Filter Summary Report: TIA simple Z1 Z4 ZL

Generated by MacAnalog-Symbolix

December 4, 2024

Contents

1	Examined $H(z)$ for TIA simple Z1 Z4 ZL: $\frac{Z_1Z_4Z_Lg_m}{Z_1Z_4g_m+2Z_1Z_Lg_m+Z_4+2Z_L}$	54
2	HP	5 4
	BP 3.1 BP-1 $Z(s) = \left(R_1, \infty, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$	54 . 54
	3.2 BP-2 $Z(s) = \left(R_1, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$. 54
	3.3 BP-3 $Z(s) = \left(L_1 s, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$. 5
	3.4 BP-4 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$	
	3.5 BP-5 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$. 50
	3.6 BP-6 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \infty, R_L\right)$. 50
	3.7 BP-7 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$	
	3.8 BP-8 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$. 57
	3.9 BP-9 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \infty, R_L\right)$	
	3.10 BP-10 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \infty, \frac{1}{C_L s}\right)$. 58
	3.11 BP-11 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$. 59

	3.12 BP-	$12 \ 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) \dots $	59
	3.13 BP-	$13 \ 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) \ \dots $	60
		$14 \ 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) \ \dots $	
		$15 \ 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) \dots $	61
	3.16 BP-	$16 \ Z(s) = (\infty, \ R_2, \ \infty, \ \infty, \ \infty, \ R_L) \ \dots $	61
	3.17 BP-	$17 \ Z(s) = \left(\infty, \ R_2, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $	62
	3.18 BP-	$18 \ Z(s) = \left(\infty, \ \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L \right) \ \dot{$	
	3.19 BP-	$19 \ Z(s) = \left(\infty, \ \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right) \dots $	63
	3.20 BP-	$20 \ Z(s) = \left(\infty, \ \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $	63
	3.21 BP-	$21 \ Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right) \ \dots $	64
		$22 \ 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) \ \dots $	
Į	\mathbf{LP}		65
Ļ	4.1 LP-	$1 Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{1}{C_L s}\right) \dots \dots$	65
Į	4.1 LP- 4.2 LP-	$2 Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right) \dots \dots$	65 65
Į	4.1 LP- 4.2 LP-		65 65
•	4.1 LP- 4.2 LP- 4.3 LP- 4.4 LP-	$2 Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1} \right) $ $3 Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ R_L \right) $ $4 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) $	65 65 66
Ŀ	4.1 LP- 4.2 LP- 4.3 LP- 4.4 LP-	$2 Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1} \right) $ $3 Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ R_L \right) $ $4 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) $	65 65 66
Ŀ	4.1 LP- 4.2 LP- 4.3 LP- 4.4 LP- 4.5 LP-	$2 Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right) \dots \dots$	65 65 66 66 67
L	4.1 LP- 4.2 LP- 4.3 LP- 4.4 LP- 4.5 LP- 4.6 LP-	$2 Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1} \right) $ $3 Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ R_L \right) $ $4 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) $ $5 Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ R_L \right) $	65 65 66 66 67 67
L	4.1 LP- 4.2 LP- 4.3 LP- 4.4 LP- 4.5 LP- 4.6 LP- 4.7 LP- 4.8 LP-	$2 Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1} \right) $ $3 Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ R_L \right) $ $4 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) $ $5 Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ R_L \right) $ $6 Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{1}{C_L s} \right) $ $7 Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1} \right) $ $8 Z(s) = \left(\infty, \ \infty, \ \infty, \ \frac{1}{C_L s}, \ \infty, \ \frac{1}{C_L s} \right) $	65 65 66 66 67 67 68 68
L	4.1 LP- 4.2 LP- 4.3 LP- 4.4 LP- 4.5 LP- 4.6 LP- 4.7 LP- 4.8 LP-	$2 Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$ $3 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, R_L \right)$ $4 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$ $5 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, R_L \right)$ $6 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, \frac{1}{C_L s} \right)$ $7 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$	65 65 66 66 67 67 68 68
L	4.1 LP- 4.2 LP- 4.3 LP- 4.4 LP- 4.5 LP- 4.6 LP- 4.7 LP- 4.8 LP- 4.9 LP-	$2 Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1} \right) $ $3 Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ R_L \right) $ $4 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) $ $5 Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ R_L \right) $ $6 Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{1}{C_L s} \right) $ $7 Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1} \right) $ $8 Z(s) = \left(\infty, \ \infty, \ \infty, \ \frac{1}{C_L s}, \ \infty, \ \frac{1}{C_L s} \right) $	65 65 66 66 67 67 68 68
L	4.1 LP- 4.2 LP- 4.3 LP- 4.4 LP- 4.5 LP- 4.6 LP- 4.7 LP- 4.8 LP- 4.9 LP- 4.10 LP-	$2 Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$ $3 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, R_L \right)$ $4 Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$ $5 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, R_L \right)$ $6 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, \frac{1}{C_L s} \right)$ $7 Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, \frac{R_L}{C_L R_L s + 1} \right)$ $8 Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s} \right)$ $9 Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1} \right)$	65 65 66 66 67 67 68 68 69

		LP-12 $Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$	
	4.13	LP-13 $Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$	71
	4.14	$LP-14 \ Z(s) = \left(\infty, \ \infty, \ \infty, \ R_4 + \frac{1}{C_4 s}, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $	72
	4.15	$LP-15 Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right) \cdot \dots $	72
		LP-16 $Z(s) = (R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s})'$	
5	\mathbf{BS}		73
	5.1	BS-1 $Z(s) = \left(R_1, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$	73
	5.2	BS-2 $Z(s) = \left(R_1, \infty, \infty, \infty, \infty, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	74
		BS-3 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \infty, R_L\right)$	
		BS-4 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, \infty, R_L\right)$	
	5.5	BS-5 $Z(s) = (R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, R_L)$	75
	5.6	BS-6 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$	76
6	\mathbf{GE}		76
		GE-1 $Z(s) = \left(R_1, \infty, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$	
	6.2	GE-2 $Z(s) = \left(R_1, \infty, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	77
	6.3	GE-3 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \infty, \infty, \infty, R_L\right)$	77
		GE-4 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, \infty, R_L\right)$	
	6.5	GE-5 $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, R_L\right)$	79
		GE-6 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, R_L\right)$	
7	AP		80
8	INV	ALID-NUMER	80
	8.1	INVALID-NUMER-1 $Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$	80
	8.2	INVALID-NUMER-2 $Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$	80

