R_L g_m s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + C_L L_4 L_L R_L g_m s^3 + C_L L_L$$

### 10.223 INVALID-ORDER-223 $Z(s) = \left(\infty,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = -\frac{\left(C_4 L_4 s^2 - L_4 g_m s + 1\right)\left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 L_L s^4 + C_1 C_L L_L R_L s^3 + C_1 L_4 s^2 + C_1 L_L s^2 + C_1 R_L s + 2C_4 C_L L_4 L_L R_L g_m s^4 + C_4 C_L L_4 L_L s^4 + 2C_4 L_4 L_L g_$$

### 10.224 INVALID-ORDER-224 $Z(s) = \left(\infty,\ \infty,\ L_3 s + R_3 + \frac{1}{C_3 s},\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{R_L\left(C_L L_L s^2 + 1\right)\left(C_4 L_4 s^2 - L_4 g_m s + 1\right)}{C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 L_L s^4 + C_1 C_L L_4 R_L s^3 + C_1 C_L L_L R_L s^3 + C_1 L_4 s^2 + C_1 R_L s + 2C_4 C_L L_4 L_L R_L g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 L$$

### 10.225 INVALID-ORDER-225 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L\right)$

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

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

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

### 10.227 INVALID-ORDER-227 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_L\left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_L R_L s^2 + C_1 s + C_4 C_L L_4 R_L g_m s^3 + C_4 C_L R_4 R_L g_m s^2 + C_4 C_L R_L s^2 + C_4 L_4 g_m s^2 + C_4 R_4 g$$

### 10.228 INVALID-ORDER-228 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}},\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

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

### 10.229 INVALID-ORDER-229 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s+\frac{1}{C_L s}\right)$

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

### 10.230 INVALID-ORDER-230 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L s\left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 L_4 s^3 + C_1 C_4 L_L s^3 + C_1 C_4 R_4 s^2 + C_1 C_L L_L s^3 + C_1 s + C_4 C_L L_4 L_L g_m s^4 + C_4 C_L L_L R_4 g_m s^3 + C_4 C_L L_L s^3 + C_4 L_4 g_m s^2 + 2C_4 L_L g$$

### 10.231 INVALID-ORDER-231 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_L L_L s^2 + C_L R_L s + 1\right)\left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m\right)}{s\left(C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + C_1 C_4 s + C_1 C_L s + C_4 C_L L_4 g_m s^2 + 2C_4 C_L L_L g_m s^2 + C_4 C_L R_4 g_m s + 2C_4 C_L R_L g_m s + C_4 C_L s + 2C_4 g_m +$$

### 10.232 INVALID-ORDER-232 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_L s\left(C_4 L_4\right.}{C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_L s^3 + C_1 C_4 L_L R_4 s^3 + C_1 C_4 L_L R_L s^3 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_L R_L s^3 + C_1 L_L s^2 + C_1 R_L s + C_4 C_L L_4$$

### 10.233 INVALID-ORDER-233 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{\left(C_L L_L R_L s^2 + L_L s + R_L\right)\left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m\right.}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 L_4 s^3 + C_1 C_4 L_L s^3 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_L L_L s^3 + C_1 s + C_4 C_L L_4 L_L g_m s^4 + C_4 C_L L_L R_4 g_m s^3 + 2$$

### 10.234 INVALID-ORDER-234 $Z(s) = \left(\infty,\ \infty,\ \frac{1}{C_3 s+\frac{1}{R_3}+\frac{1}{L_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{R_L\left(C_L L_L s^2}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_L L_L s^3 + C_1 C_L R_L s^2 + C_1 s + C}$$

### 10.235 INVALID-ORDER-235 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ R_L\right)$

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

### 10.236 INVALID-ORDER-236 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

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

### 10.237 INVALID-ORDER-237 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_L\left(-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4\right)}{C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_L L_4 R_4 R_L s^3 + C_1 L_4 R_4 s^2 + C_1 L_4 R_L s^2 + C_1 R_4 R_L s + C_4 C_L L_4 R_4 R_L s^3 + 2C_4 L_4 R_4 R_L g_m s^2 + C_4 L_4 R_4 s^2 + C_L L_4 R_4 R_L g_m s^2 + C_L L_4 R_L s^2 + C_L R_4 R}$$

### 10.238 INVALID-ORDER-238 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

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

### 10.239 INVALID-ORDER-239 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_L L_L s^2+1\right)\left(C_4 L_4 R_4 s^2 - L_4 R_4 g_m s + L_4 s + R_4\right)}{C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_4 L_L s^4 + C_1 C_L L_4 R_4 s^3 + C_1 C_L L_L R_4 s^3 + C_1 L_4 s^2 + C_1 R_4 s + 2C_4 C_L L_4 L_L R_4 g_m s^4 + C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 R_4 g_m s^2 + 2C_L L_4}$$

### 10.240 INVALID-ORDER-240 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

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

### 10.241 INVALID-ORDER-241 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_L L_L s^2 + C_L R_L\right.}{C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 R_4 R_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_4 L_L s^4 + C_1 C_L L_4 R_4 s^3 + C_1 C_L L_4 R_L s^3 + C_1 C_L L_L R_4 s^3 + C_1 C_L R_4 R_L s^2 + C_1 L_4 s^2 + C_1 R_4 s + 2C_4 C_L L}$$

### 10.242 INVALID-ORDER-242 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_L s\left(-C_4 L_4 R_4 s^2\right.}{C_1 C_4 L_4 L_L R_4 R_L s^4 + C_1 C_L L_4 L_L R_4 R_L s^4 + C_1 L_4 L_L R_4 s^3 + C_1 L_4 L_L R_L s^3 + C_1 L_4 R_4 R_L s^2 + C_1 L_L R_4 R_L s^2 + C_4 C_L L_4 L_L R_4 R_L s^4 + 2C_4 L_4 L_L R_4 R_L g_m s^3 + C_4 L_4 L_L R_4 s^3 +}$$

### 10.243 INVALID-ORDER-243 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 L_4 L_L R_4 s^4 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_L L_4 L_L R_4 s^4 + C_1 C_L L_4 L_L R_L s^4 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_4 L_L s^3 + C_1 L_4 R_4 s^2 + C_1 L_4 R_L s^2 + C_1 L_L R_4}$$

### 10.244 INVALID-ORDER-244 $Z(s) = \left(\infty,\ \infty,\ \frac{L_3 s}{C_3 L_3 s^2+1} + R_3,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4L_LR_4R_Ls^5 + C_1C_4L_4R_4R_Ls^3 + C_1C_LL_4L_LR_4s^4 + C_1C_LL_4L_LR_Ls^4 + C_1C_LL_4R_4R_Ls^3 + C_1C_LL_LR_4R_Ls^3 + C_1L_4R_4s^2 + C_1L_4R_Ls^2 + C_1R_4R_Ls + 2C_4C_LL$$

### 10.245 INVALID-ORDER-245 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1\right)}{C_1C_4L_4R_4s^3 + C_1C_4L_4R_Ls^3 + C_1L_4s^2 + C_1R_4s + C_1R_Ls + C_4L_4R_4g_ms^2 + 2C_4L_4R_Lg_ms^2 + C_4L_4s^2 + L_4g_ms + R_4g_m + 2R_Lg_m + 1}$$

### 10.246 INVALID-ORDER-246 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1}{C_1C_4C_LL_4R_4s^4 + C_1C_4L_4s^3 + C_1C_LL_4s^3 + C_1C_LR_4s^2 + C_1s + C_4C_LL_4R_4g_ms^3 + C_4C_LL_4s^3 + 2C_4L_4g_ms^2 + C_LL_4g_ms^2 + C_LR_4g_ms + C_Ls + 2g_m}$$

### 10.247 INVALID-ORDER-247 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{R_L\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1\right)}{C_1C_4C_LL_4R_4R_Ls^4 + C_1C_4L_4R_4s^3 + C_1C_4L_4R_Ls^3 + C_1C_LL_4R_Ls^3 + C_1C_LR_4R_Ls^2 + C_1L_4s^2 + C_1R_4s + C_1R_Ls + C_4C_LL_4R_4R_Lg_ms^3 + C_4C_LL_4R_Ls^3 + C_4L_4R_4g_ms^2 +}$$

### 10.248 INVALID-ORDER-248 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{(C_LR_Ls+1)\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1\right)}{C_1C_4C_LL_4R_4s^4 + C_1C_4C_LL_4R_Ls^4 + C_1C_4L_4s^3 + C_1C_LL_4s^3 + C_1C_LR_4s^2 + C_1C_LR_Ls^2 + C_1s + C_4C_LL_4R_4g_ms^3 + 2C_4C_LL_4R_Lg_ms^3 + C_4C_LL_4s^3 + 2C_4L_4g_ms^2 + C_LL_4$$

### 10.249 INVALID-ORDER-249 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s+\frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_L L_L s^2+1\right)\left(C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1\right)}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_4 s^3 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + C_1 s + 2C_4 C_L L_4 L_L g_m s^4 + C_4 C_L L_4 R_4 g_m s^3 + C_4 C_L L_4 s^3 + 2C_4 L_4 g_m s^2 + C_L L_4 g}$$

### 10.250 INVALID-ORDER-250 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L s\left(C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g_m - 1\right)}{C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_L L_4 L_L s^4 + C_1 C_L L_L R_4 s^3 + C_1 L_4 s^2 + C_1 L_L s^2 + C_1 R_4 s + C_4 C_L L_4 L_L R_4 g_m s^4 + C_4 C_L L_4 L_L s^4 + 2C_4 L_4 L_L g_m s^3 +}$$

### 10.251 INVALID-ORDER-251 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ L_L s+R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_L L_L s^2+C_L R_L s+1\right)\left(C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 + L_4 g_m s + R_4 g\right.}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 L_4 s^3 + C_1 C_L L_4 s^3 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 s + 2C_4 C_L L_4 L_L g_m s^4 + C_4 C_L L_4 R_4 g_m s^3 + 2}$$

### 10.252 INVALID-ORDER-252 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 L_4 L_L R_4 s^4 + C_1 C_4 L_4 L_L R_L s^4 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_L L_4 L_L R_L s^4 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_4 L_L s^3 + C_1 L_4 R_L s^2 + C_1 L_L R_4 s^2 + C_1 L_L R_L s}$$

### 10.253 INVALID-ORDER-253 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}+R_L\right)$

$$H(s) = \frac{(C_L}{C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 L_L s^4 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 L_4 s^2 + C_1 L_L s^2 + C_1 R_4 s +}$$

### 10.254 INVALID-ORDER-254 $Z(s) = \left(\infty,\ \infty,\ \frac{R_3\left(L_3 s+\frac{1}{C_3 s}\right)}{L_3 s+R_3+\frac{1}{C_3 s}},\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_4L_LR_Ls^5 + C_1C_4C_LL_4R_4R_Ls^4 + C_1C_4L_4R_4s^3 + C_1C_4L_4R_Ls^3 + C_1C_LL_4L_Ls^4 + C_1C_LL_4R_Ls^3 + C_1C_LL_LR_4s^3 + C_1C_LL_LR_Ls^3 + C_1C_LR$$

### 10.255 INVALID-ORDER-255 $Z(s) = (\infty,\ \infty,\ \infty,\ R_4,\ \infty,\ R_L)$

$$H(s) = \frac{R_L\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 - C_4R_4s + R_4g_m - 1\right)}{C_1C_4L_4R_4s^3 + C_1C_4L_4R_Ls^3 + C_1C_4R_4R_Ls^2 + C_1R_4s + C_1R_Ls + C_4L_4R_4g_ms^2 + 2C_4L_4R_Lg_ms^2 + C_4L_4s^2 + 2C_4R_4R_Lg_ms + C_4R_4s + R_4g_m + 2R_Lg_m + 1}$$

### 10.256 INVALID-ORDER-256 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{C_4L_4R_4g_ms^2 - C_4L_4s^2 - C_4R_4s + R_4g_m - 1}{C_1C_4C_LL_4R_4s^4 + C_1C_4L_4s^3 + C_1C_4R_4s^2 + C_1C_LR_4s^2 + C_1s + C_4C_LL_4R_4g_ms^3 + C_4C_LL_4s^3 + C_4C_LR_4s^2 + 2C_4L_4g_ms^2 + 2C_4R_4g_ms + C_LR_4g_ms + C_Ls + 2g_m}$$

### 10.257 INVALID-ORDER-257 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_L\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 - C_4R_4s + R_4g_m - 1\right)}{C_1C_4C_LL_4R_4R_Ls^4 + C_1C_4L_4R_4s^3 + C_1C_4L_4R_Ls^3 + C_1C_4R_4R_Ls^2 + C_1C_LR_4R_Ls^2 + C_1R_4s + C_1R_Ls + C_4C_LL_4R_4R_Lg_ms^3 + C_4C_LL_4R_Ls^3 + C_4C_LR_4R_Ls^2 + C_4L_4R_4g$$

### 10.258 INVALID-ORDER-258 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{(C_LR_Ls+1)\left(-C_4L_4R_4g_ms^2 + C_4L_4s^2 + C_4R_4s - R_4g_m + 1\right)}{C_1C_4C_LL_4R_4s^4 + C_1C_4C_LL_4R_Ls^4 + C_1C_4C_LR_4R_Ls^3 + C_1C_4L_4s^3 + C_1C_4R_4s^2 + C_1C_LR_4s^2 + C_1C_LR_Ls^2 + C_1s + C_4C_LL_4R_4g_ms^3 + 2C_4C_LL_4R_Lg_ms^3 + C_4C_LL_4s^3 +$$

### 10.259 INVALID-ORDER-259 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_L L_L s^2 + 1\right)\left(-C_4 L_4 R_4 g_m s^2 + C_4 L_4 s^2 + C_4 R_4 s - R_4 g_m + 1\right)}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + C_1 s + 2C_4 C_L L_4 L_L g_m s^4 + C_4 C_L L_4 R_4 g_m s^3 + C_4 C_L L_4 s^3 +}$$

### 10.260 INVALID-ORDER-260 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s\left(C_4 L_4 R_4 g_m s^2 - C_4 L_4 s^2 - C_4 R_4 s + R_4 g_m - 1\right)}{C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_L R_4 s^3 + C_1 C_L L_L R_4 s^3 + C_1 L_L s^2 + C_1 R_4 s + C_4 C_L L_4 L_L R_4 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2C_4 L_4 L_L g}$$

### 10.261 INVALID-ORDER-261 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_L L_L s^2 + C_L R_\right.}{C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_4 s^4 + C_1 C_4 C_L L_4 R_L s^4 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 R_4 s^2 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + C_1 s +}$$

### 10.262 INVALID-ORDER-262 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_4 L_L R_4 R_L s^5 + C_1 C_4 L_4 L_L R_4 s^4 + C_1 C_4 L_4 L_L R_L s^4 + C_1 C_4 L_4 R_4 R_L s^3 + C_1 C_4 L_L R_4 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_L R_4 s^2 + C_1 L_L R_L s^2 + C_1 R_4 R_L s + C_4 C_L L_4 L_}$$

### 10.263 INVALID-ORDER-263 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_4 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_4 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_4 L_L R_4 s^3 + C_1 C_4 R_4 R_L s^2 + C_1 C_L L_L R_4 s^3 + C_1 C_L}$$

### 10.264 INVALID-ORDER-264 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_4L_LR_Ls^5 + C_1C_4C_LL_4R_4R_Ls^4 + C_1C_4C_LL_LR_4R_Ls^4 + C_1C_4L_4R_4s^3 + C_1C_4L_4R_Ls^3 + C_1C_4R_4R_Ls^2 + C_1C_LL_LR_4s^3 + C_1C_LL_LR_Ls^3 +$$

### 10.265 INVALID-ORDER-265 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1R_L\left(R_4g_m - 1\right)}{C_1R_1R_4s + C_1R_1R_Ls + R_1R_4g_m + 2R_1R_Lg_m + R_1 + R_4 + R_L}$$

### 10.266 INVALID-ORDER-266 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(R_4g_m - 1\right)\left(C_LL_Ls^2 + 1\right)}{C_1C_LL_LR_1s^3 + C_1C_LR_1R_4s^2 + C_1R_1s + 2C_LL_LR_1g_ms^2 + C_LL_Ls^2 + C_LR_1R_4g_ms + C_LR_1s + C_LR_4s + 2R_1g_m + 1}$$

### 10.267 INVALID-ORDER-267 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_LR_1s\left(R_4g_m - 1\right)}{C_1C_LL_LR_1R_4s^3 + C_1L_LR_1s^2 + C_1R_1R_4s + C_LL_LR_1R_4g_ms^2 + C_LL_LR_1s^2 + C_LL_LR_4s^2 + 2L_LR_1g_ms + L_Ls + R_1R_4g_m + R_1 + R_4}$$

### 10.268 INVALID-ORDER-268 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(R_4g_m - 1\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{C_1C_LL_LR_1s^3 + C_1C_LR_1R_4s^2 + C_1C_LR_1R_Ls^2 + C_1R_1s + 2C_LL_LR_1g_ms^2 + C_LL_Ls^2 + C_LR_1R_4g_ms + 2C_LR_1R_Lg_ms + C_LR_1s + C_LR_4s + C_LR_Ls + 2R_1g_m + 1}$$

### 10.269 INVALID-ORDER-269 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_1 R_L s \left(R_4 g_m - 1\right)}{C_1 C_L L_L R_1 R_4 R_L s^3 + C_1 L_L R_1 R_4 s^2 + C_1 L_L R_1 R_L s^2 + C_1 R_1 R_4 R_L s + C_L L_L R_1 R_4 R_L g_m s^2 + C_L L_L R_1 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_1 R_4 g_m s + 2 L_L R_1 R_L g_m s + L_L R_1 s + L_L$$

### 10.270 INVALID-ORDER-270 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{R_1 \left(R_4 g_m - 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_1 C_L L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_4 s + C_1 R_1 R_L s + C_L L_L R_1 R_4 g_m s^2 + 2 C_L L_L R_1 R_L g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_4 s^2 + C_L L_L R_L s^2 + 2 L_L R_1 g_m s$$

### 10.271 INVALID-ORDER-271 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{R_1 R_L \left(R_4 g_m - 1\right) \left(C_L L_L s^2 + 1\right)}{C_1 C_L L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L R_1 R_4 R_L s^2 + C_1 R_1 R_4 s + C_1 R_1 R_L s + C_L L_L R_1 R_4 g_m s^2 + 2 C_L L_L R_1 R_L g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_4 s^2 + C_L L_L R_L s^2 + C_L R_1$$

### 10.272 INVALID-ORDER-272 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s + 1},\ \infty,\ \frac{1}{C_L s}\right)$

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

### 10.273 INVALID-ORDER-273 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s + 1},\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_4 s - g_m\right) \left(C_L R_L s + 1\right)}{s \left(C_1 C_4 C_L R_1 R_L s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + 2 C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_L s + 2 C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L\right)}$$

### 10.274 INVALID-ORDER-274 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4R_4s+1},\ \infty,\ L_Ls + \frac{1}{C_Ls}\right)$

$$H(s) = -\frac{R_1\left(C_4s - g_m\right)\left(C_LL_Ls^2 + 1\right)}{s\left(C_1C_4C_LL_LR_1s^3 + C_1C_4R_1s + C_1C_LR_1s + 2C_4C_LL_LR_1g_ms^2 + C_4C_LL_Ls^2 + C_4C_LR_1s + 2C_4R_1g_m + C_4 + C_LR_1g_m + C_L\right)}$$

### 10.275 INVALID-ORDER-275 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4R_4s+1},\ \infty,\ \frac{L_Ls}{C_LL_Ls^2+1}\right)$

$$H(s) = \frac{L_LR_1s\left(-C_4s + g_m\right)}{C_1C_4L_LR_1s^3 + C_1C_LL_LR_1s^3 + C_1R_1s + C_4C_LL_LR_1s^3 + 2C_4L_LR_1g_ms^2 + C_4L_Ls^2 + C_4R_1s + C_LL_LR_1g_ms^2 + C_LL_Ls^2 + R_1g_m + 1}$$

### 10.276 INVALID-ORDER-276 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4R_4s+1},\ \infty,\ L_Ls + R_L + \frac{1}{C_Ls}\right)$

$$H(s) = -\frac{R_1\left(C_4s - g_m\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{s\left(C_1C_4C_LL_LR_1s^3 + C_1C_4C_LR_1R_Ls^2 + C_1C_4R_1s + C_1C_LR_1s + 2C_4C_LL_LR_1g_ms^2 + C_4C_LL_Ls^2 + 2C_4C_LR_1R_Lg_ms + C_4C_LR_1s + C_4C_LR_Ls + 2C_4R_1g_m + C_4 + C_LR_1g$$

### 10.277 INVALID-ORDER-277 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4R_4s+1},\ \infty,\ \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$

$$H(s) = \frac{L_LR_1R_Ls\left(-C_4s + g_m\right)}{C_1C_4L_LR_1R_Ls^3 + C_1C_LL_LR_1R_Ls^3 + C_1L_LR_1s^2 + C_1R_1R_Ls + C_4C_LL_LR_1R_Ls^3 + 2C_4L_LR_1R_Lg_ms^2 + C_4L_LR_1s^2 + C_4L_LR_Ls^2 + C_4R_1R_Ls + C_LL_LR_1R_Lg_ms^2 + C_LL_L$$

### 10.278 INVALID-ORDER-278 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4R_4s+1},\ \infty,\ \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$

$$H(s) = -\frac{R_1\left(C_4s - g_m\right)\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{C_1C_4C_LL_LR_1R_Ls^4 + C_1C_4L_LR_1s^3 + C_1C_4R_1R_Ls^2 + C_1C_LL_LR_1s^3 + C_1R_1s + 2C_4C_LL_LR_1R_Lg_ms^3 + C_4C_LL_LR_1s^3 + C_4C_LL_LR_Ls^3 + 2C_4L_LR_1g_ms^2 + C_4L_Ls^2 + 2C_4$$

### 10.279 INVALID-ORDER-279 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s+1},\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{R_1 R_L \left(C_4 s - g_m\right)\left(C_L L_L s^2+1\right)}{C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + 2C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_L s^3 + C_4 C_L R_1 R_L s^2 + 2C_4 R_1 R_L g_m s}$$

### 10.280 INVALID-ORDER-280 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4+\frac{1}{C_4 s},\ \infty,\ R_L+\frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1\left(C_L R_L s+1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + 2C_4 C_L R_1 R_4 R_L g_m s^2 + C_4 C_L R_1 R_4 s^2 + C_4 C_L R_4 R_L s^2 + 2C_4 R_1 R_4 g_m s + C_4 R_4 s + C_L R_1}$$

### 10.281 INVALID-ORDER-281 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4+\frac{1}{C_4 s},\ \infty,\ L_L s+\frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1\left(C_L L_L s^2+1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 R_1 s + 2C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_4 s^3 + C_4 C_L R_1 R_4 s^2 + 2C_4 R_1 R_4 g_m s + C_4 R_4 s + 2C_L L_L}$$

### 10.282 INVALID-ORDER-282 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4+\frac{1}{C_4 s},\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 s\left(-C_4 R_4 s + R_4 g_m - 1\right)}{C_1 C_4 L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_4 s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_4 s + C_4 C_L L_L R_1 R_4 s^3 + 2C_4 L_L R_1 R_4 g_m s^2 + C_4 L_L R_4 s^2 + C_4 R_1 R_4 s + C_L L_L R_1 R_4 g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_4}$$

### 10.283 INVALID-ORDER-283 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4+\frac{1}{C_4 s},\ \infty,\ L_L s+R_L+\frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1\left(C_4 R_4 s - R_4 g_m + \right.}{C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + 2C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_4 s^3 + 2C_4 C_L R_1}$$

### 10.284 INVALID-ORDER-284 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_1 R_L s \left(-C_4 R_4 s -}{C_1 C_4 L_L R_1 R_4 R_L s^3 + C_1 C_L L_L R_1 R_4 R_L s^3 + C_1 L_L R_1 R_4 s^2 + C_1 L_L R_1 R_L s^2 + C_1 R_1 R_4 R_L s + C_4 C_L L_L R_1 R_4 R_L s^3 + 2 C_4 L_L R_1 R_4 R_L g_m s^2 + C_4 L_L R_1 R_4 s^2 + C_4 L_L R_4 R_L s^2 +}$$

### 10.285 INVALID-ORDER-285 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

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

### 10.286 INVALID-ORDER-286 $Z(s) = \left(\infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

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

### 10.287 INVALID-ORDER-287 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s \left(C_1 C_4 C_L R_1 R_4 s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + C_4 C_L R_1 R_4 g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + 2 C_4 R_1 g_m + C_4 + C_L R_1 g_m + C_L\right)}$$

### 10.288 INVALID-ORDER-288 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_1 R_L \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 R_L s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_4 C_L R_1 R_4 R_L g_m s^2 + C_4 C_L R_1 R_L s^2 + C_4 C_L R_4 R_L s^2 + C_4 R_1 R_4 g_m s + 2 C_4 R_1 R_L g_m s + C_4}$$

### 10.289 INVALID-ORDER-289 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_L R_L s + 1\right) \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s \left(C_1 C_4 C_L R_1 R_4 s^2 + C_1 C_4 C_L R_1 R_L s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + C_4 C_L R_1 R_4 g_m s + 2 C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + C_4 C_L R_L s + 2 C_4 R_1 g_m + C_4 + C_L R_1 g_m + C\right.}$$

### 10.290 INVALID-ORDER-290 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + 1\right) \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s \left(C_1 C_4 C_L L_L R_1 s^3 + C_1 C_4 C_L R_1 R_4 s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + 2 C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 R_4 g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + 2 C_4 R_1 g_m + C_4 + C_L R_1 g_m +\right.}$$

### 10.291 INVALID-ORDER-291 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L R_1 s \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 L_L R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + C_4 C_L L_L R_1 R_4 g_m s^3 + C_4 C_L L_L R_1 s^3 + C_4 C_L L_L R_4 s^3 + 2 C_4 L_L R_1 g_m s^2 + C_4 L_L s^2 + C_4 R_1 R_4}$$

### 10.292 INVALID-ORDER-292 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s \left(C_1 C_4 C_L L_L R_1 s^3 + C_1 C_4 C_L R_1 R_4 s^2 + C_1 C_4 C_L R_1 R_L s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + 2 C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 R_4 g_m s + 2 C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_\right.}$$

### 10.293 INVALID-ORDER-293 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + C_1 C_4 L_L R_1 R_4 s^3 + C_1 C_4 L_L R_1 R_L s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 C_L L_L R_1 R_L s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_L s + C_4 C_L L_L R_1 R_4 R_L g_m s^3 + C_4 C_L L_L R_1 R_L s^3}$$

### 10.294 INVALID-ORDER-294 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{R_1 \left(C_4 R_4 g_m s - C_4 s + g_m\right) \left(}{C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 L_L R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + C_4 C_L L_L R_1 R_4 g_m s^3 + 2 C_4 C_L L_L R_1 R_L g_m s^3 + C_4 C_L L$$

### 10.295 INVALID-ORDER-295 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_4 C_L L_L R_1 R_4 g_m s^3 + 2 C_4 C_L$$

### 10.296 INVALID-ORDER-296 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2 + 1},\ \infty,\ R_L\right)$

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

### 10.297 INVALID-ORDER-297 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2 + 1},\ \infty,\ \frac{1}{C_L s}\right)$

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

### 10.298 INVALID-ORDER-298 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2 + 1},\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_1 R_L \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_L s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_L s^3 + C_4 C_L R_1 R_L s^2 + C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2 C_4 R_1 R_L$$

### 10.299 INVALID-ORDER-299 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2 + 1},\ \infty,\ R_L + \frac{1}{C_L s}\right)$

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

### 10.300 INVALID-ORDER-300 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{s \left(C_1 C_4 C_L L_4 R_1 s^3 + C_1 C_4 C_L L_L R_1 s^3 + C_1 C_4 R_1 s + C_1 C_L R_1 s + C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + 2 C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + C_4 C_L R_1 s + 2 C_4 R_1 g_m + C_4 + C_L R_1 g_m \right.}$$

### 10.301 INVALID-ORDER-301 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 s \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_L R_1 s^3 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_1 s^3 + C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + 2 C_4 L_L R_1 g$$

### 10.302 INVALID-ORDER-302 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{s \left(C_1 C_4 C_L L_4 R_1 s^3 + C_1 C_4 C_L L_L R_1 s^3 + C_1 C_4 C_L R_1 R_L s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + 2 C_4 C_L L_L R_1 g_m s^2 + C_4 C_L L_L s^2 + 2 C_4 C_L R_1 R_L g_m s + C \right.}$$

### 10.303 INVALID-ORDER-303 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_4 L_L R_1 R_L s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_L s + C_4 C_L L_4 L_L R_1 R_L g_m s^4 + C_4 C_L L_4 L_L R_L s^4 +}$$

### 10.304 INVALID-ORDER-304 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{R_1 \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_L R_1 s^3 + C_1 C_4 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_L R_1 R$$

### 10.305 INVALID-ORDER-305 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4R_1R_Ls^4 + C_1C_4C_LL_LR_1R_Ls^4 + C_1C_4L_4R_1s^3 + C_1C_4R_1R_Ls^2 + C_1C_LL_LR_1s^3 + C_1C_LR_1R_Ls^2 + C_1R_1s + C_4C_LL_4L_LR_1g_ms^4 + C_4C_LL_4$$

### 10.306 INVALID-ORDER-306 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1R_L\left(-C_4L_4s^2 + L_4g_ms - 1\right)}{C_1C_4L_4R_1R_Ls^3 + C_1L_4R_1s^2 + C_1R_1R_Ls + 2C_4L_4R_1R_Lg_ms^2 + C_4L_4R_1s^2 + C_4L_4R_Ls^2 + L_4R_1g_ms + L_4s + 2R_1R_Lg_m + R_1 + R_L}$$

### 10.307 INVALID-ORDER-307 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(-C_4L_4s^2 + L_4g_ms - 1\right)}{C_1C_4L_4R_1s^3 + C_1C_LL_4R_1s^3 + C_1R_1s + C_4C_LL_4R_1s^3 + 2C_4L_4R_1g_ms^2 + C_4L_4s^2 + C_LL_4R_1g_ms^2 + C_LL_4s^2 + C_LR_1s + 2R_1g_m + 1}$$

### 10.308 INVALID-ORDER-308 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_1R_L\left(-C_4L_4s^2 + L_4g_ms - 1\right)}{C_1C_4L_4R_1R_Ls^3 + C_1C_LL_4R_1R_Ls^3 + C_1L_4R_1s^2 + C_1R_1R_Ls + C_4C_LL_4R_1R_Ls^3 + 2C_4L_4R_1R_Lg_ms^2 + C_4L_4R_1s^2 + C_4L_4R_Ls^2 + C_LL_4R_1R_Lg_ms^2 + C_LL_4R_Ls^2 + C_LR_1R$$

### 10.309 INVALID-ORDER-309 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1\left(C_LR_Ls + 1\right)\left(C_4L_4s^2 - L_4g_ms + 1\right)}{C_1C_4C_LL_4R_1R_Ls^4 + C_1C_4L_4R_1s^3 + C_1C_LL_4R_1s^3 + C_1C_LR_1R_Ls^2 + C_1R_1s + 2C_4C_LL_4R_1R_Lg_ms^3 + C_4C_LL_4R_1s^3 + C_4C_LL_4R_Ls^3 + 2C_4L_4R_1g_ms^2 + C_4L_4s^2 + C_LL_4$$

### 10.310 INVALID-ORDER-310 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 - L_4 g_m s + 1\right)}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_4 R_1 s^3 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + 2 C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 s^3 + 2 C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_L L_4 L$$

### 10.311 INVALID-ORDER-311 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L R_1 s \left(-C_4 L_4 s^2 + L_4 g_m s - 1\right)}{C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_L L_4 L_L R_1 s^4 + C_1 L_4 R_1 s^2 + C_1 L_L R_1 s^2 + C_4 C_L L_4 L_L R_1 s^4 + 2 C_4 L_4 L_L R_1 g_m s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_1 s^2 + C_L L_4 L_L R_1 g_m s^3 + C_L L_4 L_L s^3 + C_L L_L R_1$$

### 10.312 INVALID-ORDER-312 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_4 L_4 s^2 - L_4 g_m s -\right.}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_4 R_1 s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + 2 C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_4 R$$

### 10.313 INVALID-ORDER-313 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_1 R_L s \left(-C_4 L_4 s\right.}{C_1 C_4 L_4 L_L R_1 R_L s^4 + C_1 C_L L_4 L_L R_1 R_L s^4 + C_1 L_4 L_L R_1 s^3 + C_1 L_4 R_1 R_L s^2 + C_1 L_L R_1 R_L s^2 + C_4 C_L L_4 L_L R_1 R_L s^4 + 2 C_4 L_4 L_L R_1 R_L g_m s^3 + C_4 L_4 L_L R_1 s^3 + C_4 L_4 L_L R_L s^3 +$$

### 10.314 INVALID-ORDER-314 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

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

### 10.315 INVALID-ORDER-315 $Z(s) = \left(\infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

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

### 10.316 INVALID-ORDER-316 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1 R_L \left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 R_L s^2 + C_1 R_1 s + C_4 L_4 R_1 g_m s^2 + C_4 L_4 s^2 + C_4 R_1 R_4 g_m s + 2C_4 R_1 R_L g_m s + C_4 R_1 s + C_4 R_4 s + C_4 R_L s + R_1 g_m + 1}$$

### 10.317 INVALID-ORDER-317 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m\right)}{s\left(C_1 C_4 C_L L_4 R_1 s^3 + C_1 C_4 C_L R_1 R_4 s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_1 R_4 g_m s + C_4 C_L R_1 s + C_4 C_L R_4 s + 2C_4 R_1 g_m + C_4 + C_L R_1 g_m + C\right.}$$

### 10.318 INVALID-ORDER-318 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_1 R_L \left(C_4 L_4 g_m s^2 + C_4 R\right.}{C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 R_L s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_4 C_L L_4 R_1 R_L g_m s^3 + C_4 C_L L_4 R_L s^3 + C_4 C_L R_1 R_4 R_L}$$

### 10.319 INVALID-ORDER-319 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_L R_L s + 1\right)\left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m\right)}{s\left(C_1 C_4 C_L L_4 R_1 s^3 + C_1 C_4 C_L R_1 R_4 s^2 + C_1 C_4 C_L R_1 R_L s^2 + C_1 C_4 R_1 s + C_1 C_L R_1 s + C_4 C_L L_4 R_1 g_m s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_1 R_4 g_m s + 2C_4 C_L R_1 R_L g_m s + C_4 C_L R_1 s + C_4 C\right.}$$

### 10.320 INVALID-ORDER-320 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s+\frac{1}{R_4}+\frac{1}{L_4 s}},\ \infty,\ L_L s+\frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(C_L L_L s^2+1\right)\left(C_4 L_4 g_m s^2+C_4 R_4 g_m s-C_4 s+g_m\right)}{s\left(C_1 C_4 C_L L_4 R_1 s^3+C_1 C_4 C_L L_L R_1 s^3+C_1 C_4 C_L R_1 R_4 s^2+C_1 C_4 R_1 s+C_1 C_L R_1 s+C_4 C_L L_4 R_1 g_m s^2+C_4 C_L L_4 s^2+2 C_4 C_L L_L R_1 g_m s^2+C_4 C_L L_L s^2+C_4 C_L R_1 R_4 g_m s+C_4\right.}$$

### 10.321 INVALID-ORDER-321 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s+\frac{1}{R_4}+\frac{1}{L_4 s}},\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 s\left(C_4 L_4 g_m s^2+C_4\right.}{C_1 C_4 C_L L_4 L_L R_1 s^5+C_1 C_4 C_L L_L R_1 R_4 s^4+C_1 C_4 L_4 R_1 s^3+C_1 C_4 L_L R_1 s^3+C_1 C_4 R_1 R_4 s^2+C_1 C_L L_L R_1 s^3+C_1 R_1 s+C_4 C_L L_4 L_L R_1 g_m s^4+C_4 C_L L_4 L_L s^4+C_4 C_L L_L R_1 R_4 g}$$

### 10.322 INVALID-ORDER-322 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s+\frac{1}{R_4}+\frac{1}{L_4 s}},\ \infty,\ L_L s+R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(C_L L_L s^2+C_L R_L s+1\right)\left(C_4 L_4 g_m s^2+C_4 R_4 g_m s-C_4 s+g_m\right.}{s\left(C_1 C_4 C_L L_4 R_1 s^3+C_1 C_4 C_L L_L R_1 s^3+C_1 C_4 C_L R_1 R_4 s^2+C_1 C_4 C_L R_1 R_L s^2+C_1 C_4 R_1 s+C_1 C_L R_1 s+C_4 C_L L_4 R_1 g_m s^2+C_4 C_L L_4 s^2+2 C_4 C_L L_L R_1 g_m s^2+C_4 C_L L_L s^2+C\right.}$$

### 10.323 INVALID-ORDER-323 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s+\frac{1}{R_4}+\frac{1}{L_4 s}},\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_4 L_L R_1 R_L s^5+C_1 C_4 C_L L_L R_1 R_4 R_L s^4+C_1 C_4 L_4 L_L R_1 s^4+C_1 C_4 L_4 R_1 R_L s^3+C_1 C_4 L_L R_1 R_4 s^3+C_1 C_4 L_L R_1 R_L s^3+C_1 C_4 R_1 R_4 R_L s^2+C_1 C_L L_L R_1 R_L s^3+C_1 L_L}$$

### 10.324 INVALID-ORDER-324 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s+\frac{1}{R_4}+\frac{1}{L_4 s}},\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}+R_L\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_4 L_L R_1 s^5+C_1 C_4 C_L L_L R_1 R_4 s^4+C_1 C_4 C_L L_L R_1 R_L s^4+C_1 C_4 L_4 R_1 s^3+C_1 C_4 L_L R_1 s^3+C_1 C_4 R_1 R_4 s^2+C_1 C_4 R_1 R_L s^2+C_1 C_L L_L R_1 s^3+C_1 R_1 s+C_4 C_L L_4 L_L R_1 g}$$

### 10.325 INVALID-ORDER-325 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{1}{C_4 s+\frac{1}{R_4}+\frac{1}{L_4 s}},\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4R_1R_Ls^4 + C_1C_4C_LL_LR_1R_4s^4 + C_1C_4C_LL_LR_1R_Ls^4 + C_1C_4C_LR_1R_4R_Ls^3 + C_1C_4L_4R_1s^3 + C_1C_4R_1R_4s^2 + C_1C_4R_1R_Ls^2 + C_1C_LL_LR_1s}$$

### 10.326 INVALID-ORDER-326 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4L_4s^2+1} + R_4,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1R_L\left(-C_4L_4R_4s^2 + L_4R_4g_ms - L_4s - R_4\right)}{C_1C_4L_4R_1R_4R_Ls^3 + C_1L_4R_1R_4s^2 + C_1L_4R_1R_Ls^2 + C_1R_1R_4R_Ls + 2C_4L_4R_1R_4R_Lg_ms^2 + C_4L_4R_1R_4s^2 + C_4L_4R_4R_Ls^2 + L_4R_1R_4g_ms + 2L_4R_1R_Lg_ms + L_4R_1s + L_4R_4}$$

### 10.327 INVALID-ORDER-327 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4L_4s^2+1} + R_4,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(-C_4L_4R_4s^2 + L_4R_4g_ms - L_4s - R_4\right)}{C_1C_4L_4R_1R_4s^3 + C_1C_LL_4R_1R_4s^3 + C_1L_4R_1s^2 + C_1R_1R_4s + C_4C_LL_4R_1R_4s^3 + 2C_4L_4R_1R_4g_ms^2 + C_4L_4R_4s^2 + C_LL_4R_1R_4g_ms^2 + C_LL_4R_1s^2 + C_LL_4R_4s^2 + C_LR_1R_4s}$$

### 10.328 INVALID-ORDER-328 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4L_4s^2+1} + R_4,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{R_1R_L\left(-C_4L_4R_4s^2 + L_4R_4g\right.}{C_1C_4L_4R_1R_4R_Ls^3 + C_1C_LL_4R_1R_4R_Ls^3 + C_1L_4R_1R_4s^2 + C_1L_4R_1R_Ls^2 + C_1R_1R_4R_Ls + C_4C_LL_4R_1R_4R_Ls^3 + 2C_4L_4R_1R_4R_Lg_ms^2 + C_4L_4R_1R_4s^2 + C_4L_4R_4R_Ls^2 + C_1}$$