	8.3 INVALID-NUMER-3 $Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$	81
	8.4 INVALID-NUMER-4 $Z(s) = \left(\infty, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$	81
	8.5 INVALID-NUMER-5 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, R_L\right)'$	82
	8.6 INVALID-NUMER-6 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{1}{C_L s}\right)$	
	8.7 INVALID-NUMER-7 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, R_L + \frac{1}{C_L s}\right)$	83
	8.8 INVALID-NUMER-8 $Z(s) = (\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty, R_L)$	83
	8.9 INVALID-NUMER-9 $Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$	84
	8.10 INVALID-NUMER-10 $Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L\right)$	
	8.11 INVALID-NUMER-11 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{1}{C_L s}\right)$	85
	8.12 INVALID-NUMER-12 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{\stackrel{\frown}{R_L}}{C_L R_L s + 1}\right)$	85
	8.13 INVALID-NUMER-13 $Z(s) = \left(\infty, \infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_L\right)'$	86
	8.14 INVALID-NUMER-14 $Z(s) = \left(\infty, \infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{R_L}{C_L R_L s + 1}\right)$	86
	8.15 INVALID-NUMER-15 $Z(s) = \left(\infty, \infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, R_L\right)$	
	8.16 INVALID-NUMER-16 $Z(s) = \left(\infty, \infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{1}{C_L s}\right)$	87
	8.17 INVALID-NUMER-17 $Z(s) = \left(\infty, \infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{R_L}{C_L R_L s + 1}\right)$	88
9	INVALID-WZ 9.1 INVALID-WZ-1 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$ 9.2 INVALID-WZ-2 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, R_L + \frac{1}{C_L s}\right)$ 9.3 INVALID-WZ-3 $Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, R_L\right)$	89
10	INVALID-ORDER	90
	10.1 INVALID-ORDER-1 $Z(s) = (R_1, \infty, \infty, \infty, \infty, R_L)$	
	10.2 INVALID-ORDER-2 $Z(s) = \left(R_1, \infty, \infty, \infty, \infty, \frac{1}{C_L s}\right)$	
	10.3 INVALID-ORDER-3 $Z(s) = \begin{pmatrix} R_1, \infty, \infty, \infty, \infty, \infty, \frac{1}{C_L R_L s + 1} \end{pmatrix}$	
	10.4 INVALID-ORDER-4 $Z(s) = \left(R_1, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$	91
	4	

10.5 INVALID-ORDER-5 $Z(s) = (I_s)$	$\sum_{s} s, \infty, \infty$	∞ , ∞ , ∞	$, R_L)$				 	 	 	 	 	91
10.6 INVALID-ORDER-6 $Z(s) = (1)^{-1}$	L_1s, ∞, ∞	∞ , ∞ , ∞	$\frac{1}{C_L s}$)			 	 	 	 	 	91
10.7 INVALID-ORDER-7 $Z(s) = (1)^{-1}$	L_1s, ∞, ∞	∞ , ∞ , ∞	$, \frac{R}{C_L R}$	$\left(\frac{c_L}{L s+1}\right)$			 	 	 	 	 	91
10.8 INVALID-ORDER-8 $Z(s) = \left(1\right)$	L_1s, ∞, ∞	∞ , ∞ , ∞	R_L -	$+\frac{1}{C_L s}$			 	 	 	 	 	92
10.9 INVALID-ORDER-9 $Z(s) = (1)^{-1}$	L_1s, ∞, ∞	∞ , ∞ , ∞	$L_L s$	$+\frac{1}{C_L s}$			 	 	 	 	 	92
10.10INVALID-ORDER-10 $Z(s)=\left(\rule{0mm}{1mm}\right.$	$\Big(L_1s, \infty, \circ$	∞ , ∞ ,	∞ , $\overline{C_L}$	$\frac{L_L s}{L_L s^2 + 1}$			 	 	 	 	 	92
10.11INVALID-ORDER-11 $Z(s)=\big($	(L_1s, ∞, ∞)	∞ , ∞ ,	∞ , L_L	$s + R_L$	$+\frac{1}{C_L s}$		 	 	 	 	 	92
10.12INVALID-ORDER-12 $Z(s) = ($	\		_	7	. /		 	 	 	 	 	92
10.13INVALID-ORDER-13 $Z(s) = 1$	$\left(L_1s, \infty, \cdot\right)$	$\infty, \infty,$	$\infty, \frac{R_L}{L_L}$	$\frac{\left(L_L s + \frac{1}{C}\right)}{s + R_L + \frac{1}{C}}$	$\left(\frac{\frac{1}{L^s}}{\frac{1}{C_L^s}}\right)$		 	 	 	 	 	92
10.14 INVALID-ORDER-14 $Z(s)=\left(\right.$	$\left(\frac{1}{C_1s}, \infty, \infty\right)$	∞ , ∞ ,	∞ , R_L)			 	 	 	 	 	93
10.15 INVALID-ORDER-15 $Z(s)=\left(\right.$	$\left(\frac{1}{C_1s}, \infty, \infty\right)$	∞ , ∞ ,	∞ , $\frac{1}{C_L s}$	$\left(\frac{1}{5}\right)$			 	 	 	 	 	93
10.16 INVALID-ORDER-16 $Z(s)=\left(\right.$	$\left(\frac{1}{C_1 s}, \infty, \infty\right)$	∞ , ∞ ,	∞ , $\frac{1}{C_L I}$	$\frac{R_L}{R_L s+1}$			 	 	 	 	 	93
10.17 INVALID-ORDER-17 $Z(s)=\left(\right.$	$\left(\frac{1}{C_1 s}, \infty, \infty\right)$	∞ , ∞ ,	∞ , L_L	$s + \frac{1}{C_L s}$)		 	 	 	 	 	93
10.18 INVALID-ORDER-18 $Z(s)=\left(\right.$	$\left(\frac{1}{C_1 s}, \infty, \infty\right)$	∞ , ∞ ,	∞ , L_L	$s + R_L$	$+\frac{1}{C_L s}$		 	 	 	 	 	93
10.19INVALID-ORDER-19 $Z(s)=\left(\right.$	$\left(\frac{1}{C_1 s}, \infty, \infty\right)$	∞ , ∞ , o	∞ , $\frac{1}{C_L I}$	$\frac{L_L s}{L_L s^2 + 1}$ -	$+R_L$		 	 	 	 	 	93
10.20INVALID-ORDER-20 $Z(s) = 1$	$\left(\frac{1}{C_1 s}, \infty, \right)$	$\infty, \infty,$	$\infty, \frac{R_L}{L_L}$	$\frac{\left(L_L s + \frac{1}{C}\right)}{s + R_L + \frac{1}{C}}$	$\left(\frac{\frac{1}{L^s}}{\frac{1}{C_{L^s}}}\right)$		 	 	 	 	 	94
10.21 INVALID-ORDER-21 $Z(s)=\left(\right.$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\infty, \ \infty,$	R_L			 	 	 	 	 	94
10.22INVALID-ORDER-22 $Z(s)=\left(\right.$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\infty, \infty,$	$\left(\frac{1}{C_L s}\right)$			 	 	 	 	 	94
10.23 INVALID-ORDER-23 $Z(s)=\left(\right.$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	∞ , ∞ ,	$R_L +$	$\frac{1}{C_L s}$		 	 	 	 	 	94
10.24 INVALID-ORDER-24 $Z(s)=\left(\right.$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	∞ , ∞ ,	$L_L s +$	$\left(\frac{1}{C_L s}\right)$		 	 	 	 	 	94
10.25INVALID-ORDER-25 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s}$	$\left(\frac{3}{2+1}\right)$		 	 	 	 	 	94
10.26INVALID-ORDER-26 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	∞ , ∞ ,	$L_L s +$	$R_L + \overline{c}$	$\left(\frac{1}{C_L s}\right)$	 	 	 	 	 	95
10.27INVALID-ORDER-27 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	∞ , ∞	$, \overline{C_L s + \overline{I}}$	$\frac{\frac{1}{R_L} + \frac{1}{L_L s}}{\frac{1}{R_L} + \frac{1}{L_L s}}$)	 	 	 	 	 	95