### 10.329 INVALID-ORDER-329 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4L_4s^2+1} + R_4,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1\ (}{C_1C_4C_LL_4R_1R_4R_Ls^4 + C_1C_4L_4R_1R_4s^3 + C_1C_LL_4R_1R_4s^3 + C_1C_LL_4R_1R_Ls^3 + C_1C_LR_1R_4R_Ls^2 + C_1L_4R_1s^2 + C_1R_1R_4s + 2C_4C_LL_4R_1R_4R_Lg_ms^3 + C_4C_LL_4R_1R_4s^3}$$

### 10.330 INVALID-ORDER-330 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 (}{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_4 R_1 R_4 s^3 + C_1 C_L L_L R_1 R_4 s^3 + C_1 L_4 R_1 s^2 + C_1 R_1 R_4 s + 2 C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L_4 L_L R_4 s^4 +}$$

### 10.331 INVALID-ORDER-331 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 s \left(-C_4 L_4 R_4 s^2 + L_4 R\right.}{C_1 C_4 L_4 L_L R_1 R_4 s^4 + C_1 C_L L_4 L_L R_1 R_4 s^4 + C_1 L_4 L_L R_1 s^3 + C_1 L_4 R_1 R_4 s^2 + C_1 L_L R_1 R_4 s^2 + C_4 C_L L_4 L_L R_1 R_4 s^4 + 2 C_4 L_4 L_L R_1 R_4 g_m s^3 + C_4 L_4 L_L R_4 s^3 + C_4 L_4 R_1 R_4 s^2 + C_L}$$

### 10.332 INVALID-ORDER-332 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_4 R_1 R_4 R_L s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_4 R_1 R_4 s^3 + C_1 C_L L_4 R_1 R_L s^3 + C_1 C_L L_L R_1 R_4 s^3 + C_1 C_L R_1 R_4 R_L s^2 + C_1 L_4}$$

### 10.333 INVALID-ORDER-333 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 L_4 L_L R_1 R_4 R_L s^4 + C_1 C_L L_4 L_L R_1 R_4 R_L s^4 + C_1 L_4 L_L R_1 R_4 s^3 + C_1 L_4 L_L R_1 R_L s^3 + C_1 L_4 R_1 R_4 R_L s^2 + C_1 L_L R_1 R_4 R_L s^2 + C_4 C_L L_4 L_L R_1 R_4 R_L s^4 + 2 C_4 L_4 L_L R_1 R_4 R_L g_}$$

### 10.334 INVALID-ORDER-334 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_4 L_L R_1 R_4 s^4 + C_1 C_4 L_4 R_1 R_4 R_L s^3 + C_1 C_L L_4 L_L R_1 R_4 s^4 + C_1 C_L L_4 L_L R_1 R_L s^4 + C_1 C_L L_L R_1 R_4 R_L s^3 + C_1 L_4 L_L R_1 s^3 + C_1 L_4 R_1 R_4 s^2 +}$$

### 10.335 INVALID-ORDER-335 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4L_LR_1R_4R_Ls^5 + C_1C_4L_4R_1R_4R_Ls^3 + C_1C_LL_4L_LR_1R_4s^4 + C_1C_LL_4L_LR_1R_Ls^4 + C_1C_LL_4R_1R_4R_Ls^3 + C_1C_LL_LR_1R_4R_Ls^3 + C_1L_4R_1R_4s^2 + C_1L_4R_1R_Ls^2 +$$

### 10.336 INVALID-ORDER-336 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1R_L\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1\right)}{C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_1R_Ls^3 + C_1L_4R_1s^2 + C_1R_1R_4s + C_1R_1R_Ls + C_4L_4R_1R_4g_ms^2 + 2C_4L_4R_1R_Lg_ms^2 + C_4L_4R_1s^2 + C_4L_4R_4s^2 + C_4L_4R_Ls^2 + L_4R_1g_ms + L_4s +}$$

### 10.337 INVALID-ORDER-337 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1\right)}{C_1C_4C_LL_4R_1R_4s^4 + C_1C_4L_4R_1s^3 + C_1C_LL_4R_1s^3 + C_1C_LR_1R_4s^2 + C_1R_1s + C_4C_LL_4R_1R_4g_ms^3 + C_4C_LL_4R_1s^3 + C_4C_LL_4R_4s^3 + 2C_4L_4R_1g_ms^2 + C_4L_4s^2 + C_LL_4R_1g_}$$

### 10.338 INVALID-ORDER-338 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4R_1R_4R_Ls^4 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_1R_Ls^3 + C_1C_LL_4R_1R_Ls^3 + C_1C_LR_1R_4R_Ls^2 + C_1L_4R_1s^2 + C_1R_1R_4s + C_1R_1R_Ls + C_4C_LL_4R_1R_4R_Lg_ms^3 + C_4C_LL$$

### 10.339 INVALID-ORDER-339 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \infty,\ R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(C_LR_Ls+1\right)\left(C_4L_4R_4g_ms^2 -\right.}{C_1C_4C_LL_4R_1R_4s^4 + C_1C_4C_LL_4R_1R_Ls^4 + C_1C_4L_4R_1s^3 + C_1C_LL_4R_1s^3 + C_1C_LR_1R_4s^2 + C_1C_LR_1R_Ls^2 + C_1R_1s + C_4C_LL_4R_1R_4g_ms^3 + 2C_4C_LL_4R_1R_Lg_ms^3 + C_4C_LL_4$$

### 10.340 INVALID-ORDER-340 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \infty,\ L_L s+\frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(C_L L_L s^2+1\right)\left(C_4 L_4 R_4 g_m s^2 -}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_4 R_1 s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 R_1 s + 2C_4 C_L L_4 L_L R_1 g_m s^4 + C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_1 R_4}$$

### 10.341 INVALID-ORDER-341 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_L R_1 R_4 s^3 + C_1 L_4 R_1 s^2 + C_1 L_L R_1 s^2 + C_1 R_1 R_4 s + C_4 C_L L_4 L_L R_1 R_4 g_m s^4 + C_4 C_L L}$$

### 10.342 INVALID-ORDER-342 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \infty,\ L_L s+R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_4 L_L R_1 s^5 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + C_1 C_4 C_L L_4 R_1 R_L s^4 + C_1 C_4 L_4 R_1 s^3 + C_1 C_L L_4 R_1 s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + 2C_4 C_L L_4 L_L R_1}$$

### 10.343 INVALID-ORDER-343 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_4 L_L R_1 R_4 s^4 + C_1 C_4 L_4 L_L R_1 R_L s^4 + C_1 C_4 L_4 R_1 R_4 R_L s^3 + C_1 C_L L_4 L_L R_1 R_L s^4 + C_1 C_L L_L R_1 R_4 R_L s^3 + C_1 L_4 L_L R_1 s^3 + C_1 L_4 R_1 R_L s^2 + C}$$

### 10.344 INVALID-ORDER-344 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}+R_L\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L s^5 + C_1 C_4 L_4 L_L R_1 s^4 + C_1 C_4 L_4 R_1 R_4 s^3 + C_1 C_4 L_4 R_1 R_L s^3 + C_1 C_L L_4 L_L R_1 s^4 + C_1 C_L L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 L_4 R}$$

### 10.345 INVALID-ORDER-345 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4L_LR_1R_4s^5 + C_1C_4C_LL_4L_LR_1R_Ls^5 + C_1C_4C_LL_4R_1R_4R_Ls^4 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_1R_Ls^3 + C_1C_LL_4L_LR_1s^4 + C_1C_LL_4R_1R_Ls^3 + C_1C_LL_LR_1R_4s^3 + C$$

### 10.346 INVALID-ORDER-346 $Z(s) = (\infty,\ \infty,\ \infty,\ \infty,\ R_4,\ R_L)$

$$H(s) = \frac{R_1R_L\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 - C_4R_4s + R_4g_m - 1\right)}{C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_1R_Ls^3 + C_1C_4R_1R_4R_Ls^2 + C_1R_1R_4s + C_1R_1R_Ls + C_4L_4R_1R_4g_ms^2 + 2C_4L_4R_1R_Lg_ms^2 + C_4L_4R_1s^2 + C_4L_4R_4s^2 + C_4L_4R_Ls^2 + 2C_4R_1R_4R$$

### 10.347 INVALID-ORDER-347 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 - C_4R_4s + R_4g_m - 1\right)}{C_1C_4C_LL_4R_1R_4s^4 + C_1C_4L_4R_1s^3 + C_1C_4R_1R_4s^2 + C_1C_LR_1R_4s^2 + C_1R_1s + C_4C_LL_4R_1R_4g_ms^3 + C_4C_LL_4R_1s^3 + C_4C_LL_4R_4s^3 + C_4C_LR_1R_4s^2 + 2C_4L_4R_1g_ms^2 + C_4L$$

### 10.348 INVALID-ORDER-348 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4R_1R_4R_Ls^4 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_1R_Ls^3 + C_1C_4R_1R_4R_Ls^2 + C_1C_LR_1R_4R_Ls^2 + C_1R_1R_4s + C_1R_1R_Ls + C_4C_LL_4R_1R_4R_Lg_ms^3 + C_4C_LL_4R_1R_Ls^3 + C$$

### 10.349 INVALID-ORDER-349 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4R_1R_4s^4 + C_1C_4C_LL_4R_1R_Ls^4 + C_1C_4C_LR_1R_4R_Ls^3 + C_1C_4L_4R_1s^3 + C_1C_4R_1R_4s^2 + C_1C_LR_1R_4s^2 + C_1C_LR_1R_Ls^2 + C_1R_1s + C_4C_LL_4R_1R_4g_ms^3 + 2C_4C_L$$

### 10.350 INVALID-ORDER-350 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4R_1R_4s^4 + C_1C_4C_LL_LR_1R_4s^4 + C_1C_4L_4R_1s^3 + C_1C_4R_1R_4s^2 + C_1C_LL_LR_1s^3 + C_1C_LR_1R_4s^2 + C_1R_1s + 2C_4C_LL_4L_LR_1g_ms^4 + C_4C_L$$

### 10.351 INVALID-ORDER-351 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4L_LR_1R_4s^5 + C_1C_4L_4L_LR_1s^4 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_LR_1R_4s^3 + C_1C_LL_LR_1R_4s^3 + C_1L_LR_1s^2 + C_1R_1R_4s + C_4C_LL_4L_LR_1R_4g_ms^4 + C_4C_LL_4L_LR_1s^4 + C$$

### 10.352 INVALID-ORDER-352 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4R_1R_4s^4 + C_1C_4C_LL_4R_1R_Ls^4 + C_1C_4C_LL_LR_1R_4s^4 + C_1C_4C_LR_1R_4R_Ls^3 + C_1C_4L_4R_1s^3 + C_1C_4R_1R_4s^2 + C_1C_LL_LR_1s^3 + C_1C_LR_1R_4$$

### 10.353 INVALID-ORDER-353 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4L_LR_1R_4R_Ls^5 + C_1C_4L_4L_LR_1R_4s^4 + C_1C_4L_4L_LR_1R_Ls^4 + C_1C_4L_4R_1R_4R_Ls^3 + C_1C_4L_LR_1R_4R_Ls^3 + C_1C_LL_LR_1R_4R_Ls^3 + C_1L_LR_1R_4s^2 + C_1L_LR_1R_Ls^2 + C$$

### 10.354 INVALID-ORDER-354 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4L_LR_1R_4s^5 + C_1C_4C_LL_4L_LR_1R_Ls^5 + C_1C_4C_LL_LR_1R_4R_Ls^4 + C_1C_4L_4L_LR_1s^4 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_1R_Ls^3 + C_1C_4L_LR_1R_4s^3 + C_1C_4R_1R_4R_Ls^2 +$$

### 10.355 INVALID-ORDER-355 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4L_LR_1R_4s^5 + C_1C_4C_LL_4L_LR_1R_Ls^5 + C_1C_4C_LL_4R_1R_4R_Ls^4 + C_1C_4C_LL_LR_1R_4R_Ls^4 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_1R_Ls^3 + C_1C_4R_1R_4R_Ls^2 + C_1C_LL_LR_1R$$

### 10.356 INVALID-ORDER-356 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ R_L\right)$

$$H(s) = \frac{R_L\left(R_4g_m - 1\right)\left(C_1R_1s + 1\right)}{C_1R_1R_4g_ms + 2C_1R_1R_Lg_ms + C_1R_1s + C_1R_4s + C_1R_Ls + R_4g_m + 2R_Lg_m + 1}$$

### 10.357 INVALID-ORDER-357 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(R_4g_m - 1\right)\left(C_1R_1s + 1\right)\left(C_LL_Ls^2 + 1\right)}{2C_1C_LL_LR_1g_ms^3 + C_1C_LL_Ls^3 + C_1C_LR_1R_4g_ms^2 + C_1C_LR_1s^2 + C_1C_LR_4s^2 + 2C_1R_1g_ms + C_1s + 2C_LL_Lg_ms^2 + C_LR_4g_ms + C_Ls + 2g_m}$$

### 10.358 INVALID-ORDER-358 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_Ls\left(R_4g_m - 1\right)\left(C_1R_1s + 1\right)}{C_1C_LL_LR_1R_4g_ms^3 + C_1C_LL_LR_1s^3 + C_1C_LL_LR_4s^3 + 2C_1L_LR_1g_ms^2 + C_1L_Ls^2 + C_1R_1R_4g_ms + C_1R_1s + C_1R_4s + C_LL_LR_4g_ms^2 + C_LL_Ls^2 + 2L_Lg_ms + R_4g_m + 1}$$

### 10.359 INVALID-ORDER-359 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(R_4g_m - 1\right)\left(C_1R_1s + 1\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{2C_1C_LL_LR_1g_ms^3 + C_1C_LL_Ls^3 + C_1C_LR_1R_4g_ms^2 + 2C_1C_LR_1R_Lg_ms^2 + C_1C_LR_1s^2 + C_1C_LR_4s^2 + C_1C_LR_Ls^2 + 2C_1R_1g_ms + C_1s + 2C_LL_Lg_ms^2 + C_LR_4g_ms + 2C_LR_Lg$$

### 10.360 INVALID-ORDER-360 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_L s \left(R_4 g_m - 1\right) \left(C_1 R_1 s + 1\right)}{C_1 C_L L_L R_1 R_4 R_L g_m s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_L R_1 R_4 g_m s^2 + 2 C_1 L_L R_1 R_L g_m s^2 + C_1 L_L R_1 s^2 + C_1 L_L R_4 s^2 + C_1 L_L R_L s^2 + C_1 R_1 R_4 R_L g_m s + C_1 R_1 R_}$$

### 10.361 INVALID-ORDER-361 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{\left(R_4 g_m - 1\right) \left(C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_1 C_L L_L R_1 R_4 g_m s^3 + 2 C_1 C_L L_L R_1 R_L g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + 2 C_1 L_L R_1 g_m s^2 + C_1 L_L s^2 + C_1 R_1 R_4 g_m s + 2 C_1 R_1 R_L g_m s + C_1 R_1 s + C_1 R_4 s}$$

### 10.362 INVALID-ORDER-362 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s},\ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{R_L \left(R_4 g_m - 1\right) \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right.}{C_1 C_L L_L R_1 R_4 g_m s^3 + 2 C_1 C_L L_L R_1 R_L g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 C_L R_1 R_4 R_L g_m s^2 + C_1 C_L R_1 R_L s^2 + C_1 C_L R_4 R_L s^2 + C_1 R_1 R_4 g_m s + 2 C_1 R}$$

### 10.363 INVALID-ORDER-363 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s + 1},\ \frac{1}{C_L s}\right)$

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

### 10.364 INVALID-ORDER-364 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s + 1},\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = -\frac{R_L \left(C_4 s - g_m\right) \left(C_1 R_1 s + 1\right)}{C_1 C_4 C_L R_1 R_L s^3 + 2 C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_L s^2 + C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_L s^2 + C_1 R_1 g_m s + C_1 s + C_4 C_L R_L s^2 + 2 C_4 R_L g_m s + C_4 s + C_L R_L g_m s + g_m}$$

### 10.365 INVALID-ORDER-365 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s+1},\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{(C_4 s - g_m)(C_1 R_1 s + 1)(C_L R_L s + 1)}{s\left(2C_1C_4C_L R_1 R_L g_m s^2 + C_1C_4C_L R_1 s^2 + C_1C_4C_L R_L s^2 + 2C_1C_4 R_1 g_m s + C_1C_4 s + C_1C_L R_1 g_m s + C_1C_L s + 2C_4C_L R_L g_m s + C_4C_L s + 2C_4 g_m + C_L g_m\right)}$$

### 10.366 INVALID-ORDER-366 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s+1},\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{(C_4 s - g_m)(C_1 R_1 s + 1)\left(C_L L_L s^2 + 1\right)}{s\left(2C_1C_4C_L L_L R_1 g_m s^3 + C_1C_4C_L L_L s^3 + C_1C_4C_L R_1 s^2 + 2C_1C_4 R_1 g_m s + C_1C_4 s + C_1C_L R_1 g_m s + C_1C_L s + 2C_4C_L L_L g_m s^2 + C_4C_L s + 2C_4 g_m + C_L g_m\right)}$$

### 10.367 INVALID-ORDER-367 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s+1},\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{L_L s\,(C_4 s - g_m)(C_1 R_1 s + 1)}{C_1C_4C_L L_L R_1 s^4 + 2C_1C_4 L_L R_1 g_m s^3 + C_1C_4 L_L s^3 + C_1C_4 R_1 s^2 + C_1C_L L_L R_1 g_m s^3 + C_1C_L L_L s^3 + C_1 R_1 g_m s + C_1 s + C_4C_L L_L s^3 + 2C_4 L_L g_m s^2 + C_4 s + C_L L_L g_m s^2 + g_m}$$

### 10.368 INVALID-ORDER-368 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s+1},\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{(C_4 s - g_m)(C_1 R_1 s + 1)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{s\left(2C_1C_4C_L L_L R_1 g_m s^3 + C_1C_4C_L L_L s^3 + 2C_1C_4C_L R_1 R_L g_m s^2 + C_1C_4C_L R_1 s^2 + C_1C_4C_L R_L s^2 + 2C_1C_4 R_1 g_m s + C_1C_4 s + C_1C_L R_1 g_m s + C_1C_L s + 2C_4C_L L_L g_m s^2 + 2C\right.}$$

### 10.369 INVALID-ORDER-369 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s+1},\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = -\frac{L_L R_L s\,(C_4 s - g_m)(C_1 R_1 s + 1)}{C_1C_4C_L L_L R_1 R_L s^4 + 2C_1C_4 L_L R_1 R_L g_m s^3 + C_1C_4 L_L R_1 s^3 + C_1C_4 L_L R_L s^3 + C_1C_4 R_1 R_L s^2 + C_1C_L L_L R_1 R_L g_m s^3 + C_1C_L L_L R_L s^3 + C_1 L_L R_1 g_m s^2 + C_1 L_L s^2 + C_1 R_1 R_L}$$

### 10.370 INVALID-ORDER-370 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s+1},\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{(C_4 s - g_m)(C_1 R_1 s + 1)\left(C_L L_L R_L s^2 + L_L s + R_L\right)}{2C_1C_4C_L L_L R_1 R_L g_m s^4 + C_1C_4C_L L_L R_1 s^4 + C_1C_4C_L L_L R_L s^4 + 2C_1C_4 L_L R_1 g_m s^3 + C_1C_4 L_L s^3 + 2C_1C_4 R_1 R_L g_m s^2 + C_1C_4 R_1 s^2 + C_1C_4 R_L s^2 + C_1C_L L_L R_1 g_m s^3 + C_1C$$

### 10.371 INVALID-ORDER-371 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4}{C_4 R_4 s+1},\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{R_L\left(C_4 s - g_m\right)\left(C_1 R_1 s + 1\right)\left(C_L$$
$$2C_1C_4C_LL_LR_1R_Lg_ms^4 + C_1C_4C_LL_LR_1s^4 + C_1C_4C_LL_LR_Ls^4 + C_1C_4C_LR_1R_Ls^3 + 2C_1C_4R_1R_Lg_ms^2 + C_1C_4R_1s^2 + C_1C_4R_Ls^2 + C_1C_LL_LR_1g_ms^3 + C_1C_LL_Ls^3 + C_1C_$$

### 10.372 INVALID-ORDER-372 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_1 R_1 s + 1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{C_1C_4C_LR_1R_4s^3 + 2C_1C_4R_1R_4g_ms^2 + C_1C_4R_4s^2 + C_1C_LR_1R_4g_ms^2 + C_1C_LR_1s^2 + C_1C_LR_4s^2 + 2C_1R_1g_ms + C_1s + C_4C_LR_4s^2 + 2C_4R_4g_ms + C_LR_4g_ms + C_Ls + 2g_m}$$

### 10.373 INVALID-ORDER-373 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{R_L\left(C_1 R_1 s + 1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{C_1C_4C_LR_1R_4R_Ls^3 + 2C_1C_4R_1R_4R_Lg_ms^2 + C_1C_4R_1R_4s^2 + C_1C_4R_4R_Ls^2 + C_1C_LR_1R_4R_Lg_ms^2 + C_1C_LR_1R_Ls^2 + C_1C_LR_4R_Ls^2 + C_1R_1R_4g_ms + 2C_1R_1R_Lg_ms + C_1R$$

### 10.374 INVALID-ORDER-374 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_1 R_1 s + 1\right)\left(C_L R_L s + 1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{2C_1C_4C_LR_1R_4R_Lg_ms^3 + C_1C_4C_LR_1R_4s^3 + C_1C_4C_LR_4R_Ls^3 + 2C_1C_4R_1R_4g_ms^2 + C_1C_4R_4s^2 + C_1C_LR_1R_4g_ms^2 + 2C_1C_LR_1R_Lg_ms^2 + C_1C_LR_1s^2 + C_1C_LR_4s^2 + C_1C$$

### 10.375 INVALID-ORDER-375 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_1 R_1 s + 1\right)\left(C_L L_L s^2 + 1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{2C_1C_4C_LL_LR_1R_4g_ms^4 + C_1C_4C_LL_LR_4s^4 + C_1C_4C_LR_1R_4s^3 + 2C_1C_4R_1R_4g_ms^2 + C_1C_4R_4s^2 + 2C_1C_LL_LR_1g_ms^3 + C_1C_LL_Ls^3 + C_1C_LR_1R_4g_ms^2 + C_1C_LR_1s^2 + C_1C_$$

### 10.376 INVALID-ORDER-376 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{L_L s\left(C_1 R_1 s + 1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{C_1C_4C_LL_LR_1R_4s^4 + 2C_1C_4L_LR_1R_4g_ms^3 + C_1C_4L_LR_4s^3 + C_1C_4R_1R_4s^2 + C_1C_LL_LR_1R_4g_ms^3 + C_1C_LL_LR_1s^3 + C_1C_LL_LR_4s^3 + 2C_1L_LR_1g_ms^2 + C_1L_Ls^2 + C_1R_1R_4g$$

### 10.377 INVALID-ORDER-377 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{2C_1C_4C_LL_LR_1R_4g_ms^4 + C_1C_4C_LL_LR_4s^4 + 2C_1C_4C_LR_1R_4R_Lg_ms^3 + C_1C_4C_LR_1R_4s^3 + C_1C_4C_LR_4R_Ls^3 + 2C_1C_4R_1R_4g_ms^2 + C_1C_4R_4s^2 + 2C_1C_LL_LR_1g_ms^3 + C_1C_L}{}$$

### 10.378 INVALID-ORDER-378 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = -\frac{C_1C_4C_LL_LR_1R_4R_Ls^4 + 2C_1C_4L_LR_1R_4R_Lg_ms^3 + C_1C_4L_LR_1R_4s^3 + C_1C_4L_LR_4R_Ls^3 + C_1C_4R_1R_4R_Ls^2 + C_1C_LL_LR_1R_4R_Lg_ms^3 + C_1C_LL_LR_1R_Ls^3 + C_1C_LL_LR_4R_Ls}{}$$

### 10.379 INVALID-ORDER-379 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = -\frac{2C_1C_4C_LL_LR_1R_4R_Lg_ms^4 + C_1C_4C_LL_LR_1R_4s^4 + C_1C_4C_LL_LR_4R_Ls^4 + 2C_1C_4L_LR_1R_4g_ms^3 + C_1C_4L_LR_4s^3 + 2C_1C_4R_1R_4R_Lg_ms^2 + C_1C_4R_1R_4s^2 + C_1C_4R_4R_Ls^2 + C}{}$$

### 10.380 INVALID-ORDER-380 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ R_4 + \frac{1}{C_4 s},\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{2C_1C_4C_LL_LR_1R_4R_Lg_ms^4 + C_1C_4C_LL_LR_1R_4s^4 + C_1C_4C_LL_LR_4R_Ls^4 + C_1C_4C_LR_1R_4R_Ls^3 + 2C_1C_4R_1R_4R_Lg_ms^2 + C_1C_4R_1R_4s^2 + C_1C_4R_4R_Ls^2 + C_1C_LL_LR_1R_4g_ms}{}$$

### 10.381 INVALID-ORDER-381 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{(C_1R_1s + 1)(C_4R_4g_ms - C_4s + g_m)}{s(C_1C_4C_LR_1R_4g_ms^2 + C_1C_4C_LR_1s^2 + C_1C_4C_LR_4s^2 + 2C_1C_4R_1g_ms + C_1C_4s + C_1C_LR_1g_ms + C_1C_Ls + C_4C_LR_4g_ms + C_4C_Ls + 2C_4g_m + C_Lg_m)}$$

### 10.382 INVALID-ORDER-382 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_L\left(C_1 R_1 s+1\right)\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L R_1 R_4 R_L g_m s^3 + C_1 C_4 C_L R_1 R_L s^3 + C_1 C_4 C_L R_4 R_L s^3 + C_1 C_4 R_1 R_4 g_m s^2 + 2 C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_4 R_L s^2 + C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_L}$$

### 10.383 INVALID-ORDER-383 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1 R_1 s+1\right)\left(C_L R_L s+1\right)\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s\left(C_1 C_4 C_L R_1 R_4 g_m s^2 + 2 C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + 2 C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L s + C_4 C_L R_4 g_m s + 2 C_4 C_L R\right.}$$

### 10.384 INVALID-ORDER-384 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1 R_1 s+1\right)\left(C_L L_L s^2+1\right)\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s\left(2 C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 R_4 g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_4 s^2 + 2 C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L s + 2 C_4 C_L L_L g_m s^2 + C_4 C_L\right.}$$

### 10.385 INVALID-ORDER-385 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L s\left(C_1 R_1 s+1\right)\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_4 s^4 + 2 C_1 C_4 L_L R_1 g_m s^3 + C_1 C_4 L_L s^3 + C_1 C_4 R_1 R_4 g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_4 s^2 + C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s}$$

### 10.386 INVALID-ORDER-386 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1 R_1 s+1\right)\left(C_L L_L s^2 + C_L R_L s+1\right)\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s\left(2 C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 R_4 g_m s^2 + 2 C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + 2 C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g\right.}$$

### 10.387 INVALID-ORDER-387 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_L R_1 R_4 g_m s^3 + 2 C_1 C_4 L_L R_1 R_L g_m s^3 + C_1 C_4 L_L R_1 s^3 + C_1 C_4 L_L R_4 s^3 + C_1 C_4 L_L R_L s^3 + C_1 C}$$

### 10.388 INVALID-ORDER-388 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{(C_1 R_1$$
$$C_1C_4C_LL_LR_1R_4g_ms^4 + 2C_1C_4C_LL_LR_1R_Lg_ms^4 + C_1C_4C_LL_LR_1s^4 + C_1C_4C_LL_LR_4s^4 + C_1C_4C_LL_LR_Ls^4 + 2C_1C_4L_LR_1g_ms^3 + C_1C_4L_Ls^3 + C_1C_4R_1R_4g_ms^2 + 2C_1C_4R_1$$

### 10.389 INVALID-ORDER-389 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + \frac{1}{C_4 s},\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_LR_1R_4g_ms^4 + 2C_1C_4C_LL_LR_1R_Lg_ms^4 + C_1C_4C_LL_LR_1s^4 + C_1C_4C_LL_LR_4s^4 + C_1C_4C_LL_LR_Ls^4 + C_1C_4C_LR_1R_4R_Lg_ms^3 + C_1C_4C_LR_1R_Ls^3 + C_1C_4C_LR_4R_Ls^3 +$$

### 10.390 INVALID-ORDER-390 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ R_L\right)$

$$H(s) = \frac{R_L\left(C_1R_1s+1\right)\left(C_4L_4g_ms^2 - C_4s + g_m\right)}{C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + 2C_1C_4R_1R_Lg_ms^2 + C_1C_4R_1s^2 + C_1C_4R_Ls^2 + C_1R_1g_ms + C_1s + C_4L_4g_ms^2 + 2C_4R_Lg_ms + C_4s + g_m}$$

### 10.391 INVALID-ORDER-391 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1R_1s+1\right)\left(C_4L_4g_ms^2 - C_4s + g_m\right)}{s\left(C_1C_4C_LL_4R_1g_ms^3 + C_1C_4C_LL_4s^3 + C_1C_4C_LR_1s^2 + 2C_1C_4R_1g_ms + C_1C_4s + C_1C_LR_1g_ms + C_1C_Ls + C_4C_LL_4g_ms^2 + C_4C_Ls + 2C_4g_m + C_Lg_m\right)}$$

### 10.392 INVALID-ORDER-392 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_L\left(C_1R_1s+1\right)\left(C_4L_4g_ms^2 - C_4s + g_m\right)}{C_1C_4C_LL_4R_1R_Lg_ms^4 + C_1C_4C_LL_4R_Ls^4 + C_1C_4C_LR_1R_Ls^3 + C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + 2C_1C_4R_1R_Lg_ms^2 + C_1C_4R_1s^2 + C_1C_4R_Ls^2 + C_1C_LR_1R_Lg_ms^2 + C_1C_LR_Ls$$

### 10.393 INVALID-ORDER-393 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(C_1 R_1 s + 1)\,(C_L R_L s + 1)\left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{s\,(C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L s + C_4 C_L L_4 g_m s^2 + 2C_4 C_L R$$

### 10.394 INVALID-ORDER-394 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(C_1 R_1 s + 1)\left(C_L L_L s^2 + 1\right)\left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{s\,(C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g_m s + C_1 C_L s + C_4 C_L L_4 g_m s^2 + 2C_4 C_L L$$

### 10.395 INVALID-ORDER-395 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L s\,(C_1 R_1 s + 1)\left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2C_1 C_4 L_L R_1 g_m s^3 + C_1 C_4 L_L s^3 + C_1 C_4 R_1 s^2 + C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s^3}$$

### 10.396 INVALID-ORDER-396 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(C_1 R_1 s + 1)\left(C_L L_L s^2 + C_L R_L s + 1\right)\left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{s\,(C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + 2C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L R_1 g$$

### 10.397 INVALID-ORDER-397 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 L_4 L_L R_1 g_m s^4 + C_1 C_4 L_4 L_L s^4 + C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_L s^3 + 2C_1 C_4 L_L R_1 R_L g_m s^3 +}$$

### 10.398 INVALID-ORDER-398 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{(C_1 R_1 s$$
$$C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + 2 C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 L_4 R_1 g_m s^3 + C_1 C_4 L_4 s^3 + 2 C_1 C_4 L_L R_1 g_m s^3 + C_1 C_4 L_L s^3$$

### 10.399 INVALID-ORDER-399 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1},\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_4 R_1 R_L g_m s^4 + C_1 C_4 C_L L_4 R_L s^4 + 2 C_1 C_4 C_L L_L R_1 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 C_L R_1 R_L s^3 +}$$

### 10.400 INVALID-ORDER-400 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ R_L\right)$

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

### 10.401 INVALID-ORDER-401 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \frac{1}{C_L s}\right)$

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

### 10.402 INVALID-ORDER-402 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{R_L\left(C_1 R_1 s + 1\right)\left(C_4 L_4 s^2 - L_4 g_m s + 1\right)}{C_1 C_4 C_L L_4 R_1 R_L s^4 + 2 C_1 C_4 L_4 R_1 R_L g_m s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 L_4 R_L s^3 + C_1 C_L L_4 R_1 R_L g_m s^3 + C_1 C_L L_4 R_L s^3 + C_1 C_L R_1 R_L s^2 + C_1 L_4 R_1 g_m s^2 + C_1 L_4 s^2 + 2 C_1 R_1 R_L g$$

### 10.403 INVALID-ORDER-403 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{(C_1 R_1 s + 1)\,(C_L R_L s + 1)\left(C_4 L_4 s^2 - L_4 g_m s + 1\right)}{2C_1C_4C_LL_4R_1R_Lg_ms^4 + C_1C_4C_LL_4R_1s^4 + C_1C_4C_LL_4R_Ls^4 + 2C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + C_1C_LL_4R_1g_ms^3 + C_1C_LL_4s^3 + 2C_1C_LR_1R_Lg_ms^2 + C_1C_LR_1s^2 + C_1C_L}$$

### 10.404 INVALID-ORDER-404 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{(C_1 R_1 s + 1)\left(C_L L_L s^2 + 1\right)\left(C_4 L_4 s^2 - L_4 g_m s + 1\right)}{2C_1C_4C_LL_4L_LR_1g_ms^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4R_1s^4 + 2C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + C_1C_LL_4R_1g_ms^3 + C_1C_LL_4s^3 + 2C_1C_LL_LR_1g_ms^3 + C_1C_LL_Ls^3 + C_1C_L}$$

### 10.405 INVALID-ORDER-405 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = -\frac{L_L s\,(C_1 R_1 s + 1)\left(C_4 L_4 s^2 - L_4 g_m s + 1\right)}{C_1C_4C_LL_4L_LR_1s^5 + 2C_1C_4L_4L_LR_1g_ms^4 + C_1C_4L_4L_Ls^4 + C_1C_4L_4R_1s^3 + C_1C_LL_4L_LR_1g_ms^4 + C_1C_LL_4L_Ls^4 + C_1C_LL_LR_1s^3 + C_1L_4R_1g_ms^2 + C_1L_4s^2 + 2C_1L_LR_1g_m}$$

### 10.406 INVALID-ORDER-406 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_4L_LR_1g_ms^5 + C_1C_4C_LL_4L_Ls^5 + 2C_1C_4C_LL_4R_1R_Lg_ms^4 + C_1C_4C_LL_4R_1s^4 + C_1C_4C_LL_4R_Ls^4 + 2C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + C_1C_LL_4R_1g_ms^3 + C_1C_LL_4}$$

### 10.407 INVALID-ORDER-407 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4L_LR_1R_Ls^5 + 2C_1C_4L_4L_LR_1R_Lg_ms^4 + C_1C_4L_4L_LR_1s^4 + C_1C_4L_4L_LR_Ls^4 + C_1C_4L_4R_1R_Ls^3 + C_1C_LL_4L_LR_1R_Lg_ms^4 + C_1C_LL_4L_LR_Ls^4 + C_1C_LL_LR_1R_Ls^3}$$

### 10.408 INVALID-ORDER-408 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{2C_1C_4C_LL_4L_LR_1R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4L_LR_Ls^5 + 2C_1C_4L_4L_LR_1g_ms^4 + C_1C_4L_4L_Ls^4 + 2C_1C_4L_4R_1R_Lg_ms^3 + C_1C_4L_4R_1s^3 + C_1C_4L_4R_Ls^3 + C_1}{}$$

### 10.409 INVALID-ORDER-409 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ L_4 s + R_4 + \frac{1}{C_4 s},\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{2C_1C_4C_LL_4L_LR_1R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4L_LR_Ls^5 + C_1C_4C_LL_4R_1R_Ls^4 + 2C_1C_4L_4R_1R_Lg_ms^3 + C_1C_4L_4R_1s^3 + C_1C_4L_4R_Ls^3 + C_1C_LL_4L_LR_1g_ms^4}{}$$

### 10.410 INVALID-ORDER-410 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},\ R_L\right)$

$$H(s) = \frac{R_L\left(C_1R_1s+1\right)\left(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m\right)}{C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + C_1C_4R_1R_4g_ms^2 + 2C_1C_4R_1R_Lg_ms^2 + C_1C_4R_1s^2 + C_1C_4R_4s^2 + C_1C_4R_Ls^2 + C_1R_1g_ms + C_1s + C_4L_4g_ms^2 + C_4R_4g_ms + 2C_4R_Lg_ms + C_4}$$

### 10.411 INVALID-ORDER-411 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1R_1s+1\right)\left(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m\right)}{s\left(C_1C_4C_LL_4R_1g_ms^3 + C_1C_4C_LL_4s^3 + C_1C_4C_LR_1R_4g_ms^2 + C_1C_4C_LR_1s^2 + C_1C_4C_LR_4s^2 + 2C_1C_4R_1g_ms + C_1C_4s + C_1C_LR_1g_ms + C_1C_Ls + C_4C_LL_4g_ms^2 + C_4C_LR_4g\right.}$$

### 10.412 INVALID-ORDER-412 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_L\left(C\right.}{C_1C_4C_LL_4R_1R_Lg_ms^4 + C_1C_4C_LL_4R_Ls^4 + C_1C_4C_LR_1R_4R_Lg_ms^3 + C_1C_4C_LR_1R_Ls^3 + C_1C_4C_LR_4R_Ls^3 + C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + C_1C_4R_1R_4g_ms^2 + 2C_1C_4R_1R_L}$$

### 10.413 INVALID-ORDER-413 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s+\frac{1}{R_4}+\frac{1}{L_4 s}},\ R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{(C_1R_1s+1)\left(C_LR_Ls+1\right)\left(C_4L_4g_ms^2+C_4R_4g_ms-C_4s+g_m\right)}{s\left(C_1C_4C_LL_4R_1g_ms^3+C_1C_4C_LL_4s^3+C_1C_4C_LR_1R_4g_ms^2+2C_1C_4C_LR_1R_Lg_ms^2+C_1C_4C_LR_1s^2+C_1C_4C_LR_4s^2+C_1C_4C_LR_Ls^2+2C_1C_4R_1g_ms+C_1C_4s+C_1C_LR_1g_m\right.}$$

### 10.414 INVALID-ORDER-414 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s+\frac{1}{R_4}+\frac{1}{L_4 s}},\ L_Ls+\frac{1}{C_L s}\right)$

$$H(s) = \frac{(C_1R_1s+1)\left(C_LL_Ls^2+1\right)\left(C_4L_4g_ms^2+C_4R_4g_ms-C_4s+g_m\right)}{s\left(C_1C_4C_LL_4R_1g_ms^3+C_1C_4C_LL_4s^3+2C_1C_4C_LL_LR_1g_ms^3+C_1C_4C_LL_Ls^3+C_1C_4C_LR_1R_4g_ms^2+C_1C_4C_LR_1s^2+C_1C_4C_LR_4s^2+2C_1C_4R_1g_ms+C_1C_4s+C_1C_LR_1g_m\right.}$$

### 10.415 INVALID-ORDER-415 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s+\frac{1}{R_4}+\frac{1}{L_4 s}},\ \frac{L_Ls}{C_LL_Ls^2+1}\right)$

$$H(s) = \frac{L_Ls\left(C\right.}{C_1C_4C_LL_4L_LR_1g_ms^5+C_1C_4C_LL_4L_Ls^5+C_1C_4C_LL_LR_1R_4g_ms^4+C_1C_4C_LL_LR_1s^4+C_1C_4C_LL_LR_4s^4+C_1C_4L_4R_1g_ms^3+C_1C_4L_4s^3+2C_1C_4L_LR_1g_ms^3+C_1C_4L_Ls^3+\left.\right.}$$

### 10.416 INVALID-ORDER-416 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s+\frac{1}{R_4}+\frac{1}{L_4 s}},\ L_Ls+R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{(C_1R_1s+1)\left(C_LL_Ls^2+C_LR_Ls+1\right)\left(C_4L_4g_ms^2+\right.}{s\left(C_1C_4C_LL_4R_1g_ms^3+C_1C_4C_LL_4s^3+2C_1C_4C_LL_LR_1g_ms^3+C_1C_4C_LL_Ls^3+C_1C_4C_LR_1R_4g_ms^2+2C_1C_4C_LR_1R_Lg_ms^2+C_1C_4C_LR_1s^2+C_1C_4C_LR_4s^2+C_1C_4C_LR_Ls^2\right.}$$