10.28INVALID-ORDER-28 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \infty, \infty, \infty, \frac{C_1}{C_1}\right)$	$\left(\frac{L_L s}{L_L s^2 + 1} + R_L\right)$		 	 95
10.29INVALID-ORDER-29 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \infty, \infty, \frac{R_2}{L}\right)$	$\frac{L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} $.		 	 95
10.30INVALID-ORDER-30 $Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \overline{c})$	$\left(\frac{1}{C_L s}\right)$		 	 95
10.31INVALID-ORDER-31 $Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \overline{c})$	$\left(\frac{R_L}{C_L R_L s + 1}\right)$		 	 96
10.32INVALID-ORDER-32 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ F\right)$	$R_L + \frac{1}{C_L s}$		 	 96
10.33INVALID-ORDER-33 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ I\right)$	$L_L s + \frac{1}{C_L s}$		 	 96
10.34INVALID-ORDER-34 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \overline{c}\right)$	$\left(\frac{L_L s}{C_L L_L s^2 + 1}\right) . .$		 	 96
10.35INVALID-ORDER-35 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ I\right)$	$L_L s + R_L + \frac{1}{C_L s}$)	 	 96
10.36INVALID-ORDER-36 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \overline{c}\right)$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} $		 	 97
10.37INVALID-ORDER-37 $Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \overline{c})$	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L$		 	 97
10.38INVALID-ORDER-38 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \right)$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$		 	 97
10.39INVALID-ORDER-39 $Z(s) =$	į.	`		 	 97
10.40INVALID-ORDER-40 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \infty, \infty, \infty, \infty, \infty, \right)$	$R_L + \frac{1}{C_L s}$)		 	 97
10.41INVALID-ORDER-41 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \infty, \ \right)$	$L_L s + \frac{1}{C_L s}$)		 	 98
10.42INVALID-ORDER-42 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \infty, \right)$	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 98
10.43INVALID-ORDER-43 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \infty, \ \right)$	$L_L s + R_L + \frac{1}{C_L s}$	$\left(\cdot \right) = \left(\cdot \right)$	 	 98
10.44INVALID-ORDER- $44 Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \infty, \right)$	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L$		 	 98
10.45INVALID-ORDER-45 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \infty, \right)$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$		 	 98
10.46INVALID-ORDER-46 $Z(s) =$				 	 99
10.47INVALID-ORDER-47 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \infty, \infty, \infty, \infty, \infty\right)$	$\left(\frac{R_L}{R_L s+1}\right)$		 	 99
10.48INVALID-ORDER-48 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \ \infty, \ \infty, \ R\right)$	$R_L + \frac{1}{C_L s}$)		 	 99
10.49INVALID-ORDER-49 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \infty, \infty, \infty, \infty, L\right)$	$\frac{1}{C_L s} + \frac{1}{C_L s}$		 	 99

10.50INVALID-ORDER-50 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}\right)$	$\frac{1}{C_L}$, ∞ , ∞ , ∞ , ∞ , $\frac{1}{C_L}$	$L_L s$			
$C_1L_1s^2+$	-1	$L_L s^2 + 1$) · · ·		 	 99
10.51INVALID-ORDER-51 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}\right)$	$\frac{1}{1}$, ∞ , ∞ , ∞ , ∞ , L_L	$(s+R_L+\frac{1}{C_L s})$		 	 99
10.52INVALID-ORDER-52 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2}\right)$	$\frac{1}{1}$, ∞ , ∞ , ∞ , ∞ , $\frac{1}{C_I}$	$\left(\frac{1}{Ls + \frac{1}{R_L} + \frac{1}{L_L s}}\right) .$		 	 100
	$\frac{1}{C_L}$, ∞ , ∞ , ∞ , ∞ , $\frac{1}{C_L}$, , , ,		 	 100
10.54INVALID-ORDER-54 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2}\right)$	$\frac{R_I}{1}$, ∞ , ∞ , ∞ , ∞ , $\frac{R_I}{L_I}$	$\frac{L\left(L_L s + \frac{1}{C_L s}\right)}{L s + R_L + \frac{1}{C_L s}}$		 	 100
10.55INVALID-ORDER-55 $Z(s) = (L_1 s + I_2 s)$	$R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty,$	∞ , $R_L + \frac{1}{C_L s}$		 	 100
10.56INVALID-ORDER-56 $Z(s) = (L_1 s + I_2 + I_3)$	$R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty,$	∞ , $L_L s + \frac{1}{C_L s}$)	 	 100
10.57INVALID-ORDER-57 $Z(s) = (L_1 s + I_1 s)$	$R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty,$	∞ , $L_L s + R_L -$	$+\frac{1}{C_L s}$)	 	 101
10.58INVALID-ORDER-58 $Z(s) = (L_1 s + I_2 s)$	$R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty,$	∞ , $\frac{L_L s}{C_L L_L s^2 + 1} +$	$-R_L$)	 	 101
10.59INVALID-ORDER-59 $Z(s) = \left(L_1 s + L_2 s\right)$	$R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty,$	$\infty, \frac{R_L \left(L_L s + \frac{1}{C_L} + \frac{1}{C_L}$	$\left(\frac{\overline{L^s}}{L^s}\right)$	 	 101
10.60INVALID-ORDER-60 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1}}\right)$	$\frac{1}{1+\frac{1}{L_1s}}$, ∞ , ∞ , ∞ , ∞ ,	$\frac{1}{C_L s}$ \cdots		 	 101
10.61INVALID-ORDER-61 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1}}\right)$	$\frac{1}{1+\frac{1}{L_1s}}$, ∞ , ∞ , ∞ , ∞ ,	$\frac{R_L}{C_L R_L s + 1}$		 	 101
10.62INVALID-ORDER-62 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1}}\right)$	$\frac{1}{1+\frac{1}{L_1s}}$, ∞ , ∞ , ∞ , ∞ ,	$R_L + \frac{1}{C_L s}$.		 	 102
10.63INVALID-ORDER-63 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1}}\right)$	$\frac{1}{1+\frac{1}{L_1s}}$, ∞ , ∞ , ∞ , ∞ ,	$L_L s + \frac{1}{C_L s}$		 	 102
10.64INVALID-ORDER-64 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1}}\right)$	$\frac{1}{1+\frac{1}{L_1s}}$, ∞ , ∞ , ∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$.		 	 102
10.65INVALID-ORDER-65 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1}}\right)$	$\frac{1}{1+\frac{1}{L_1s}}$, ∞ , ∞ , ∞ , ∞ ,	$L_L s + R_L + \overline{C}$	$\left(\frac{1}{Ls}\right)$	 	 102
10.66INVALID-ORDER-66 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1}}\right)$	$\frac{1}{1+\frac{1}{L_1s}}$, ∞ , ∞ , ∞ , ∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$		 	 102
10.67INVALID-ORDER-67 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1}}\right)$	$\frac{1}{1+\frac{1}{L_1s}}$, ∞ , ∞ , ∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} + R$	$_{L}\Big) . \ . \ .$	 	 103
10.68INVALID-ORDER-68 $Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1}}\right)$	$\frac{1}{1+\frac{1}{L_1s}}$, ∞ , ∞ , ∞ , ∞ ,	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$)	 	 103
10.69INVALID-ORDER-69 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}\right)$	$\frac{1}{1}+R_1, \infty, \infty, \infty, \infty$	$\infty, \frac{1}{C_L s}$)		 	 103

10.70INVALID-ORDER-70 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_LR_Ls+1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.71INVALID-ORDER-71 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \infty, \infty, \infty, \infty, R_L+\frac{1}{C_Ls}\right) \dots \dots$
10.72INVALID-ORDER-72 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \infty, \infty, \infty, \infty, \infty, L_Ls+\frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.73INVALID-ORDER-73 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.74INVALID-ORDER-74 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \infty, \ \infty, \ \infty, \ \infty, \ L_Ls + R_L + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.75INVALID-ORDER-75 $Z(s) = 1$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$
10.76INVALID-ORDER-76 $Z(s) = ($	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) \dots \dots$
10.77INVALID-ORDER-77 $Z(s) = 1$	$\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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.78INVALID-ORDER-78 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s+\frac{1}{C_1s}\right)}{L_1s+R_1+\frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \infty, R_L\right) \dots \qquad \dots$
10.79INVALID-ORDER-79 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.80INVALID-ORDER-80 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$
10.81INVALID-ORDER-81 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.82INVALID-ORDER-82 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.83INVALID-ORDER-83 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$
10.84INVALID-ORDER-84 $Z(s) = 1$	$ \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right) \dots $
10.85INVALID-ORDER-85 $Z(s) = ($	$\left(\infty, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$
10.86INVALID-ORDER-86 $Z(s) = ($	$\left(\infty, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right) \dots \dots$
10.87INVALID-ORDER-87 $Z(s) = ($	$\left(\infty, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$
10.88INVALID-ORDER-88 $Z(s) = ($	$\left(\infty, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right) \dots \dots$
10.89INVALID-ORDER-89 $Z(s) = 1$	$\left(\infty, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right) \dots \dots$

10.90INVALID-ORDER-90 $Z(s) = ($	$\left(\infty, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
10.91INVALID-ORDER-91 $Z(s) = 1$	$\left(\infty, R_2, \infty, \infty, \infty, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \dots \dots$
10.92INVALID-ORDER-92 $Z(s) = ($	$(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s})$
10.93INVALID-ORDER-93 $Z(s) = ($	$(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s})$
10.94INVALID-ORDER-94 $Z(s) = ($	$(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1})$
10.95INVALID-ORDER-95 $Z(s) = 0$	$\left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$
10.96INVALID-ORDER-96 $Z(s) = 1$	$\left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$
10.97INVALID-ORDER-97 $Z(s) = ($	$\left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) \dots \dots$
10.98INVALID-ORDER-98 $Z(s) = 1$	$\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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.99INVALID-ORDER-99 $Z(s) = ($	$\left(\infty, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$
10.10 ONVALID-ORDER- $100 Z(s) =$	$\left(\infty, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.10 I NVALID-ORDER-101 $Z(s) =$	$\left(\infty, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$
10.10 2 NVALID-ORDER- $102 Z(s) =$	$\left(\infty, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.10 B NVALID-ORDER-103 $Z(s) =$	$\left(\infty, \ \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.10#NVALID-ORDER-104 $Z(s) =$	$\left(\infty, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.10 5 NVALID-ORDER-105 $Z(s) =$	$\left(\infty, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \infty, \frac{R_L\left(L_Ls+\frac{1}{C_Ls}\right)}{L_Ls+R_L+\frac{1}{C_Ls}}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.106NVALID-ORDER- $106 Z(s) =$	$\left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, R_L\right)$
10.10TNVALID-ORDER- $107 Z(s) =$	$\left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$
10.10 NVALID-ORDER-108 $Z(s) =$	$\left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right) \dots \dots$
10.10 9 NVALID-ORDER-109 $Z(s) =$	$\left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.11 0 NVALID-ORDER-110 $Z(s) =$	$\left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$
10.11 I NVALID-ORDER-111 $Z(s) =$	$\left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