### 10.417 INVALID-ORDER-417 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s+\frac{1}{R_4}+\frac{1}{L_4 s}},\ \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4L_LR_1R_Lg_ms^5+C_1C_4C_LL_4L_LR_Ls^5+C_1C_4C_LL_LR_1R_4R_Lg_ms^4+C_1C_4C_LL_LR_1R_Ls^4+C_1C_4C_LL_LR_4R_Ls^4+C_1C_4L_4L_LR_1g_ms^4+C_1C_4L_4L_Ls^4+C_1C_4L_4R_1}$$

### 10.418 INVALID-ORDER-418 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s+\frac{1}{R_4}+\frac{1}{L_4 s}},\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4L_LR_1g_ms^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_LR_1R_4g_ms^4 + 2C_1C_4C_LL_LR_1R_Lg_ms^4 + C_1C_4C_LL_LR_1s^4 + C_1C_4C_LL_LR_4s^4 + C_1C_4C_LL_LR_Ls^4 + C_1C_4L_4R_1g_ms^3 +}$$

### 10.419 INVALID-ORDER-419 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_4 s+\frac{1}{R_4}+\frac{1}{L_4 s}},\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4L_LR_1g_ms^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4R_1R_Lg_ms^4 + C_1C_4C_LL_4R_Ls^4 + C_1C_4C_LL_LR_1R_4g_ms^4 + 2C_1C_4C_LL_LR_1R_Lg_ms^4 + C_1C_4C_LL_LR_1s^4 + C_1C_4C_LL_LR}$$

### 10.420 INVALID-ORDER-420 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ R_L\right)$

$$H(s) = -\frac{R_L\left(C_1R_1s+1\right)\left(C_4L_4R_4s^2 - L_4R_4g_ms + L_4s + R_4\right)}{2C_1C_4L_4R_1R_4R_Lg_ms^3 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_4R_Ls^3 + C_1L_4R_1R_4g_ms^2 + 2C_1L_4R_1R_Lg_ms^2 + C_1L_4R_1s^2 + C_1L_4R_4s^2 + C_1L_4R_Ls^2 + 2C_1R_1R_4R_Lg_ms + C_1R_1R_4}$$

### 10.421 INVALID-ORDER-421 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_1R_1s+1\right)\left(C_4L_4R_4s^2 - L_4R_4g_ms + L_4s + R_4\right)}{C_1C_4C_LL_4R_1R_4s^4 + 2C_1C_4L_4R_1R_4g_ms^3 + C_1C_4L_4R_4s^3 + C_1C_LL_4R_1R_4g_ms^3 + C_1C_LL_4R_1s^3 + C_1C_LL_4R_4s^3 + C_1C_LR_1R_4s^2 + 2C_1L_4R_1g_ms^2 + C_1L_4s^2 + 2C_1R_1R_4g_m}$$

### 10.422 INVALID-ORDER-422 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4R_1R_4R_Ls^4 + 2C_1C_4L_4R_1R_4R_Lg_ms^3 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_4R_Ls^3 + C_1C_LL_4R_1R_4R_Lg_ms^3 + C_1C_LL_4R_1R_Ls^3 + C_1C_LL_4R_4R_Ls^3 + C_1C_LR_1R_4R_Ls^2 +}$$

### 10.423 INVALID-ORDER-423 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_4R_1R_4R_Lg_ms^4 + C_1C_4C_LL_4R_1R_4s^4 + C_1C_4C_LL_4R_4R_Ls^4 + 2C_1C_4L_4R_1R_4g_ms^3 + C_1C_4L_4R_4s^3 + C_1C_LL_4R_1R_4g_ms^3 + 2C_1C_LL_4R_1R_Lg_ms^3 + C_1C_LL_4R_1s^3}$$

### 10.424 INVALID-ORDER-424 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_4L_LR_1R_4g_ms^5 + C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_4R_1R_4s^4 + 2C_1C_4L_4R_1R_4g_ms^3 + C_1C_4L_4R_4s^3 + 2C_1C_LL_4L_LR_1g_ms^4 + C_1C_LL_4L_Ls^4 + C_1C_LL_4R_1R_4g_ms^3}$$

### 10.425 INVALID-ORDER-425 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4L_LR_1R_4s^5 + 2C_1C_4L_4L_LR_1R_4g_ms^4 + C_1C_4L_4L_LR_4s^4 + C_1C_4L_4R_1R_4s^3 + C_1C_LL_4L_LR_1R_4g_ms^4 + C_1C_LL_4L_LR_1s^4 + C_1C_LL_4L_LR_4s^4 + C_1C_LL_LR_1R_4s^3 +}$$

### 10.426 INVALID-ORDER-426 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_4L_LR_1R_4g_ms^5 + C_1C_4C_LL_4L_LR_4s^5 + 2C_1C_4C_LL_4R_1R_4R_Lg_ms^4 + C_1C_4C_LL_4R_1R_4s^4 + C_1C_4C_LL_4R_4R_Ls^4 + 2C_1C_4L_4R_1R_4g_ms^3 + C_1C_4L_4R_4s^3 + 2C_1C_L$$

### 10.427 INVALID-ORDER-427 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4L_LR_1R_4R_Ls^5 + 2C_1C_4L_4L_LR_1R_4R_Lg_ms^4 + C_1C_4L_4L_LR_1R_4s^4 + C_1C_4L_4L_LR_4R_Ls^4 + C_1C_4L_4R_1R_4R_Ls^3 + C_1C_LL_4L_LR_1R_4R_Lg_ms^4 + C_1C_LL_4L_LR_1R_Ls^4}$$

### 10.428 INVALID-ORDER-428 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_4L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1R_4s^5 + C_1C_4C_LL_4L_LR_4R_Ls^5 + 2C_1C_4L_4L_LR_1R_4g_ms^4 + C_1C_4L_4L_LR_4s^4 + 2C_1C_4L_4R_1R_4R_Lg_ms^3 + C_1C_4L_4R_1R_4s^3 +}$$

### 10.429 INVALID-ORDER-429 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{L_4 s}{C_4 L_4 s^2+1} + R_4,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_4L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1R_4s^5 + C_1C_4C_LL_4L_LR_4R_Ls^5 + C_1C_4C_LL_4R_1R_4R_Ls^4 + 2C_1C_4L_4R_1R_4R_Lg_ms^3 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_4R_Ls^3 +}$$

### 10.430 INVALID-ORDER-430 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ R_L\right)$

$$H(s) = \frac{R_L\left(C_1R_1s+1\right)\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1\right)}{C_1C_4L_4R_1R_4g_ms^3 + 2C_1C_4L_4R_1R_Lg_ms^3 + C_1C_4L_4R_1s^3 + C_1C_4L_4R_4s^3 + C_1C_4L_4R_Ls^3 + C_1L_4R_1g_ms^2 + C_1L_4s^2 + C_1R_1R_4g_ms + 2C_1R_1R_Lg_ms + C_1R_1s + C_1R_4s + C_}$$

### 10.431 INVALID-ORDER-431 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1R_1s+1\right)\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1\right)}{C_1C_4C_LL_4R_1R_4g_ms^4 + C_1C_4C_LL_4R_1s^4 + C_1C_4C_LL_4R_4s^4 + 2C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + C_1C_LL_4R_1g_ms^3 + C_1C_LL_4s^3 + C_1C_LR_1R_4g_ms^2 + C_1C_LR_1s^2 + C_1C_LR_4s^2}$$

### 10.432 INVALID-ORDER-432 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4R_1R_4R_Lg_ms^4 + C_1C_4C_LL_4R_1R_Ls^4 + C_1C_4C_LL_4R_4R_Ls^4 + C_1C_4L_4R_1R_4g_ms^3 + 2C_1C_4L_4R_1R_Lg_ms^3 + C_1C_4L_4R_1s^3 + C_1C_4L_4R_4s^3 + C_1C_4L_4R_Ls^3 + C_1C_L}$$

### 10.433 INVALID-ORDER-433 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{(C_1 R_1 s+1)}{C_1C_4C_LL_4R_1R_4g_ms^4+2C_1C_4C_LL_4R_1R_Lg_ms^4+C_1C_4C_LL_4R_1s^4+C_1C_4C_LL_4R_4s^4+C_1C_4C_LL_4R_Ls^4+2C_1C_4L_4R_1g_ms^3+C_1C_4L_4s^3+C_1C_LL_4R_1g_ms^3+C_1C_LL_4s^3+}$$

### 10.434 INVALID-ORDER-434 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ L_L s+\frac{1}{C_L s}\right)$

$$H(s) = \frac{(C_1 R_1 s+1)}{2C_1C_4C_LL_4L_LR_1g_ms^5+C_1C_4C_LL_4L_Ls^5+C_1C_4C_LL_4R_1R_4g_ms^4+C_1C_4C_LL_4R_1s^4+C_1C_4C_LL_4R_4s^4+2C_1C_4L_4R_1g_ms^3+C_1C_4L_4s^3+C_1C_LL_4R_1g_ms^3+C_1C_LL_4s^3+}$$

### 10.435 INVALID-ORDER-435 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4L_LR_1R_4g_ms^5+C_1C_4C_LL_4L_LR_1s^5+C_1C_4C_LL_4L_LR_4s^5+2C_1C_4L_4L_LR_1g_ms^4+C_1C_4L_4L_Ls^4+C_1C_4L_4R_1R_4g_ms^3+C_1C_4L_4R_1s^3+C_1C_4L_4R_4s^3+C_1C_LL_4}$$

### 10.436 INVALID-ORDER-436 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ L_L s+R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{}{2C_1C_4C_LL_4L_LR_1g_ms^5+C_1C_4C_LL_4L_Ls^5+C_1C_4C_LL_4R_1R_4g_ms^4+2C_1C_4C_LL_4R_1R_Lg_ms^4+C_1C_4C_LL_4R_1s^4+C_1C_4C_LL_4R_4s^4+C_1C_4C_LL_4R_Ls^4+2C_1C_4L_4R_1g_ms^3+}$$

### 10.437 INVALID-ORDER-437 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4L_LR_1R_4R_Lg_ms^5+C_1C_4C_LL_4L_LR_1R_Ls^5+C_1C_4C_LL_4L_LR_4R_Ls^5+C_1C_4L_4L_LR_1R_4g_ms^4+2C_1C_4L_4L_LR_1R_Lg_ms^4+C_1C_4L_4L_LR_1s^4+C_1C_4L_4L_LR_4s^4+C_1}$$

### 10.438 INVALID-ORDER-438 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \frac{L_L s}{C_L L_L s^2+1}+R_L\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4L_LR_1R_4g_ms^5 + 2C_1C_4C_LL_4L_LR_1R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_4L_LR_Ls^5 + 2C_1C_4L_4L_LR_1g_ms^4 + C_1C_4L_4L_Ls^4 + C_1C_4L_4R}$$

### 10.439 INVALID-ORDER-439 $Z(s) = \left(\infty,\ \infty,\ \infty,\ \infty,\ \frac{R_4\left(L_4 s+\frac{1}{C_4 s}\right)}{L_4 s+R_4+\frac{1}{C_4 s}},\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_4L_LR_1R_4g_ms^5 + 2C_1C_4C_LL_4L_LR_1R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_4L_LR_Ls^5 + C_1C_4C_LL_4R_1R_4R_Lg_ms^4 + C_1C_4C_LL_4R_1R_Ls^4 +}$$

### 10.440 INVALID-ORDER-440 $Z(s) = (R_1,\ R_2,\ \infty,\ \infty,\ \infty,\ R_L)$

$$H(s) = -\frac{R_L\left(C_1R_1s+1\right)\left(-C_4L_4R_4g_ms^2 + C_4L_4s^2 + C_4R_4s -\right.}{C_1C_4L_4R_1R_4g_ms^3 + 2C_1C_4L_4R_1R_Lg_ms^3 + C_1C_4L_4R_1s^3 + C_1C_4L_4R_4s^3 + C_1C_4L_4R_Ls^3 + 2C_1C_4R_1R_4R_Lg_ms^2 + C_1C_4R_1R_4s^2 + C_1C_4R_4R_Ls^2 + C_1R_1R_4g_ms + 2C_1R_1}$$

### 10.441 INVALID-ORDER-441 $Z(s) = \left(R_1,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_1R_1s+1\right)\left(-C_4L_4R_4g_ms^2 + C_4L_4s^2 + C_4\right.}{C_1C_4C_LL_4R_1R_4g_ms^4 + C_1C_4C_LL_4R_1s^4 + C_1C_4C_LL_4R_4s^4 + C_1C_4C_LR_1R_4s^3 + 2C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + 2C_1C_4R_1R_4g_ms^2 + C_1C_4R_4s^2 + C_1C_LR_1R_4g_ms^2 + C_1}$$

### 10.442 INVALID-ORDER-442 $Z(s) = \left(R_1,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4R_1R_4R_Lg_ms^4 + C_1C_4C_LL_4R_1R_Ls^4 + C_1C_4C_LL_4R_4R_Ls^4 + C_1C_4C_LR_1R_4R_Ls^3 + C_1C_4L_4R_1R_4g_ms^3 + 2C_1C_4L_4R_1R_Lg_ms^3 + C_1C_4L_4R_1s^3 + C_1C_4L_4R_4s^3 +}$$

### 10.443 INVALID-ORDER-443 $Z(s) = \left(R_1,\ R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4R_1R_4g_ms^4 + 2C_1C_4C_LL_4R_1R_Lg_ms^4 + C_1C_4C_LL_4R_1s^4 + C_1C_4C_LL_4R_4s^4 + C_1C_4C_LL_4R_Ls^4 + 2C_1C_4C_LR_1R_4R_Lg_ms^3 + C_1C_4C_LR_1R_4s^3 + C_1C_4C_LR_4R_Ls^3}$$

### 10.444 INVALID-ORDER-444 $Z(s) = \left(R_1,\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_4L_LR_1g_ms^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4R_1R_4g_ms^4 + C_1C_4C_LL_4R_1s^4 + C_1C_4C_LL_4R_4s^4 + 2C_1C_4C_LL_LR_1R_4g_ms^4 + C_1C_4C_LL_LR_4s^4 + C_1C_4C_LR_1R_4s^3 +}$$

### 10.445 INVALID-ORDER-445 $Z(s) = \left(R_1,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4L_LR_1R_4g_ms^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_LR_1R_4s^4 + 2C_1C_4L_4L_LR_1g_ms^4 + C_1C_4L_4L_Ls^4 + C_1C_4L_4R_1R_4g_ms^3 + C_1C_4L_4R_1s^3 +}$$

### 10.446 INVALID-ORDER-446 $Z(s) = \left(R_1,\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_4L_LR_1g_ms^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4R_1R_4g_ms^4 + 2C_1C_4C_LL_4R_1R_Lg_ms^4 + C_1C_4C_LL_4R_1s^4 + C_1C_4C_LL_4R_4s^4 + C_1C_4C_LL_4R_Ls^4 + 2C_1C_4C_LL_LR_1R}$$

### 10.447 INVALID-ORDER-447 $Z(s) = \left(R_1,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1R_Ls^5 + C_1C_4C_LL_4L_LR_4R_Ls^5 + C_1C_4C_LL_LR_1R_4R_Ls^4 + C_1C_4L_4L_LR_1R_4g_ms^4 + 2C_1C_4L_4L_LR_1R_Lg_ms^4 + C_1C_4L_4L_LR_1}$$

### 10.448 INVALID-ORDER-448 $Z(s) = \left(R_1,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4L_LR_1R_4g_ms^5 + 2C_1C_4C_LL_4L_LR_1R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_4L_LR_Ls^5 + 2C_1C_4C_LL_LR_1R_4R_Lg_ms^4 + C_1C_4C_LL_LR_1R_4s}$$

### 10.449 INVALID-ORDER-449 $Z(s) = \left(R_1,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_4L_LR_1R_4g_ms^5 + 2C_1C_4C_LL_4L_LR_1R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_4L_LR_Ls^5 + C_1C_4C_LL_4R_1R_4R_Lg_ms^4 + C_1C_4C_LL_4R_1R_Ls^4}$$

### 10.450 INVALID-ORDER-450 $Z(s) = \left(R_1,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{(R_4g_m - 1)\left(C_1L_1s^2 + 1\right)}{C_1C_LL_1R_4g_ms^3 + C_1C_LL_1s^3 + C_1C_LR_4s^2 + 2C_1L_1g_ms^2 + C_1s + C_LR_4g_ms + C_Ls + 2g_m}$$

### 10.451 INVALID-ORDER-451 $Z(s) = \left(R_1,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_L\left(R_4g_m - 1\right)\left(C_1L_1s^2 + 1\right)}{C_1C_LL_1R_4R_Lg_ms^3 + C_1C_LL_1R_Ls^3 + C_1C_LR_4R_Ls^2 + C_1L_1R_4g_ms^2 + 2C_1L_1R_Lg_ms^2 + C_1L_1s^2 + C_1R_4s + C_1R_Ls + C_LR_4R_Lg_ms + C_LR_Ls + R_4g_m + 2R_Lg_m + 1}$$

### 10.452 INVALID-ORDER-452 $Z(s) = \left(R_1,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(R_4g_m - 1)\left(C_1L_1s^2 + 1\right)(C_LR_Ls + 1)}{C_1C_LL_1R_4g_ms^3 + 2C_1C_LL_1R_Lg_ms^3 + C_1C_LL_1s^3 + C_1C_LR_4s^2 + C_1C_LR_Ls^2 + 2C_1L_1g_ms^2 + C_1s + C_LR_4g_ms + 2C_LR_Lg_ms + C_Ls + 2g_m}$$

### 10.453 INVALID-ORDER-453 $Z(s) = \left(R_1,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(R_4 g_m - 1)\left(C_1 L_1 s^2 + 1\right)\left(C_L L_L s^2 + 1\right)}{2C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_1 R_4 g_m s^3 + C_1 C_L L_1 s^3 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_L L_L g_m s^2 + C_L R_4 g_m s + C_L s + 2g_m}$$

### 10.454 INVALID-ORDER-454 $Z(s) = \left(R_1,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s\,(R_4 g_m - 1)\left(C_1 L_1 s^2 + 1\right)}{C_1 C_L L_1 L_L R_4 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_L R_4 s^3 + 2C_1 L_1 L_L g_m s^3 + C_1 L_1 R_4 g_m s^2 + C_1 L_1 s^2 + C_1 L_L s^2 + C_1 R_4 s + C_L L_L R_4 g_m s^2 + C_L L_L s^2 + 2L_L g_m s + R_4 g_m + 1}$$

### 10.455 INVALID-ORDER-455 $Z(s) = \left(R_1,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(R_4 g_m - 1)\left(C_1 L_1 s^2 + 1\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{2C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_1 R_4 g_m s^3 + 2C_1 C_L L_1 R_L g_m s^3 + C_1 C_L L_1 s^3 + C_1 C_L L_L s^3 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + 2C_1 L_1 g_m s^2 + C_1 s + 2C_L L_L g_m s^2 + C_L R_4 g_m s + 2C_L R_L g$$

### 10.456 INVALID-ORDER-456 $Z(s) = \left(R_1,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_L R_L s\,(R_4 g_m - 1)\left(C_1 L_1 s^2 + 1\right)}{C_1 C_L L_1 L_L R_4 R_L g_m s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_1 L_L R_4 g_m s^3 + 2C_1 L_1 L_L R_L g_m s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_4 R_L g_m s^2 + C_1 L_1 R_L s^2 + C_1 L_L R_4 s^2 + C_1 L_L R_I$$

### 10.457 INVALID-ORDER-457 $Z(s) = \left(R_1,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{(R_4 g_m - 1)\left(C_1 L_1 s^2 + 1\right)\left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_1 C_L L_1 L_L R_4 g_m s^4 + 2C_1 C_L L_1 L_L R_L g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + 2C_1 L_1 L_L g_m s^3 + C_1 L_1 R_4 g_m s^2 + 2C_1 L_1 R_L g_m s^2 + C_1 L_1 s^2 + C_1 L_L s^2 + C_1 R$$

### 10.458 INVALID-ORDER-458 $Z(s) = \left(R_1,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{R_L\left(R_4 g_m - 1\right)\left(C_1 L_1 s^2+1\right)\left(C_L L_L s^2+\right.}{C_1 C_L L_1 L_L R_4 g_m s^4 + 2C_1 C_L L_1 L_L R_L g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + C_1 C_L R_4 R_L s^2 + C_1 L_1 R_4 g_m s^2 + 2C_1 L$$

### 10.459 INVALID-ORDER-459 $Z(s) = \left(R_1,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = -\frac{R_L\left(C_4 s - g_m\right)\left(C_1 L_1 s^2+1\right)}{2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 R_L s^2 + C_1 L_1 g_m s^2 + C_1 s + 2C_4 R_L g_m s + C_4 s + g_m}$$

### 10.460 INVALID-ORDER-460 $Z(s) = \left(R_1,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_4 s - g_m\right)\left(C_1 L_1 s^2+1\right)}{s\left(C_1 C_4 C_L L_1 s^3 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + C_4 C_L s + 2C_4 g_m + C_L g_m\right)}$$

### 10.461 INVALID-ORDER-461 $Z(s) = \left(R_1,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{R_L\left(C_4 s - g_m\right)\left(C_1 L_1 s^2+1\right)}{C_1 C_4 C_L L_1 R_L s^4 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 R_L s^2 + C_1 C_L L_1 R_L g_m s^3 + C_1 C_L R_L s^2 + C_1 L_1 g_m s^2 + C_1 s + C_4 C_L R_L s^2 + 2C_4 R_L g_m s + C_4 s + C_L R_L g_m s + g_m}$$

### 10.462 INVALID-ORDER-462 $Z(s) = \left(R_1,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ R_L+\frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_4 s - g_m\right)\left(C_1 L_1 s^2+1\right)\left(C_L R_L s+1\right)}{s\left(2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + 2C_4 C_L R_L g_m s + C_4 C_L s + 2C_4 g_m + C_L g_m\right)}$$

### 10.463 INVALID-ORDER-463 $Z(s) = \left(R_1,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{(C_4 s - g_m)\left(C_1 L_1 s^2 + 1\right)\left(C_L L_L s^2 + 1\right)}{s\left(2C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_L s^3 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + 2C_4 C_L L_L g_m s^2 + C_4 C_L s + 2C_4 g_m + C_L g_m\right)}$$

### 10.464 INVALID-ORDER-464 $Z(s) = \left(R_1,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{L_L s\,(C_4 s - g_m)\left(C_1 L_1 s^2 + 1\right)}{C_1 C_4 C_L L_1 L_L s^5 + 2C_1 C_4 L_1 L_L g_m s^4 + C_1 C_4 L_1 s^3 + C_1 C_4 L_L s^3 + C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_L s^3 + C_1 L_1 g_m s^2 + C_1 s + C_4 C_L L_L s^3 + 2C_4 L_L g_m s^2 + C_4 s + C_L L_L g_m s^2 + g_m}$$

### 10.465 INVALID-ORDER-465 $Z(s) = \left(R_1,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{(C_4 s - g_m)\left(C_1 L_1 s^2 + 1\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{s\left(2C_1 C_4 C_L L_1 L_L g_m s^4 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + 2C_4 C_L L_L g_m s^2 + 2C\right.}$$

### 10.466 INVALID-ORDER-466 $Z(s) = \left(R_1,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = -\frac{L_L R_L s\,(C_4 s - g_m)\left(C_1 L_1 s^2 + 1\right)}{C_1 C_4 C_L L_1 L_L R_L s^5 + 2C_1 C_4 L_1 L_L R_L g_m s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 L_L R_L s^3 + C_1 C_L L_1 L_L R_L g_m s^4 + C_1 C_L L_L R_L s^3 + C_1 L_1 L_L g_m s^3 + C_1 L_1 R_L g_m s^2 + C_1 L}$$

### 10.467 INVALID-ORDER-467 $Z(s) = \left(R_1,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{(C_4 s - g_m)\left(C_1 L_1 s^2 + 1\right)\left(C_L L_L R_L s^2 + L_L s + R_L\right)}{2C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_L R_L s^4 + 2C_1 C_4 L_1 L_L g_m s^4 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_L s^3 + C_1 C_4 R_L s^2 + C_1 C_L L_1 L_L g_m s^4 + C_1 C_L}$$

### 10.468 INVALID-ORDER-468 $Z(s) = \left(R_1,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{R_L\left(C_4 s - g_m\right)\left(C_1 L_1 s^2+1\right)\left(C_L$$
$$2C_1C_4C_LL_1L_LR_Lg_ms^5 + C_1C_4C_LL_1L_Ls^5 + C_1C_4C_LL_1R_Ls^4 + C_1C_4C_LL_LR_Ls^4 + 2C_1C_4L_1R_Lg_ms^3 + C_1C_4L_1s^3 + C_1C_4R_Ls^2 + C_1C_LL_1L_Lg_ms^4 + C_1C_LL_1R_Lg_ms^3 +$$

### 10.469 INVALID-ORDER-469 $Z(s) = \left(R_1,\ R_2+\frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = -\frac{R_L\left(C_1 L_1 s^2+1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{2C_1C_4L_1R_4R_Lg_ms^3 + C_1C_4L_1R_4s^3 + C_1C_4R_4R_Ls^2 + C_1L_1R_4g_ms^2 + 2C_1L_1R_Lg_ms^2 + C_1L_1s^2 + C_1R_4s + C_1R_Ls + 2C_4R_4R_Lg_ms + C_4R_4s + R_4g_m + 2R_Lg_m + 1}$$

### 10.470 INVALID-ORDER-470 $Z(s) = \left(R_1,\ R_2+\frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_1 L_1 s^2+1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{C_1C_4C_LL_1R_4s^4 + 2C_1C_4L_1R_4g_ms^3 + C_1C_4R_4s^2 + C_1C_LL_1R_4g_ms^3 + C_1C_LL_1s^3 + C_1C_LR_4s^2 + 2C_1L_1g_ms^2 + C_1s + C_4C_LR_4s^2 + 2C_4R_4g_ms + C_LR_4g_ms + C_Ls + 2g_m}$$

### 10.471 INVALID-ORDER-471 $Z(s) = \left(R_1,\ R_2+\frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{R_L\left(C_1 L_1 s^2+1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{C_1C_4C_LL_1R_4R_Ls^4 + 2C_1C_4L_1R_4R_Lg_ms^3 + C_1C_4L_1R_4s^3 + C_1C_4R_4R_Ls^2 + C_1C_LL_1R_4R_Lg_ms^3 + C_1C_LL_1R_Ls^3 + C_1C_LR_4R_Ls^2 + C_1L_1R_4g_ms^2 + 2C_1L_1R_Lg_ms^2 + C_1$$

### 10.472 INVALID-ORDER-472 $Z(s) = \left(R_1,\ R_2+\frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L+\frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_1 L_1 s^2+1\right)\left(C_L R_L s+1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{2C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_4s^4 + C_1C_4C_LR_4R_Ls^3 + 2C_1C_4L_1R_4g_ms^3 + C_1C_4R_4s^2 + C_1C_LL_1R_4g_ms^3 + 2C_1C_LL_1R_Lg_ms^3 + C_1C_LL_1s^3 + C_1C_LR_4s^2 + C_1C_L$$

### 10.473 INVALID-ORDER-473 $Z(s) = \left(R_1,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_1 L_1 s^2 + 1\right)\left(C_L L_L s^2 + 1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{2C_1C_4C_LL_1L_LR_4g_ms^5 + C_1C_4C_LL_1R_4s^4 + C_1C_4C_LL_LR_4s^4 + 2C_1C_4L_1R_4g_ms^3 + C_1C_4R_4s^2 + 2C_1C_LL_1L_Lg_ms^4 + C_1C_LL_1R_4g_ms^3 + C_1C_LL_1s^3 + C_1C_LL_Ls^3 + C_1C_L}$$

### 10.474 INVALID-ORDER-474 $Z(s) = \left(R_1,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = -\frac{L_L s\left(C_1 L_1 s^2 + 1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{C_1C_4C_LL_1L_LR_4s^5 + 2C_1C_4L_1L_LR_4g_ms^4 + C_1C_4L_1R_4s^3 + C_1C_4L_LR_4s^3 + C_1C_LL_1L_LR_4g_ms^4 + C_1C_LL_1L_Ls^4 + C_1C_LL_LR_4s^3 + 2C_1L_1L_Lg_ms^3 + C_1L_1R_4g_ms^2 + C_1L_}$$

### 10.475 INVALID-ORDER-475 $Z(s) = \left(R_1,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_LR_4g_ms^5 + 2C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_4s^4 + C_1C_4C_LL_LR_4s^4 + C_1C_4C_LR_4R_Ls^3 + 2C_1C_4L_1R_4g_ms^3 + C_1C_4R_4s^2 + 2C_1C_LL_1L_Lg_ms^4 + C_1C_L}$$

### 10.476 INVALID-ORDER-476 $Z(s) = \left(R_1,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_LR_4R_Ls^5 + 2C_1C_4L_1L_LR_4R_Lg_ms^4 + C_1C_4L_1L_LR_4s^4 + C_1C_4L_1R_4R_Ls^3 + C_1C_4L_LR_4R_Ls^3 + C_1C_LL_1L_LR_4R_Lg_ms^4 + C_1C_LL_1L_LR_Ls^4 + C_1C_LL_LR_4R_Ls^3}$$

### 10.477 INVALID-ORDER-477 $Z(s) = \left(R_1,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_LR_4R_Lg_ms^5 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_LR_4R_Ls^4 + 2C_1C_4L_1L_LR_4g_ms^4 + 2C_1C_4L_1R_4R_Lg_ms^3 + C_1C_4L_1R_4s^3 + C_1C_4L_LR_4s^3 + C_1C_4R_4R_Ls^2 + C_}$$

### 10.478 INVALID-ORDER-478 $Z(s) = \left(R_1,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_LR_4R_Lg_ms^5 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_1R_4R_Ls^4 + C_1C_4C_LL_LR_4R_Ls^4 + 2C_1C_4L_1R_4R_Lg_ms^3 + C_1C_4L_1R_4s^3 + C_1C_4R_4R_Ls^2 + C_1C_LL_1L_LR_4g_ms^4}$$

### 10.479 INVALID-ORDER-479 $Z(s) = \left(R_1,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(C_1L_1s^2 + 1\right)\left(C_4R_4g_ms - C_4s + g_m\right)}{C_1C_4L_1R_4g_ms^3 + 2C_1C_4L_1R_Lg_ms^3 + C_1C_4L_1s^3 + C_1C_4R_4s^2 + C_1C_4R_Ls^2 + C_1L_1g_ms^2 + C_1s + C_4R_4g_ms + 2C_4R_Lg_ms + C_4s + g_m}$$

### 10.480 INVALID-ORDER-480 $Z(s) = \left(R_1,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1L_1s^2 + 1\right)\left(C_4R_4g_ms - C_4s + g_m\right)}{s\left(C_1C_4C_LL_1R_4g_ms^3 + C_1C_4C_LL_1s^3 + C_1C_4C_LR_4s^2 + 2C_1C_4L_1g_ms^2 + C_1C_4s + C_1C_LL_1g_ms^2 + C_1C_Ls + C_4C_LR_4g_ms + C_4C_Ls + 2C_4g_m + C_Lg_m\right)}$$

### 10.481 INVALID-ORDER-481 $Z(s) = \left(R_1,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_L\left(C_1L_1s^2 + 1\right)\left(C_4R_4g_ms - C_4s + g_m\right)}{C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_Ls^4 + C_1C_4C_LR_4R_Ls^3 + C_1C_4L_1R_4g_ms^3 + 2C_1C_4L_1R_Lg_ms^3 + C_1C_4L_1s^3 + C_1C_4R_4s^2 + C_1C_4R_Ls^2 + C_1C_LL_1R_Lg_ms^3 + C_1C_LR_Ls}$$

### 10.482 INVALID-ORDER-482 $Z(s) = \left(R_1,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1L_1s^2 + 1\right)\left(C_LR_Ls + 1\right)\left(C_4R_4g_ms - C_4s + g_m\right)}{s\left(C_1C_4C_LL_1R_4g_ms^3 + 2C_1C_4C_LL_1R_Lg_ms^3 + C_1C_4C_LL_1s^3 + C_1C_4C_LR_4s^2 + C_1C_4C_LR_Ls^2 + 2C_1C_4L_1g_ms^2 + C_1C_4s + C_1C_LL_1g_ms^2 + C_1C_Ls + C_4C_LR_4g_ms + 2C_4C_L}$$

### 10.483 INVALID-ORDER-483 $Z(s) = \left(R_1,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1 L_1 s^2 + 1\right)\left(C_L L_L s^2 + 1\right)\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s\left(2C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_4 s^2 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + 2C_4 C_L L_L g_m s^2 + C_4 C_L\right.}$$

### 10.484 INVALID-ORDER-484 $Z(s) = \left(R_1,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s\left(C_1 L_1 s^2 + 1\right)\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_L R_4 s^4 + 2C_1 C_4 L_1 L_L g_m s^4 + C_1 C_4 L_1 R_4 g_m s^3 + C_1 C_4 L_1 s^3 + C_1 C_4 L_L s^3 + C_1 C_4 R_4 s^2 + C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_L s^3}$$

### 10.485 INVALID-ORDER-485 $Z(s) = \left(R_1,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1 L_1 s^2 + 1\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)\left(C_4 R_4 g_m s - C_4 s + g_m\right)}{s\left(2C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g\right.}$$

### 10.486 INVALID-ORDER-486 $Z(s) = \left(R_1,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_1 L_L R_4 g_m s^4 + 2C_1 C_4 L_1 L_L R_L g_m s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_L s^3 +}$$

### 10.487 INVALID-ORDER-487 $Z(s) = \left(R_1,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{\left(C_1 L_1 s\right.}{C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + 2C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_L R_4 s^4 + C_1 C_4 C_L L_L R_L s^4 + 2C_1 C_4 L_1 L_L g_m s^4 + C_1 C_4 L_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C}$$

### 10.488 INVALID-ORDER-488 $Z(s) = \left(R_1,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_LR_4g_ms^5 + 2C_1C_4C_LL_1L_LR_Lg_ms^5 + C_1C_4C_LL_1L_Ls^5 + C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_Ls^4 + C_1C_4C_LL_LR_4s^4 + C_1C_4C_LL_LR_Ls^4 + C_1C_4C_LR_4R_Ls^3 +}$$

### 10.489 INVALID-ORDER-489 $Z(s) = \left(R_1,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(C_1L_1s^2 + 1\right)\left(C_4L_4g_ms^2 - C_4s + g_m\right)}{C_1C_4L_1L_4g_ms^4 + 2C_1C_4L_1R_Lg_ms^3 + C_1C_4L_1s^3 + C_1C_4L_4s^3 + C_1C_4R_Ls^2 + C_1L_1g_ms^2 + C_1s + C_4L_4g_ms^2 + 2C_4R_Lg_ms + C_4s + g_m}$$

### 10.490 INVALID-ORDER-490 $Z(s) = \left(R_1,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1L_1s^2 + 1\right)\left(C_4L_4g_ms^2 - C_4s + g_m\right)}{s\left(C_1C_4C_LL_1L_4g_ms^4 + C_1C_4C_LL_1s^3 + C_1C_4C_LL_4s^3 + 2C_1C_4L_1g_ms^2 + C_1C_4s + C_1C_LL_1g_ms^2 + C_1C_Ls + C_4C_LL_4g_ms^2 + C_4C_Ls + 2C_4g_m + C_Lg_m\right)}$$

### 10.491 INVALID-ORDER-491 $Z(s) = \left(R_1,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_L\left(C_1L_1s^2 + 1\right)\left(C_4L_4g_ms^2 - C_4s + g_m\right)}{C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1R_Ls^4 + C_1C_4C_LL_4R_Ls^4 + C_1C_4L_1L_4g_ms^4 + 2C_1C_4L_1R_Lg_ms^3 + C_1C_4L_1s^3 + C_1C_4L_4s^3 + C_1C_4R_Ls^2 + C_1C_LL_1R_Lg_ms^3 + C_1C_LR_Ls^2}$$

### 10.492 INVALID-ORDER-492 $Z(s) = \left(R_1,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1L_1s^2 + 1\right)\left(C_LR_Ls + 1\right)\left(C_4L_4g_ms^2 - C_4s + g_m\right)}{s\left(C_1C_4C_LL_1L_4g_ms^4 + 2C_1C_4C_LL_1R_Lg_ms^3 + C_1C_4C_LL_1s^3 + C_1C_4C_LL_4s^3 + C_1C_4C_LR_Ls^2 + 2C_1C_4L_1g_ms^2 + C_1C_4s + C_1C_LL_1g_ms^2 + C_1C_Ls + C_4C_LL_4g_ms^2 + 2C_4C_L}$$

### 10.493 INVALID-ORDER-493 $Z(s) = \left(R_1,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1 L_1 s^2 + 1\right)\left(C_L L_L s^2 + 1\right)\left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{s\left(C_1 C_4 C_L L_1 L_4 g_m s^4 + 2 C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L L_L s^3 + 2 C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L s + C_4 C_L L_4 g_m s^2 + 2 C_4 C_L \right.}$$

### 10.494 INVALID-ORDER-494 $Z(s) = \left(R_1,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s\left(C_1 L_1 s^2 + 1\right)\left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 L_1 L_4 g_m s^4 + 2 C_1 C_4 L_1 L_L g_m s^4 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 s^3 + C_1 C_4 L_L s^3 + C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_L s^3 \; +}$$

### 10.495 INVALID-ORDER-495 $Z(s) = \left(R_1,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1 L_1 s^2 + 1\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)\left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{s\left(C_1 C_4 C_L L_1 L_4 g_m s^4 + 2 C_1 C_4 C_L L_1 L_L g_m s^4 + 2 C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_L s^2 + 2 C_1 C_4 L_1 g_m s^2 + C_1 C_4 s + C_1 C_L L_1 g \right.}$$

### 10.496 INVALID-ORDER-496 $Z(s) = \left(R_1,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 L_1 L_4 L_L g_m s^5 + C_1 C_4 L_1 L_4 R_L g_m s^4 + 2 C_1 C_4 L_1 L_L R_L g_m s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_L s^3 + C}$$

### 10.497 INVALID-ORDER-497 $Z(s) = \left(R_1,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{\left(C_1 L_1 s^2 \right.}{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + 2 C_1 C_4 C_L L_1 L_L R_L g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_L s^4 + C_1 C_4 L_1 L_4 g_m s^4 + 2 C_1 C_4 L_1 L_L g_m s^4 + 2 C_1 C_4 L_1 R_L g_m s^3 + C_1 C}$$

### 10.498 INVALID-ORDER-498 $Z(s) = \left(R_1,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_4R_Lg_ms^5 + 2C_1C_4C_LL_1L_LR_Lg_ms^5 + C_1C_4C_LL_1L_Ls^5 + C_1C_4C_LL_1R_Ls^4 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4R_Ls^4 + C_1C_4C_LL_LR_Ls^4 +}$$

### 10.499 INVALID-ORDER-499 $Z(s) = \left(R_1,\ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = -\frac{R_L\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 - L_4g_ms + 1\right)}{2C_1C_4L_1L_4R_Lg_ms^4 + C_1C_4L_1L_4s^4 + C_1C_4L_4R_Ls^3 + C_1L_1L_4g_ms^3 + 2C_1L_1R_Lg_ms^2 + C_1L_1s^2 + C_1L_4s^2 + C_1R_Ls + 2C_4L_4R_Lg_ms^2 + C_4L_4s^2 + L_4g_ms + 2R_Lg_m + 1}$$

### 10.500 INVALID-ORDER-500 $Z(s) = \left(R_1,\ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 - L_4g_ms + 1\right)}{C_1C_4C_LL_1L_4s^5 + 2C_1C_4L_1L_4g_ms^4 + C_1C_4L_4s^3 + C_1C_LL_1L_4g_ms^4 + C_1C_LL_1s^3 + C_1C_LL_4s^3 + 2C_1L_1g_ms^2 + C_1s + C_4C_LL_4s^3 + 2C_4L_4g_ms^2 + C_LL_4g_ms^2 + C_Ls + 2g_m}$$

### 10.501 INVALID-ORDER-501 $Z(s) = \left(R_1,\ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = -\frac{R_L\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 - L_4g_ms + 1\right)}{C_1C_4C_LL_1L_4R_Ls^5 + 2C_1C_4L_1L_4R_Lg_ms^4 + C_1C_4L_1L_4s^4 + C_1C_4L_4R_Ls^3 + C_1C_LL_1L_4R_Lg_ms^4 + C_1C_LL_1R_Ls^3 + C_1C_LL_4R_Ls^3 + C_1L_1L_4g_ms^3 + 2C_1L_1R_Lg_ms^2 + C_1L_{}}$$