10.11 2 NVALID-ORDER-112 $Z(s) = 0$	$\left(\infty,\right.$	$R_2 + \frac{1}{C_2 s},$	∞ , \propto	$\infty, \infty, 1$	$L_L s +$	$R_L + \overline{c}$	$\left(\frac{1}{C_L s}\right)$		 	 	 	 	 111
10.11 B NVALID-ORDER-113 $Z(s) = 1$	$\left(\infty,\right.$	$R_2 + \frac{1}{C_2 s},$	∞ , o	$\infty, \infty,$	$\overline{C_L s + \overline{R}}$	$\frac{1}{R_L} + \frac{1}{L_L s}$)		 	 	 	 	 112
10.114NVALID-ORDER-114 $Z(s) = 0$	$(\infty,$	$R_2 + \frac{1}{C_2 s},$	∞ , \propto	0, ∞, ;	$\frac{L_L s}{C_L L_L s^2}$	$\frac{1}{2+1} + F$	\hat{R}_L) .		 	 	 	 	 112
10.11 SNVALID-ORDER-115 $Z(s) = 1$	$\left(\infty,\right.$	$R_2 + \frac{1}{C_2 s},$	∞ , o	∞ , ∞ ,	$\frac{R_L \left(L_L\right)}{L_L s + R}$	$\frac{s + \frac{1}{C_L s}}{R_L + \frac{1}{C_L s}}$			 	 	 	 	 112
10.11 G NVALID-ORDER-116 $Z(s) = 0$	/				\		, 		 	 	 	 	 112
10.11 T NVALID-ORDER-117 $Z(s) = 0$	$(\infty,$	$L_2s + \frac{1}{C_2s},$	∞ , c	∞ , ∞ ,	$\frac{1}{C_L s}$				 	 	 	 	 112
10.11 & NVALID-ORDER-118 $Z(s) = ($	$(\infty,$	$L_2s + \frac{1}{C_2s},$	∞ ,	∞ , ∞ ,	$\frac{R_L}{C_L R_L s}$	$\frac{1}{s+1}$			 	 	 	 	 113
10.11 9 NVALID-ORDER-119 $Z(s) = ($	$(\infty,$	$L_2s + \frac{1}{C_2s},$	∞ ,	∞ , ∞ ,	R_L +	$\frac{1}{C_L s}$			 	 	 	 	 113
10.12 0 NVALID-ORDER-120 $Z(s) = ($	$(\infty,$	$L_2s + \frac{1}{C_2s},$	∞ ,	∞ , ∞ ,	$L_L s$ +	$-\frac{1}{C_L s}$			 	 	 	 	 113
10.12INVALID-ORDER-121 $Z(s) = 0$	$(\infty,$	$L_2s + \frac{1}{C_2s},$	∞ , c	∞ , ∞ ,	$\frac{L_L}{C_L L_L s}$	$\left(\frac{s}{s^2+1}\right)'$			 	 	 	 	 113
10.12 2 NVALID-ORDER-122 $Z(s) = 0$	$(\infty,$	$L_2s + \frac{1}{C_2s},$	∞ , c	∞ , ∞ ,	$L_L s$ +	$-R_L +$	$\frac{1}{C_L s}$		 	 	 	 	 113
10.12 \$ NVALID-ORDER-123 $Z(s) = 1$	$\left(\infty,\right)$	$L_2s + \frac{1}{C_2s}$	∞ ,	∞ , ∞ ,	$\overline{C_L s} +$	$\frac{1}{\frac{1}{R_L} + \frac{1}{L_L}}$	$\left(\frac{1}{2}\right)$		 	 	 	 	 113
10.124NVALID-ORDER-124 $Z(s) = 0$	$(\infty,$	$L_2s + \frac{1}{C_2s},$	∞ , c	∞ , ∞ ,	$\frac{L_L}{C_L L_L s}$	$\frac{s}{s^2+1} + 1$	$(\hat{R_L})$		 	 	 	 	 114
10.12 Invalid-order-125 $Z(s) = 1$	$\left(\infty,\right.$	$L_2s + \frac{1}{C_2s}$	∞ ,	∞ , ∞ ,	$\frac{R_L \left(L\right)}{L_L s + 1}$	$\frac{Ls + \frac{1}{C_Ls}}{R_L + \frac{1}{C_Ls}}$	$\left(\frac{1}{2}\right)$.		 	 	 	 	 114
10.126NVALID-ORDER-126 $Z(s) = 0$	$(\infty,$	$L_2s + R_2 +$	$-\frac{1}{C_2s}$	∞ , ∞	∞ , ∞ ,	R_L			 	 	 	 	 114
10.12 T NVALID-ORDER-127 $Z(s) = 0$,					· \			 	 	 	 	 114
10.12\ntext{\text{NVALID-ORDER-128}} $Z(s) = 0$	$(\infty,$	$L_2s + R_2 +$	$-\frac{1}{C_2s}$	∞ , ∞	∞ , ∞ ,	$\frac{\overset{'}{R_L}}{C_L R_L s +}$	$\overline{-1}$).		 	 	 	 	 114
10.12 9 NVALID-ORDER-129 $Z(s) = (s)$,						´ \		 	 	 	 	 115
10.13 0 NVALID-ORDER-130 $Z(s) = 0$	$(\infty,$	$L_2s + R_2 +$	$-\frac{1}{C_2s}$	∞ , ∞	∞ , ∞ ,	$L_L s + \frac{1}{2}$	$\frac{1}{C_L s}$		 	 	 	 	 115
10.13INVALID-ORDER-131 $Z(s) = 0$	$(\infty,$	$L_2s + R_2 +$	$-\frac{1}{C_2s}$	∞ , ∞	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2}$	$\frac{1}{1}$		 	 	 	 	 115
10.132NVALID-ORDER-132 $Z(s) = 0$	$(\infty,$	$L_2s + R_2 +$	$-\frac{1}{C_2s}$,	∞ , ∞	∞ , ∞ ,	$L_L s + L_L s$	$R_L + \overline{c}$	$\left(\frac{1}{C_L s}\right)$	 	 	 	 	 115
10.13\(\textbf{S}\) NVALID-ORDER-133 $Z(s) = 1$	$\left(\infty,\right.$	$L_2s + R_2$	$+\frac{1}{C_2s},$	$, \infty, \infty$	∞ , ∞ ,	$\frac{1}{C_L s + \frac{1}{R_I}}$	$\frac{1}{L + \frac{1}{L_L s}}$	$\Big)$.	 	 	 	 • • • •	 115

10.134NVALID-ORDER-134 $Z(s)=\left(\rule{0mm}{1.5mm}\right.$	$\Big(\infty,$	$L_2s + R_2 + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L$
10.135 NVALID-ORDER-135 $Z(s)=\left[\right.$	$\left(\infty,\right.$	$L_2s + R_2 + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right) \ \dots $
10.136NVALID-ORDER-136 $Z(s) = 0$	$(\infty,$	$\frac{L_2s}{C_2L_2s^2+1}+R_2, \ \infty, \ \infty, \ \infty, \ R_L$
10.13 T NVALID-ORDER-137 $Z(s) = ($	$\left(\infty,\right.$	$\frac{L_2s}{C_2L_2s^2+1} + R_2$, ∞ , ∞ , ∞ , $\frac{1}{C_Ls}$
10.13&NVALID-ORDER-138 $Z(s) = ($	$\Big(\infty,$	$\frac{L_2s}{C_2L_2s^2+1} + R_2$, ∞ , ∞ , ∞ , $\frac{R_L}{C_LR_Ls+1}$)
10.13 9 NVALID-ORDER-139 $Z(s) = ($	$\Big(\infty,$	$\frac{L_2s}{C_2L_2s^2+1} + R_2$, ∞ , ∞ , ∞ , $R_L + \frac{1}{C_Ls}$
10.14 0 NVALID-ORDER-140 $Z(s) = 0$	$\left(\infty,\right.$	$\frac{L_2s}{C_2L_2s^2+1} + R_2$, ∞ , ∞ , ∞ , $L_Ls + \frac{1}{C_Ls}$
	>	$\frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1}$
10.14 2 NVALID-ORDER-142 $Z(s) = \langle 1 \rangle$	$\left(\infty,\right)$	$\frac{L_2s}{C_2L_2s^2+1} + R_2$, ∞ , ∞ , ∞ , $L_Ls + R_L + \frac{1}{C_Ls}$)
10.143NVALID-ORDER-143 $Z(s) = 1$	$\left(\infty,\right.$	$\frac{L_2s}{C_2L_2s^2+1} + R_2$, ∞ , ∞ , ∞ , $\frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}$
10.14\PVALID-ORDER-144 $Z(s) = 0$	`	$\frac{L_2s}{C_2L_2s^2+1} + R_2$, ∞ , ∞ , ∞ , $\frac{L_Ls}{C_LL_Ls^2+1} + R_L$)
10.14Б NVALID-ORDER-145 $Z(s) = 1$	\	$\frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right) \ \dots $
10.146NVALID-ORDER-146 $Z(s) = 1$	$\left(\infty,\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L\right) \qquad \dots \qquad $
10.14TNVALID-ORDER-147 $Z(s) = 1$	$\left(\infty,\right]$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls}$
10.14\(\mathbb{R}\) NVALID-ORDER-148 $Z(s) = 1$	$\left(\infty,\right]$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_LR_Ls + 1}$
10.14 9 NVALID-ORDER-149 $Z(s) = 1$	$(\infty,$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_Ls}$
10.150NVALID-ORDER-150 $Z(s) = 1$	$\left(\infty,\right]$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ L_Ls + \frac{1}{C_Ls}\right)$
10.15INVALID-ORDER-151 $Z(s) = 1$	$\left(\infty,\right.$	$\frac{R_2\left(L_{2}s + \frac{1}{C_2s}\right)}{L_{2}s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1}$
10.15 2 NVALID-ORDER-152 $Z(s) = 1$	$\left(\infty,\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ L_Ls + R_L + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.15 NVALID-ORDER-153 $Z(s) = 1$	$\left(\infty,\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right) \ \dots $

10.154NVALID-ORDER-154 $Z(s) = \left(\infty\right)$	$ \bigcirc, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L \right) \ \dots $
10.15 INVALID-ORDER-155 $Z(s) = \left(\infty\right)$	
	$, \infty, R_3, \infty, \infty, R_L)$
10.15 T NVALID-ORDER-157 $Z(s) = (\infty)$	$(x, \infty, R_3, \infty, \infty, \frac{1}{C_L s})$
10.15 NVALID-ORDER-158 $Z(s) = (\infty)$	$(x, \infty, R_3, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1})$
10.15 9 NVALID-ORDER-159 $Z(s) = (\infty)$	$(x, \infty, R_3, \infty, \infty, R_L + \frac{1}{C_L s})$
10.16 0 NVALID-ORDER-160 $Z(s) = (\infty)$	$(0, \infty, R_3, \infty, \infty, L_L s + \frac{1}{C_L s})$
10.16INVALID-ORDER-161 $Z(s) = (\infty)$	$(0, \infty, R_3, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1})$
>	$(0, \infty, R_3, \infty, \infty, L_L s + R_L + \frac{1}{C_L s})$
10.16 3 NVALID-ORDER-163 $Z(s) = \left(\infty\right)$	$(0, \infty, R_3, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}})$
10.164NVALID-ORDER-164 $Z(s) = (\infty)$	$(0, \infty, R_3, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L)$
10.16 INVALID-ORDER-165 $Z(s) = \left(\infty\right)$	∞ , ∞ , R_3 , ∞ , ∞ , $\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$
10.166NVALID-ORDER-166 $Z(s) = (\infty)$	$(x, \infty, \frac{1}{C_3 s}, \infty, \infty, \infty, R_L)$
10.16 T NVALID-ORDER-167 $Z(s) = (\infty)$	$(0, \infty, \frac{1}{C_3s}, \infty, \infty, L_L s + \frac{1}{C_L s})$
10.16 NVALID-ORDER-168 $Z(s) = (\infty)$	$(x, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1})'$
10.169NVALID-ORDER-169 $Z(s) = (\infty)$	$(0, \infty, \frac{1}{C_3 s}, \infty, \infty, L_L s + R_L + \frac{1}{C_L s})$
10.17 0 NVALID-ORDER-170 $Z(s) = \left(\infty\right)$	$(0, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}})$
10.17INVALID-ORDER-171 $Z(s) = (\infty)$	$(0, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L)$
10.17 2 NVALID-ORDER-172 $Z(s) = \left(\infty\right)$	$(0, \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}}) \dots $
10.17 3 NVALID-ORDER-173 $Z(s) = (\infty)$	
10.17#NVALID-ORDER-174 $Z(s) = (\infty)$	$(0, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, \infty, R_L + \frac{1}{C_L s})$
10.175NVALID-ORDER-175 $Z(s) = (\infty)$	$(0, \infty, \frac{R_3}{C_3 R_3 s+1}, \infty, \infty, L_L s + \frac{1}{C_L s})$