### 10.502 INVALID-ORDER-502 $Z(s) = \left(R_1,\ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_1L_1s^2 + 1\right)\left(C_LR_Ls + 1\right)\left(C_4L_4s^2 - L_4g_ms + 1\right)}{2C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1L_4s^5 + C_1C_4C_LL_4R_Ls^4 + 2C_1C_4L_1L_4g_ms^4 + C_1C_4L_4s^3 + C_1C_LL_1L_4g_ms^4 + 2C_1C_LL_1R_Lg_ms^3 + C_1C_LL_1s^3 + C_1C_LL_4s^3 + C_1C_LR_{}}$$

### 10.503 INVALID-ORDER-503 $Z(s) = \left(R_1,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_1 L_1 s^2+1\right)\left(C_L L_L s^2+1\right)\left(C_4 L_4 s^2 - L_4 g_m s + 1\right)}{2C_1C_4C_L L_1 L_4 L_L g_m s^6 + C_1C_4C_L L_1 L_4 s^5 + C_1C_4C_L L_4 L_L s^5 + 2C_1C_4 L_1 L_4 g_m s^4 + C_1C_4 L_4 s^3 + C_1C_L L_1 L_4 g_m s^4 + 2C_1C_L L_1 L_L g_m s^4 + C_1C_L L_1 s^3 + C_1C_L L_4 s^3 + C_1C_L L}$$

### 10.504 INVALID-ORDER-504 $Z(s) = \left(R_1,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{L_L s\left(C_1 L_1 s^2+1\right)\left(C_4 L_4 s^2 - L_4 g_m s + 1\right)}{C_1C_4C_L L_1 L_4 L_L s^6 + 2C_1C_4 L_1 L_4 L_L g_m s^5 + C_1C_4 L_1 L_4 s^4 + C_1C_4 L_4 L_L s^4 + C_1C_L L_1 L_4 L_L g_m s^5 + C_1C_L L_1 L_L s^4 + C_1C_L L_4 L_L s^4 + C_1 L_1 L_4 g_m s^3 + 2C_1 L_1 L_L g_m s^3 + C_1 L_1 s}$$

### 10.505 INVALID-ORDER-505 $Z(s) = \left(R_1,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{(}{2C_1C_4C_L L_1 L_4 L_L g_m s^6 + 2C_1C_4C_L L_1 L_4 R_L g_m s^5 + C_1C_4C_L L_1 L_4 s^5 + C_1C_4C_L L_4 L_L s^5 + C_1C_4C_L L_4 R_L s^4 + 2C_1C_4 L_1 L_4 g_m s^4 + C_1C_4 L_4 s^3 + C_1C_L L_1 L_4 g_m s^4 + 2C_1C_L L_1}$$

### 10.506 INVALID-ORDER-506 $Z(s) = \left(R_1,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_L L_1 L_4 L_L R_L s^6 + 2C_1C_4 L_1 L_4 L_L R_L g_m s^5 + C_1C_4 L_1 L_4 L_L s^5 + C_1C_4 L_1 L_4 R_L s^4 + C_1C_4 L_4 L_L R_L s^4 + C_1C_L L_1 L_4 L_L R_L g_m s^5 + C_1C_L L_1 L_L R_L s^4 + C_1C_L L_4 L_L R_L s^4 +}$$

### 10.507 INVALID-ORDER-507 $Z(s) = \left(R_1,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{2C_1C_4C_L L_1 L_4 L_L R_L g_m s^6 + C_1C_4C_L L_1 L_4 L_L s^6 + C_1C_4C_L L_4 L_L R_L s^5 + 2C_1C_4 L_1 L_4 L_L g_m s^5 + 2C_1C_4 L_1 L_4 R_L g_m s^4 + C_1C_4 L_1 L_4 s^4 + C_1C_4 L_4 L_L s^4 + C_1C_4 L_4 R_L s^3 + C_1C}$$

### 10.508 INVALID-ORDER-508 $Z(s) = \left( R_1,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_Lg_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_4L_LR_Ls^5 + 2C_1C_4L_1L_4R_Lg_ms^4 + C_1C_4L_1L_4s^4 + C_1C_4L_4R_Ls^3 + C_1C_LL_1L_4L_Lg_ms^5 -}$$

### 10.509 INVALID-ORDER-509 $Z(s) = \left( R_1,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{R_L\left(C_1L_1s^2+1\right)\left(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m\right)}{C_1C_4L_1L_4g_ms^4 + C_1C_4L_1R_4g_ms^3 + 2C_1C_4L_1R_Lg_ms^3 + C_1C_4L_1s^3 + C_1C_4L_4s^3 + C_1C_4R_4s^2 + C_1C_4R_Ls^2 + C_1L_1g_ms^2 + C_1s + C_4L_4g_ms^2 + C_4R_4g_ms + 2C_4R_Lg_ms + C_}$$

### 10.510 INVALID-ORDER-510 $Z(s) = \left( R_1,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{\left(C_1L_1s^2+1\right)\left(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m\right)}{s\left(C_1C_4C_LL_1L_4g_ms^4 + C_1C_4C_LL_1R_4g_ms^3 + C_1C_4C_LL_1s^3 + C_1C_4C_LL_4s^3 + C_1C_4C_LR_4s^2 + 2C_1C_4L_1g_ms^2 + C_1C_4s + C_1C_LL_1g_ms^2 + C_1C_Ls + C_4C_LL_4g_ms^2 + C_4C_LR_4}$$

### 10.511 INVALID-ORDER-511 $Z(s) = \left( R_1,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1} \right)$

$$H(s) = \frac{R_L\left(C}{C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_Ls^4 + C_1C_4C_LL_4R_Ls^4 + C_1C_4C_LR_4R_Ls^3 + C_1C_4L_1L_4g_ms^4 + C_1C_4L_1R_4g_ms^3 + 2C_1C_4L_1R_Lg_ms^3 + C_1C_4L}$$

### 10.512 INVALID-ORDER-512 $Z(s) = \left( R_1,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L+\frac{1}{C_L s} \right)$

$$H(s) = \frac{\left(C_1L_1s^2+1\right)\left(C_LR_Ls+1\right)\left(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m\right)}{s\left(C_1C_4C_LL_1L_4g_ms^4 + C_1C_4C_LL_1R_4g_ms^3 + 2C_1C_4C_LL_1R_Lg_ms^3 + C_1C_4C_LL_1s^3 + C_1C_4C_LL_4s^3 + C_1C_4C_LR_4s^2 + C_1C_4C_LR_Ls^2 + 2C_1C_4L_1g_ms^2 + C_1C_4s + C_1C_LL_1g_m}$$

### 10.513 INVALID-ORDER-513 $Z(s) = \left(R_1,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s+\frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1 L_1 s^2+1\right)\left(C_L L_L s^2+1\right)\left(C_4 L_4 g_m s^2+C_4 R_4 g_m s-C_4 s+g_m\right)}{s\left(C_1 C_4 C_L L_1 L_4 g_m s^4+2C_1 C_4 C_L L_1 L_L g_m s^4+C_1 C_4 C_L L_1 R_4 g_m s^3+C_1 C_4 C_L L_1 s^3+C_1 C_4 C_L L_4 s^3+C_1 C_4 C_L L_L s^3+C_1 C_4 C_L R_4 s^2+2C_1 C_4 L_1 g_m s^2+C_1 C_4 s+C_1 C_L L_1 g_m\right.}$$

### 10.514 INVALID-ORDER-514 $Z(s) = \left(R_1,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L s\left(C\right.}{C_1 C_4 C_L L_1 L_4 L_L g_m s^6+C_1 C_4 C_L L_1 L_L R_4 g_m s^5+C_1 C_4 C_L L_1 L_L s^5+C_1 C_4 C_L L_4 L_L s^5+C_1 C_4 C_L L_L R_4 s^4+C_1 C_4 L_1 L_4 g_m s^4+2C_1 C_4 L_1 L_L g_m s^4+C_1 C_4 L_1 R_4 g_m s^3+C_1 C_4 L_1}$$

### 10.515 INVALID-ORDER-515 $Z(s) = \left(R_1,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s+R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1 L_1 s^2+1\right)\left(C_L L_L s^2+C_L R_L s+1\right)\left(C_4 L_4 g_m s^2\right.}{s\left(C_1 C_4 C_L L_1 L_4 g_m s^4+2C_1 C_4 C_L L_1 L_L g_m s^4+C_1 C_4 C_L L_1 R_4 g_m s^3+2C_1 C_4 C_L L_1 R_L g_m s^3+C_1 C_4 C_L L_1 s^3+C_1 C_4 C_L L_4 s^3+C_1 C_4 C_L L_L s^3+C_1 C_4 C_L R_4 s^2+C_1 C_4 C_L R_L s^2\right.}$$

### 10.516 INVALID-ORDER-516 $Z(s) = \left(R_1,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6+C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5+C_1 C_4 C_L L_1 L_L R_L s^5+C_1 C_4 C_L L_4 L_L R_L s^5+C_1 C_4 C_L L_L R_4 R_L s^4+C_1 C_4 L_1 L_4 L_L g_m s^5+C_1 C_4 L_1 L_4 R_L g_m s^4+C_1 C_4}$$

### 10.517 INVALID-ORDER-517 $Z(s) = \left(R_1,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}+R_L\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L g_m s^6+C_1 C_4 C_L L_1 L_L R_4 g_m s^5+2C_1 C_4 C_L L_1 L_L R_L g_m s^5+C_1 C_4 C_L L_1 L_L s^5+C_1 C_4 C_L L_4 L_L s^5+C_1 C_4 C_L L_L R_4 s^4+C_1 C_4 C_L L_L R_L s^4+C_1 C_4 L_1 L_4 g_m s^4+2}$$

### 10.518 INVALID-ORDER-518 $Z(s) = \left(R_1,\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1L_LR_4g_ms^5 + 2C_1C_4C_LL_1L_LR_Lg_ms^5 + C_1C_4C_LL_1L_Ls^5 + C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_Ls^4 + C_1C_4C_L$$

### 10.519 INVALID-ORDER-519 $Z(s) = (L_1 s,\ R_2,\ \infty,\ \infty,\ \infty,\ R_L)$

$$H(s) = -\frac{R_L\left(C_1L_1s^2+1\right)\left(C_4L_4R_4s^2 - L_4R_4g_ms + L_4s + R_4\right)}{2C_1C_4L_1L_4R_4R_Lg_ms^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_4R_4R_Ls^3 + C_1L_1L_4R_4g_ms^3 + 2C_1L_1L_4R_Lg_ms^3 + C_1L_1L_4s^3 + 2C_1L_1R_4R_Lg_ms^2 + C_1L_1R_4s^2 + C_1L_4R_4s^2 + C_1L_4R_L}$$

### 10.520 INVALID-ORDER-520 $Z(s) = \left(L_1 s,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_1L_1s^2+1\right)\left(C_4L_4R_4s^2 - L_4R_4g_ms + L_4s + R_4\right)}{C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4L_1L_4R_4g_ms^4 + C_1C_4L_4R_4s^3 + C_1C_LL_1L_4R_4g_ms^4 + C_1C_LL_1L_4s^4 + C_1C_LL_1R_4s^3 + C_1C_LL_4R_4s^3 + 2C_1L_1L_4g_ms^3 + 2C_1L_1R_4g_ms^2 + C_1L_4$$

### 10.521 INVALID-ORDER-521 $Z(s) = \left(L_1 s,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_4R_Ls^5 + 2C_1C_4L_1L_4R_4R_Lg_ms^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_4R_4R_Ls^3 + C_1C_LL_1L_4R_4R_Lg_ms^4 + C_1C_LL_1L_4R_Ls^4 + C_1C_LL_1R_4R_Ls^3 + C_1C_LL_4R_4R_Ls^3 +$$

### 10.522 INVALID-ORDER-522 $Z(s) = \left(L_1 s,\ R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_4R_4R_Ls^4 + 2C_1C_4L_1L_4R_4g_ms^4 + C_1C_4L_4R_4s^3 + C_1C_LL_1L_4R_4g_ms^4 + 2C_1C_LL_1L_4R_Lg_ms^4 + C_1C_LL_1L_4s^4 +$$

### 10.523 INVALID-ORDER-523 $Z(s) = \left(L_1 s,\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_4g_ms^6 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_4L_LR_4s^5 + 2C_1C_4L_1L_4R_4g_ms^4 + C_1C_4L_4R_4s^3 + 2C_1C_LL_1L_4L_Lg_ms^5 + C_1C_LL_1L_4R_4g_ms^4 + C_1C_LL_1L_4s^4 +}{}$$

### 10.524 INVALID-ORDER-524 $Z(s) = \left(L_1 s,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{C_1C_4C_LL_1L_4L_LR_4s^6 + 2C_1C_4L_1L_4L_LR_4g_ms^5 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_4L_LR_4s^4 + C_1C_LL_1L_4L_LR_4g_ms^5 + C_1C_LL_1L_4L_Ls^5 + C_1C_LL_1L_LR_4s^4 + C_1C_LL_4L_LR_4s^4 + 2}{}$$

### 10.525 INVALID-ORDER-525 $Z(s) = \left(L_1 s,\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_4g_ms^6 + 2C_1C_4C_LL_1L_4R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_4R_4R_Ls^4 + 2C_1C_4L_1L_4R_4g_ms^4 + C_1C_4L_4R_4s^3 + 2C_1C_LL}{}$$

### 10.526 INVALID-ORDER-526 $Z(s) = \left(L_1 s,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = -\frac{C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + 2C_1C_4L_1L_4L_LR_4R_Lg_ms^5 + C_1C_4L_1L_4L_LR_4s^5 + C_1C_4L_1L_4R_4R_Ls^4 + C_1C_4L_4L_LR_4R_Ls^4 + C_1C_LL_1L_4L_LR_4R_Lg_ms^5 + C_1C_LL_1L_4L_LR_Ls^5 -}{}$$

### 10.527 INVALID-ORDER-527 $Z(s) = \left(L_1 s,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{2C_1C_4C_LL_1L_4L_LR_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_4L_LR_4R_Ls^5 + 2C_1C_4L_1L_4L_LR_4g_ms^5 + 2C_1C_4L_1L_4R_4R_Lg_ms^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_4L_LR_4s^4 +}{}$$

### 10.528 INVALID-ORDER-528 $Z(s) = \left(L_1 s,\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4C_LL_4L_LR_4R_Ls^5 + 2C_1C_4L_1L_4R_4R_Lg_ms^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_4R_4R_Ls^3 + C$$

### 10.529 INVALID-ORDER-529 $Z(s) = \left(L_1 s,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(C_1L_1s^2+1\right)\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1\right)}{C_1C_4L_1L_4R_4g_ms^4 + 2C_1C_4L_1L_4R_Lg_ms^4 + C_1C_4L_1L_4s^4 + C_1C_4L_4R_4s^3 + C_1C_4L_4R_Ls^3 + C_1L_1L_4g_ms^3 + C_1L_1R_4g_ms^2 + 2C_1L_1R_Lg_ms^2 + C_1L_1s^2 + C_1L_4s^2 + C_1R_4s +$$

### 10.530 INVALID-ORDER-530 $Z(s) = \left(L_1 s,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1L_1s^2+1\right)\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1\right)}{C_1C_4C_LL_1L_4R_4g_ms^5 + C_1C_4C_LL_1L_4s^5 + C_1C_4C_LL_4R_4s^4 + 2C_1C_4L_1L_4g_ms^4 + C_1C_4L_4s^3 + C_1C_LL_1L_4g_ms^4 + C_1C_LL_1R_4g_ms^3 + C_1C_LL_1s^3 + C_1C_LL_4s^3 + C_1C_LR_4s^2 +$$

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

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_4R_4R_Ls^4 + C_1C_4L_1L_4R_4g_ms^4 + 2C_1C_4L_1L_4R_Lg_ms^4 + C_1C_4L_1L_4s^4 + C_1C_4L_4R_4s^3 + C_1C_4L_4R_Ls^3 + C_1C_LL_1$$

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

$$H(s) = \frac{\left(C_1L_1s^2+1\right.}{C_1C_4C_LL_1L_4R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1L_4s^5 + C_1C_4C_LL_4R_4s^4 + C_1C_4C_LL_4R_Ls^4 + 2C_1C_4L_1L_4g_ms^4 + C_1C_4L_4s^3 + C_1C_LL_1L_4g_ms^4 + C_1C_LL_1R_4g_$$

### 10.533 INVALID-ORDER-533 $Z(s) = \left(L_1 s,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1 L_1 s^2 + 1\right)}{2C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_4R_4g_ms^5 + C_1C_4C_LL_1L_4s^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4R_4s^4 + 2C_1C_4L_1L_4g_ms^4 + C_1C_4L_4s^3 + C_1C_LL_1L_4g_ms^4 + 2C_1C_LL_1L_L$$

### 10.534 INVALID-ORDER-534 $Z(s) = \left(L_1 s,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_4g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_4L_LR_4s^5 + 2C_1C_4L_1L_4L_Lg_ms^5 + C_1C_4L_1L_4R_4g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_4L_4L_Ls^4 + C_1C_4L_4R_4s^3 + C_1C_LL_1$$

### 10.535 INVALID-ORDER-535 $Z(s) = \left(L_1 s,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{2C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_4R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1L_4s^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4R_4s^4 + C_1C_4C_LL_4R_Ls^4 + 2C_1C_4L_1L_4g_ms^4 +$$

### 10.536 INVALID-ORDER-536 $Z(s) = \left(L_1 s,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_4L_LR_4R_Ls^5 + C_1C_4L_1L_4L_LR_4g_ms^5 + 2C_1C_4L_1L_4L_LR_Lg_ms^5 + C_1C_4L_1L_4L_Ls^5 + C_1C_4L_1L_4R_4R_Lg_ms^4$$

### 10.537 INVALID-ORDER-537 $Z(s) = \left(L_1 s,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_4g_ms^6 + 2C_1C_4C_LL_1L_4L_LR_Lg_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_4L_LR_Ls^5 + 2C_1C_4L_1L_4L_Lg_ms^5 + C_1C_4L_1L_4R_4g_ms^4 + 2C_1C$$

### 10.538 INVALID-ORDER-538 $Z(s) = \left(L_1 s,\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_4g_ms^6 + 2C_1C_4C_LL_1L_4L_LR_Lg_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_4L_LR_Ls^5 +}$$

### 10.539 INVALID-ORDER-539 $Z(s) = \left(L_1 s,\ \frac{R_2}{C_2R_2s+1},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = -\frac{R_L\left(C_1L_1s^2+1\right)\left(-C_4L_4R_4g_ms^2 + C_4L_4s^2 + C_4R_4s\right.}{C_1C_4L_1L_4R_4g_ms^4 + 2C_1C_4L_1L_4R_Lg_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_1R_4R_Lg_ms^3 + C_1C_4L_1R_4s^3 + C_1C_4L_4R_4s^3 + C_1C_4L_4R_Ls^3 + C_1C_4R_4R_Ls^2 + C_1L_1R_4g_ms^2 + 2C_1L_1}$$

### 10.540 INVALID-ORDER-540 $Z(s) = \left(L_1 s,\ \frac{R_2}{C_2R_2s+1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_Ls}\right)$

$$H(s) = -\frac{\left(C_1L_1s^2+1\right)\left(-C_4L_4R_4g_ms^2 + C_4L_4s^2 + C_4\right.}{C_1C_4C_LL_1L_4R_4g_ms^5 + C_1C_4C_LL_1L_4s^5 + C_1C_4C_LL_1R_4s^4 + C_1C_4C_LL_4R_4s^4 + 2C_1C_4L_1L_4g_ms^4 + 2C_1C_4L_1R_4g_ms^3 + C_1C_4L_4s^3 + C_1C_4R_4s^2 + C_1C_LL_1R_4g_ms^3 + C_1C}$$

### 10.541 INVALID-ORDER-541 $Z(s) = \left(L_1 s,\ \frac{R_2}{C_2R_2s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_1R_4R_Ls^4 + C_1C_4C_LL_4R_4R_Ls^4 + C_1C_4L_1L_4R_4g_ms^4 + 2C_1C_4L_1L_4R_Lg_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_1R_4R_Lg}$$

### 10.542 INVALID-ORDER-542 $Z(s) = \left(L_1 s,\ \frac{R_2}{C_2R_2s+1},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_Ls}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1L_4s^5 + 2C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_4s^4 + C_1C_4C_LL_4R_4s^4 + C_1C_4C_LL_4R_Ls^4 + C_1C_4C_LR_4R_Ls^3 +}$$

### 10.543 INVALID-ORDER-543 $Z(s) = \left(L_1 s,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_4R_4g_ms^5 + C_1C_4C_LL_1L_4s^5 + 2C_1C_4C_LL_1L_LR_4g_ms^5 + C_1C_4C_LL_1R_4s^4 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4R_4s^4 + C_1C_4C_LL_LR_4s^4 +}$$

### 10.544 INVALID-ORDER-544 $Z(s) = \left(L_1 s,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_4g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_4L_LR_4s^5 + 2C_1C_4L_1L_4L_Lg_ms^5 + C_1C_4L_1L_4R_4g_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_1L_LR_4g_m}$$

### 10.545 INVALID-ORDER-545 $Z(s) = \left(L_1 s,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_4R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1L_4s^5 + 2C_1C_4C_LL_1L_LR_4g_ms^5 + 2C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_4s^4 + C_1C}$$

### 10.546 INVALID-ORDER-546 $Z(s) = \left(L_1 s,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_1L_LR_4R_Ls^5 + C_1C_4C_LL_4L_LR_4R_Ls^5 + C_1C_4L_1L_4L_LR_4g_ms^5 + 2C_1C_4L_1L_4L_LR_Lg_ms^5 + C_1C_4L_1L_4L_L}$$

### 10.547 INVALID-ORDER-547 $Z(s) = \left(L_1 s,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_4g_ms^6 + 2C_1C_4C_LL_1L_4L_LR_Lg_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + 2C_1C_4C_LL_1L_LR_4R_Lg_ms^5 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_4L_LR_Ls^5}$$

### 10.548 INVALID-ORDER-548 $Z(s) = \left( L_1 s,\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_4g_ms^6 + 2C_1C_4C_LL_1L_4L_LR_Lg_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_Ls^5 + 2C_1C_4C_LL_1L_LR_4R_Lg_ms^5 + C_1C_4C_LL_1L_L$$

### 10.549 INVALID-ORDER-549 $Z(s) = \left( L_1 s,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 s\left(R_4 g_m - 1\right)}{C_1C_LL_1R_4s^3 + C_1L_1s^2 + C_LL_1R_4g_ms^2 + C_LL_1s^2 + C_LR_4s + 2L_1g_ms + 1}$$

### 10.550 INVALID-ORDER-550 $Z(s) = \left( L_1 s,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1} \right)$

$$H(s) = \frac{L_1R_Ls\left(R_4 g_m - 1\right)}{C_1C_LL_1R_4R_Ls^3 + C_1L_1R_4s^2 + C_1L_1R_Ls^2 + C_LL_1R_4R_Lg_ms^2 + C_LL_1R_Ls^2 + C_LR_4R_Ls + L_1R_4g_ms + 2L_1R_Lg_ms + L_1s + R_4 + R_L}$$

### 10.551 INVALID-ORDER-551 $Z(s) = \left( L_1 s,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 s\left(R_4 g_m - 1\right)\left(C_L R_L s + 1\right)}{C_1C_LL_1R_4s^3 + C_1C_LL_1R_Ls^3 + C_1L_1s^2 + C_LL_1R_4g_ms^2 + 2C_LL_1R_Lg_ms^2 + C_LL_1s^2 + C_LR_4s + C_LR_Ls + 2L_1g_ms + 1}$$

### 10.552 INVALID-ORDER-552 $Z(s) = \left( L_1 s,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 s\left(R_4 g_m - 1\right)\left(C_L L_L s^2 + 1\right)}{C_1C_LL_1L_Ls^4 + C_1C_LL_1R_4s^3 + C_1L_1s^2 + 2C_LL_1L_Lg_ms^3 + C_LL_1R_4g_ms^2 + C_LL_1s^2 + C_LL_Ls^2 + C_LR_4s + 2L_1g_ms + 1}$$

### 10.553 INVALID-ORDER-553 $Z(s) = \left( L_1 s,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} \right)$

$$H(s) = \frac{L_1L_Ls^2\left(R_4 g_m - 1\right)}{C_1C_LL_1L_LR_4s^4 + C_1L_1L_Ls^3 + C_1L_1R_4s^2 + C_LL_1L_LR_4g_ms^3 + C_LL_1L_Ls^3 + C_LL_LR_4s^2 + 2L_1L_Lg_ms^2 + L_1R_4g_ms + L_1s + L_Ls + R_4}$$

### 10.554 INVALID-ORDER-554 $Z(s) = \left(L_1 s,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s \left(R_4 g_m - 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + 2 C_L L_1 L_L g_m s^3 + C_L L_1 R_4 g_m s^2 + 2 C_L L_1 R_L g_m s^2 + C_L L_1 s^2 + C_L L_L s^2 + C_L R_4 s + C_L R_L s + 2 L_1 g_m s + 1}$$

### 10.555 INVALID-ORDER-555 $Z(s) = \left(L_1 s,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_L R_L s^2 \left(R_4 g_m - 1\right)}{C_1 C_L L_1 L_L R_4 R_L s^4 + C_1 L_1 L_L R_4 s^3 + C_1 L_1 L_L R_L s^3 + C_1 L_1 R_4 R_L s^2 + C_L L_1 L_L R_4 R_L g_m s^3 + C_L L_1 L_L R_L s^3 + C_L L_L R_4 R_L s^2 + L_1 L_L R_4 g_m s^2 + 2 L_1 L_L R_L g_m s^2 + L_1 L_L s^2 +$$

### 10.556 INVALID-ORDER-556 $Z(s) = \left(L_1 s,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{L_1 s \left(R_4 g_m - 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_L L_1 L_L R_4 g_m s^3 + 2 C_L L_1 L_L R_L g_m s^3 + C_L L_1 L_L s^3 + C_L L_L R_4 s^2 + C_L L_L R_L s^2 + 2 L_1 L_L g_m s^3$$

### 10.557 INVALID-ORDER-557 $Z(s) = \left(L_1 s,\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{L_1 R_L s \left(R_4 g_m - 1\right) \left(C_L L_L s^2 + 1\right)}{C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_L L_1 L_L R_4 g_m s^3 + 2 C_L L_1 L_L R_L g_m s^3 + C_L L_1 L_L s^3 + C_L L_1 R_4 R_L g_m s^2 + C_L L_1 R_L s^2 +$$

### 10.558 INVALID-ORDER-558 $Z(s) = \left(L_1 s,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_L s \left(-C_4 s + g_m\right)}{C_1 C_4 L_1 R_L s^3 + C_1 L_1 s^2 + 2 C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 R_L s + L_1 g_m s + 1}$$

**10.559 INVALID-ORDER-559** $Z(s) = \left(L_1 s,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 R_L s\left(-C_4 s + g_m\right)}{C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 R_L s^3 + 2 C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 R_L s + C_L L_1 R_L g_m s^2 + C_L R_L s + L_1 g_m s + 1}$$

**10.560 INVALID-ORDER-560** $Z(s) = \left(L_1 s,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1\left(C_4 s - g_m\right)\left(C_L R_L s + 1\right)}{C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + 2 C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L R_L s + 2 C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

**10.561 INVALID-ORDER-561** $Z(s) = \left(L_1 s,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1\left(C_4 s - g_m\right)\left(C_L L_L s^2 + 1\right)}{C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + 2 C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 s^2 + C_4 C_L L_L s^2 + 2 C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

**10.562 INVALID-ORDER-562** $Z(s) = \left(L_1 s,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_L s^2\left(-C_4 s + g_m\right)}{C_1 C_4 L_1 L_L s^4 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_L s^4 + 2 C_4 L_1 L_L g_m s^3 + C_4 L_1 s^2 + C_4 L_L s^2 + C_L L_1 L_L g_m s^3 + C_L L_L s^2 + L_1 g_m s + 1}$$

**10.563 INVALID-ORDER-563** $Z(s) = \left(L_1 s,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1\left(C_4 s - g_m\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + 2 C_4 C_L L_1 L_L g_m s^3 + 2 C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_L s^2 + C_4 C_L R_L s + 2 C_4 L_1 g_m s + C_4 + C_L L_1}$$

**10.564 INVALID-ORDER-564** $Z(s) = \left(L_1 s,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_L R_L s^2\left(-C_4 s + g_m\right)}{C_1 C_4 L_1 L_L R_L s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_L s^2 + C_4 C_L L_1 L_L R_L s^4 + 2 C_4 L_1 L_L R_L g_m s^3 + C_4 L_1 L_L s^3 + C_4 L_1 R_L s^2 + C_4 L_L R_L s^2 + C_L L_1 L_L R_L g_m s^3 + C_L L_L}$$

### 10.565 INVALID-ORDER-565 $Z(s) = \left(L_1 s,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{L_1 s\left(C_4 s - g_m\right)\left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + 2C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_L R_L s^3 + 2C_4 L_1 L_L g_m s^3 + 2C_4 L_1 R_L g_m s^2}$$

### 10.566 INVALID-ORDER-566 $Z(s) = \left(L_1 s,\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{L_1 R_L s\left(C_4 s - g_m\right)\left(C_L L_L s^2 + 1\right)}{C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + 2C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_1 R_L s^3 + C_4 C_L L_L R_L s^3 + 2C_4 L_1 R_L g_m s^2}$$

### 10.567 INVALID-ORDER-567 $Z(s) = \left(L_1 s,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_L s\left(-C_4 R_4 s + R_4 g_m - 1\right)}{C_1 C_4 L_1 R_4 R_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + 2C_4 L_1 R_4 R_L g_m s^2 + C_4 L_1 R_4 s^2 + C_4 R_4 R_L s + L_1 R_4 g_m s + 2L_1 R_L g_m s + L_1 s + R_4 + R_L}$$

### 10.568 INVALID-ORDER-568 $Z(s) = \left(L_1 s,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(-C_4 R_4 s + R_4 g_m - 1\right)}{C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 L_1 s^2 + C_4 C_L L_1 R_4 s^3 + 2C_4 L_1 R_4 g_m s^2 + C_4 R_4 s + C_L L_1 R_4 g_m s^2 + C_L L_1 s^2 + C_L R_4 s + 2L_1 g_m s + 1}$$

### 10.569 INVALID-ORDER-569 $Z(s) = \left(L_1 s,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 R_L s\left(-C_4 R_4 s + R_4 g_m - 1\right)}{C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_4 C_L L_1 R_4 R_L s^3 + 2C_4 L_1 R_4 R_L g_m s^2 + C_4 L_1 R_4 s^2 + C_4 R_4 R_L s + C_L L_1 R_4 R_L g_m s^2 + C_L L_1 R_L s^2 + C_L R_4 R$$

### 10.570 INVALID-ORDER-570 $Z(s) = \left(L_1 s,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 s\left(C_L R_L s + 1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + 2C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_4 s^3 + C_4 C_L R_4 R_L s^2 + 2C_4 L_1 R_4 g_m s^2 + C_4 R_4 s + C_L L_1$$

### 10.571 INVALID-ORDER-571 $Z(s) = \left(L_1 s,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 s \left(C_L L_L s^2 + 1\right) \left(C_4 R_4 s - R_4 g_m + 1\right)}{C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 s^3 + C_1 L_1 s^2 + 2 C_4 C_L L_1 L_L R_4 g_m s^4 + C_4 C_L L_1 R_4 s^3 + C_4 C_L L_L R_4 s^3 + 2 C_4 L_1 R_4 g_m s^2 + C_4 R_4 s + 2 C_L L_1}$$

### 10.572 INVALID-ORDER-572 $Z(s) = \left(L_1 s,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_1 L_L s^2 \left(-C_4 R_4 s + R_4 g_m - 1\right)}{C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_4 s^2 + C_4 C_L L_1 L_L R_4 s^4 + 2 C_4 L_1 L_L R_4 g_m s^3 + C_4 L_1 R_4 s^2 + C_4 L_L R_4 s^2 + C_L L_1 L_L R_4 g_m s^3 + C_L L_1 L_L s^3 + C_L L_L R_4}$$

### 10.573 INVALID-ORDER-573 $Z(s) = \left(L_1 s,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 s \left(C_4 R_4 s - R_4 g_m +\right.}{C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + 2 C_4 C_L L_1 L_L R_4 g_m s^4 + 2 C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C}$$

### 10.574 INVALID-ORDER-574 $Z(s) = \left(L_1 s,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_L R_L s^2 \left(-C_4 R\right.}{C_1 C_4 L_1 L_L R_4 R_L s^4 + C_1 C_L L_1 L_L R_4 R_L s^4 + C_1 L_1 L_L R_4 s^3 + C_1 L_1 L_L R_L s^3 + C_1 L_1 R_4 R_L s^2 + C_4 C_L L_1 L_L R_4 R_L s^4 + 2 C_4 L_1 L_L R_4 R_L g_m s^3 + C_4 L_1 L_L R_4 s^3 + C_4 L_1 R_4 R_L s^2 +}$$

### 10.575 INVALID-ORDER-575 $Z(s) = \left(L_1 s,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + 2 C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C}$$

**10.576 INVALID-ORDER-576** $Z(s) = \left(L_1 s,\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_LR_4R_Ls^5 + C_1C_4L_1R_4R_Ls^3 + C_1C_LL_1L_LR_4s^4 + C_1C_LL_1L_LR_Ls^4 + C_1C_LL_1R_4R_Ls^3 + C_1L_1R_4s^2 + C_1L_1R_Ls^2 + 2C_4C_LL_1L_LR_4R_Lg_ms^4 + C_4C_LL_1L_LR_4s$$

**10.577 INVALID-ORDER-577** $Z(s) = \left(L_1 s,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1R_Ls\left(C_4R_4g_ms - C_4s + g_m\right)}{C_1C_4L_1R_4s^3 + C_1C_4L_1R_Ls^3 + C_1L_1s^2 + C_4L_1R_4g_ms^2 + 2C_4L_1R_Lg_ms^2 + C_4L_1s^2 + C_4R_4s + C_4R_Ls + L_1g_ms + 1}$$

**10.578 INVALID-ORDER-578** $Z(s) = \left(L_1 s,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1\left(C_4R_4g_ms - C_4s + g_m\right)}{C_1C_4C_LL_1R_4s^3 + C_1C_4L_1s^2 + C_1C_LL_1s^2 + C_4C_LL_1R_4g_ms^2 + C_4C_LL_1s^2 + C_4C_LR_4s + 2C_4L_1g_ms + C_4 + C_LL_1g_ms + C_L}$$

**10.579 INVALID-ORDER-579** $Z(s) = \left(L_1 s,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1R_Ls\left(C_4R_4g_ms - C_4s + g_m\right)}{C_1C_4C_LL_1R_4R_Ls^4 + C_1C_4L_1R_4s^3 + C_1C_4L_1R_Ls^3 + C_1C_LL_1R_Ls^3 + C_1L_1s^2 + C_4C_LL_1R_4R_Lg_ms^3 + C_4C_LL_1R_Ls^3 + C_4C_LR_4R_Ls^2 + C_4L_1R_4g_ms^2 + 2C_4L_1R_Lg_ms^2 + C$$

**10.580 INVALID-ORDER-580** $Z(s) = \left(L_1 s,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1\left(C_LR_Ls + 1\right)\left(C_4R_4g_ms - C_4s + g_m\right)}{C_1C_4C_LL_1R_4s^3 + C_1C_4C_LL_1R_Ls^3 + C_1C_4L_1s^2 + C_1C_LL_1s^2 + C_4C_LL_1R_4g_ms^2 + 2C_4C_LL_1R_Lg_ms^2 + C_4C_LL_1s^2 + C_4C_LR_4s + C_4C_LR_Ls + 2C_4L_1g_ms + C_4 + C_LL_1g_ms$$

**10.581 INVALID-ORDER-581** $Z(s) = \left(L_1 s,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1\left(C_LL_Ls^2 + 1\right)\left(C_4R_4g_ms - C_4s + g_m\right)}{C_1C_4C_LL_1L_Ls^4 + C_1C_4C_LL_1R_4s^3 + C_1C_4L_1s^2 + C_1C_LL_1s^2 + 2C_4C_LL_1L_Lg_ms^3 + C_4C_LL_1R_4g_ms^2 + C_4C_LL_1s^2 + C_4C_LL_Ls^2 + C_4C_LR_4s + 2C_4L_1g_ms + C_4 + C_LL_1g_ms$$

### 10.582 INVALID-ORDER-582 $Z(s) = \left(L_1 s,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_L s^2 \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_L R_4 g_m s^4 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2 C_4 L_1 L_L g_m s^3 + C_4 L_1 R_4 g_m s^2 + C_4$$

### 10.583 INVALID-ORDER-583 $Z(s) = \left(L_1 s,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + 2 C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + 2 C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_L s^2 + C$$

### 10.584 INVALID-ORDER-584 $Z(s) = \left(L_1 s,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 L_L R_L s^4 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_L s^2 + C_4 C_L L_1 L_L R_4 R_L g_m s^4 + C_4 C_L L_1 L_L R_L s^4 -$$

### 10.585 INVALID-ORDER-585 $Z(s) = \left(L_1 s,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{L_1 s \left(C_4 R_4 g_m s - C_4 s + g_m\right.}{C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_L R_4 g_m s^4 + 2 C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L$$

### 10.586 INVALID-ORDER-586 $Z(s) = \left(L_1 s,\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_L R_4 g_m s^4 + 2 C_4 C_L L$$

### 10.587 INVALID-ORDER-587 $Z(s) = \left(L_1 s,\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_L s \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_L s^3 + C_1 L_1 s^2 + C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 R_L s + L_1 g_m s + 1}$$

### 10.588 INVALID-ORDER-588 $Z(s) = \left(L_1 s,\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + 2 C_4 L_1 g_m s + C_4 + C_L L_1 g_m s + C_L}$$

### 10.589 INVALID-ORDER-589 $Z(s) = \left(L_1 s,\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{L_1 R_L s \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 R_L s^3 + C_4 C_L L_4 R_L s^3 + C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 R_L g_m s^2 + C_4$$

### 10.590 INVALID-ORDER-590 $Z(s) = \left(L_1 s,\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 \left(C_L R_L s + 1\right) \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + 2 C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_L s + 2 C_4 L_1 g_m s + C_4 + C_L L_1 g_m s$$

### 10.591 INVALID-ORDER-591 $Z(s) = \left(L_1 s,\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + 2 C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L L_L s^2 + 2 C_4 L_1 g_m s + C_4 + C_L L_1 g_m$$

### 10.592 INVALID-ORDER-592 $Z(s) = \left(L_1 s,\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_1 L_L s^2 \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_L s^4 + C_4 C_L L_4 L_L s^4 + C_4 L_1 L_4 g_m s^3 + 2 C_4 L_1 L_L g_m s^3 + C_4 L$$

### 10.593 INVALID-ORDER-593 $Z(s) = \left(L_1 s,\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + 2 C_4 C_L L_1 L_L g_m s^3 + 2 C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C$$

### 10.594 INVALID-ORDER-594 $Z(s) = \left(L_1 s,\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_1 L_L R_L s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_L s^2 + C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_L R_L s^4 +$$

### 10.595 INVALID-ORDER-595 $Z(s) = \left(L_1 s,\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{L_1 s \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right.}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 L_L g_m s^5 + 2 C_4 C_L L_1 L_L R_L g_m s^4 + C_4 C_L L$$

### 10.596 INVALID-ORDER-596 $Z(s) = \left(L_1 s,\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1$$

### 10.597 INVALID-ORDER-597 $Z(s) = \left(\frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_L s \left(-C_4 L_4 s^2 + L_4 g_m s - 1\right)}{C_1 C_4 L_1 L_4 R_L s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 R_L s^2 + 2 C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_4 R_L s^2 + L_1 L_4 g_m s^2 + 2 L_1 R_L g_m s + L_1 s + L_4 s + R_L}$$