10.176NVALID-ORDER-176 $Z(s) =$	$=\left(\infty,\ \infty,\ rac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ rac{L_Ls}{C_LL_Ls^2+1} ight)$. 124
10.17 INVALID-ORDER-177 $Z(s) =$	$= \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s} \right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $. 124
10.17&NVALID-ORDER-178 $Z(s) =$	$=\left(\infty,\ \infty,\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$. 124
10.17 9 NVALID-ORDER-179 $Z(s) =$	$= \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right) \qquad \dots $. 124
10.180NVALID-ORDER-180 $Z(s) =$	$=\left(\infty,\ \infty,\ rac{R_3}{C_3R_3s+1},\ \infty,\ \infty,\ rac{R_L\left(L_Ls+rac{1}{C_Ls} ight)}{L_Ls+R_L+rac{1}{C_Ls}} ight)$. 124
10.18INVALID-ORDER-181 $Z(s) =$	$= \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s} \right) $. 125
10.18 2 NVALID-ORDER-182 $Z(s) =$	$=\left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right) \ \ldots \ $. 125
10.18 3 NVALID-ORDER-183 $Z(s) =$	$= \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right) \dots $. 125
10.18#NVALID-ORDER-184 $Z(s) =$	$= \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s} \right) \dots $. 125
10.18 INVALID-ORDER-185 $Z(s) =$	$=\left(\infty,\ \infty,\ R_3+rac{1}{C_3s},\ \infty,\ \infty,\ rac{1}{C_Ls+rac{1}{R_L}+rac{1}{L_Ls}} ight)\ \dots \dots$. 125
10.186NVALID-ORDER-186 $Z(s) =$	$= \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $. 125
10.18 TNVALID-ORDER-187 $Z(s) =$	$= \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) \ \dots $. 126
10.18\%NVALID-ORDER-188 $Z(s) =$	$=\left(\infty,\ \infty,\ L_3s+rac{1}{C_3s},\ \infty,\ \infty,\ rac{1}{C_Ls} ight)$. 126
10.18¶NVALID-ORDER-189 $Z(s) =$	$=\left(\infty, \infty, L_3s + \frac{1}{C_3s}, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$. 126
10.19 0 NVALID-ORDER-190 $Z(s) =$	$=\left(\infty, \ \infty, \ L_3s+rac{1}{C_3s}, \ \infty, \ \infty, \ R_L+rac{1}{C_Ls} ight) \ \ldots \ $. 126
10.19 I NVALID-ORDER-191 $Z(s) =$	$=\left(\infty, \infty, L_3s + \frac{1}{C_3s}, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$. 126
10.19 2 NVALID-ORDER-192 $Z(s) =$	$=\left(\infty, \ \infty, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1}\right)'$. 126
	$=\left(\infty, \ \infty, \ L_3s+\frac{1}{C_3s}, \ \infty, \ \infty, \ L_Ls+R_L+\frac{1}{C_Ls}\right)$. 127
10.194NVALID-ORDER-194 $Z(s) =$	$=\left(\infty, \ \infty, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$. 127
10.19 δ NVALID-ORDER-195 $Z(s)=$	$= \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) \dots $. 127
10.196NVALID-ORDER-196 $Z(s) =$	$= \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $. 127
10.19 TNVALID-ORDER-197 $Z(s) =$	$=\left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \infty, \ R_L\right)$. 127

10.19\bigselentrian VALID-ORDER-198 $Z(s)=\big($	$\left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$	28
10.19 9 NVALID-ORDER-199 $Z(s)=\langle$	$\left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$	28
10.20 © NVALID-ORDER-200 $Z(s)=\langle$	$\left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$	28
10.20INVALID-ORDER-201 $Z(s)=\langle$	$\left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$	28
10.20 2 NVALID-ORDER-202 $Z(s) = ($	$\left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$	28
10.20 & NVALID-ORDER-203 $Z(s) = ($	$\left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$	28
10.204NVALID-ORDER-204 $Z(s)=\langle$	$\left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \infty, \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$	29
	$\left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $	
10.206NVALID-ORDER-206 $Z(s) = 1$	$\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) \ \dots \ $	29
10.20 T NVALID-ORDER-207 $Z(s) = ($	$\left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, R_L\right)$	29
10.20&NVALID-ORDER-208 $Z(s)=\langle$	$\left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \frac{1}{C_Ls}\right) \dots \dots$	29
10.20 9 NVALID-ORDER-209 $Z(s) = ($	$\left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$	30
10.21 © NVALID-ORDER-210 $Z(s) = ($	$\left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$	30
10.21INVALID-ORDER-211 $Z(s)=\langle$	$\left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$	30
10.21 2 NVALID-ORDER-212 $Z(s) = ($	$\left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$	30
10.21 B NVALID-ORDER-213 $Z(s)=($	$\left(\infty, \infty, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$	30
10.214NVALID-ORDER-214 $Z(s) = 1$	$\left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$	30
10.21 INVALID-ORDER-215 $Z(s) = 0$	$\left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$	31
10.216NVALID-ORDER-216 $Z(s) = 1$	$\left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right) $	31
10.21 INVALID-ORDER-217 $Z(s) = 1$	$\left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \infty, \infty, R_L\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $	31
10.21&NVALID-ORDER-218 $Z(s) = 1$	$\left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \infty, \infty, \frac{1}{C_L s}\right)$	31