### 10.598 INVALID-ORDER-598 $Z(s) = \left(\frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s \left(-C_4 L_4 s^2 + L_4 g_m s - 1\right)}{C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 s^4 + 2 C_4 L_1 L_4 g_m s^3 + C_4 L_4 s^2 + C_L L_1 L_4 g_m s^3 + C_L L_1 s^2 + C_L L_4 s^2 + 2 L_1 g_m s + 1}$$

### 10.599 INVALID-ORDER-599 $Z(s) = \left(\frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{L_1 R_L s \left(-C_4 L_4 s^2 + L_4 g_m s - 1\right)}{C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_L L_1 L_4 R_L s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 R_L s^2 + C_4 C_L L_1 L_4 R_L s^4 + 2 C_4 L_1 L_4 R_L g_m s^3 + C_4 L_1 L_4 s^3 + C_4 L_4 R_L s^2 + C_L L_1 L_4 R_L g_m s^3 + C_L L_1 R_L s^2 + C_L L_4 R_L$$

### 10.600 INVALID-ORDER-600 $Z(s) = \left(\frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 s \left(C_L R_L s + 1\right) \left(C_4 L_4 s^2 - L_4 g_m s + 1\right)}{C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + 2 C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 L_4 s^4 + C_4 C_L L_4 R_L s^3 + 2 C_4 L_1 L_4 g_m s^3 + C_4 L_4 s^2 + C_L L_1$$

### 10.601 INVALID-ORDER-601 $Z(s) = \left(\frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 s \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 - L_4 g_m s + 1\right)}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + 2 C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_4 s^4 + C_4 C_L L_4 L_L s^4 + 2 C_4 L_1 L_4 g_m s^3 + C_4 L_4 s^2 + C_L L_1 L$$

### 10.602 INVALID-ORDER-602 $Z(s) = \left(\frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_1 L_L s \left(-C_4 L_4 s^2 + L_4 g_m s - 1\right)}{C_1 C_4 L_1 L_4 L_L s^4 + C_1 C_L L_1 L_4 L_L s^4 + C_1 L_1 L_4 s^2 + C_1 L_1 L_L s^2 + C_4 C_L L_1 L_4 L_L s^4 + 2 C_4 L_1 L_4 L_L g_m s^3 + C_4 L_1 L_4 s^2 + C_4 L_4 L_L s^2 + C_L L_1 L_4 L_L g_m s^3 + C_L L_1 L_L s^2 + C_L L_4 L_L s$$

### 10.603 INVALID-ORDER-603 $Z(s) = \left(\frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 s \left(C_4 L_4 s^2 - L_4 g_m s}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_L L_1 L_4 s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + 2 C_4 C_L L_1 L_4 L_L g_m s^5 + 2 C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L}$$

### 10.604 INVALID-ORDER-604 $Z(s) = \left(\frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_L R_L s \left(-C_4 L_4 s^2 +}{C_1 C_4 L_1 L_4 L_L R_L s^4 + C_1 C_L L_1 L_4 L_L R_L s^4 + C_1 L_1 L_4 L_L s^3 + C_1 L_1 L_4 R_L s^2 + C_1 L_1 L_L R_L s^2 + C_4 C_L L_1 L_4 L_L R_L s^4 + 2 C_4 L_1 L_4 L_L R_L g_m s^3 + C_4 L_1 L_4 L_L s^3 + C_4 L_1 L_4 R_L s^2 + C}$$

### 10.605 INVALID-ORDER-605 $Z(s) = \left(\frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_L s^2 + 2 C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4}$$

### 10.606 INVALID-ORDER-606 $Z(s) = \left(\frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_4 R_L s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 R_L s^2 + 2 C_4 C_L L_1 L_4 L_L R_L g_m s^5 + C_4 C_L L_1 L_4 L_L s^5}$$

### 10.607 INVALID-ORDER-607 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_L s \left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 L_1 s^2 + C_4 L_1 L_4 g_m s^3 + C_4 L_1 R_4 g_m s^2 + 2 C_4 L_1 R_L g_m s^2 + C_4 L_1 s^2 + C_4 L_4 s^2 + C_4 R_4 s + C_4 R_L s + L_1 g_m s + 1}$$

### 10.608 INVALID-ORDER-608 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1\left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2C_4 L_1 g_m s + C_4 + C_L L_1 g_m s +}$$

### 10.609 INVALID-ORDER-609 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 R_L s\left(C_4 L_4 g_m s^2 + C_4\right.}{C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 R_L g_m s^4 + C_4 C_L L_1 R_4 R_L g_m s^3 + C_4 C_L L_1}$$

### 10.610 INVALID-ORDER-610 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1\left(C_L R_L s + 1\right)\left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + 2C_4 C_L L_1 R_L g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C}$$

### 10.611 INVALID-ORDER-611 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1\left(C_L L_L s^2 + 1\right)\left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + 2C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + C_4 C_L L_1 s^2 + C_4 C_L L_4 s^2 + C_4 C}$$

### 10.612 INVALID-ORDER-612 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_L s^2\left(C_4 L_4 g_m s^2 + C_4\right.}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 L_L g_m s^5 + C_4 C_L L_1 L_L R_4 g_m s^4 + C_4 C_L L_1 L}$$

### 10.613 INVALID-ORDER-613 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1\left(C_L L_L s^2 + C_L R_L s + 1\right)\left(C_4 L_4 g_m s^2 + C_4 R_4 g_m s - C_4 s + g_m\right.}{C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 s^2 + C_4 C_L L_1 L_4 g_m s^3 + 2C_4 C_L L_1 L_L g_m s^3 + C_4 C_L L_1 R_4 g_m s^2 + 2C_4 C_L L_1 R}$$

### 10.614 INVALID-ORDER-614 $Z(s) = \left( \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_L s^4 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 L_L R_L s^4 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_L}$$

### 10.615 INVALID-ORDER-615 $Z(s) = \left( \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_4 C_L L_1 L_4 L_L g_}$$

### 10.616 INVALID-ORDER-616 $Z(s) = \left( \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L \left( L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 L_1 L_4 s^4 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4}$$

### 10.617 INVALID-ORDER-617 $Z(s) = \left( \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s + 1},\ \infty,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{L_1 R_L s \left( -C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4 \right)}{C_1 C_4 L_1 L_4 R_4 R_L s^4 + C_1 L_1 L_4 R_4 s^3 + C_1 L_1 L_4 R_L s^3 + C_1 L_1 R_4 R_L s^2 + 2 C_4 L_1 L_4 R_4 R_L g_m s^3 + C_4 L_1 L_4 R_4 s^3 + C_4 L_4 R_4 R_L s^2 + L_1 L_4 R_4 g_m s^2 + 2 L_1 L_4 R_L g_m s^2 + L_1 L_4 s^2 + 2 L_}$$

### 10.618 INVALID-ORDER-618 $Z(s) = \left( \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s + 1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 s \left( -C_4 L_4 R_4 s^2 + L_4 R_4 g_m s - L_4 s - R_4 \right)}{C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 R_4 s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 R_4 s^2 + C_4 C_L L_1 L_4 R_4 s^4 + 2 C_4 L_1 L_4 R_4 g_m s^3 + C_4 L_4 R_4 s^2 + C_L L_1 L_4 R_4 g_m s^3 + C_L L_1 L_4 s^3 + C_L L_1 R_4 s^2 + C_L L_4 R_4 s^2}$$

### 10.619 INVALID-ORDER-619 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 R_L s \left(-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s + 1\right)}{C_1 C_4 L_1 L_4 R_4 R_L s^4 + C_1 C_L L_1 L_4 R_4 R_L s^4 + C_1 L_1 L_4 R_4 s^3 + C_1 L_1 L_4 R_L s^3 + C_1 L_1 R_4 R_L s^2 + C_4 C_L L_1 L_4 R_4 R_L s^4 + 2 C_4 L_1 L_4 R_4 R_L g_m s^3 + C_4 L_1 L_4 R_4 s^3 + C_4 L_4 R_4 R_L s^2 + C_L}$$

### 10.620 INVALID-ORDER-620 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 s}{C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 R_L s^4 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 L_4 s^3 + C_1 L_1 R_4 s^2 + 2 C_4 C_L L_1 L_4 R_4 R_L g_m s^4 + C_4 C_L L_1 L_4 R_4 s^4 +}$$

### 10.621 INVALID-ORDER-621 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 s}{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 L_1 L_4 s^3 + C_1 L_1 R_4 s^2 + 2 C_4 C_L L_1 L_4 L_L R_4 g_m s^5 + C_4 C_L L_1 L_4 R_4 s^4 +}$$

### 10.622 INVALID-ORDER-622 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_L s \left(-C_4 L_4 R_4 s^2 + L_4 R_4 g_m s + 1\right)}{C_1 C_4 L_1 L_4 L_L R_4 s^4 + C_1 C_L L_1 L_4 L_L R_4 s^4 + C_1 L_1 L_4 L_L s^3 + C_1 L_1 L_4 R_4 s^2 + C_1 L_1 L_L R_4 s^2 + C_4 C_L L_1 L_4 L_L R_4 s^4 + 2 C_4 L_1 L_4 L_L R_4 g_m s^3 + C_4 L_1 L_4 R_4 s^2 + C_4 L_4 L_L R_4 s^2 + C_L L}$$

### 10.623 INVALID-ORDER-623 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 L_L s^5 + C_1 C_L L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 R_L s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 R_4 R_L s^3 + C_1 L_1 L}$$

### 10.624 INVALID-ORDER-624 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_4L_1L_4L_LR_4R_Ls^4 + C_1C_LL_1L_4L_LR_4R_Ls^4 + C_1L_1L_4L_LR_4s^3 + C_1L_1L_4L_LR_Ls^3 + C_1L_1L_4R_4R_Ls^2 + C_1L_1L_LR_4R_Ls^2 + C_4C_LL_1L_4L_LR_4R_Ls^4 + 2C_4L_1L_4L_LR_4R_Lg_m}$$

### 10.625 INVALID-ORDER-625 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + C_1C_4L_1L_4L_LR_4s^5 + C_1C_4L_1L_4R_4R_Ls^4 + C_1C_LL_1L_4L_LR_4s^5 + C_1C_LL_1L_4L_LR_Ls^5 + C_1C_LL_1L_LR_4R_Ls^4 + C_1L_1L_4L_Ls^4 + C_1L_1L_4R_4s^3 + C}$$

### 10.626 INVALID-ORDER-626 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + C_1C_4L_1L_4R_4R_Ls^4 + C_1C_LL_1L_4L_LR_4s^5 + C_1C_LL_1L_4L_LR_Ls^5 + C_1C_LL_1L_4R_4R_Ls^4 + C_1C_LL_1L_LR_4R_Ls^4 + C_1L_1L_4R_4s^3 + C_1L_1L_4R_Ls^3 + C}$$

### 10.627 INVALID-ORDER-627 $Z(s) = \left(\frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1R_Ls\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1\right)}{C_1C_4L_1L_4R_4s^4 + C_1C_4L_1L_4R_Ls^4 + C_1L_1L_4s^3 + C_1L_1R_4s^2 + C_1L_1R_Ls^2 + C_4L_1L_4R_4g_ms^3 + 2C_4L_1L_4R_Lg_ms^3 + C_4L_1L_4s^3 + C_4L_4R_4s^2 + C_4L_4R_Ls^2 + L_1L_4g_ms^2 + L_1}$$

### 10.628 INVALID-ORDER-628 $Z(s) = \left(\frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1s\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + L_4g_ms + R_4g_m - 1\right)}{C_1C_4C_LL_1L_4R_4s^5 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4s^4 + C_1C_LL_1R_4s^3 + C_1L_1s^2 + C_4C_LL_1L_4R_4g_ms^4 + C_4C_LL_1L_4s^4 + C_4C_LL_4R_4s^3 + 2C_4L_1L_4g_ms^3 + C_4L_4s^2 + C_LL_1L_4g_m}$$

### 10.629 INVALID-ORDER-629 $Z(s) = \left(\frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_1L_4R_Ls^4 + C_1C_LL_1L_4R_Ls^4 + C_1C_LL_1R_4R_Ls^3 + C_1L_1L_4s^3 + C_1L_1R_4s^2 + C_1L_1R_Ls^2 + C_4C_LL_1L_4R_4R_Lg_ms^4 + C_4C_LL$$

### 10.630 INVALID-ORDER-630 $Z(s) = \left(\frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(C_L R_L s + 1\right)\left(C_4L_4R_4g_ms^2 +}{C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4s^4 + C_1C_LL_1R_4s^3 + C_1C_LL_1R_Ls^3 + C_1L_1s^2 + C_4C_LL_1L_4R_4g_ms^4 + 2C_4C_LL_1L_4R_Lg_ms^4 + C_4C_LL_1$$

### 10.631 INVALID-ORDER-631 $Z(s) = \left(\frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 s\left(C_L L_L s^2 + 1\right)\left(C_4L_4R_4g_ms^2\right.}{C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4s^4 + C_1C_LL_1L_Ls^4 + C_1C_LL_1R_4s^3 + C_1L_1s^2 + 2C_4C_LL_1L_4L_Lg_ms^5 + C_4C_LL_1L_4R_4g_ms^4 + C_4C_LL_1L$$

### 10.632 INVALID-ORDER-632 $Z(s) = \left(\frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4L_1L_4L_Ls^5 + C_1C_4L_1L_4R_4s^4 + C_1C_LL_1L_4L_Ls^5 + C_1C_LL_1L_LR_4s^4 + C_1L_1L_4s^3 + C_1L_1L_Ls^3 + C_1L_1R_4s^2 + C_4C_LL_1L_4L_LR_4g_ms^5 + C_4C_LL_1$$

### 10.633 INVALID-ORDER-633 $Z(s) = \left(\frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4s^4 + C_1C_LL_1L_Ls^4 + C_1C_LL_1R_4s^3 + C_1C_LL_1R_Ls^3 + C_1L_1s^2 + 2C_4C_LL_1L_4L_L$$

### 10.634 INVALID-ORDER-634 $Z(s) = \left(\frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + C_1C_4L_1L_4L_LR_4s^5 + C_1C_4L_1L_4L_LR_Ls^5 + C_1C_4L_1L_4R_4R_Ls^4 + C_1C_LL_1L_4L_LR_Ls^5 + C_1C_LL_1L_LR_4R_Ls^4 + C_1L_1L_4L_Ls^4 + C_1L_1L_4R_Ls^3 + C_1}$$

### 10.635 INVALID-ORDER-635 $Z(s) = \left(\frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4L_1L_4L_Ls^5 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_1L_4R_Ls^4 + C_1C_LL_1L_4L_Ls^5 + C_1C_LL_1L_LR_4s^4 + C_1C_LL_1L_LR_Ls^4 + C_1L_1L_4s}$$

### 10.636 INVALID-ORDER-636 $Z(s) = \left(\frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_1L_4R_Ls^4 + C_1C_LL_1L_4L_Ls^5 + C_1C_LL_1L_4R_Ls^4 + C_1C_LL_1L_LR_4s^4 + C_1}$$

### 10.637 INVALID-ORDER-637 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1R_Ls\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 - C_4R_4s + R_4g_m - 1\right)}{C_1C_4L_1L_4R_4s^4 + C_1C_4L_1L_4R_Ls^4 + C_1C_4L_1R_4R_Ls^3 + C_1L_1R_4s^2 + C_1L_1R_Ls^2 + C_4L_1L_4R_4g_ms^3 + 2C_4L_1L_4R_Lg_ms^3 + C_4L_1L_4s^3 + 2C_4L_1R_4R_Lg_ms^2 + C_4L_1R_4s^2 + C_4L}$$

### 10.638 INVALID-ORDER-638 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1s\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 - C_4R_4s + R_4g_m - 1\right)}{C_1C_4C_LL_1L_4R_4s^5 + C_1C_4L_1L_4s^4 + C_1C_4L_1R_4s^3 + C_1C_LL_1R_4s^3 + C_1L_1s^2 + C_4C_LL_1L_4R_4g_ms^4 + C_4C_LL_1L_4s^4 + C_4C_LL_1R_4s^3 + C_4C_LL_4R_4s^3 + 2C_4L_1L_4g_ms^3 + 2C_4L}$$

### 10.639 INVALID-ORDER-639 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_1L_4R_Ls^4 + C_1C_4L_1R_4R_Ls^3 + C_1C_LL_1R_4R_Ls^3 + C_1L_1R_4s^2 + C_1L_1R_Ls^2 + C_4C_LL_1L_4R_4R_Lg_ms^4 + C_4C_LL_1L_4R_Ls^4 + C$$

### 10.640 INVALID-ORDER-640 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_1R_4R_Ls^4 + C_1C_4L_1L_4s^4 + C_1C_4L_1R_4s^3 + C_1C_LL_1R_4s^3 + C_1C_LL_1R_Ls^3 + C_1L_1s^2 + C_4C_LL_1L_4R_4g_ms^4 + 2C_4C_LL$$

### 10.641 INVALID-ORDER-641 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4L_1L_4s^4 + C_1C_4L_1R_4s^3 + C_1C_LL_1L_Ls^4 + C_1C_LL_1R_4s^3 + C_1L_1s^2 + 2C_4C_LL_1L_4L_Lg_ms^5 + C_4C_LL$$

### 10.642 INVALID-ORDER-642 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4L_1L_4L_Ls^5 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_1L_LR_4s^4 + C_1C_LL_1L_LR_4s^4 + C_1L_1L_Ls^3 + C_1L_1R_4s^2 + C_4C_LL_1L_4L_LR_4g_ms^5 + C_4C_LL_1L_4L_Ls^5 + C$$

### 10.643 INVALID-ORDER-643 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_1R_4R_Ls^4 + C_1C_4L_1L_4s^4 + C_1C_4L_1R_4s^3 + C_1C_LL_1L_Ls^4 + C_1C_LL_1R_4s^3$$

### 10.644 INVALID-ORDER-644 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + C_1C_4L_1L_4L_LR_4s^5 + C_1C_4L_1L_4L_LR_Ls^5 + C_1C_4L_1L_4R_4R_Ls^4 + C_1C_4L_1L_LR_4R_Ls^4 + C_1C_LL_1L_LR_4R_Ls^4 + C_1L_1L_LR_4s^3 + C_1L_1L_LR_Ls^3 + C_1$$

### 10.645 INVALID-ORDER-645 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_1L_LR_4R_Ls^5 + C_1C_4L_1L_4L_Ls^5 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_1L_4R_Ls^4 + C_1C_4L_1L_LR_4s^4 + C_1C_4L_1R_4R_Ls^3 + C$$

### 10.646 INVALID-ORDER-646 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4C_LL_1L_LR_4R_Ls^5 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_1L_4R_Ls^4 + C_1C_4L_1R_4R_Ls^3 + C_1C_LL_1L_LR_4$$

### 10.647 INVALID-ORDER-647 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{(R_4 g_m - 1)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{C_1C_LL_1R_4g_ms^3 + C_1C_LL_1s^3 + C_1C_LR_1R_4g_ms^2 + C_1C_LR_1s^2 + C_1C_LR_4s^2 + 2C_1L_1g_ms^2 + 2C_1R_1g_ms + C_1s + C_LR_4g_ms + C_Ls + 2g_m}$$

### 10.648 INVALID-ORDER-648 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_L\left(R_4 g_m - 1\right)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{C_1C_LL_1R_4R_Lg_ms^3 + C_1C_LL_1R_Ls^3 + C_1C_LR_1R_4R_Lg_ms^2 + C_1C_LR_1R_Ls^2 + C_1C_LR_4R_Ls^2 + C_1L_1R_4g_ms^2 + 2C_1L_1R_Lg_ms^2 + C_1L_1s^2 + C_1R_1R_4g_ms + 2C_1R_1R_Lg_ms + C$$

### 10.649 INVALID-ORDER-649 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(R_4 g_m - 1)\left(C_L R_L s + 1\right)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{C_1 C_L L_1 R_4 g_m s^3 + 2C_1 C_L L_1 R_L g_m s^3 + C_1 C_L L_1 s^3 + C_1 C_L R_1 R_4 g_m s^2 + 2C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + C_1 C_L R_L s^2 + 2C_1 L_1 g_m s^2 + 2C_1 R_1 g_m s + C_1 s + C_L}$$

### 10.650 INVALID-ORDER-650 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(R_4 g_m - 1)\left(C_L L_L s^2 + 1\right)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{2C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_1 R_4 g_m s^3 + C_1 C_L L_1 s^3 + 2C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s^3 + C_1 C_L R_1 R_4 g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2 + 2C_1 L_1 g_m s^2 + 2C_1 R_1 g_m s + C_1 s + 2C_1}$$

### 10.651 INVALID-ORDER-651 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s\,(R_4 g_m - 1)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{C_1 C_L L_1 L_L R_4 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_L R_1 R_4 g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_4 s^3 + 2C_1 L_1 L_L g_m s^3 + C_1 L_1 R_4 g_m s^2 + C_1 L_1 s^2 + 2C_1 L_L R_1 g_m s^2 + C_1 L_L s^2 + C_1 R_1}$$

### 10.652 INVALID-ORDER-652 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(R_4 g_m - 1)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{2C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_1 R_4 g_m s^3 + 2C_1 C_L L_1 R_L g_m s^3 + C_1 C_L L_1 s^3 + 2C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s^3 + C_1 C_L R_1 R_4 g_m s^2 + 2C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_1 s^2 + C_1 C_L R_4 s^2}$$

### 10.653 INVALID-ORDER-653 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_4 R_L g_m s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_L R_1 R_4 R_L g_m s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L L_L R_4 R_L s^3 + C_1 L_1 L_L R_4 g_m s^3 + 2C_1 L_1 L_L R_L g_m s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_4 R}$$

### 10.654 INVALID-ORDER-654 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{(R_4 g_m - 1$$
$$C_1 C_L L_1 L_L R_4 g_m s^4 + 2C_1 C_L L_1 L_L R_L g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_L R_1 R_4 g_m s^3 + 2C_1 C_L L_L R_1 R_L g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_4 s^3 + C_1 C_L L_L R_L s^3 + 2C_1 L_1 L_L g_m s$$

### 10.655 INVALID-ORDER-655 $Z(s) = \left(\frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_4 g_m s^4 + 2C_1 C_L L_1 L_L R_L g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L L_L R_1 R_4 g_m s^3 + 2C_1 C_L L_L R_1 R_L g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L$$

### 10.656 INVALID-ORDER-656 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = -\frac{R_L\left(C_4 s - g_m\right)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_L s^2 + C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + 2C_4 R_L g_m s + C_4 s + g_m}$$

### 10.657 INVALID-ORDER-657 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_4 s - g_m\right)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{s\left(C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L R_1 s^2 + 2C_1 C_4 L_1 g_m s^2 + 2C_1 C_4 R_1 g_m s + C_1 C_4 s + C_1 C_L L_1 g_m s^2 + C_1 C_L R_1 g_m s + C_1 C_L s + C_4 C_L s + 2C_4 g_m + C_L g_m\right)}$$

### 10.658 INVALID-ORDER-658 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{R_L\left(C_4 s - g_m\right)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{C_1 C_4 C_L L_1 R_L s^4 + C_1 C_4 C_L R_1 R_L s^3 + 2C_1 C_4 L_1 R_L g_m s^3 + C_1 C_4 L_1 s^3 + 2C_1 C_4 R_1 R_L g_m s^2 + C_1 C_4 R_1 s^2 + C_1 C_4 R_L s^2 + C_1 C_L L_1 R_L g_m s^3 + C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_L s^2}$$

### 10.659 INVALID-ORDER-659 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{(C_4 s - g_m)\left(C_L R_L s + 1\right)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{s\left(2C_1C_4C_LL_1R_Lg_ms^3 + C_1C_4C_LL_1s^3 + 2C_1C_4C_LR_1R_Lg_ms^2 + C_1C_4C_LR_1s^2 + C_1C_4C_LR_Ls^2 + 2C_1C_4L_1g_ms^2 + 2C_1C_4R_1g_ms + C_1C_4s + C_1C_LL_1g_ms^2 + C_1C_LR_1g_ms\right.}$$

### 10.660 INVALID-ORDER-660 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{(C_4 s - g_m)\left(C_L L_L s^2 + 1\right)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{s\left(2C_1C_4C_LL_1L_Lg_ms^4 + C_1C_4C_LL_1s^3 + 2C_1C_4C_LL_LR_1g_ms^3 + C_1C_4C_LL_Ls^3 + C_1C_4C_LR_1s^2 + 2C_1C_4L_1g_ms^2 + 2C_1C_4R_1g_ms + C_1C_4s + C_1C_LL_1g_ms^2 + C_1C_LR_1g_ms\right.}$$

### 10.661 INVALID-ORDER-661 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{L_L s\,(C_4 s - g_m)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{C_1C_4C_LL_1L_Ls^5 + C_1C_4C_LL_LR_1s^4 + 2C_1C_4L_1L_Lg_ms^4 + C_1C_4L_1s^3 + 2C_1C_4L_LR_1g_ms^3 + C_1C_4L_Ls^3 + C_1C_4R_1s^2 + C_1C_LL_1L_Lg_ms^4 + C_1C_LL_LR_1g_ms^3 + C_1C_LL_Ls^3 +}$$

### 10.662 INVALID-ORDER-662 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{(C_4 s - g_m)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)\left(C_L L_L s^2 +\right.}{s\left(2C_1C_4C_LL_1L_Lg_ms^4 + 2C_1C_4C_LL_1R_Lg_ms^3 + C_1C_4C_LL_1s^3 + 2C_1C_4C_LL_LR_1g_ms^3 + C_1C_4C_LL_Ls^3 + 2C_1C_4C_LR_1R_Lg_ms^2 + C_1C_4C_LR_1s^2 + C_1C_4C_LR_Ls^2 + 2C_1C_4L_1\right.}$$

### 10.663 INVALID-ORDER-663 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_LR_Ls^5 + C_1C_4C_LL_LR_1R_Ls^4 + 2C_1C_4L_1L_LR_Lg_ms^4 + C_1C_4L_1L_Ls^4 + C_1C_4L_1R_Ls^3 + 2C_1C_4L_LR_1R_Lg_ms^3 + C_1C_4L_LR_1s^3 + C_1C_4L_LR_Ls^3 + C_1C_4R_1R_Ls^2}$$

### 10.664 INVALID-ORDER-664 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_LR_Lg_ms^5 + C_1C_4C_LL_1L_Ls^5 + 2C_1C_4C_LL_LR_1R_Lg_ms^4 + C_1C_4C_LL_LR_1s^4 + C_1C_4C_LL_LR_Ls^4 + 2C_1C_4L_1L_Lg_ms^4 + 2C_1C_4L_1R_Lg_ms^3 + C_1C_4L_1s^3 + 2C_1C_$$

### 10.665 INVALID-ORDER-665 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_LR_Lg_ms^5 + C_1C_4C_LL_1L_Ls^5 + C_1C_4C_LL_1R_Ls^4 + 2C_1C_4C_LL_LR_1R_Lg_ms^4 + C_1C_4C_LL_LR_1s^4 + C_1C_4C_LL_LR_Ls^4 + C_1C_4C_LR_1R_Ls^3 + 2C_1C_4L_1R_Lg_ms^3 + $$

### 10.666 INVALID-ORDER-666 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = -\frac{R_L\left(C_1L_1s^2 + C_1R_1s + 1\right)\left(C_4R_4s - R_4g_m + 1\right)}{2C_1C_4L_1R_4R_Lg_ms^3 + C_1C_4L_1R_4s^3 + 2C_1C_4R_1R_4R_Lg_ms^2 + C_1C_4R_1R_4s^2 + C_1C_4R_4R_Ls^2 + C_1L_1R_4g_ms^2 + 2C_1L_1R_Lg_ms^2 + C_1L_1s^2 + C_1R_1R_4g_ms + 2C_1R_1R_Lg_ms + }$$

### 10.667 INVALID-ORDER-667 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_1L_1s^2 + C_1R_1s + 1\right)\left(C_4R_4s - R_4g_m + 1\right)}{C_1C_4C_LL_1R_4s^4 + C_1C_4C_LR_1R_4s^3 + 2C_1C_4L_1R_4g_ms^3 + 2C_1C_4R_1R_4g_ms^2 + C_1C_4R_4s^2 + C_1C_LL_1R_4g_ms^3 + C_1C_LL_1s^3 + C_1C_LR_1R_4g_ms^2 + C_1C_LR_1s^2 + C_1C_LR_4s^2 + }$$

### 10.668 INVALID-ORDER-668 $Z(s) = \left(\frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1R_4R_Ls^4 + C_1C_4C_LR_1R_4R_Ls^3 + 2C_1C_4L_1R_4R_Lg_ms^3 + C_1C_4L_1R_4s^3 + 2C_1C_4R_1R_4R_Lg_ms^2 + C_1C_4R_1R_4s^2 + C_1C_4R_4R_Ls^2 + C_1C_LL_1R_4R_Lg_ms^3 + C_1C_LL_1$$

### 10.669 INVALID-ORDER-669 $Z(s) = \left( \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_4s^4 + 2C_1C_4C_LR_1R_4R_Lg_ms^3 + C_1C_4C_LR_1R_4s^3 + C_1C_4C_LR_4R_Ls^3 + 2C_1C_4L_1R_4g_ms^3 + 2C_1C_4R_1R_4g_ms^2 + C_1C_4R_4s^2 + C_1C_L$$

### 10.670 INVALID-ORDER-670 $Z(s) = \left( \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_LR_4g_ms^5 + C_1C_4C_LL_1R_4s^4 + 2C_1C_4C_LL_LR_1R_4g_ms^4 + C_1C_4C_LL_LR_4s^4 + C_1C_4C_LR_1R_4s^3 + 2C_1C_4L_1R_4g_ms^3 + 2C_1C_4R_1R_4g_ms^2 + C_1C_4R_4s^2 + 2C_1C_L$$

### 10.671 INVALID-ORDER-671 $Z(s) = \left( \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} \right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_LR_1R_4s^4 + 2C_1C_4L_1L_LR_4g_ms^4 + C_1C_4L_1R_4s^3 + 2C_1C_4L_LR_1R_4g_ms^3 + C_1C_4L_LR_4s^3 + C_1C_4R_1R_4s^2 + C_1C_LL_1L_LR_4g_ms^4 + C_1C_LL_1L$$

### 10.672 INVALID-ORDER-672 $Z(s) = \left( \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_LR_4g_ms^5 + 2C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_4s^4 + 2C_1C_4C_LL_LR_1R_4g_ms^4 + C_1C_4C_LL_LR_4s^4 + 2C_1C_4C_LR_1R_4R_Lg_ms^3 + C_1C_4C_LR_1R_4s^3 + C_1C_4C_L$$

### 10.673 INVALID-ORDER-673 $Z(s) = \left( \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_LR_4R_Ls^5 + C_1C_4C_LL_LR_1R_4R_Ls^4 + 2C_1C_4L_1L_LR_4R_Lg_ms^4 + C_1C_4L_1L_LR_4s^4 + C_1C_4L_1R_4R_Ls^3 + 2C_1C_4L_LR_1R_4R_Lg_ms^3 + C_1C_4L_LR_1R_4s^3 + C_1C_4L_LR$$

### 10.674 INVALID-ORDER-674 $Z(s) = \left( \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_LR_4R_Lg_ms^5 + C_1C_4C_LL_1L_LR_4s^5 + 2C_1C_4C_LL_LR_1R_4R_Lg_ms^4 + C_1C_4C_LL_LR_1R_4s^4 + C_1C_4C_LL_LR_4R_Ls^4 + 2C_1C_4L_1L_LR_4g_ms^4 + 2C_1C_4L_1R_4R_Lg_ms^3 +}$$

### 10.675 INVALID-ORDER-675 $Z(s) = \left( \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_LR_4R_Lg_ms^5 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_1R_4R_Ls^4 + 2C_1C_4C_LL_LR_1R_4R_Lg_ms^4 + C_1C_4C_LL_LR_1R_4s^4 + C_1C_4C_LL_LR_4R_Ls^4 + C_1C_4C_LR_1R_4R_Ls^3 + 2}$$

### 10.676 INVALID-ORDER-676 $Z(s) = \left( \frac{R_1}{C_1 R_1 s + 1},\ R_2,\ \infty,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{R_L\left(C_1L_1s^2 + C_1R_1s + 1\right)\left(C_4R_4g_ms - C_4s + g_m\right)}{C_1C_4L_1R_4g_ms^3 + 2C_1C_4L_1R_Lg_ms^3 + C_1C_4L_1s^3 + C_1C_4R_1R_4g_ms^2 + 2C_1C_4R_1R_Lg_ms^2 + C_1C_4R_1s^2 + C_1C_4R_4s^2 + C_1C_4R_Ls^2 + C_1L_1g_ms^2 + C_1R_1g_ms + C_1s + C_4R_4g_m}$$

### 10.677 INVALID-ORDER-677 $Z(s) = \left( \frac{R_1}{C_1 R_1 s + 1},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{\left(C_1L_1s^2 + C_1R_1s + 1\right)\left(C_4R_4g_ms - C_4s + g_m\right)}{s\left(C_1C_4C_LL_1R_4g_ms^3 + C_1C_4C_LL_1s^3 + C_1C_4C_LR_1R_4g_ms^2 + C_1C_4C_LR_1s^2 + C_1C_4C_LR_4s^2 + 2C_1C_4L_1g_ms^2 + 2C_1C_4R_1g_ms + C_1C_4s + C_1C_LL_1g_ms^2 + C_1C_LR_1g_ms + C_1\right.}$$

### 10.678 INVALID-ORDER-678 $Z(s) = \left( \frac{R_1}{C_1 R_1 s + 1},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{}{C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_Ls^4 + C_1C_4C_LR_1R_4R_Lg_ms^3 + C_1C_4C_LR_1R_Ls^3 + C_1C_4C_LR_4R_Ls^3 + C_1C_4L_1R_4g_ms^3 + 2C_1C_4L_1R_Lg_ms^3 + C_1C_4L_1s^3 + C_1C_4R_1R_4g}$$

### 10.679 INVALID-ORDER-679 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(C_L R_L s + 1)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)(C_4 R_4 g_m s - C}{s\left(C_1 C_4 C_L L_1 R_4 g_m s^3 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L R_1 R_4 g_m s^2 + 2C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_4 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 L_1 g_m s^{2}\right.}$$

### 10.680 INVALID-ORDER-680 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_L L_L s^2 + 1\right)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)(C_4 R_4 g_m s - C}{s\left(2C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 s^3 + 2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 R_4 g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_4 s^2 + 2C_1 C_4 L_1 g_m s^{2}\right.}$$

### 10.681 INVALID-ORDER-681 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_4 s^4 + 2C_1 C_4 L_1 L_L g_m s^4 + C_1 C_4 L_1 R_4 g_m s^3 + C_1 C_4 L_1 s^3 + 2C_1 C_4 L_L R_{1}}$$

### 10.682 INVALID-ORDER-682 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1 L_1 s^2 + C_1 R_{1}\right.}{s\left(2C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + 2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 R_4 g_m s^2 + 2C_1 C_4 C_L R_1 R_L g_m s^2 + \right.}$$

### 10.683 INVALID-ORDER-683 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 C_L L_L R_4 R_L s^4 + C_1 C_4 L_1 L_L R_4 g_m s^4 + 2C_1 C_4 L_1 L_L R_L g_m s^4 + C_1 C}$$

### 10.684 INVALID-ORDER-684 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_LR_4g_ms^5 + 2C_1C_4C_LL_1L_LR_Lg_ms^5 + C_1C_4C_LL_1L_Ls^5 + C_1C_4C_LL_LR_1R_4g_ms^4 + 2C_1C_4C_LL_LR_1R_Lg_ms^4 + C_1C_4C_LL_LR_1s^4 + C_1C_4C_LL_LR_4s^4 + C_1C_4C_LL_L}$$

### 10.685 INVALID-ORDER-685 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_LR_4g_ms^5 + 2C_1C_4C_LL_1L_LR_Lg_ms^5 + C_1C_4C_LL_1L_Ls^5 + C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_Ls^4 + C_1C_4C_LL_LR_1R_4g_ms^4 + 2C_1C_4C_LL_LR_1R_Lg_ms^4 + C_1C_4C}$$

### 10.686 INVALID-ORDER-686 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(C_1L_1s^2 + C_1R_1s + 1\right)\left(C_4L_4g_ms^2 - C_4s + g_m\right)}{C_1C_4L_1L_4g_ms^4 + 2C_1C_4L_1R_Lg_ms^3 + C_1C_4L_1s^3 + C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + 2C_1C_4R_1R_Lg_ms^2 + C_1C_4R_1s^2 + C_1C_4R_Ls^2 + C_1L_1g_ms^2 + C_1R_1g_ms + C_1s + C_4L_4g_ms}$$

### 10.687 INVALID-ORDER-687 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1L_1s^2 + C_1R_1s + 1\right)\left(C_4L_4g_ms^2 - C_4s + g_m\right)}{s\left(C_1C_4C_LL_1L_4g_ms^4 + C_1C_4C_LL_1s^3 + C_1C_4C_LL_4R_1g_ms^3 + C_1C_4C_LL_4s^3 + C_1C_4C_LR_1s^2 + 2C_1C_4L_1g_ms^2 + 2C_1C_4R_1g_ms + C_1C_4s + C_1C_LL_1g_ms^2 + C_1C_LR_1g_ms + C_1C\right.}$$

### 10.688 INVALID-ORDER-688 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1R_Ls^4 + C_1C_4C_LL_4R_1R_Lg_ms^4 + C_1C_4C_LL_4R_Ls^4 + C_1C_4C_LR_1R_Ls^3 + C_1C_4L_1L_4g_ms^4 + 2C_1C_4L_1R_Lg_ms^3 + C_1C_4L_1s^3 + C_1C_4L_4R_1g}$$

### 10.689 INVALID-ORDER-689 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(C_L R_L s+1)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)\left(C_4 L_4 g_m s^2 - C\right.}{s\left(C_1 C_4 C_L L_1 L_4 g_m s^4 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C_4 C_L R_1 s^2 + C_1 C_4 C_L R_L s^2 + 2C_1 C_4 L_1 g_m s^2\right.}$$

### 10.690 INVALID-ORDER-690 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_L L_L s^2+1\right)\left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)\left(C_4 L_4 g_m s^2 -\right.}{s\left(C_1 C_4 C_L L_1 L_4 g_m s^4 + 2C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L R_1 s^2 + 2C_1 C_4 L_1 g_m s^2\right.}$$

### 10.691 INVALID-ORDER-691 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 L_1 L_4 g_m s^4 + 2C_1 C_4 L_1 L_L g_m s^4 + C_1 C_4 L_1 s^3 + C_1 C_4 L_4 R_1 g_m}$$

### 10.692 INVALID-ORDER-692 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1 L_1 s^2 + C_1 R_1 s\right.}{s\left(C_1 C_4 C_L L_1 L_4 g_m s^4 + 2C_1 C_4 C_L L_1 L_L g_m s^4 + 2C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + 2C_1 C_4 C\right.}$$

### 10.693 INVALID-ORDER-693 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_L R_1 R_L s^4 + C_1 C_4 L_1 L_4 L_L g_m s^5 + C_1 C_4 L_1 L_4 R_L g_m s^4 + 2C_1 C_}$$

### 10.694 INVALID-ORDER-694 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_Lg_ms^6 + 2C_1C_4C_LL_1L_LR_Lg_ms^5 + C_1C_4C_LL_1L_Ls^5 + C_1C_4C_LL_4L_LR_1g_ms^5 + C_1C_4C_LL_4L_Ls^5 + 2C_1C_4C_LL_LR_1R_Lg_ms^4 + C_1C_4C_LL_LR_1s^4 + C_1C_4C_LL_L$$

### 10.695 INVALID-ORDER-695 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_4R_Lg_ms^5 + 2C_1C_4C_LL_1L_LR_Lg_ms^5 + C_1C_4C_LL_1L_Ls^5 + C_1C_4C_LL_1R_Ls^4 + C_1C_4C_LL_4L_LR_1g_ms^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4R_1$$

### 10.696 INVALID-ORDER-696 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = -\frac{R_L\left(C_1L_1s^2 + C_1R_1s + 1\right)\left(C_4L_4s^2 - L_4g_ms + 1\right)}{2C_1C_4L_1L_4R_Lg_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_4R_1R_Lg_ms^3 + C_1C_4L_4R_1s^3 + C_1C_4L_4R_Ls^3 + C_1L_1L_4g_ms^3 + 2C_1L_1R_Lg_ms^2 + C_1L_1s^2 + C_1L_4R_1g_ms^2 + C_1L_4s^2 + 2C_1R_1$$

### 10.697 INVALID-ORDER-697 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_1L_1s^2 + C_1R_1s + 1\right)\left(C_4L_4s^2 - L_4g_ms + 1\right)}{C_1C_4C_LL_1L_4s^5 + C_1C_4C_LL_4R_1s^4 + 2C_1C_4L_1L_4g_ms^4 + 2C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + C_1C_LL_1L_4g_ms^4 + C_1C_LL_1s^3 + C_1C_LL_4R_1g_ms^3 + C_1C_LL_4s^3 + C_1C_LR_1s^2 + 2$$

### 10.698 INVALID-ORDER-698 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_4R_1R_Ls^4 + 2C_1C_4L_1L_4R_Lg_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_4R_1R_Lg_ms^3 + C_1C_4L_4R_1s^3 + C_1C_4L_4R_Ls^3 + C_1C_LL_1L_4R_Lg_ms^4 + C_1C_LL_1R$$

### 10.699 INVALID-ORDER-699 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \frac{R_2}{C_2R_2s+1},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_Ls}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1L_4s^5 + 2C_1C_4C_LL_4R_1R_Lg_ms^4 + C_1C_4C_LL_4R_1s^4 + C_1C_4C_LL_4R_Ls^4 + 2C_1C_4L_1L_4g_ms^4 + 2C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + C_1C_LL_1}$$

### 10.700 INVALID-ORDER-700 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \frac{R_2}{C_2R_2s+1},\ \infty,\ \infty,\ \infty,\ L_Ls + \frac{1}{C_Ls}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_4s^5 + 2C_1C_4C_LL_4L_LR_1g_ms^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4R_1s^4 + 2C_1C_4L_1L_4g_ms^4 + 2C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + C_1C_LL_1}$$

### 10.701 INVALID-ORDER-701 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \frac{R_2}{C_2R_2s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_Ls}{C_LL_Ls^2+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_4L_LR_1s^5 + 2C_1C_4L_1L_4L_Lg_ms^5 + C_1C_4L_1L_4s^4 + 2C_1C_4L_4L_LR_1g_ms^4 + C_1C_4L_4L_Ls^4 + C_1C_4L_4R_1s^3 + C_1C_LL_1L_4L_Lg_ms^5 + C_1C_LL_1L_L}$$

### 10.702 INVALID-ORDER-702 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \frac{R_2}{C_2R_2s+1},\ \infty,\ \infty,\ \infty,\ L_Ls + R_L + \frac{1}{C_Ls}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_Lg_ms^6 + 2C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1L_4s^5 + 2C_1C_4C_LL_4L_LR_1g_ms^5 + C_1C_4C_LL_4L_Ls^5 + 2C_1C_4C_LL_4R_1R_Lg_ms^4 + C_1C_4C_LL_4R_1s^4 + C_1C_4C_LL}$$

### 10.703 INVALID-ORDER-703 $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \frac{R_2}{C_2R_2s+1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_4L_LR_1R_Ls^5 + 2C_1C_4L_1L_4L_LR_Lg_ms^5 + C_1C_4L_1L_4L_Ls^5 + C_1C_4L_1L_4R_Ls^4 + 2C_1C_4L_4L_LR_1R_Lg_ms^4 + C_1C_4L_4L_LR_1s^4 + C_1C_4L_4L_L}$$

### 10.704 INVALID-ORDER-704 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_Lg_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + 2C_1C_4C_LL_4L_LR_1R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4L_LR_Ls^5 + 2C_1C_4L_1L_4L_Lg_ms^5 + 2C_1C_4L_1L_4R_Lg_ms^4 + C$$

### 10.705 INVALID-ORDER-705 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_Lg_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_Ls^5 + 2C_1C_4C_LL_4L_LR_1R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4L_LR_Ls^5 + C_1C_4C_LL_4R_1R_Ls^4 + 2C$$

### 10.706 INVALID-ORDER-706 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(C_1L_1s^2 + C_1R_1s + 1\right)\left(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m\right)}{C_1C_4L_1L_4g_ms^4 + C_1C_4L_1R_4g_ms^3 + 2C_1C_4L_1R_Lg_ms^3 + C_1C_4L_1s^3 + C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + C_1C_4R_1R_4g_ms^2 + 2C_1C_4R_1R_Lg_ms^2 + C_1C_4R_1s^2 + C_1C_4R_4s^2 + C_1C$$

### 10.707 INVALID-ORDER-707 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1L_1s^2 + C_1R_1s + 1\right)\left(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s\right.}{s\left(C_1C_4C_LL_1L_4g_ms^4 + C_1C_4C_LL_1R_4g_ms^3 + C_1C_4C_LL_1s^3 + C_1C_4C_LL_4R_1g_ms^3 + C_1C_4C_LL_4s^3 + C_1C_4C_LR_1R_4g_ms^2 + C_1C_4C_LR_1s^2 + C_1C_4C_LR_4s^2 + 2C_1C_4L_1g_ms^2 + \right.}$$

### 10.708 INVALID-ORDER-708 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_Ls^4 + C_1C_4C_LL_4R_1R_Lg_ms^4 + C_1C_4C_LL_4R_Ls^4 + C_1C_4C_LR_1R_4R_Lg_ms^3 + C_1C_4C_LR_1R_Ls^3 + C_1C_4C_LR_4R_L$$

### 10.709 INVALID-ORDER-709 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(C_L R_L s + 1)\left(C_1 L_1 s\right.}{s\left(C_1 C_4 C_L L_1 L_4 g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + 2 C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + C_1 C_4 C_L R_1 R_4 g_m s^2 + 2 C_1 C_4 C_L R_1 R_L g_m s^2 + C_1 C\right.}$$

### 10.710 INVALID-ORDER-710 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_L L_L s^2 + 1\right)\left(C_1 L_1\right.}{s\left(C_1 C_4 C_L L_1 L_4 g_m s^4 + 2 C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2 C_1 C_4 C_L L_L R_1 g_m s^3 + C_1 C_4 C_L L_L s^3 + C_1 C_4 C_L\right.}$$

### 10.711 INVALID-ORDER-711 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L g_m s^6 + C_1 C_4 C_L L_1 L_L R_4 g_m s^5 + C_1 C_4 C_L L_1 L_L s^5 + C_1 C_4 C_L L_4 L_L R_1 g_m s^5 + C_1 C_4 C_L L_4 L_L s^5 + C_1 C_4 C_L L_L R_1 R_4 g_m s^4 + C_1 C_4 C_L L_L R_1 s^4 + C_1 C_4 C_L L_L R_4 s}$$

### 10.712 INVALID-ORDER-712 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1 C_4 C_L L_1 L_4 g_m s^4 + 2 C_1 C_4 C_L L_1 L_L g_m s^4 + C_1 C_4 C_L L_1 R_4 g_m s^3 + 2 C_1 C_4 C_L L_1 R_L g_m s^3 + C_1 C_4 C_L L_1 s^3 + C_1 C_4 C_L L_4 R_1 g_m s^3 + C_1 C_4 C_L L_4 s^3 + 2 C_1 C_4 C_L L_L R_1 g_m s^3 + C_1\right.}$$

### 10.713 INVALID-ORDER-713 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_4 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_4 L_L R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_L R_1 R$$

### 10.714 INVALID-ORDER-714 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_LR_4g_ms^5 + 2C_1C_4C_LL_1L_LR_Lg_ms^5 + C_1C_4C_LL_1L_Ls^5 + C_1C_4C_LL_4L_LR_1g_ms^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_LR_1R_4g_ms^4 + 2C_1C_4C$$

### 10.715 INVALID-ORDER-715 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1L_LR_4g_ms^5 + 2C_1C_4C_LL_1L_LR_Lg_ms^5 + C_1C_4C_LL_1L_Ls^5 + C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_Ls^4 + C_1C_4C_L$$

### 10.716 INVALID-ORDER-716 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = -\frac{R_L}{2C_1C_4L_1L_4R_4R_Lg_ms^4 + C_1C_4L_1L_4R_4s^4 + 2C_1C_4L_4R_1R_4R_Lg_ms^3 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_4R_Ls^3 + C_1L_1L_4R_4g_ms^3 + 2C_1L_1L_4R_Lg_ms^3 + C_1L_1L_4s^3 + 2C_1L_1R_4F}$$

### 10.717 INVALID-ORDER-717 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_4R_1R_4s^4 + 2C_1C_4L_1L_4R_4g_ms^4 + 2C_1C_4L_4R_1R_4g_ms^3 + C_1C_4L_4R_4s^3 + C_1C_LL_1L_4R_4g_ms^4 + C_1C_LL_1L_4s^4 + C_1C_LL_1R_4s^3 + C_1C_LL_4R_1$$

### 10.718 INVALID-ORDER-718 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4C_LL_4R_1R_4R_Ls^4 + 2C_1C_4L_1L_4R_4R_Lg_ms^4 + C_1C_4L_1L_4R_4s^4 + 2C_1C_4L_4R_1R_4R_Lg_ms^3 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_4R_Ls^3 + C_1C_LL_1L_4R$$

### 10.719 INVALID-ORDER-719 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4C_LL_4R_1R_4R_Lg_ms^4 + C_1C_4C_LL_4R_1R_4s^4 + C_1C_4C_LL_4R_4R_Ls^4 + 2C_1C_4L_1L_4R_4g_ms^4 + 2C_1C_4L_4R_1R_4g_ms^3 + C}$$

### 10.720 INVALID-ORDER-720 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_4g_ms^6 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4C_LL_4L_LR_1R_4g_ms^5 + C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_4R_1R_4s^4 + 2C_1C_4L_1L_4R_4g_ms^4 + 2C_1C_4L_4R_1R_4g_ms^3 + C_1}$$

### 10.721 INVALID-ORDER-721 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_4L_LR_1R_4s^5 + 2C_1C_4L_1L_4L_LR_4g_ms^5 + C_1C_4L_1L_4R_4s^4 + 2C_1C_4L_4L_LR_1R_4g_ms^4 + C_1C_4L_4L_LR_4s^4 + C_1C_4L_4R_1R_4s^3 + C_1C_LL_1L_4L_L}$$

### 10.722 INVALID-ORDER-722 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_4g_ms^6 + 2C_1C_4C_LL_1L_4R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4C_LL_4L_LR_1R_4g_ms^5 + C_1C_4C_LL_4L_LR_4s^5 + 2C_1C_4C_LL_4R_1R_4R_Lg_ms^4 + C_1C_4C_LL_4}$$

### 10.723 INVALID-ORDER-723 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + C_1C_4C_LL_4L_LR_1R_4R_Ls^5 + 2C_1C_4L_1L_4L_LR_4R_Lg_ms^5 + C_1C_4L_1L_4L_LR_4s^5 + C_1C_4L_1L_4R_4R_Ls^4 + 2C_1C_4L_4L_LR_1R_4R_Lg_ms^4 + C_1C_4L_4L_LR_1}$$

### 10.724 INVALID-ORDER-724 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + 2C_1C_4C_LL_4L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1R_4s^5 + C_1C_4C_LL_4L_LR_4R_Ls^5 + 2C_1C_4L_1L_4L_LR_4g_ms^5 + 2C_1C_4$$

### 10.725 INVALID-ORDER-725 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4R_4R_Ls^5 + 2C_1C_4C_LL_4L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1R_4s^5 + C_1C_4C_LL_4L_LR_4R_Ls^5 + C_1C_4C$$

### 10.726 INVALID-ORDER-726 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(C_1L_1s^2 + C_1R_1s -}{C_1C_4L_1L_4R_4g_ms^4 + 2C_1C_4L_1L_4R_Lg_ms^4 + C_1C_4L_1L_4s^4 + C_1C_4L_4R_1R_4g_ms^3 + 2C_1C_4L_4R_1R_Lg_ms^3 + C_1C_4L_4R_1s^3 + C_1C_4L_4R_4s^3 + C_1C_4L_4R_Ls^3 + C_1L_1L_4g_ms^3 + C_1$$

### 10.727 INVALID-ORDER-727 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1\right.}{C_1C_4C_LL_1L_4R_4g_ms^5 + C_1C_4C_LL_1L_4s^5 + C_1C_4C_LL_4R_1R_4g_ms^4 + C_1C_4C_LL_4R_1s^4 + C_1C_4C_LL_4R_4s^4 + 2C_1C_4L_1L_4g_ms^4 + 2C_1C_4L_4R_1g_ms^3 + C_1C_4L_4s^3 + C_1C_LL_1L_4g_m$$

### 10.728 INVALID-ORDER-728 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_4R_1R_4R_Lg_ms^4 + C_1C_4C_LL_4R_1R_Ls^4 + C_1C_4C_LL_4R_4R_Ls^4 + C_1C_4L_1L_4R_4g_ms^4 + 2C_1C_4L_1L_4R_Lg_ms^4 + C_1C_4$$

### 10.729 INVALID-ORDER-729 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1L_4s^5 + C_1C_4C_LL_4R_1R_4g_ms^4 + 2C_1C_4C_LL_4R_1R_Lg_ms^4 + C_1C_4C_LL_4R_1s^4 + C_1C_4C_LL_4R_4s^4 + C_1C_4C_LL_4R_L$$

### 10.730 INVALID-ORDER-730 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{2C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_4R_4g_ms^5 + C_1C_4C_LL_1L_4s^5 + 2C_1C_4C_LL_4L_LR_1g_ms^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4R_1R_4g_ms^4 + C_1C_4C_LL_4R_1s^4 + C_1C_4C_LL_4R_4$$

### 10.731 INVALID-ORDER-731 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_4g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_4L_LR_1R_4g_ms^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4L_LR_4s^5 + 2C_1C_4L_1L_4L_Lg_ms^5 + C_1C_4L_1L_4R_4g_ms^4 + C_1C_4L$$

### 10.732 INVALID-ORDER-732 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{2C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_4R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1L_4s^5 + 2C_1C_4C_LL_4L_LR_1g_ms^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4R_1R_4g_ms^4 + 2C_1C_4C$$

### 10.733 INVALID-ORDER-733 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_4L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1R_Ls^5 + C_1C_4C_LL_4L_LR_4R_Ls^5 + C_1C_4L_1L_4L_LR_4g_ms^5 + 2C_1C_4L_1L$$

**10.734 INVALID-ORDER-734** $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_4g_ms^6 + 2C_1C_4C_LL_1L_4L_LR_Lg_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_4L_LR_1R_4g_ms^5 + 2C_1C_4C_LL_4L_LR_1R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4L_L$$

**10.735 INVALID-ORDER-735** $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_4g_ms^6 + 2C_1C_4C_LL_1L_4L_LR_Lg_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_4L_LR_1R_4g_ms^5 + 2C_1C_4C_LL_4L_LR$$

**10.736 INVALID-ORDER-736** $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = -\frac{}{C_1C_4L_1L_4R_4g_ms^4 + 2C_1C_4L_1L_4R_Lg_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_1R_4R_Lg_ms^3 + C_1C_4L_1R_4s^3 + C_1C_4L_4R_1R_4g_ms^3 + 2C_1C_4L_4R_1R_Lg_ms^3 + C_1C_4L_4R_1s^3 + C_1C_4L_4R_4$$

**10.737 INVALID-ORDER-737** $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_4g_ms^5 + C_1C_4C_LL_1L_4s^5 + C_1C_4C_LL_1R_4s^4 + C_1C_4C_LL_4R_1R_4g_ms^4 + C_1C_4C_LL_4R_1s^4 + C_1C_4C_LL_4R_4s^4 + C_1C_4C_LR_1R_4s^3 + 2C_1C_4L_1L_4g_ms^4 + 2C_1C_4$$

**10.738 INVALID-ORDER-738** $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_1R_4R_Ls^4 + C_1C_4C_LL_4R_1R_4R_Lg_ms^4 + C_1C_4C_LL_4R_1R_Ls^4 + C_1C_4C_LL_4R_4R_Ls^4 + C_1C_4C_LR_1R_4R_Ls^3 + C_1C$$

**10.739 INVALID-ORDER-739** $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \frac{L_2s}{C_2L_2s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_Ls}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1L_4s^5 + 2C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_4s^4 + C_1C_4C_LL_4R_1R_4g_ms^4 + 2C_1C_4C_LL_4R_1R_Lg_ms^4 + C_1C_4$$

**10.740 INVALID-ORDER-740** $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \frac{L_2s}{C_2L_2s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_Ls + \frac{1}{C_Ls}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_4R_4g_ms^5 + C_1C_4C_LL_1L_4s^5 + 2C_1C_4C_LL_1L_LR_4g_ms^5 + C_1C_4C_LL_1R_4s^4 + 2C_1C_4C_LL_4L_LR_1g_ms^5 + C_1C_4C_LL_4L_Ls^5 + C_1C_4C_LL_4$$

**10.741 INVALID-ORDER-741** $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \frac{L_2s}{C_2L_2s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_Ls}{C_LL_Ls^2+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_4g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_4L_LR_1R_4g_ms^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4L_LR_4s^5 + C_1C_4C_LL_LR_1R_4s^4 + 2C_1C$$

**10.742 INVALID-ORDER-742** $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \frac{L_2s}{C_2L_2s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_Ls + R_L + \frac{1}{C_Ls}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_Lg_ms^6 + C_1C_4C_LL_1L_4R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_Lg_ms^5 + C_1C_4C_LL_1L_4s^5 + 2C_1C_4C_LL_1L_LR_4g_ms^5 + 2C_1C_4C_LL_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_4s^4 + 2C_1$$

**10.743 INVALID-ORDER-743** $Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \frac{L_2s}{C_2L_2s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_1L_LR_4R_Ls^5 + C_1C_4C_LL_4L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_4L_LR_1R_Ls^5 + C_1C_4C_LL_4L_LR_4R_Ls^5 + C_1C_4C_L$$

### 10.744 INVALID-ORDER-744 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + 2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_4 L_L R_1 R_4 g_m s^5 + 2C_1 C_4 C_L L_4 L$$

### 10.745 INVALID-ORDER-745 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_4 L_L R_4 g_m s^6 + 2C_1 C_4 C_L L_1 L_4 L_L R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + 2C_1 C_4 C_L L_1 L_L R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L$$

### 10.746 INVALID-ORDER-746 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 s\left(R_4 g_m - 1\right)}{C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + C_L L_1 R_1 R_4 g_m s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_4 s^2 + C_L R_1 R_4 s + 2L_1 R_1 g_m s + L_1 s + R_1}$$

### 10.747 INVALID-ORDER-747 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 R_1 R_L s\left(R_4 g_m - 1\right)}{C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_L L_1 R_1 R_4 R_L g_m s^2 + C_L L_1 R_1 R_L s^2 + C_L L_1 R_4 R_L s^2 + C_L R_1 R_4 R_L s + L_1 R_1 R_4 g_m s + 2L_1 R_1 R_L g_m s + L_1 R_1 s + L_1 R_$$

### 10.748 INVALID-ORDER-748 $Z(s) = \left(\frac{R_1}{C_1 R_1 s+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 s\left(R_4 g_m - 1\right)\left(C_L R_L s + 1\right)}{C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_L L_1 R_1 R_4 g_m s^2 + 2C_L L_1 R_1 R_L g_m s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_4 s^2 + C_L L_1 R_L s^2 + C_L R_1 R_4 s + C_L R_1 R_L s + 2L_1 R_1 g_m s +$$

### 10.749 INVALID-ORDER-749 $Z(s) = \left( \frac{R_1}{C_1 R_1 s+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s+\frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 s\left(R_4 g_m - 1\right)\left(C_L L_L s^2+1\right)}{C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + 2 C_L L_1 L_L R_1 g_m s^3 + C_L L_1 L_L s^3 + C_L L_1 R_1 R_4 g_m s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_4 s^2 + C_L L_L R_1 s^2 + C_L R_1 R_4 s + 2 L_1 R_1 g_m s +}$$

### 10.750 INVALID-ORDER-750 $Z(s) = \left( \frac{R_1}{C_1 R_1 s+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} \right)$

$$H(s) = \frac{L_1 L_L R_1 s^2\left(R_4 g_m - 1\right)}{C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_L L_1 L_L R_1 R_4 g_m s^3 + C_L L_1 L_L R_1 s^3 + C_L L_1 L_L R_4 s^3 + C_L L_L R_1 R_4 s^2 + 2 L_1 L_L R_1 g_m s^2 + L_1 L_L s^2 + L_1 R_1 R_4 g_m s + L_1}$$

### 10.751 INVALID-ORDER-751 $Z(s) = \left( \frac{R_1}{C_1 R_1 s+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s+R_L+\frac{1}{C_L s} \right)$

$$H(s) = \frac{L_1 R_1 s\left(R_4 g_m - 1\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2 C_L L_1 L_L R_1 g_m s^3 + C_L L_1 L_L s^3 + C_L L_1 R_1 R_4 g_m s^2 + 2 C_L L_1 R_1 R_L g_m s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_4 s^2 +}$$

### 10.752 INVALID-ORDER-752 $Z(s) = \left( \frac{R_1}{C_1 R_1 s+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}} \right)$

$$H(s) = \frac{L_1 L_L R_1 R_L s^2\left(R_4 g_m -\right.}{C_1 C_L L_1 L_L R_1 R_4 R_L s^4 + C_1 L_1 L_L R_1 R_4 s^3 + C_1 L_1 L_L R_1 R_L s^3 + C_1 L_1 R_1 R_4 R_L s^2 + C_L L_1 L_L R_1 R_4 R_L g_m s^3 + C_L L_1 L_L R_1 R_L s^3 + C_L L_1 L_L R_4 R_L s^3 + C_L L_L R_1 R_4 R_L s^2 + L_1 L_L}$$

### 10.753 INVALID-ORDER-753 $Z(s) = \left( \frac{R_1}{C_1 R_1 s+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}+R_L \right)$

$$H(s) = \frac{L_1 R_1 s\left(R_4 g_m - 1\right)\left(C_L L_L R\right.}{C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_L L_1 L_L R_1 R_4 g_m s^3 + 2 C_L L_1 L_L R_1 R_L g_m s^3 + C_L L_1 L_L R_1 s^3 + C_L L_1 L_L R_4 s^3 +}$$

### 10.754 INVALID-ORDER-754 $Z(s) = \left( \frac{R_1}{C_1 R_1 s+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = \frac{L_1}{C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_L L_1 L_L R_1 R_4 g_m s^3 + 2 C_L L_1 L_L R_1 R_L g_m s^3 + C_L L_1 L_L R_1 s^3 + C_L L_1 L_L R$$

### 10.755 INVALID-ORDER-755 $Z(s) = \left( R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{L_1 R_1 R_L s \left(-C_4 s + g_m\right)}{C_1 C_4 L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2 C_4 L_1 R_1 R_L g_m s^2 + C_4 L_1 R_1 s^2 + C_4 L_1 R_L s^2 + C_4 R_1 R_L s + L_1 R_1 g_m s + L_1 s + R_1}$$

### 10.756 INVALID-ORDER-756 $Z(s) = \left( R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1} \right)$

$$H(s) = \frac{L_1 R_1 R_L s \left(-C_4 s + g_m\right)}{C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 R_1 R_L s^3 + 2 C_4 L_1 R_1 R_L g_m s^2 + C_4 L_1 R_1 s^2 + C_4 L_1 R_L s^2 + C_4 R_1 R_L s + C_L L_1 R_1 R_L g_m s^2 + C_L L_1 R_L s^2 + C_L R_1 R$$

### 10.757 INVALID-ORDER-757 $Z(s) = \left( R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 R_1 \left(C_4 s - g_m\right) \left(C_L R_L s + 1\right)}{C_1 C_4 C_L L_1 R_1 R_L s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + 2 C_4 C_L L_1 R_1 R_L g_m s^2 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_L s^2 + C_4 C_L R_1 R_L s + 2 C_4 L_1 R_1 g_m s + C_4 L_1 s + C_4 R_1 + C_L L_1 R_1 g_$$

### 10.758 INVALID-ORDER-758 $Z(s) = \left( R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{L_1 R_1 \left(C_4 s - g_m\right) \left(C_L L_L s^2 + 1\right)}{C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + 2 C_4 C_L L_1 L_L R_1 g_m s^3 + C_4 C_L L_1 L_L s^3 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_L R_1 s^2 + 2 C_4 L_1 R_1 g_m s + C_4 L_1 s + C_4 R_1 + C_L L_1 R_1 g$$

### 10.759 INVALID-ORDER-759 $Z(s) = \left( R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} \right)$

$$H(s) = \frac{L_1 L_L R_1 s^2 \left(-C_4 s + g_m\right)}{C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_L R_1 s^4 + 2 C_4 L_1 L_L R_1 g_m s^3 + C_4 L_1 L_L s^3 + C_4 L_1 R_1 s^2 + C_4 L_L R_1 s^2 + C_L L_1 L_L R_1 g_m s^3 + C_L L_1 L_L s^3 + C_L L_L R$$

### 10.760 INVALID-ORDER-760 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 R_1 \left(C_4 s - g_m\right)\left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_L s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + 2 C_4 C_L L_1 L_L R_1 g_m s^3 + C_4 C_L L_1 L_L s^3 + 2 C_4 C_L L_1 R_1 R_L g_m s^2 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_L s^2 +$$

### 10.761 INVALID-ORDER-761 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{L_1 L_L R_1 R_L s^2 \left(-C_4 s + g_m\right)}{C_1 C_4 L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_L s^2 + C_4 C_L L_1 L_L R_1 R_L s^4 + 2 C_4 L_1 L_L R_1 R_L g_m s^3 + C_4 L_1 L_L R_1 s^3 + C_4 L_1 L_L R_L s^3 + C_4 L_1 R_1 R_L s^2 +$$

### 10.762 INVALID-ORDER-762 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = -\frac{L_1 R_1 s \left(C_4 s -$$

$$C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + 2 C_4 C_L L_1 L_L R_1 R_L g_m s^4 + C_4 C_L L_1 L_L R_1 s^4 + C_4 C_L L_1 L_L R_L s^4 + C_4 C_L L_L$$

### 10.763 INVALID-ORDER-763 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{$$

$$C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_L L_1 L_L R_1 R_L g_m s^4 + C_4 C_L L_1 L_L R_1 s^4 + C_4 C_L L_1 L_L R_L s^4 + C_4 C_L L_1$$

### 10.764 INVALID-ORDER-764 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_1 R_L s \left(-C_4 R_4 s + R_4 g_m - 1\right)}{C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + 2 C_4 L_1 R_1 R_4 R_L g_m s^2 + C_4 L_1 R_1 R_4 s^2 + C_4 L_1 R_4 R_L s^2 + C_4 R_1 R_4 R_L s + L_1 R_1 R_4 g_m s + 2 L_1 R_1 R_L g_m s + L_1 R_1 s + L_1 R_4$$

### 10.765 INVALID-ORDER-765 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 s \left(-C_4 R_4 s + R_4 g_m - 1\right)}{C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 R_1 R_4 s^3 + 2 C_4 L_1 R_1 R_4 g_m s^2 + C_4 L_1 R_4 s^2 + C_4 R_1 R_4 s + C_L L_1 R_1 R_4 g_m s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_4 s^2 + C_L R_1 R_4 s}$$

### 10.766 INVALID-ORDER-766 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{L_1 R_1 R_L s \left(-C_4 R_4 s + R_4 g_m -\right.}{C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_4 C_L L_1 R_1 R_4 R_L s^3 + 2 C_4 L_1 R_1 R_4 R_L g_m s^2 + C_4 L_1 R_1 R_4 s^2 + C_4 L_1 R_4 R_L s^2 + C_4 R_1 R_4 R_L s + C_L$$

### 10.767 INVALID-ORDER-767 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 R_1 s \left(C_L R_L\right.}{C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_L L_1 R_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_1 R_4 s^3 + C_4 C_L L_1 R_4 R_L s^3 + C_4 C_L R_1 R$$

### 10.768 INVALID-ORDER-768 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 R_1 s \left(C_L L_L s\right.}{C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_L L_1 L_L R_1 R_4 g_m s^4 + C_4 C_L L_1 L_L R_4 s^4 + C_4 C_L L_1 R_1 R_4 s^3 + C_4 C_L L_L R_1$$

### 10.769 INVALID-ORDER-769 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_1 L_L R_1 s^2 \left(-C_4 R_4 s + R_4 g_m\right.}{C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_4 C_L L_1 L_L R_1 R_4 s^4 + 2 C_4 L_1 L_L R_1 R_4 g_m s^3 + C_4 L_1 L_L R_4 s^3 + C_4 L_1 R_1 R_4 s^2 + C_4 L_L R_1 R_4 s^2 + C_L$$

### 10.770 INVALID-ORDER-770 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_L L_1 L_L R_1 R_4 g_m s^4 + C_4 C$$

### 10.771 INVALID-ORDER-771 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 L_1 L_L R_1 R_4 R_L s^4 + C_1 C_L L_1 L_L R_1 R_4 R_L s^4 + C_1 L_1 L_L R_1 R_4 s^3 + C_1 L_1 L_L R_1 R_L s^3 + C_1 L_1 R_1 R_4 R_L s^2 + C_4 C_L L_1 L_L R_1 R_4 R_L s^4 + 2 C_4 L_1 L_L R_1 R_4 R_L g_m s^3 + C_4 L_1 L_L R_1 R}$$

### 10.772 INVALID-ORDER-772 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + 2 C_4 C}$$

### 10.773 INVALID-ORDER-773 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + 2 C_4 C_L L_1 L_L R_1 R_4 R_L}$$

### 10.774 INVALID-ORDER-774 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s + 1},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_1 R_L s \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 L_1 R_1 R_4 g_m s^2 + 2 C_4 L_1 R_1 R_L g_m s^2 + C_4 L_1 R_1 s^2 + C_4 L_1 R_4 s^2 + C_4 L_1 R_L s^2 + C_4 R_1 R_4 s + C_4 R_1 R_L s + L_1 R_1 g_m s + L_1 s +}$$

### 10.775 INVALID-ORDER-775 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s + 1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_1 R_4 g_m s^2 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_4 s^2 + C_4 C_L R_1 R_4 s + 2 C_4 L_1 R_1 g_m s + C_4 L_1 s + C_4 R_1 + C_L L_1 R_1 g_m s +}$$

### 10.776 INVALID-ORDER-776 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1 R_1 R_L s \left(C_4$$
$$C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 R_1 R_4 R_L g_m s^3 + C_4 C_L L_1 R_1 R_L s^3 + C_4 C_L L_1 R_4 R_L s^3 + C_4 C_L R_1 R_4 R$$

### 10.777 INVALID-ORDER-777 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 \left(C_L R_L s + 1\right) \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 C_L L_1 R_1 R_L s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_1 R_4 g_m s^2 + 2 C_4 C_L L_1 R_1 R_L g_m s^2 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_4 s^2 + C_4 C_L L_1 R_L s^2 + C$$

### 10.778 INVALID-ORDER-778 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 \left(C_L L_L s^2 + 1\right) \left(C_4 R_4 g_m s - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + 2 C_4 C_L L_1 L_L R_1 g_m s^3 + C_4 C_L L_1 L_L s^3 + C_4 C_L L_1 R_1 R_4 g_m s^2 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_4 s^2 + C_4$$

### 10.779 INVALID-ORDER-779 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_1 L_L R_1 s^2 \left(C_4$$
$$C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_L R_1 R_4 g_m s^4 + C_4 C_L L_1 L_L R_1 s^4 + C_4 C_L L_1 L_L R_4 s^4 + C_4 C_L L_L R_1 R_4$$

### 10.780 INVALID-ORDER-780 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 \left(C_L L_L s^2 + C_L R_L s +$$
$$C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 C_L L_1 R_1 R_L s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + 2 C_4 C_L L_1 L_L R_1 g_m s^3 + C_4 C_L L_1 L_L s^3 + C_4 C_L L_1 R_1 R_4 g_m s^2 + 2 C_4 C_L L_1 R_1$$

### 10.781 INVALID-ORDER-781 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_4 L_1 L_L R_1 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_L s^2 + C_4 C_L L_1 L_L R_1 R_4 R_L g_m s$$

### 10.782 INVALID-ORDER-782 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_LR_1R_4s^5 + C_1C_4C_LL_1L_LR_1R_Ls^5 + C_1C_4L_1L_LR_1s^4 + C_1C_4L_1R_1R_4s^3 + C_1C_4L_1R_1R_Ls^3 + C_1C_LL_1L_LR_1s^4 + C_1L_1R_1s^2 + C_4C_LL_1L_LR_1R_4g_ms^4 + 2C_4C_LL$$

### 10.783 INVALID-ORDER-783 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_LR_1R_4s^5 + C_1C_4C_LL_1L_LR_1R_Ls^5 + C_1C_4C_LL_1R_1R_4R_Ls^4 + C_1C_4L_1R_1R_4s^3 + C_1C_4L_1R_1R_Ls^3 + C_1C_LL_1L_LR_1s^4 + C_1C_LL_1R_1R_Ls^3 + C_1L_1R_1s^2 + C_4C_LL$$

### 10.784 INVALID-ORDER-784 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1R_1R_Ls\left(C_4L_4g_ms^2 - C_4s + g_m\right)}{C_1C_4L_1L_4R_1s^4 + C_1C_4L_1R_1R_Ls^3 + C_1L_1R_1s^2 + C_4L_1L_4R_1g_ms^3 + C_4L_1L_4s^3 + 2C_4L_1R_1R_Lg_ms^2 + C_4L_1R_1s^2 + C_4L_1R_Ls^2 + C_4L_4R_1s^2 + C_4R_1R_Ls + L_1R_1g_ms + L_1s}$$

### 10.785 INVALID-ORDER-785 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1R_1\left(C_4L_4g_ms^2 - C_4s + g_m\right)}{C_1C_4C_LL_1L_4R_1s^4 + C_1C_4L_1R_1s^2 + C_1C_LL_1R_1s^2 + C_4C_LL_1L_4R_1g_ms^3 + C_4C_LL_1L_4s^3 + C_4C_LL_1R_1s^2 + C_4C_LL_4R_1s^2 + 2C_4L_1R_1g_ms + C_4L_1s + C_4R_1 + C_LL_1R_1g_ms +}$$

### 10.786 INVALID-ORDER-786 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1R_1R_Ls\left(C_4}{C_1C_4C_LL_1L_4R_1R_Ls^5 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1R_1R_Ls^3 + C_1C_LL_1R_1R_Ls^3 + C_1L_1R_1s^2 + C_4C_LL_1L_4R_1R_Lg_ms^4 + C_4C_LL_1L_4R_Ls^4 + C_4C_LL_1R_1R_Ls^3 + C_4C_LL_4R_1R_L}$$

### 10.787 INVALID-ORDER-787 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 \left(C_L R_L s + 1\right) \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_4 R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_L s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 g_m s^3 + C_4 C_L L_1 L_4 s^3 + 2 C_4 C_L L_1 R_1 R_L g_m s^2 + C_4 C_L L_1 R_1 s^2 + C_4 C_L L_1 R_L s^2 + C_4}$$

### 10.788 INVALID-ORDER-788 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 g_m s^2 - C_4 s + g_m\right)}{C_1 C_4 C_L L_1 L_4 R_1 s^4 + C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 g_m s^3 + C_4 C_L L_1 L_4 s^3 + 2 C_4 C_L L_1 L_L R_1 g_m s^3 + C_4 C_L L_1 L_L s^3 + C_4 C_L L_1 R_1 s^2 + C_4}$$

### 10.789 INVALID-ORDER-789 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_1 L_L R_1 s^2 \left(C_4\right.}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_1 L_L R_1 s^4 + C_4 C_L L_4 L_L R_1 s}$$

### 10.790 INVALID-ORDER-790 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 \left(C_L L_L s^2 + C_L R_L s +\right.}{C_1 C_4 C_L L_1 L_4 R_1 s^4 + C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_L s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 g_m s^3 + C_4 C_L L_1 L_4 s^3 + 2 C_4 C_L L_1 L_L R_1 g_m s^3 + C_4 C_L L_1 L_L s^3}$$

### 10.791 INVALID-ORDER-791 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_4 L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_L s^2 + C_4 C_L L_1 L_4 L_L R_1 R_L g_m s}$$

### 10.792 INVALID-ORDER-792 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_LR_1R_Ls^5 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_LR_1s^4 + C_1C_4L_1R_1R_Ls^3 + C_1C_LL_1L_LR_1s^4 + C_1L_1R_1s^2 + C_4C_LL_1L_4L_LR_1g_ms^5 + C_4C_LL_1$$

### 10.793 INVALID-ORDER-793 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4R_1R_Ls^5 + C_1C_4C_LL_1L_LR_1R_Ls^5 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1R_1R_Ls^3 + C_1C_LL_1L_LR_1s^4 + C_1C_LL_1R_1R_Ls^3 + C_1L_1R_1s^2 + C_4C_LL_1$$

### 10.794 INVALID-ORDER-794 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1R_1R_Ls\left(-C_4L_4s^2 + L_4g_ms - 1\right)}{C_1C_4L_1L_4R_1R_Ls^4 + C_1L_1L_4R_1s^3 + C_1L_1R_1R_Ls^2 + 2C_4L_1L_4R_1R_Lg_ms^3 + C_4L_1L_4R_1s^3 + C_4L_1L_4R_Ls^3 + C_4L_4R_1R_Ls^2 + L_1L_4R_1g_ms^2 + L_1L_4s^2 + 2L_1R_1R_Lg_ms + L_1R$$

### 10.795 INVALID-ORDER-795 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1R_1s\left(-C_4L_4s^2 + L_4g_ms - 1\right)}{C_1C_4L_1L_4R_1s^4 + C_1C_LL_1L_4R_1s^4 + C_1L_1R_1s^2 + C_4C_LL_1L_4R_1s^4 + 2C_4L_1L_4R_1g_ms^3 + C_4L_1L_4s^3 + C_4L_4R_1s^2 + C_LL_1L_4R_1g_ms^3 + C_LL_1L_4s^3 + C_LL_1R_1s^2 + C_LL_4R_1s^2$$

### 10.796 INVALID-ORDER-796 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{L_1R_1R_Ls\left(-C_4L_4s^2 + L_4g_ms\right.}{C_1C_4L_1L_4R_1R_Ls^4 + C_1C_LL_1L_4R_1R_Ls^4 + C_1L_1L_4R_1s^3 + C_1L_1R_1R_Ls^2 + C_4C_LL_1L_4R_1R_Ls^4 + 2C_4L_1L_4R_1R_Lg_ms^3 + C_4L_1L_4R_1s^3 + C_4L_1L_4R_Ls^3 + C_4L_4R_1R_Ls^2 + C_L$$

### 10.797 INVALID-ORDER-797 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 R_1 s \left(C_L R_L s\right.}{C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_L L_1 L_4 R_1 R_L g_m s^4 + C_4 C_L L_1 L_4 R_1 s^4 + C_4 C_L L_1 L_4 R_L s^4 + C_4 C_L L_4 R_1}$$

### 10.798 INVALID-ORDER-798 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{L_1 R_1 s \left(C_L L_L s^2\right.}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + 2 C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L L_1 L_4 L_L s^5 + C_4 C_L L_1 L_4 R_1 s^4 + C_4 C_L L_4 L_L}$$

### 10.799 INVALID-ORDER-799 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_1 L_L R_1 s \left(-C_4 L_4 s^2 + L_4 g_m s - 1\right.}{C_1 C_4 L_1 L_4 L_L R_1 s^4 + C_1 C_L L_1 L_4 L_L R_1 s^4 + C_1 L_1 L_4 R_1 s^2 + C_1 L_1 L_L R_1 s^2 + C_4 C_L L_1 L_4 L_L R_1 s^4 + 2 C_4 L_1 L_4 L_L R_1 g_m s^3 + C_4 L_1 L_4 L_L s^3 + C_4 L_1 L_4 R_1 s^2 + C_4 L_4 L_L R_1 s^2 + C_L L}$$

### 10.800 INVALID-ORDER-800 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_L s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + 2 C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L}$$

### 10.801 INVALID-ORDER-801 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 L_1 L_4 L_L R_1 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 R_L s^4 + C_1 L_1 L_4 L_L R_1 s^3 + C_1 L_1 L_4 R_1 R_L s^2 + C_1 L_1 L_L R_1 R_L s^2 + C_4 C_L L_1 L_4 L_L R_1 R_L s^4 + 2 C_4 L_1 L_4 L_L R_1 R_L g_m s^3 + C_4 L_1 L_4 L_L R_1}$$

**10.802 INVALID-ORDER-802** $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_Ls^6 + C_1C_4L_1L_4L_LR_1s^5 + C_1C_4L_1L_4R_1R_Ls^4 + C_1C_LL_1L_4L_LR_1s^5 + C_1C_LL_1L_LR_1R_Ls^4 + C_1L_1L_4R_1s^3 + C_1L_1L_LR_1s^3 + C_1L_1R_1R_Ls^2 + 2C_4C_L$$

**10.803 INVALID-ORDER-803** $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_Ls^6 + C_1C_4L_1L_4R_1R_Ls^4 + C_1C_LL_1L_4L_LR_1s^5 + C_1C_LL_1L_4R_1R_Ls^4 + C_1C_LL_1L_LR_1R_Ls^4 + C_1L_1L_4R_1s^3 + C_1L_1R_1R_Ls^2 + 2C_4C_LL_1L_4L_LR_1R_Lg$$

**10.804 INVALID-ORDER-804** $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1R_1R_Ls\left(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m\right)}{C_1C_4L_1L_4R_1s^4 + C_1C_4L_1R_1R_4s^3 + C_1C_4L_1R_1R_Ls^3 + C_1L_1R_1s^2 + C_4L_1L_4R_1g_ms^3 + C_4L_1L_4s^3 + C_4L_1R_1R_4g_ms^2 + 2C_4L_1R_1R_Lg_ms^2 + C_4L_1R_1s^2 + C_4L_1R_4s^2 + C_4L_1$$

**10.805 INVALID-ORDER-805** $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1R_1\left(C_4L_4g_ms^2 + C_4R_4g_ms - C_4s + g_m\right)}{C_1C_4C_LL_1L_4R_1s^4 + C_1C_4C_LL_1R_1R_4s^3 + C_1C_4L_1R_1s^2 + C_1C_LL_1R_1s^2 + C_4C_LL_1L_4R_1g_ms^3 + C_4C_LL_1L_4s^3 + C_4C_LL_1R_1R_4g_ms^2 + C_4C_LL_1R_1s^2 + C_4C_LL_1R_4s^2 + C_4C$$

**10.806 INVALID-ORDER-806** $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_1R_Ls^5 + C_1C_4C_LL_1R_1R_4R_Ls^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1R_1R_4s^3 + C_1C_4L_1R_1R_Ls^3 + C_1C_LL_1R_1R_Ls^3 + C_1L_1R_1s^2 + C_4C_LL_1L_4R_1R_Lg_ms^4 + C_4C_LL_1$$

### 10.807 INVALID-ORDER-807 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 \left(C_L R_L s + 1\right) \left(C_4 L_4 g_m s}{C_1 C_4 C_L L_1 L_4 R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 C_L L_1 R_1 R_L s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 g_m s^3 + C_4 C_L L_1 L_4 s^3 + C_4 C_L L_1 R_1 R_4 g_m s^2 + 2 C_4 C_L L_1 R_1 R_}$$

### 10.808 INVALID-ORDER-808 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 g_m}{C_1 C_4 C_L L_1 L_4 R_1 s^4 + C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 g_m s^3 + C_4 C_L L_1 L_4 s^3 + 2 C_4 C_L L_1 L_L R_1 g_m s^3 + C_4 C_L L_1 L_L s^3}$$

### 10.809 INVALID-ORDER-809 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 L_L R_1 g_m s^5 + C_4 C_L L_1 L}$$

### 10.810 INVALID-ORDER-810 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 R_1 s^4 + C_1 C_4 C_L L_1 L_L R_1 s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^3 + C_1 C_4 C_L L_1 R_1 R_L s^3 + C_1 C_4 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 g_m s^3 + C_4 C_L L_1 L_4 s^3 + 2 C_4 C_L L_1 L_L R}$$

### 10.811 INVALID-ORDER-811 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_4 L_1 L_L R_1 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L}$$

### 10.812 INVALID-ORDER-812 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_LR_1R_4s^5 + C_1C_4C_LL_1L_LR_1R_Ls^5 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_LR_1s^4 + C_1C_4L_1R_1R_4s^3 + C_1C_4L_1R_1R_Ls^3 + C_1C_LL_1L_LR_1s^4 + C_1$$

### 10.813 INVALID-ORDER-813 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4R_1R_Ls^5 + C_1C_4C_LL_1L_LR_1R_4s^5 + C_1C_4C_LL_1L_LR_1R_Ls^5 + C_1C_4C_LL_1R_1R_4R_Ls^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1R_1R_4s^3 + C_1C_4L_1R_1$$

### 10.814 INVALID-ORDER-814 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1R_1R_Ls\left(-C_4L_4R_4s^2 + L_4R_4g_ms\right.}{C_1C_4L_1L_4R_1R_4R_Ls^4 + C_1L_1L_4R_1R_4s^3 + C_1L_1L_4R_1R_Ls^3 + C_1L_1R_1R_4R_Ls^2 + 2C_4L_1L_4R_1R_4R_Lg_ms^3 + C_4L_1L_4R_1R_4s^3 + C_4L_1L_4R_4R_Ls^3 + C_4L_4R_1R_4R_Ls^2 + L_1L_4R_1}$$

### 10.815 INVALID-ORDER-815 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1R_1s\left(-C_4L_4R_4s^2 + L_4R_4g_ms - L_4s -\right.}{C_1C_4L_1L_4R_1R_4s^4 + C_1C_LL_1L_4R_1R_4s^4 + C_1L_1L_4R_1s^3 + C_1L_1R_1R_4s^2 + C_4C_LL_1L_4R_1R_4s^4 + 2C_4L_1L_4R_1R_4g_ms^3 + C_4L_1L_4R_4s^3 + C_4L_4R_1R_4s^2 + C_LL_1L_4R_1R_4g_ms^3 +}$$

### 10.816 INVALID-ORDER-816 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_4L_1L_4R_1R_4R_Ls^4 + C_1C_LL_1L_4R_1R_4R_Ls^4 + C_1L_1L_4R_1R_4s^3 + C_1L_1L_4R_1R_Ls^3 + C_1L_1R_1R_4R_Ls^2 + C_4C_LL_1L_4R_1R_4R_Ls^4 + 2C_4L_1L_4R_1R_4R_Lg_ms^3 + C_4L_1L_4R_1R_4s^3$$

### 10.817 INVALID-ORDER-817 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_1R_4R_Ls^5 + C_1C_4L_1L_4R_1R_4s^4 + C_1C_LL_1L_4R_1R_4s^4 + C_1C_LL_1L_4R_1R_Ls^4 + C_1C_LL_1R_1R_4R_Ls^3 + C_1L_1L_4R_1s^3 + C_1L_1R_1R_4s^2 + 2C_4C_LL_1L_4R_1R_4R_Lg_m}$$

### 10.818 INVALID-ORDER-818 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_4s^6 + C_1C_4L_1L_4R_1R_4s^4 + C_1C_LL_1L_4L_LR_1s^5 + C_1C_LL_1L_4R_1R_4s^4 + C_1C_LL_1L_LR_1R_4s^4 + C_1L_1L_4R_1s^3 + C_1L_1R_1R_4s^2 + 2C_4C_LL_1L_4L_LR_1R_4g_m}$$

### 10.819 INVALID-ORDER-819 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_4L_1L_4L_LR_1R_4s^4 + C_1C_LL_1L_4L_LR_1R_4s^4 + C_1L_1L_4L_LR_1s^3 + C_1L_1L_4R_1R_4s^2 + C_1L_1L_LR_1R_4s^2 + C_4C_LL_1L_4L_LR_1R_4s^4 + 2C_4L_1L_4L_LR_1R_4g_ms^3 + C_4L_1L_4L_LR_4s^3}$$

### 10.820 INVALID-ORDER-820 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_4s^6 + C_1C_4C_LL_1L_4R_1R_4R_Ls^5 + C_1C_4L_1L_4R_1R_4s^4 + C_1C_LL_1L_4L_LR_1s^5 + C_1C_LL_1L_4R_1R_4s^4 + C_1C_LL_1L_4R_1R_Ls^4 + C_1C_LL_1L_LR_1R_4s^4 + C_1C_L}$$

### 10.821 INVALID-ORDER-821 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_4L_1L_4L_LR_1R_4R_Ls^4 + C_1C_LL_1L_4L_LR_1R_4R_Ls^4 + C_1L_1L_4L_LR_1R_4s^3 + C_1L_1L_4L_LR_1R_Ls^3 + C_1L_1L_4R_1R_4R_Ls^2 + C_1L_1L_LR_1R_4R_Ls^2 + C_4C_LL_1L_4L_LR_1R_4R_Ls^4 + 2}$$

**10.822 INVALID-ORDER-822** $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_4R_Ls^6 + C_1C_4L_1L_4L_LR_1R_4s^5 + C_1C_4L_1L_4R_1R_4R_Ls^4 + C_1C_LL_1L_4L_LR_1R_4s^5 + C_1C_LL_1L_4L_LR_1R_Ls^5 + C_1C_LL_1L_LR_1R_4R_Ls^4 + C_1L_1L_4L_LR_1s^4}$$

**10.823 INVALID-ORDER-823** $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_4R_Ls^6 + C_1C_4L_1L_4R_1R_4R_Ls^4 + C_1C_LL_1L_4L_LR_1R_4s^5 + C_1C_LL_1L_4L_LR_1R_Ls^5 + C_1C_LL_1L_4R_1R_4R_Ls^4 + C_1C_LL_1L_LR_1R_4R_Ls^4 + C_1L_1L_4R_1R_4s^3}$$

**10.824 INVALID-ORDER-824** $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1R_1R_Ls\left(C_4L_4R_4g_ms^2 - C_4L_4s^2 + \right.}{C_1C_4L_1L_4R_1R_4s^4 + C_1C_4L_1L_4R_1R_Ls^4 + C_1L_1L_4R_1s^3 + C_1L_1R_1R_4s^2 + C_1L_1R_1R_Ls^2 + C_4L_1L_4R_1R_4g_ms^3 + 2C_4L_1L_4R_1R_Lg_ms^3 + C_4L_1L_4R_1s^3 + C_4L_1L_4R_4s^3 + C_4L_1}$$

**10.825 INVALID-ORDER-825** $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1R_1s\left(C_4L_4R_4g_ms^2 - C\right.}{C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4L_1L_4R_1s^4 + C_1C_LL_1L_4R_1s^4 + C_1C_LL_1R_1R_4s^3 + C_1L_1R_1s^2 + C_4C_LL_1L_4R_1R_4g_ms^4 + C_4C_LL_1L_4R_1s^4 + C_4C_LL_1L_4R_4s^4 + C_4C_LL_4R_1R_4s^3}$$

**10.826 INVALID-ORDER-826** $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_1R_4R_Ls^5 + C_1C_4L_1L_4R_1R_4s^4 + C_1C_4L_1L_4R_1R_Ls^4 + C_1C_LL_1L_4R_1R_Ls^4 + C_1C_LL_1R_1R_4R_Ls^3 + C_1L_1L_4R_1s^3 + C_1L_1R_1R_4s^2 + C_1L_1R_1R_Ls^2 + C_4C_LL_1$$

**10.827 INVALID-ORDER-827** $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_1L_4R_1R_Ls^5 + C_1C_4L_1L_4R_1s^4 + C_1C_LL_1L_4R_1s^4 + C_1C_LL_1R_1R_4s^3 + C_1C_LL_1R_1R_Ls^3 + C_1L_1R_1s^2 + C_4C_LL_1L_4R_1R_4g_ms^4 + 2C_4C_LL_1$$

**10.828 INVALID-ORDER-828** $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4L_1L_4R_1s^4 + C_1C_LL_1L_4R_1s^4 + C_1C_LL_1L_LR_1s^4 + C_1C_LL_1R_1R_4s^3 + C_1L_1R_1s^2 + 2C_4C_LL_1L_4L_LR_1g_ms^5 + C_4C_LL_1$$

**10.829 INVALID-ORDER-829** $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1R_4s^6 + C_1C_4L_1L_4L_LR_1s^5 + C_1C_4L_1L_4R_1R_4s^4 + C_1C_LL_1L_4L_LR_1s^5 + C_1C_LL_1L_LR_1R_4s^4 + C_1L_1L_4R_1s^3 + C_1L_1L_LR_1s^3 + C_1L_1R_1R_4s^2 + C_4C_LL_1L$$

**10.830 INVALID-ORDER-830** $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_1L_4R_1R_Ls^5 + C_1C_4L_1L_4R_1s^4 + C_1C_LL_1L_4R_1s^4 + C_1C_LL_1L_LR_1s^4 + C_1C_LL_1R_1R_4s^3 + C_1C_LL_1R_1R_Ls^3 + C_1$$

**10.831 INVALID-ORDER-831** $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1R_4R_Ls^6 + C_1C_4L_1L_4L_LR_1R_4s^5 + C_1C_4L_1L_4L_LR_1R_Ls^5 + C_1C_4L_1L_4R_1R_4R_Ls^4 + C_1C_LL_1L_4L_LR_1R_Ls^5 + C_1C_LL_1L_LR_1R_4R_Ls^4 + C_1L_1L_4L_LR_1s^4 +$$

### 10.832 INVALID-ORDER-832 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 L_1 L_4 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_L R_1 R_4 s^4 + C_1 C_L L_1}$$

### 10.833 INVALID-ORDER-833 $Z(s) = \left(R_1 + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 L_L R_1 s^5 + C_1 C_L L_1 L_4 R_1 R_L s^4 + C_1}$$

### 10.834 INVALID-ORDER-834 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{L_1 R_1 R_L s \left(C_4 L_4}{C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_4 L_1 L_4 R_1 R_4 g_m s^3 + 2 C_4 L_1 L_4 R_1 R_L g_m s^3 + C_4 L_1 L_4 R_1 s^3 + C_4 L_1 L_4 R_4 s^3 +}$$

### 10.835 INVALID-ORDER-835 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 s \left(C_4 L_4 R_4}{C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_L L_1 R_1 R_4 s^3 + C_1 L_1 R_1 s^2 + C_4 C_L L_1 L_4 R_1 R_4 g_m s^4 + C_4 C_L L_1 L_4 R_1 s^4 + C_4 C_L L_1 L_4 R_4 s^4 + C_4 C_L L_1 R_1 R_4 s^3}$$

### 10.836 INVALID-ORDER-836 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_1 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_L L_1 R_1 R_4 R_L s^3 + C_1 L_1 R_1 R_4 s^2 + C_1 L_1 R_1 R_L s^2 + C_4 C_L L_1 L_4 R_1 R_4 R_L g_m s^4}$$

### 10.837 INVALID-ORDER-837 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_1L_4R_1R_Ls^5 + C_1C_4C_LL_1R_1R_4R_Ls^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1R_1R_4s^3 + C_1C_LL_1R_1R_4s^3 + C_1C_LL_1R_1R_Ls^3 + C_1L_1R_1s^2 + C_4C_LL$$

### 10.838 INVALID-ORDER-838 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_1L_LR_1R_4s^5 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1R_1R_4s^3 + C_1C_LL_1L_LR_1s^4 + C_1C_LL_1R_1R_4s^3 + C_1L_1R_1s^2 + 2C_4C_LL$$

### 10.839 INVALID-ORDER-839 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1R_4s^6 + C_1C_4L_1L_4L_LR_1s^5 + C_1C_4L_1L_4R_1R_4s^4 + C_1C_4L_1L_LR_1R_4s^4 + C_1C_LL_1L_LR_1R_4s^4 + C_1L_1L_LR_1s^3 + C_1L_1R_1R_4s^2 + C_4C_LL_1L_4L_LR_1R_4g_ms^5 +$$

### 10.840 INVALID-ORDER-840 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_1L_4R_1R_Ls^5 + C_1C_4C_LL_1L_LR_1R_4s^5 + C_1C_4C_LL_1R_1R_4R_Ls^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1R_1R_4s^3 + C_1C_LL_1L$$

### 10.841 INVALID-ORDER-841 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1R_4R_Ls^6 + C_1C_4L_1L_4L_LR_1R_4s^5 + C_1C_4L_1L_4L_LR_1R_Ls^5 + C_1C_4L_1L_4R_1R_4R_Ls^4 + C_1C_4L_1L_LR_1R_4R_Ls^4 + C_1C_LL_1L_LR_1R_4R_Ls^4 + C_1L_1L_LR_1R_4s^3 +$$

### 10.842 INVALID-ORDER-842 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_4s^6 + C_1C_4C_LL_1L_4L_LR_1R_Ls^6 + C_1C_4C_LL_1L_LR_1R_4R_Ls^5 + C_1C_4L_1L_4L_LR_1s^5 + C_1C_4L_1L_4R_1R_4s^4 + C_1C_4L_1L_4R_1R_Ls^4 + C_1C_4L_1L_LR_1R_4s^4 + C$$

### 10.843 INVALID-ORDER-843 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_4s^6 + C_1C_4C_LL_1L_4L_LR_1R_Ls^6 + C_1C_4C_LL_1L_4R_1R_4R_Ls^5 + C_1C_4C_LL_1L_LR_1R_4R_Ls^5 + C_1C_4L_1L_4R_1R_4s^4 + C_1C_4L_1L_4R_1R_Ls^4 + C_1C_4L_1R_1R_4R_L$$

### 10.844 INVALID-ORDER-844 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{(R_4 g_m - 1)\left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1C_LL_1R_1R_4g_ms^3 + C_1C_LL_1R_1s^3 + C_1C_LL_1R_4s^3 + 2C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_LL_1R_4g_ms^2 + C_LL_1s^2 + C_LR_1R_4g_ms + C_LR_1s + C_LR_4s + 2L_1g_ms + 2R_1g_m + 1}$$

### 10.845 INVALID-ORDER-845 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{R_L\left(R_4 g_m - 1\right)\left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1C_LL_1R_1R_4R_Lg_ms^3 + C_1C_LL_1R_1R_Ls^3 + C_1C_LL_1R_4R_Ls^3 + C_1L_1R_1R_4g_ms^2 + 2C_1L_1R_1R_Lg_ms^2 + C_1L_1R_1s^2 + C_1L_1R_4s^2 + C_1L_1R_Ls^2 + C_LL_1R_4R_Lg_ms^2 + C_LL_1R_Ls$$

### 10.846 INVALID-ORDER-846 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(R_4 g_m - 1)\left(C_L R_L s + 1\right)\left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1C_LL_1R_1R_4g_ms^3 + 2C_1C_LL_1R_1R_Lg_ms^3 + C_1C_LL_1R_1s^3 + C_1C_LL_1R_4s^3 + C_1C_LL_1R_Ls^3 + 2C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_LL_1R_4g_ms^2 + 2C_LL_1R_Lg_ms^2 + C_LL_1s^2 + C_LR$$

### 10.847 INVALID-ORDER-847 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(R_4 g_m - 1)\left(C_L L_L s^2 + 1\right)\left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{2C_1C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2C_L L_1 L_L g_m s^3 + C_L L_1 R_4 g_m s^2 + C_L L_1 s^2 + 2C_L L}$$

### 10.848 INVALID-ORDER-848 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s\,(R_4 g_m - 1)\left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 + 2C_1 L_1 L_L R_1 g_m s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_1 R_4 g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + C_L L_1 L_L R_4 g_m s^3 + C_L L_1 L_L s^3}$$

### 10.849 INVALID-ORDER-849 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{(R_4 g_m - 1)\left(C_L L_L s^2 + C_L R_L s +\right.}{2C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_1 R_4 g_m s^3 + 2C_1 C_L L_1 R_1 R_L g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + 2C_L L_1 L_L}$$

### 10.850 INVALID-ORDER-850 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_1 R_4 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_4 R_L s^4 + C_1 L_1 L_L R_1 R_4 g_m s^3 + 2C_1 L_1 L_L R_1 R_L g_m s^3 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 L_L R_4 s^3 + C_1 L_1 L_L R_L s^3 + C_1 L_1}$$

### 10.851 INVALID-ORDER-851 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + 2C_1 C_L L_1 L_L R_1 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + 2C_1 L_1 L_L R_1 g_m s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_1 R_4 g_m s^2 + 2C_1 L_1 R_1 L}$$

### 10.852 INVALID-ORDER-852 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_LL_1L_LR_1R_4g_ms^4 + 2C_1C_LL_1L_LR_1R_Lg_ms^4 + C_1C_LL_1L_LR_1s^4 + C_1C_LL_1L_LR_4s^4 + C_1C_LL_1L_LR_Ls^4 + C_1C_LL_1R_1R_4R_Lg_ms^3 + C_1C_LL_1R_1R_Ls^3 + C_1C_LL_1R_4R_Ls^3 +$$

### 10.853 INVALID-ORDER-853 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = -\frac{R_L\left(C_4 s - g_m\right)\left(C_1L_1R_1s^2 + L_1s + R_1\right)}{2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_Ls^3 + C_1L_1R_1g_ms^2 + C_1L_1s^2 + 2C_4L_1R_Lg_ms^2 + C_4L_1s^2 + 2C_4R_1R_Lg_ms + C_4R_1s + C_4R_Ls + L_1g_ms + R_1g_m + 1}$$

### 10.854 INVALID-ORDER-854 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_4 s - g_m\right)\left(C_1L_1R_1s^2 + L_1s + R_1\right)}{s\left(C_1C_4C_LL_1R_1s^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2 + C_4C_LL_1s^2 + C_4C_LR_1s + 2C_4L_1g_ms + 2C_4R_1g_m + C_4 + C_LL_1g_ms + C_LR_1g_m + C\right.}$$

### 10.855 INVALID-ORDER-855 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{R_L\left(C_4 s - g_m\right)\left(C_1L_1R_1s^2 + L_1s + R_1\right.}{C_1C_4C_LL_1R_1R_Ls^4 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_Ls^3 + C_1C_LL_1R_1R_Lg_ms^3 + C_1C_LL_1R_Ls^3 + C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_4C_LL_1R_Ls^3 + C_4C_LR_1R_{\left.1\right.}}$$

### 10.856 INVALID-ORDER-856 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_4 s - g_m\right)\left(C_LR_Ls + 1\right)\left(C_1L_1R_1s^2 + L_1s + R_1\right)}{s\left(2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_Ls^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2 + 2C_4C_LL_1R_Lg_ms^2 + C_4C_LL_1s^2 + 2C_4\right.}$$

### 10.857 INVALID-ORDER-857 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{(C_4 s - g_m)\left(C_L L_L s^2 + 1\right)\left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{s\left(2C_1C_4C_L L_1 L_L R_1 g_m s^4 + C_1C_4C_L L_1 L_L s^4 + C_1C_4C_L L_1 R_1 s^3 + 2C_1C_4 L_1 R_1 g_m s^2 + C_1C_4 L_1 s^2 + C_1C_L L_1 R_1 g_m s^2 + C_1C_L L_1 s^2 + 2C_4C_L L_1 L_L g_m s^3 + C_4C_L L_1 s^2 + 2C_4\right.}$$

### 10.858 INVALID-ORDER-858 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{L_L s\,(C_4 s - g_m)\left(C_1 L_1 R_1 s^2 + L_1 s + R\right.}{C_1C_4C_L L_1 L_L R_1 s^5 + 2C_1C_4 L_1 L_L R_1 g_m s^4 + C_1C_4 L_1 L_L s^4 + C_1C_4 L_1 R_1 s^3 + C_1C_L L_1 L_L R_1 g_m s^4 + C_1C_L L_1 L_L s^4 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_4C_L L_1 L_L s^4 + C_4C_L L_L R_1 s}$$

### 10.859 INVALID-ORDER-859 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{(C_4 s - g_m)\,(C_L}{s\left(2C_1C_4C_L L_1 L_L R_1 g_m s^4 + C_1C_4C_L L_1 L_L s^4 + 2C_1C_4C_L L_1 R_1 R_L g_m s^3 + C_1C_4C_L L_1 R_1 s^3 + C_1C_4C_L L_1 R_L s^3 + 2C_1C_4 L_1 R_1 g_m s^2 + C_1C_4 L_1 s^2 + C_1C_L L_1 R_1 g_m s^2 + C_1C_L\right.}$$

### 10.860 INVALID-ORDER-860 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_L L_1 L_L R_1 R_L s^5 + 2C_1C_4 L_1 L_L R_1 R_L g_m s^4 + C_1C_4 L_1 L_L R_1 s^4 + C_1C_4 L_1 L_L R_L s^4 + C_1C_4 L_1 R_1 R_L s^3 + C_1C_L L_1 L_L R_1 R_L g_m s^4 + C_1C_L L_1 L_L R_L s^4 + C_1 L_1 L_L R_1 g_m s^3 +}$$

### 10.861 INVALID-ORDER-861 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{2C_1C_4C_L L_1 L_L R_1 R_L g_m s^5 + C_1C_4C_L L_1 L_L R_1 s^5 + C_1C_4C_L L_1 L_L R_L s^5 + 2C_1C_4 L_1 L_L R_1 g_m s^4 + C_1C_4 L_1 L_L s^4 + 2C_1C_4 L_1 R_1 R_L g_m s^3 + C_1C_4 L_1 R_1 s^3 + C_1C_4 L_1 R_L s^3 + C_1}$$

### 10.862 INVALID-ORDER-862 $Z(s) = \left( L_1 s + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s + 1},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_LR_1R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_1L_LR_Ls^5 + C_1C_4C_LL_1R_1R_Ls^4 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_Ls^3 + C_1C_LL_1L_LR_1g_ms^4}$$

### 10.863 INVALID-ORDER-863 $Z(s) = \left( L_1 s + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = -\frac{R_L\left(C_4R_4s - R_4g_m + 1\right)\left(C_1L_1R_1s^2 + L_1s + R_1\right.}{2C_1C_4L_1R_1R_4R_Lg_ms^3 + C_1C_4L_1R_1R_4s^3 + C_1C_4L_1R_4R_Ls^3 + C_1L_1R_1R_4g_ms^2 + 2C_1L_1R_1R_Lg_ms^2 + C_1L_1R_1s^2 + C_1L_1R_4s^2 + C_1L_1R_Ls^2 + 2C_4L_1R_4R_Lg_ms^2 + C_4L_1R}$$

### 10.864 INVALID-ORDER-864 $Z(s) = \left( L_1 s + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = -\frac{\left(C_4R_4s - R_4g_m + 1\right)\left(C_1L_1R_1s^2 + L_1s + \right.}{C_1C_4C_LL_1R_1R_4s^4 + 2C_1C_4L_1R_1R_4g_ms^3 + C_1C_4L_1R_4s^3 + C_1C_LL_1R_1R_4g_ms^3 + C_1C_LL_1R_1s^3 + C_1C_LL_1R_4s^3 + 2C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_4C_LL_1R_4s^3 + C_4C_LR_1R_4}$$

### 10.865 INVALID-ORDER-865 $Z(s) = \left( L_1 s + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1R_1R_4R_Ls^4 + 2C_1C_4L_1R_1R_4R_Lg_ms^3 + C_1C_4L_1R_1R_4s^3 + C_1C_4L_1R_4R_Ls^3 + C_1C_LL_1R_1R_4R_Lg_ms^3 + C_1C_LL_1R_1R_Ls^3 + C_1C_LL_1R_4R_Ls^3 + C_1L_1R_1R_4g_ms^2 +}$$

### 10.866 INVALID-ORDER-866 $Z(s) = \left( L_1 s + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1R_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_1R_4s^4 + C_1C_4C_LL_1R_4R_Ls^4 + 2C_1C_4L_1R_1R_4g_ms^3 + C_1C_4L_1R_4s^3 + C_1C_LL_1R_1R_4g_ms^3 + 2C_1C_LL_1R_1R_Lg_ms^3 + C_1C_LL_1R_1s^3}$$

### 10.867 INVALID-ORDER-867 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_LR_1R_4g_ms^5 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_1R_1R_4s^4 + 2C_1C_4L_1R_1R_4g_ms^3 + C_1C_4L_1R_4s^3 + 2C_1C_LL_1L_LR_1g_ms^4 + C_1C_LL_1L_Ls^4 + C_1C_LL_1R_1R_4g_ms^3}$$

### 10.868 INVALID-ORDER-868 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_LR_1R_4s^5 + 2C_1C_4L_1L_LR_1R_4g_ms^4 + C_1C_4L_1L_LR_4s^4 + C_1C_4L_1R_1R_4s^3 + C_1C_LL_1L_LR_1R_4g_ms^4 + C_1C_LL_1L_LR_1s^4 + C_1C_LL_1L_LR_4s^4 + 2C_1L_1L_LR_1g_ms^3 +}$$

### 10.869 INVALID-ORDER-869 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_LR_1R_4g_ms^5 + C_1C_4C_LL_1L_LR_4s^5 + 2C_1C_4C_LL_1R_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_1R_4s^4 + C_1C_4C_LL_1R_4R_Ls^4 + 2C_1C_4L_1R_1R_4g_ms^3 + C_1C_4L_1R_4s^3 + 2C_1C_L}$$

### 10.870 INVALID-ORDER-870 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_LR_1R_4R_Ls^5 + 2C_1C_4L_1L_LR_1R_4R_Lg_ms^4 + C_1C_4L_1L_LR_1R_4s^4 + C_1C_4L_1L_LR_4R_Ls^4 + C_1C_4L_1R_1R_4R_Ls^3 + C_1C_LL_1L_LR_1R_4R_Lg_ms^4 + C_1C_LL_1L_LR_1R_Ls^4}$$

### 10.871 INVALID-ORDER-871 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1R_4s^5 + C_1C_4C_LL_1L_LR_4R_Ls^5 + 2C_1C_4L_1L_LR_1R_4g_ms^4 + C_1C_4L_1L_LR_4s^4 + 2C_1C_4L_1R_1R_4R_Lg_ms^3 + C_1C_4L_1R_1R_4s^3 +}$$

### 10.872 INVALID-ORDER-872 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1R_4s^5 + C_1C_4C_LL_1L_LR_4R_Ls^5 + C_1C_4C_LL_1R_1R_4R_Ls^4 + 2C_1C_4L_1R_1R_4R_Lg_ms^3 + C_1C_4L_1R_1R_4s^3 + C_1C_4L_1R_4R_Ls^3 +}$$

### 10.873 INVALID-ORDER-873 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(C_1L_1R_1s^2 + L_1s + R_1\right)\left(C_4R_4g_ms - C_4s + g_m\right)}{C_1C_4L_1R_1R_4g_ms^3 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_4s^3 + C_1C_4L_1R_Ls^3 + C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_4L_1R_4g_ms^2 + 2C_4L_1R_Lg_ms^2 + C_4L_1s^2 + C_4R_1R_4g}$$

### 10.874 INVALID-ORDER-874 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1L_1R_1s^2 + L_1s + R_1\right)\left(C_4R_4g_ms - C_4s + g_m\right)}{s\left(C_1C_4C_LL_1R_1R_4g_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2 + C_4C_LL_1R_4g_ms^2 + C_4C_LL_1s^2 + C_4C_LR_1}$$

### 10.875 INVALID-ORDER-875 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1R_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_1R_Ls^4 + C_1C_4C_LL_1R_4R_Ls^4 + C_1C_4L_1R_1R_4g_ms^3 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_4s^3 + C_1C_4L_1R_Ls^3 + C_1C_L}$$

### 10.876 INVALID-ORDER-876 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_LR_Ls + 1\right)\left(C_1L_1}{s\left(C_1C_4C_LL_1R_1R_4g_ms^3 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + C_1C_4C_LL_1R_Ls^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s}$$

### 10.877 INVALID-ORDER-877 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_L L_L s^2 + 1\right)\left(C_1 L_1$$
$$s\left(2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + C_1C_4C_LL_1R_1R_4g_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2\right.$$

### 10.878 INVALID-ORDER-878 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_LR_1R_4g_ms^5 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_1L_LR_4s^5 + 2C_1C_4L_1L_LR_1g_ms^4 + C_1C_4L_1L_Ls^4 + C_1C_4L_1R_1R_4g_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_4s^3 + C_1C_LL_1$$

### 10.879 INVALID-ORDER-879 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + C_1C_4C_LL_1R_1R_4g_ms^3 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + C_1C_4C_LL_1R_Ls^3 + 2C_1C_4L_1R_1g_ms^2\right.$$

### 10.880 INVALID-ORDER-880 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1R_Ls^5 + C_1C_4C_LL_1L_LR_4R_Ls^5 + C_1C_4L_1L_LR_1R_4g_ms^4 + 2C_1C_4L_1L_LR_1R_Lg_ms^4 + C_1C_4L_1L_LR_1s^4 + C_1C_4L_1L_LR_4s^4 + C_1$$

### 10.881 INVALID-ORDER-881 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_LR_1R_4g_ms^5 + 2C_1C_4C_LL_1L_LR_1R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_1L_LR_Ls^5 + 2C_1C_4L_1L_LR_1g_ms^4 + C_1C_4L_1L_Ls^4 + C_1C_4L_1R$$

### 10.882 INVALID-ORDER-882 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_LR_1R_4g_ms^5 + 2C_1C_4C_LL_1L_LR_1R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_1L_LR_Ls^5 + C_1C_4C_LL_1R_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_1R_Ls^4 +}$$

### 10.883 INVALID-ORDER-883 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_L\left(C_1L_1R_1s^2 + L_1s + R_1\right)\left(C_4L_4g_ms^2 - C_4s + g_m\right)}{C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_Ls^3 + C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_4L_1L_4g_ms^3 + 2C_4L_1R_Lg_ms^2 + C_4L_1s^2 + C_4L_4R_1g}$$

### 10.884 INVALID-ORDER-884 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_1L_1R_1s^2 + L_1s + R_1\right)\left(C_4L_4g_ms^2 - C_4s + g_m\right)}{s\left(C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + C_1C_4C_LL_1R_1s^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2 + C_4C_LL_1L_4g_ms^3 + C_4C_LL_1s^2 + C_4C_LL_4R\right.}$$

### 10.885 INVALID-ORDER-885 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_1R_1R_Ls^4 + C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_Ls^3 + C_1C_L}$$

### 10.886 INVALID-ORDER-886 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_LR_Ls + 1\right)\left(C_1L_1}{s\left(C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_Ls^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^\right.}$$

### 10.887 INVALID-ORDER-887 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{\left(C_L L_L s^2 + 1\right)\left(C_1 L_1}{s\left(C_1 C_4 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + 2 C_1 C_4 C_L L_1 L_L R_1 g_m s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_1 s^3 + 2 C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 s^2 + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2}$$

### 10.888 INVALID-ORDER-888 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 L_L R_1 g_m s^4 + C_1 C_4 L_1 L_L s^4 + C_1 C_4 L_1 R_1 s^3 + C_1 C_L L_1}$$

### 10.889 INVALID-ORDER-889 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1 C_4 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + 2 C_1 C_4 C_L L_1 L_L R_1 g_m s^4 + C_1 C_4 C_L L_1 L_L s^4 + 2 C_1 C_4 C_L L_1 R_1 R_L g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_L s^3 + 2 C_1 C_4 L_1 R_1 g_m s^2}$$

### 10.890 INVALID-ORDER-890 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_1 g_m s^5 + C_1 C_4 L_1 L_4 L_L s^5 + C_1 C_4 L_1 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_L s^4 + 2 C_1 C}$$

### 10.891 INVALID-ORDER-891 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + 2 C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 L_L}$$

### 10.892 INVALID-ORDER-892 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_Ls^5 + 2C_1C_4C_LL_1L_LR_1R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_1L_LR_Ls^5 +}$$

### 10.893 INVALID-ORDER-893 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = -\frac{R_L\left(C_4L_4s^2 - L_4g_ms + 1\right)\left(C_1L_1R_1s^2 + L_1s +\right.}{2C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_Ls^4 + C_1L_1L_4R_1g_ms^3 + C_1L_1L_4s^3 + 2C_1L_1R_1R_Lg_ms^2 + C_1L_1R_1s^2 + C_1L_1R_Ls^2 + 2C_4L_1L_4R_Lg_ms^3 + C_4L_1L_4}$$

### 10.894 INVALID-ORDER-894 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{\left(C_4L_4s^2 - L_4g_ms + 1\right)\left(C_1L_1R_1s^2 + L_1s +\right.}{C_1C_4C_LL_1L_4R_1s^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4R_1g_ms^4 + C_1C_LL_1L_4s^4 + C_1C_LL_1R_1s^3 + 2C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_4C_LL_1L_4s^4 + C_4C_LL_4R_1s^3}$$

### 10.895 INVALID-ORDER-895 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_1R_Ls^5 + 2C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_Ls^4 + C_1C_LL_1L_4R_1R_Lg_ms^4 + C_1C_LL_1L_4R_Ls^4 + C_1C_LL_1R_1R_Ls^3 + C_1L_1L_4R_1g_ms^3 +}$$

### 10.896 INVALID-ORDER-896 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_Ls^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4R_1g_ms^4 + C_1C_LL_1L_4s^4 + 2C_1C_LL_1R_1R_Lg_ms^3 +}$$

**10.897 INVALID-ORDER-897** $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1s^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4R_1g_ms^4 + C_1C_LL_1L_4s^4 + 2C_1C_LL_1L_LR_1g_ms^4 +}$$

**10.898 INVALID-ORDER-898** $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1s^6 + 2C_1C_4L_1L_4L_LR_1g_ms^5 + C_1C_4L_1L_4L_Ls^5 + C_1C_4L_1L_4R_1s^4 + C_1C_LL_1L_4L_LR_1g_ms^5 + C_1C_LL_1L_4L_Ls^5 + C_1C_LL_1L_LR_1s^4 + C_1L_1L_4R_1g_ms^3 + C}$$

**10.899 INVALID-ORDER-899** $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_Ls^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_LL_1L}$$

**10.900 INVALID-ORDER-900** $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_Ls^6 + 2C_1C_4L_1L_4L_LR_1R_Lg_ms^5 + C_1C_4L_1L_4L_LR_1s^5 + C_1C_4L_1L_4L_LR_Ls^5 + C_1C_4L_1L_4R_1R_Ls^4 + C_1C_LL_1L_4L_LR_1R_Lg_ms^5 + C_1C_LL_1L_4L_LR_Ls^5 +}$$

**10.901 INVALID-ORDER-901** $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + 2C_1C_4L_1L_4L_LR_1g_ms^5 + C_1C_4L_1L_4L_Ls^5 + 2C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_1s^4 + C}$$

### 10.902 INVALID-ORDER-902 $Z(s) = \left( L_1 s + \frac{1}{C_1 s},\ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L \left( L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_1L_4R_1R_Ls^5 + 2C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_Ls^4 + C}$$

### 10.903 INVALID-ORDER-903 $Z(s) = \left( L_1 s + \frac{1}{C_1 s},\ \frac{R_2 \left( L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{R_L \left( C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left( C_4 L_4 g_m s^2 + C}{C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_4L_1R_1R_4g_ms^3 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_4s^3 + C_1C_4L_1R_Ls^3 + C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_4L_1L_4g_ms^3 +}$$

### 10.904 INVALID-ORDER-904 $Z(s) = \left( L_1 s + \frac{1}{C_1 s},\ \frac{R_2 \left( L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{\left( C_1 L_1 R_1 s^2 + L_1 s + R_1 \right.}{s \left( C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + C_1C_4C_LL_1R_1R_4g_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2 - \right.}$$

### 10.905 INVALID-ORDER-905 $Z(s) = \left( L_1 s + \frac{1}{C_1 s},\ \frac{R_2 \left( L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_1R_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_1R_Ls^4 + C_1C_4C_LL_1R_4R_Ls^4 + C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_4L_1R_1R_4}$$

### 10.906 INVALID-ORDER-906 $Z(s) = \left( L_1 s + \frac{1}{C_1 s},\ \frac{R_2 \left( L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{s \left( C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + C_1C_4C_LL_1R_1R_4g_ms^3 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + C_1C_4C_LL_1R_Ls^3 + 2C_1C_4L_1R_1g_ms^2 - \right.}$$

### 10.907 INVALID-ORDER-907 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1 C_4 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + 2C_1 C_4 C_L L_1 L_L R_1 g_m s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_4 s^3 + 2C_1 C_4 L_1 R_1 g_m s^2 +\right.}$$

### 10.908 INVALID-ORDER-908 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2C_1 C_4 L_1 L_L R}$$

### 10.909 INVALID-ORDER-909 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1 C_4 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + 2C_1 C_4 C_L L_1 L_L R_1 g_m s^4 + C_1 C_4 C_L L_1 L_L s^4 + C_1 C_4 C_L L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 C_L L_1 R_1 R_L g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1\right.}$$

### 10.910 INVALID-ORDER-910 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_1 g_m s^5 + C_1 C_4 L_1 L_4}$$

### 10.911 INVALID-ORDER-911 $Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + 2C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 +}$$

### 10.912 INVALID-ORDER-912 $Z(s) = \left( L_1 s + \frac{1}{C_1 s},\ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1 C_4 C_L L_1 L_4 L_L R_1 g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_L s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + 2C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1$$

### 10.913 INVALID-ORDER-913 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2 + 1},\ R_2,\ \infty,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = -\frac{2C_1 C_4 L_1 L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_4 R_L s^4 + C_1 L_1 L_4 R_1 R_4 g_m s^3 + 2C_1 L_1 L_4 R_1 R_L g_m s^3 + C_1 L_1 L_4 R_1 s^3 + C_1 L_1 L_4 R_4 s^3 + C_1 L_1 L_4 R_L s^3 + 2C_1 L_1}{}$$

### 10.914 INVALID-ORDER-914 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2 + 1},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + 2C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 R_1 R_4 g_m s^4 + C_1 C_L L_1 L_4 R_1 s^4 + C_1 C_L L_1 L_4 R_4 s^4 + C_1 C_L L_1 R_1 R_4 s^3 + 2C_1 L_1 L_4 R_1 g_m s^3 + C}{}$$

### 10.915 INVALID-ORDER-915 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2 + 1},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s + 1} \right)$

$$H(s) = -\frac{C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L s^5 + 2C_1 C_4 L_1 L_4 R_1 R_4 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 R_4 s^4 + C_1 C_4 L_1 L_4 R_4 R_L s^4 + C_1 C_L L_1 L_4 R_1 R_4 R_L g_m s^4 + C_1 C_L L_1 L_4 R_1 R_L s^4 + C_1 C_L L_1 L_4 R_4 R_L s^4 +}{}$$

### 10.916 INVALID-ORDER-916 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2 + 1},\ R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = -\frac{2C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_4 R_4 R_L s^5 + 2C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_L L_1 L_4 R_1 R_4 g_m s^4 + 2C_1 C_L L_1 L_4 R_1 R_L g_m}{}$$

### 10.917 INVALID-ORDER-917 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4R_1R_4s^5 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + C_1C_4L_1L_4R_4s^4 + 2C_1C_LL_1L_4L_LR_1g_ms^5 + C_1C_LL_1L_4L_Ls^5 + C$$

### 10.918 INVALID-ORDER-918 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_4s^6 + 2C_1C_4L_1L_4L_LR_1R_4g_ms^5 + C_1C_4L_1L_4L_LR_4s^5 + C_1C_4L_1L_4R_1R_4s^4 + C_1C_LL_1L_4L_LR_1R_4g_ms^5 + C_1C_LL_1L_4L_LR_1s^5 + C_1C_LL_1L_4L_LR_4s^5 + C$$

### 10.919 INVALID-ORDER-919 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + 2C_1C_4C_LL_1L_4R_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_1L_4R_4R_Ls^5 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + C_1C_4L_1$$

### 10.920 INVALID-ORDER-920 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_4R_Ls^6 + 2C_1C_4L_1L_4L_LR_1R_4R_Lg_ms^5 + C_1C_4L_1L_4L_LR_1R_4s^5 + C_1C_4L_1L_4L_LR_4R_Ls^5 + C_1C_4L_1L_4R_1R_4R_Ls^4 + C_1C_LL_1L_4L_LR_1R_4R_Lg_ms^5 + C_1C$$

### 10.921 INVALID-ORDER-921 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1R_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1R_4s^6 + C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + 2C_1C_4L_1L_4L_LR_1R_4g_ms^5 + C_1C_4L_1L_4L_LR_4s^5 + 2C_1C_4L_1L_4R_1R_4R_Lg_ms^4 + C$$

### 10.922 INVALID-ORDER-922 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1R_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1R_4s^6 + C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + C_1C_4C_LL_1L_4R_1R_4R_Ls^5 + 2C_1C_4L_1L_4R_1R_4R_Lg_ms^4 + C_1C_4L_1L_4R_1R_4s^4 + C_1$$

### 10.923 INVALID-ORDER-923 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{}{C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_1L_4R_Ls^4 + C_1L_1L_4R_1g_ms^3 + C_1L_1L_4s^3 + C_1L_1R_1R_4g_ms^2 + 2C_1L_1R_1R_Lg_m$$

### 10.924 INVALID-ORDER-924 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_1R_4g_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4R_1g_ms^4 + C_1C_LL_1L_4s^4 + C_1C_LL_1R_1R_4g_ms^3 + C_1C$$

### 10.925 INVALID-ORDER-925 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1R_Ls^5 + C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4$$

### 10.926 INVALID-ORDER-926 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L+\frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_1R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4R$$

### 10.927 INVALID-ORDER-927 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_LL_1L_4R}$$

### 10.928 INVALID-ORDER-928 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + 2C_1C_4L_1L_4L_LR_1g_ms^5 + C_1C_4L_1L_4L_Ls^5 + C_1C_4L_1L_4R_1R_4g_ms^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4}$$

### 10.929 INVALID-ORDER-929 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5 + 2}$$

### 10.930 INVALID-ORDER-930 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1R_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1R_Ls^6 + C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + C_1C_4L_1L_4L_LR_1R_4g_ms^5 + 2C_1C_4L_1L_4L_LR_1R_Lg_ms^5 + C_1C_4L_1L_4L_LR_1s^5 + C_1C_4}$$

### 10.931 INVALID-ORDER-931 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + 2C_1C_4C_LL_1L_4L_LR_1R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + 2C_1C_4L_1L_4L_LR_1g_ms^5 + C_1C_4L_1L_4}$$

**10.932 INVALID-ORDER-932** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = \frac{C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + 2C_1C_4C_LL_1L_4L_LR_1R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_1L_4R_1R_4R_Lg_ms^5 + C_1C_4}{}$$

**10.933 INVALID-ORDER-933** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = -\frac{C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_1L_4R_Ls^4 + 2C_1C_4L_1R_1R_4R_Lg_ms^3 + C_1C_4L_1R_1R_4s^3 + C_1C_4L_1R_4R_Ls^3 + C}{}$$

**10.934 INVALID-ORDER-934** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1C_4C_LL_1L_4R_1R_4g_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1R_1R_4s^4 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_1R_1R_4g_ms^3 + C_1C_4L_1R_4s^3 + C}{}$$

**10.935 INVALID-ORDER-935** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1} \right)$

$$H(s) = -\frac{C_1C_4C_LL_1L_4R_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1R_Ls^5 + C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4C_LL_1R_1R_4R_Ls^4 + C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_1s^4}{}$$

**10.936 INVALID-ORDER-936** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ R_L+\frac{1}{C_L s} \right)$

$$H(s) = -\frac{C_1C_4C_LL_1L_4R_1R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5 + 2C_1C_4C_LL_1R_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_1R_4s^4}{}$$

### 10.937 INVALID-ORDER-937 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4C_LL_1L_LR_1R_4g_ms^5 + C_1C_4C_LL_1L_LR_4s^5 +}$$

### 10.938 INVALID-ORDER-938 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_LR_1R_4s^5 + 2C_1C_4L_1L_4L_LR_1g_ms^5 + C_1C_4L_1L_4L_Ls^5 + C_1C_4L_1L_4R_1R_4g_ms^4}$$

### 10.939 INVALID-ORDER-939 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5 +}$$

### 10.940 INVALID-ORDER-940 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1R_Ls^6 + C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + C_1C_4C_LL_1L_LR_1R_4R_Ls^5 + C_1C_4L_1L_4L_LR_1R_4g_ms^5 + 2C_1C_4L_1L_4L_LR_1R_Lg_ms^5}$$

### 10.941 INVALID-ORDER-941 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + 2C_1C_4C_LL_1L_4L_LR_1R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + 2C_1C_4C_LL_1L_LR_1R_4R_Lg_ms^5 + C_}$$

### 10.942 INVALID-ORDER-942 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + 2C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L g_m s^5 + C_1 C}$$

### 10.943 INVALID-ORDER-943 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 \left(R_4 g_m - 1\right)\left(C_1 L_1 s^2 + 1\right)}{C_1 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L R_1 R_4 s^2 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_L R_1 R_4 g_m s + C_L R_1 s + C_L R_4 s + 2R_1 g_m + 1}$$

### 10.944 INVALID-ORDER-944 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1} \right)$

$$H(s) = \frac{R_1 R_L \left(R_4 g_m - 1\right)\left(C_1 L_1 s^2 + 1\right)}{C_1 C_L L_1 R_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_4 R_L s^3 + C_1 C_L R_1 R_4 R_L s^2 + C_1 L_1 R_1 R_4 g_m s^2 + 2C_1 L_1 R_1 R_L g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_1 R_1 R_4 s}$$

### 10.945 INVALID-ORDER-945 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 \left(R_4 g_m - 1\right)\left(C_1 L_1 s^2 + 1\right)\left(C_L R_L s + 1\right)}{C_1 C_L L_1 R_1 R_4 g_m s^3 + 2C_1 C_L L_1 R_1 R_L g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L R_1 R_4 s^2 + C_1 C_L R_1 R_L s^2 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_L R_1 R}$$

### 10.946 INVALID-ORDER-946 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 \left(R_4 g_m - 1\right)\left(C_1 L_1 s^2 + 1\right)\left(C_L L_L s^2 + 1\right)}{2C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + 2C_L L_L}$$

### 10.947 INVALID-ORDER-947 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{L_L R_1 s \left(R_4 g_m - 1\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_L R_1 R_4 s^3 + 2 C_1 L_1 L_L R_1 g_m s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_1 R_4 g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + C_1 L_L R_1 s^2}$$

### 10.948 INVALID-ORDER-948 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(R_4 g_m - 1\right) \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s\right.}{2 C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_1 R_4 g_m s^3 + 2 C_1 C_L L_1 R_1 R_L g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_4 s^2 + C_1 C_L}$$

### 10.949 INVALID-ORDER-949 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_1 R_4 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_4 R_L s^4 + C_1 C_L L_L R_1 R_4 R_L s^3 + C_1 L_1 L_L R_1 R_4 g_m s^3 + 2 C_1 L_1 L_L R_1 R_L g_m s^3 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 L_L R_4 s^3 +}$$

### 10.950 INVALID-ORDER-950 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + 2 C_1 C_L L_1 L_L R_1 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_L R_1 R_4 s^3 + C_1 C_L L_L R_1 R_L s^3 + 2 C_1 L_1 L_L R_1 g_m s^3 + C_1}$$

### 10.951 INVALID-ORDER-951 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + 2 C_1 C_L L_1 L_L R_1 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 C_L L_1 R_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_4 R_L s^3 +}$$

**10.952 INVALID-ORDER-952** $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = -\frac{R_1 R_L \left(C_4 s - g_m\right)\left(C_1 L_1 s^2 + 1\right)}{2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_Ls^3 + C_1C_4R_1R_Ls^2 + C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + 2C_4R_1R_Lg_ms + C_4R_1s + C_4R_Ls + R_1g_m + 1}$$

**10.953 INVALID-ORDER-953** $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_4 s - g_m\right)\left(C_1 L_1 s^2 + 1\right)}{s\left(C_1C_4C_LL_1R_1s^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_4R_1s + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2 + C_1C_LR_1s + C_4C_LR_1s + 2C_4R_1g_m + C_4 + C_LR_1g_m + C_L\right)}$$

**10.954 INVALID-ORDER-954** $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{R_1 R_L \left(C_4 s - g_m\right)\left(C_1 L_1 s^2 + 1\right)}{C_1C_4C_LL_1R_1R_Ls^4 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_Ls^3 + C_1C_4R_1R_Ls^2 + C_1C_LL_1R_1R_Lg_ms^3 + C_1C_LL_1R_Ls^3 + C_1C_LR_1R_Ls^2 + C_1L_1R_1g_ms^2 + C_1L_1$$

**10.955 INVALID-ORDER-955** $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_4 s - g_m\right)\left(C_1 L_1 s^2 + 1\right)\left(C_L R_L s + 1\right)}{s\left(2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_Ls^3 + C_1C_4C_LR_1R_Ls^2 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_4R_1s + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2 + C_1C_L$$

**10.956 INVALID-ORDER-956** $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_4 s - g_m\right)\left(C_1 L_1 s^2 + 1\right)\left(C_L L_L s^2 + 1\right)}{s\left(2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_LR_1s^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4L_1s^2 + C_1C_4R_1s + C_1C_LL_1R_1g_ms^2 + C_1C_LL_1s^2 + C_1C_L$$

**10.957 INVALID-ORDER-957** $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{L_L R_1 s \left(C_4 s - g_m\right)\left(C_1 L_1 s^2 + 1\right)}{C_1C_4C_LL_1L_LR_1s^5 + 2C_1C_4L_1L_LR_1g_ms^4 + C_1C_4L_1L_Ls^4 + C_1C_4L_1R_1s^3 + C_1C_4L_LR_1s^3 + C_1C_LL_1L_LR_1g_ms^4 + C_1C_LL_1L_Ls^4 + C_1C_LL_LR_1s^3 + C_1L_1R_1g_ms^2 + C_1L_1s$$

### 10.958 INVALID-ORDER-958 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1 \left(C_4 s - g_m\right) \left(C_1 L$$
$$s \left(2 C_1 C_4 C_L L_1 L_L R_1 g_m s^4 + C_1 C_4 C_L L_1 L_L s^4 + 2 C_1 C_4 C_L L_1 R_1 R_L g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_L s^3 + C_1 C_4 C_L L_L R_1 s^3 + C_1 C_4 C_L R_1 R_L s^2 + 2 C_1 C_4 L_1 R_1 g_m s^2 +$$

### 10.959 INVALID-ORDER-959 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + 2 C_1 C_4 L_1 L_L R_1 R_L g_m s^4 + C_1 C_4 L_1 L_L R_1 s^4 + C_1 C_4 L_1 L_L R_L s^4 + C_1 C_4 L_1 R_1 R_L s^3 + C_1 C_4 L_L R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 R_L g_m s^4 + C_1 C_L L_1 L_L R_L s^4}$$

### 10.960 INVALID-ORDER-960 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{2 C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_L R_1 R_L s^4 + 2 C_1 C_4 L_1 L_L R_1 g_m s^4 + C_1 C_4 L_1 L_L s^4 + 2 C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3}$$

### 10.961 INVALID-ORDER-961 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{2 C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_1 R_1 R_L s^4 + C_1 C_4 C_L L_L R_1 R_L s^4 + 2 C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_L s^3}$$

### 10.962 INVALID-ORDER-962 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = -\frac{R_1 R_L \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s - R_4 g_m + 1\right)}{2 C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 L_1 R_1 R_4 g_m s^2 + 2 C_1 L_1 R_1 R_L g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_4 s^2 + C_1 L_1 R_L s^2 + C_1 R_1 R_4$$

**10.963 INVALID-ORDER-963** $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{R_1\left(C_1 L_1 s^2+1\right)\left(C_4 R_4 s - R_4 g_m + 1\right)}{C_1 C_4 C_L L_1 R_1 R_4 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_4 s^3 + C_1 C_L R_1 R_4 s^2 + 2C_1 L_1 R_1 g_m s^2 + C_1 L_1}$$

**10.964 INVALID-ORDER-964** $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + 2C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_4 R_L s^3 + C_1 C_4 R_1 R_4 R_L s^2 + C_1 C_L L_1 R_1 R_4 R_L g_m s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_4 R_L s^3 -}$$

**10.965 INVALID-ORDER-965** $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1 C_4 C_L L_1 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_L L_1 R_1 R_4 g_m s^3 -}$$

**10.966 INVALID-ORDER-966** $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + 2C_1 C_4 L_1 R_1 R_4 g_m s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 R_1 R_4 s^2 + 2C_1 C_L L_1 L_L R_1 g_m s^4}$$

**10.967 INVALID-ORDER-967** $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + 2C_1 C_4 L_1 L_L R_1 R_4 g_m s^4 + C_1 C_4 L_1 L_L R_4 s^4 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_L R_1 R_4 s^3 + C_1 C_L L_1 L_L R_1 R_4 g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_4 s^4 +}$$

**10.968 INVALID-ORDER-968** $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + 2C_1 C_4 C_L L_1 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + C_1 C_4 C_L L_1 R_4 R_L s^4 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L R_1 R_4 R_L s^3 + 2C}$$

**10.969 INVALID-ORDER-969** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + 2C_1 C_4 L_1 L_L R_1 R_4 R_L g_m s^4 + C_1 C_4 L_1 L_L R_1 R_4 s^4 + C_1 C_4 L_1 L_L R_4 R_L s^4 + C_1 C_4 L_1 R_1 R_4 R_L s^3 + C_1 C_4 L_L R_1 R_4 R_L s^3 + C_1 C_L L_1 L_L R_1 R_4 R_L g_m s^4}$$

**10.970 INVALID-ORDER-970** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = -\frac{}{2C_1 C_4 C_L L_1 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + 2C_1 C_4 L_1 L_L R_1 R_4 g_m s^4 + C_1 C_4 L_1 L_L R_4 s^4 + 2C_1 C_4 L_1 R_1 R_4 R_L$$

**10.971 INVALID-ORDER-971** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L \left( L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = -\frac{}{2C_1 C_4 C_L L_1 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L s^4 + C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + 2C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R$$

**10.972 INVALID-ORDER-972** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{R_1 R_L \left( C_1 L_1 s^2 + 1 \right) \left( C_4 R_4 g_m s - C_4 s + g_m \right)}{C_1 C_4 L_1 R_1 R_4 g_m s^3 + 2C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_4 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 R_1 R_4 s^2 + C_1 C_4 R_1 R_L s^2 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_4 R_1 R_4 g_m$$

**10.973 INVALID-ORDER-973** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 \left( C_1 L_1 s^2 + 1 \right) \left( C_4 R_4 g_m s - C_4 s + g_m \right)}{s \left( C_1 C_4 C_L L_1 R_1 R_4 g_m s^3 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_1 R_4 s^3 + C_1 C_4 C_L R_1 R_4 s^2 + 2C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 s^2 + C_1 C_4 R_1 s + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_1 s \right.$$

### 10.974 INVALID-ORDER-974 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1R_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_1R_Ls^4 + C_1C_4C_LL_1R_4R_Ls^4 + C_1C_4C_LR_1R_4R_Ls^3 + C_1C_4L_1R_1R_4g_ms^3 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_4s^3 + C$$

### 10.975 INVALID-ORDER-975 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(C_1L_1s^2+1\right)\left(C_LR_L}{s\left(C_1C_4C_LL_1R_1R_4g_ms^3 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + C_1C_4C_LL_1R_Ls^3 + C_1C_4C_LR_1R_4s^2 + C_1C_4C_LR_1R_Ls^2 + 2C_1C_4L_1R_1g_ms^2 + C_1C\right.}$$

### 10.976 INVALID-ORDER-976 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(C_1L_1s^2+1\right)\left(C_LL_L}{s\left(2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + C_1C_4C_LL_1R_1R_4g_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + C_1C_4C_LL_LR_1s^3 + C_1C_4C_LR_1R_4s^2 + 2C_1C_4L_1R_1g_ms^2 + C_1C\right.}$$

### 10.977 INVALID-ORDER-977 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_LR_1R_4g_ms^5 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_LR_1R_4s^4 + 2C_1C_4L_1L_LR_1g_ms^4 + C_1C_4L_1L_Ls^4 + C_1C_4L_1R_1R_4g_ms^3 + C_1C_4L_1R_1s^3 + C$$

### 10.978 INVALID-ORDER-978 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + C_1C_4C_LL_1R_1R_4g_ms^3 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + C_1C_4C_LL_1R_Ls^3 + C_1C_4C_LL_LR_1s^3\right.}$$

### 10.979 INVALID-ORDER-979 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_L R_1 R_4 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 R_L s^5 + C_1 C_4 C_L L_1 L_L R_4 R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 R_L s^4 + C_1 C_4 L_1 L_L R_1 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_L R_1 R_L g_m s^4 + C_1 C_4 L_1 L_L R_1 s}$$

### 10.980 INVALID-ORDER-980 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_L R_1 R_4 s^4 + C_1 C_4 C_L L_L R_1 R_L s^4 + 2 C_1 C}$$

### 10.981 INVALID-ORDER-981 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{L_2 s}{C_2 L_2 s^2+1} + R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L \left( L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 C_L L_1 L_L R_1 R_L g_m s^5 + C_1 C_4 C_L L_1 L_L R_1 s^5 + C_1 C_4 C_L L_1 L_L R_4 s^5 + C_1 C_4 C_L L_1 L_L R_L s^5 + C_1 C_4 C_L L_1 R_1 R_4 R_L g_m s^4 + C_1 C_4 C_L L_1 R_1 R_L s^4 +}$$

### 10.982 INVALID-ORDER-982 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2 \left( L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = \frac{R_1 R_L \left( C_1 L_1 s^2 + 1 \right) \left( C_4 L_4 g_m s^2 - C_4 s + g_m \right)}{C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_1 R_L g_m s^3 + C_1 C_4 L_1 R_1 s^3 + C_1 C_4 L_1 R_L s^3 + C_1 C_4 L_4 R_1 s^3 + C_1 C_4 R_1 R_L s^2 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_4 L_4 R_1 g_m s}$$

### 10.983 INVALID-ORDER-983 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2 \left( L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1 \left( C_1 L_1 s^2 + 1 \right) \left( C_4 L_4 g_m s^2 - C_4 s + g_m \right)}{s \left( C_1 C_4 C_L L_1 L_4 R_1 g_m s^4 + C_1 C_4 C_L L_1 L_4 s^4 + C_1 C_4 C_L L_1 R_1 s^3 + C_1 C_4 C_L L_4 R_1 s^3 + 2 C_1 C_4 L_1 R_1 g_m s^2 + C_1 C_4 L_1 s^2 + C_1 C_4 R_1 s + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_1 s -}$$

**10.984 INVALID-ORDER-984** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1} \right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_1R_1R_Ls^4 + C_1C_4C_LL_4R_1R_Ls^4 + C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1$$

**10.985 INVALID-ORDER-985** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1\left(C_1L_1s^2+1\right)\left(C_LR_L}{s\left(C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_Ls^3 + C_1C_4C_LL_4R_1s^3 + C_1C_4C_LR_1R_Ls^2 + 2C_1C_4L_1R_1g_ms^2 + C_1C\right.}$$

**10.986 INVALID-ORDER-986** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s} \right)$

$$H(s) = \frac{R_1\left(C_1L_1s^2+1\right)\left(C_LL_L}{s\left(C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + 2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_4R_1s^3 + C_1C_4C_LL_LR_1s^3 + 2C_1C_4L_1R_1g_ms^2 + C_1C\right.}$$

**10.987 INVALID-ORDER-987** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} \right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + 2C_1C_4L_1L_LR_1g_ms^4 + C_1C_4L_1L_Ls^4 + C_1$$

**10.988 INVALID-ORDER-988** $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s} \right)$

$$H(s) = \frac{}{s\left(C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + 2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_Ls^3 + C_1C_4C_LL_4R_1s^3\right.}$$

### 10.989 INVALID-ORDER-989 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}} \right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_1L_LR_1R_Ls^5 + C_1C_4C_LL_4L_LR_1R_Ls^5 + C_1C_4L_1L_4L_LR_1g_ms^5 + C_1C_4L_1L_4L_Ls^5 + C_1C_4L_1L_4R_1R_Lg_ms^4 +}$$

### 10.990 INVALID-ORDER-990 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L \right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + 2C_1C_4C_LL_1L_LR_1R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_1L_LR_Ls^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_LR_1R_Ls^4 + C_1C_4}$$

### 10.991 INVALID-ORDER-991 $Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2+1},\ \frac{R_2\left(L_2 s+\frac{1}{C_2 s}\right)}{L_2 s+R_2+\frac{1}{C_2 s}},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}} \right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_Ls^5 + 2C_1C_4C_LL_1L_LR_1R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_1L_LR_Ls^5 +}$$

### 10.992 INVALID-ORDER-992 $Z(s) = \left( L_1 s + R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ R_L \right)$

$$H(s) = -\frac{R_1R_L\left(C_1L_1s^2+1\right)\left(C_4L_4s^2 - L_4g_ms + 1\right)}{2C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_Ls^4 + C_1C_4L_4R_1R_Ls^3 + C_1L_1L_4R_1g_ms^3 + C_1L_1L_4s^3 + 2C_1L_1R_1R_Lg_ms^2 + C_1L_1R_1s^2 + C_1L_1R_Ls^2 + C_1L_4R_1s}$$

### 10.993 INVALID-ORDER-993 $Z(s) = \left( L_1 s + R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s} \right)$

$$H(s) = -\frac{R_1\left(C_1L_1s^2+1\right)\left(C_4L_4s^2 - L_4g_ms + 1\right)}{C_1C_4C_LL_1L_4R_1s^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_4L_4R_1s^3 + C_1C_LL_1L_4R_1g_ms^4 + C_1C_LL_1L_4s^4 + C_1C_LL_1R_1s^3 + C_1C_LL_4R_1s^3 + 2C_1L_1R_1g_ms^2 + C_1L_1s^2}$$

### 10.994 INVALID-ORDER-994 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_1R_Ls^5 + 2C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_Ls^4 + C_1C_4L_4R_1R_Ls^3 + C_1C_LL_1L_4R_1R_Lg_ms^4 + C_1C_LL_1L_4R_Ls^4 + C_1C_LL_1R_1R_Ls^3 +$$

### 10.995 INVALID-ORDER-995 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_4R_1R_Ls^4 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_4L_4R_1s^3 + C_1C_LL_1L_4R_1g_ms^4 +$$

### 10.996 INVALID-ORDER-996 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_4L_LR_1s^5 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_4L_4R_1s^3 + C_1C_LL_1L_4R_1g_ms^4 +$$

### 10.997 INVALID-ORDER-997 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1s^6 + 2C_1C_4L_1L_4L_LR_1g_ms^5 + C_1C_4L_1L_4L_Ls^5 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_4L_LR_1s^4 + C_1C_LL_1L_4L_LR_1g_ms^5 + C_1C_LL_1L_4L_Ls^5 + C_1C_LL_1L_LR_1s^4 +$$

### 10.998 INVALID-ORDER-998 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4R_1R_Ls^4 + 2C_1$$

### 10.999 INVALID-ORDER-999 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_Ls^6 + 2C_1C_4L_1L_4L_LR_1R_Lg_ms^5 + C_1C_4L_1L_4L_LR_1s^5 + C_1C_4L_1L_4L_LR_Ls^5 + C_1C_4L_1L_4R_1R_Ls^4 + C_1C_4L_4L_LR_1R_Ls^4 + C_1C_LL_1L_4L_LR_1R_Lg_ms^5 +$$

### 10.1000 INVALID-ORDER-1000 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_4L_LR_1R_Ls^5 + 2C_1C_4L_1L_4L_LR_1g_ms^5 + C_1C_4L_1L_4L_Ls^5 + 2C_1C_4L_1L_4R_1R_Lg_$$

### 10.1001 INVALID-ORDER-1001 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2,\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_1L_4R_1R_Ls^5 + C_1C_4C_LL_4L_LR_1R_Ls^5 + 2C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_1$$

### 10.1002 INVALID-ORDER-1002 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{R_1R_L\left(C_1L_1s^2 + 1\right)\left(C_4L_4g_ms^2 + C_4R_4g_ms +}{C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_4L_1R_1R_4g_ms^3 + 2C_1C_4L_1R_1R_Lg_ms^3 + C_1C_4L_1R_1s^3 + C_1C_4L_1R_4s^3 + C_1C_4L_1R_Ls^3 + C_1C_4L_4R_1s^3 + C_1C_4R_1R_4s^2 + C_1C_4R_1R_}$$

### 10.1003 INVALID-ORDER-1003 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1\left(C_1L_1s^2 + 1\right)\left(C_4L_4g_m}{s\left(C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + C_1C_4C_LL_1R_1R_4g_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + C_1C_4C_LL_4R_1s^3 + C_1C_4C_LR_1R_4s^2 + 2C_1C_4L_1R_1g_ms^2 + C_1C_4}$$

**10.1004 INVALID-ORDER-1004** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_1R_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_1R_Ls^4 + C_1C_4C_LL_1R_4R_Ls^4 + C_1C_4C_LL_4R_1R_Ls^4 + C_1C_4C_LR_1R_4R_Ls^3 + C_1C_4$$

**10.1005 INVALID-ORDER-1005** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + C_1C_4C_LL_1R_1R_4g_ms^3 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + C_1C_4C_LL_1R_Ls^3 + C_1C_4C_LL_4R_1s^3 +\right.}$$

**10.1006 INVALID-ORDER-1006** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + 2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + C_1C_4C_LL_1R_1R_4g_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1R_4s^3 + C_1C_4C_LL_4R_1s^3 +\right.}$$

**10.1007 INVALID-ORDER-1007** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_LR_1R_4g_ms^5 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_LR_1R_4s^4 + C_1C_4L$$

**10.1008 INVALID-ORDER-1008** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{s\left(C_1C_4C_LL_1L_4R_1g_ms^4 + C_1C_4C_LL_1L_4s^4 + 2C_1C_4C_LL_1L_LR_1g_ms^4 + C_1C_4C_LL_1L_Ls^4 + C_1C_4C_LL_1R_1R_4g_ms^3 + 2C_1C_4C_LL_1R_1R_Lg_ms^3 + C_1C_4C_LL_1R_1s^3 + C_1C_4C_LL_1\right.}$$

**10.1009 INVALID-ORDER-1009** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_Ls^6 + C_1C_4C_LL_1L_LR_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1R_Ls^5 + C_1C_4C_LL_1L_LR_4R_Ls^5 + C_1C_4C_LL_4L_LR_1R_Ls^5 + C_1C_4C_LL$$

**10.1010 INVALID-ORDER-1010** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_LR_1R_4g_ms^5 + 2C_1C_4C_LL_1L_LR_1R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1s^5 + C_1C_4C_LL_1L_LR_4s^5 + C_1C_4C_LL_1L_LR_Ls^5 +$$

**10.1011 INVALID-ORDER-1011** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_1L_LR_1R_4g_ms^5 + 2C_1C_4C_LL_1L_LR_1R_Lg_ms^5 + C_1C_4C_LL_1L_LR_1$$

**10.1012 INVALID-ORDER-1012** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s + 1},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = -\frac{}{2C_1C_4L_1L_4R_1R_4R_Lg_ms^4 + C_1C_4L_1L_4R_1R_4s^4 + C_1C_4L_1L_4R_4R_Ls^4 + C_1C_4L_4R_1R_4R_Ls^3 + C_1L_1L_4R_1R_4g_ms^3 + 2C_1L_1L_4R_1R_Lg_ms^3 + C_1L_1L_4R_1s^3 + C_1L_1L_4R_4s^3 + C$$

**10.1013 INVALID-ORDER-1013** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s + 1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_1R_4s^5 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_4R_1R_4s^3 + C_1C_LL_1L_4R_1R_4g_ms^4 + C_1C_LL_1L_4R_1s^4 + C_1C_LL_1L_4R_4s^4 + C_1C_LL_1R_1R_4s^3 + C$$

### 10.1014 INVALID-ORDER-1014 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_1R_4R_Ls^5 + 2C_1C_4L_1L_4R_1R_4R_Lg_ms^4 + C_1C_4L_1L_4R_1R_4s^4 + C_1C_4L_1L_4R_4R_Ls^4 + C_1C_4L_4R_1R_4R_Ls^3 + C_1C_LL_1L_4R_1R_4R_Lg_ms^4 + C_1C_LL_1L_4R_1R_Ls^4 +$$

### 10.1015 INVALID-ORDER-1015 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4R_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4C_LL_4R_1R_4R_Ls^4 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_4R_1R_4s^3 + C$$

### 10.1016 INVALID-ORDER-1016 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_4L_LR_1R_4s^5 + 2C_1C_4L_1L_4R_1R_4g_ms^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_4R_1R_4s^3 + 2C$$

### 10.1017 INVALID-ORDER-1017 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_4s^6 + 2C_1C_4L_1L_4L_LR_1R_4g_ms^5 + C_1C_4L_1L_4L_LR_4s^5 + C_1C_4L_1L_4R_1R_4s^4 + C_1C_4L_4L_LR_1R_4s^4 + C_1C_LL_1L_4L_LR_1R_4g_ms^5 + C_1C_LL_1L_4L_LR_1s^5 + C$$

### 10.1018 INVALID-ORDER-1018 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + 2C_1C_4C_LL_1L_4R_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1R_4s^5 + C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4C_LL_4L_LR_1R_4s^5 + C_1C_4C_L$$

**10.1019 INVALID-ORDER-1019** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_4R_Ls^6 + 2C_1C_4L_1L_4L_LR_1R_4R_Lg_ms^5 + C_1C_4L_1L_4L_LR_1R_4s^5 + C_1C_4L_1L_4L_LR_4R_Ls^5 + C_1C_4L_1L_4R_1R_4R_Ls^4 + C_1C_4L_4L_LR_1R_4R_Ls^4 + C_1C_LL_1L}$$

**10.1020 INVALID-ORDER-1020** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1} + R_L\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1R_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1R_4s^6 + C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + C_1C_4C_LL_4L_LR_1R_4R_Ls^5 + 2C_1C_4L_1L_4L_LR_1R_4g_ms^5 + C_1C_4L_1L_4L_LR_4s^5 + 2C}$$

**10.1021 INVALID-ORDER-1021** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s+1},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L+\frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1R_4R_Lg_ms^6 + C_1C_4C_LL_1L_4L_LR_1R_4s^6 + C_1C_4C_LL_1L_4L_LR_4R_Ls^6 + C_1C_4C_LL_1L_4R_1R_4R_Ls^5 + C_1C_4C_LL_4L_LR_1R_4R_Ls^5 + 2C_1C_4L_1L_4R_1R_4R_Lg_ms}$$

**10.1022 INVALID-ORDER-1022** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = \frac{}{C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_1s^4 + C_1C_4L_1L_4R_4s^4 + C_1C_4L_1L_4R_Ls^4 + C_1C_4L_4R_1R_4s^3 + C_1C_4L_4R_1R_Ls^3 + C_1L_1L_4R_1g_ms^3 + C_1L_1L_4s^3}$$

**10.1023 INVALID-ORDER-1023** $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_1R_4g_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_4R_1R_4s^4 + 2C_1C_4L_1L_4R_1g_ms^4 + C_1C_4L_1L_4s^4 + C_1C_4L_4R_1s^3 + C_1C_LL_1L_4R_1g_ms^4 + C_1C}$$

### 10.1024 INVALID-ORDER-1024 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1R_Ls^5 + C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4C_LL_4R_1R_4R_Ls^4 + C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1R_Lg_ms^4 + C_1C_4L_1L_4R_1s^4 +}$$

### 10.1025 INVALID-ORDER-1025 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4R_1R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5 + C_1C_4C_LL_4R_1R_4s^4 + C_1C_4C_LL_4R_1R_Ls^4 + 2C_1C_4}$$

### 10.1026 INVALID-ORDER-1026 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_4L_LR_1s^5 + C_1C_4C_LL_4R_1R_4s^4 + 2C_1C_4L}$$

### 10.1027 INVALID-ORDER-1027 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = \frac{}{C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_4L_LR_1R_4s^5 + 2C_1C_4L_1L_4L_LR_1g_ms^5 + C_1C_4L_1L_4L_Ls^5 + C_1C_4L_1L_4R_1R_4g_ms^4 +}$$

### 10.1028 INVALID-ORDER-1028 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5 + C}$$

### 10.1029 INVALID-ORDER-1029 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_1 R_4 g_m s^5 + 2 C_1 C_4 L_1 L_4 L_L R_1 R_L g_m s^5 +}$$

### 10.1030 INVALID-ORDER-1030 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_4 L_L R_1 R_4 s^5 + C_1 C_4 C_L L_4}$$

### 10.1031 INVALID-ORDER-1031 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ R_2 + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = \frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L g_m s^5 + C_1 C_4}$$

### 10.1032 INVALID-ORDER-1032 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L\right)$

$$H(s) = -\frac{}{C_1 C_4 L_1 L_4 R_1 R_4 g_m s^4 + 2 C_1 C_4 L_1 L_4 R_1 R_L g_m s^4 + C_1 C_4 L_1 L_4 R_1 s^4 + C_1 C_4 L_1 L_4 R_4 s^4 + C_1 C_4 L_1 L_4 R_L s^4 + 2 C_1 C_4 L_1 R_1 R_4 R_L g_m s^3 + C_1 C_4 L_1 R_1 R_4 s^3 + C_1 C_4 L_1 R_4 R_L s^3 + C}$$

### 10.1033 INVALID-ORDER-1033 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_4 R_1 R_4 g_m s^5 + C_1 C_4 C_L L_1 L_4 R_1 s^5 + C_1 C_4 C_L L_1 L_4 R_4 s^5 + C_1 C_4 C_L L_1 R_1 R_4 s^4 + C_1 C_4 C_L L_4 R_1 R_4 s^4 + 2 C_1 C_4 L_1 L_4 R_1 g_m s^4 + C_1 C_4 L_1 L_4 s^4 + 2 C_1 C_4 L_1 R_1 R_4 g_m}$$

### 10.1034 INVALID-ORDER-1034 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_L R_L s+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_1R_4R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1R_Ls^5 + C_1C_4C_LL_1L_4R_4R_Ls^5 + C_1C_4C_LL_1R_1R_4R_Ls^4 + C_1C_4C_LL_4R_1R_4R_Ls^4 + C_1C_4L_1L_4R_1R_4g_ms^4 + 2C_1C_4L_1L_4R_1R}$$

### 10.1035 INVALID-ORDER-1035 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4R_1R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5 + 2C_1C_4C_LL_1R_1R_4R_Lg_ms^4 + C_1C_4C_LL_1R_1R_4s^4 -}$$

### 10.1036 INVALID-ORDER-1036 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + 2C_1C_4C_LL_1L_LR_1R_4g_ms^5 + C_1C_4C_LL_1L_LR_4s^5 +}$$

### 10.1037 INVALID-ORDER-1037 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2+1}\right)$

$$H(s) = -\frac{}{C_1C_4C_LL_1L_4L_LR_1R_4g_ms^6 + C_1C_4C_LL_1L_4L_LR_1s^6 + C_1C_4C_LL_1L_4L_LR_4s^6 + C_1C_4C_LL_1L_LR_1R_4s^5 + C_1C_4C_LL_4L_LR_1R_4s^5 + 2C_1C_4L_1L_4L_LR_1g_ms^5 + C_1C_4L_1L_4L_Ls^5}$$

### 10.1038 INVALID-ORDER-1038 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = -\frac{}{2C_1C_4C_LL_1L_4L_LR_1g_ms^6 + C_1C_4C_LL_1L_4L_Ls^6 + C_1C_4C_LL_1L_4R_1R_4g_ms^5 + 2C_1C_4C_LL_1L_4R_1R_Lg_ms^5 + C_1C_4C_LL_1L_4R_1s^5 + C_1C_4C_LL_1L_4R_4s^5 + C_1C_4C_LL_1L_4R_Ls^5 +}$$

### 10.1039 INVALID-ORDER-1039 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 R_L s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 R_L s^6 + C_1 C_4 C_L L_1 L_L R_1 R_4 R_L s^5 + C_1 C_4 C_L L_4 L_L R_1 R_4 R_L s^5 + C_1 C_4 L_1 L_4 L_L R_1 R_4 g_m s^5 +}$$

### 10.1040 INVALID-ORDER-1040 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + 2 C_1 C_4 C_L L_1 L_L R_1 R_4 R_L g_m s^5 + C_1}$$

### 10.1041 INVALID-ORDER-1041 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ L_2 s + \frac{1}{C_2 s},\ \infty,\ \infty,\ \infty,\ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

$$H(s) = -\frac{}{C_1 C_4 C_L L_1 L_4 L_L R_1 R_4 g_m s^6 + 2 C_1 C_4 C_L L_1 L_4 L_L R_1 R_L g_m s^6 + C_1 C_4 C_L L_1 L_4 L_L R_1 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_4 s^6 + C_1 C_4 C_L L_1 L_4 L_L R_L s^6 + C_1 C_4 C_L L_1 L_4 R_1 R_4 R_L g_m s^5 + C_1 C}$$