10.21 9 NVALID-ORDER-219 $Z(s) = 1$	$\left(\infty, \ \infty, \right.$	$\frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \ \infty, \ \infty,$	$\frac{R_L}{C_L R_L s + 1}$. 131
10.22 0 NVALID-ORDER-220 $Z(s) = 1$	$\left(\infty, \ \infty, \right.$	$\frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \ \infty, \ \infty,$	$R_L + \frac{1}{C_L s}$.		 	 	. 132
10.22INVALID-ORDER-221 $Z(s) = 1$	$(\infty, \infty,$	$\frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \ \infty, \ \infty,$	$L_L s + \frac{1}{C_L s}$. 132
10.22 2 NVALID-ORDER-222 $Z(s) = 1$	$\left(\infty, \ \infty, \right.$	$\frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \ \infty, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$. 132
10.22\mathbb{B}\mathbb{N}\mathbb{V}\mathbb{A}\mathbb{L}\mathbb{I}\mathbb{D}\mathbb{C}\mathbb{R}\mathbb{D}\mathbb{E}\mathbb{R}-223 \ Z(s) = \begin{array}{c} \lambda \	$\left(\infty, \ \infty, \right.$	$\frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \ \infty, \ \infty,$	$L_L s + R_L + \frac{1}{C}$	$\left(\frac{1}{L^{S}}\right)$. 132
10.224NVALID-ORDER-224 $Z(s) = 1$	$\left(\infty, \ \infty, \right.$	$\frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \ \infty, \ \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$. 132
10.22 Б NVALID-ORDER-225 $Z(s) = 1$	$\left(\infty, \ \infty, \right.$	$\frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \ \infty, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} + R$	$_{L}\Big)$. 133
10.22 6 NVALID-ORDER-226 $Z(s) = 1$	$\left(\infty, \ \infty, \right.$	$\frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \ \infty, \ \infty,$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$)	 	 	. 133
10.22 T NVALID-ORDER-227 $Z(s) = ($. 133
10.22\&NVALID-ORDER-228 $Z(s) = ($	$(\infty, \infty,$	$\frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \infty$	$\left(\frac{1}{C_L s} \right) \dots$. 133
10.22 9 NVALID-ORDER-229 $Z(s) = ($	$(\infty, \infty,$	$\frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \infty$	$(c), \frac{\stackrel{'}{R_L}}{C_L R_L s + 1}$.		 	 	. 133
10.23 0 NVALID-ORDER-230 $Z(s) = ($	$(\infty, \infty,$	$\frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \infty$	$(R_L + \frac{1}{C_L s})$. 133
10.23INVALID-ORDER-231 $Z(s) = ($	$(\infty, \infty,$	$\frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \infty$	$(c), L_L s + \frac{1}{C_L s}$. 134
10.23 2 NVALID-ORDER-232 $Z(s) = ($	>		\ \ \		 	 	. 134
10.23\(\text{SNVALID-ORDER-233} \) $Z(s) = ($	$(\infty, \infty,$	$\frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \infty$	$D, L_L s + R_L +$	$\frac{1}{C_L s}$)	 	 	. 134
10.23#NVALID-ORDER-234 $Z(s) = 1$	7			\ ′	 	 	. 134
10.23 5 NVALID-ORDER-235 $Z(s) = ($	$(\infty, \infty,$	$\frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \infty$	$0, \ \frac{L_L s}{C_L L_L s^2 + 1} + \frac{1}{C_L L_L s^2 + $	$\stackrel{'}{R_L}$. 134
10.23 6 NVALID-ORDER-236 $Z(s) = 1$	$(\infty, \infty,$	$\frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \circ$	$O, \frac{R_L \left(L_L s + \frac{1}{C_L s} + \frac{1}{C_L $	$\left(\frac{1}{s}\right)$. 135
10.23 T NVALID-ORDER-237 $Z(s) = 1$. 135
10.23\NVALID-ORDER-238 $Z(s) = 1$	$\infty, \infty,$	$\frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \ \infty, \ \infty,$	$\frac{1}{C_L s}$ \cdots \cdots		 	 	. 135

10.23 9 NVALID-ORDER-239 $Z(s) =$									 	 	 	 	 	135
10.240NVALID-ORDER-240 $Z(s) = 1$	$\left(\infty,\right.$	∞ ,	$\frac{R_3\left(L_3s + \frac{1}{C}\right)}{L_3s + R_3 + \frac{1}{C}}$	$\left(\frac{\frac{1}{3^s}}{\frac{1}{23^s}}\right)$, \propto	∞ , ∞ ,	$R_L + \overline{C}$	$\left(\frac{1}{Ls}\right)$		 	 	 	 	 	135
10.24INVALID-ORDER-241 $Z(s) =$	\			-35			/		 	 	 	 	 	136
10.24 2 NVALID-ORDER-242 $Z(s) = 1$	$\left(\infty,\right.$	∞ ,	$\frac{R_3\left(L_3s + \frac{1}{C}\right)}{L_3s + R_3 + \frac{1}{C}}$	$\left(\frac{\frac{1}{3^s}}{\frac{1}{C_3^s}}\right)$, \propto	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2}$	$\overline{+1}$		 	 	 	 • • • •	 	136
10.248NVALID-ORDER-243 $Z(s) =$	\			-30					 	 	 	 	 	136
10.24\PVALID-ORDER-244 $Z(s) = 1$									 	 	 	 	 	136
10.245NVALID-ORDER-245 $Z(s) =$	$\left(\infty,\right.$	∞ ,	$\frac{R_3\left(L_3s + \frac{1}{C}\right)}{L_3s + R_3 + \frac{1}{C}}$	$\left(\frac{1}{3^{\frac{1}{3}}}\right)$ $\left(\frac{1}{C_{3^s}}\right)$	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2}$	$\frac{1}{1} + 1$	R_L	 	 	 	 	 	136
10.24 INVALID-ORDER-246 $Z(s) = 1$	$\left(\infty,\right.$	∞ ,	$\frac{R_3\left(L_3s + \frac{1}{C}\right)}{L_3s + R_3 + \frac{1}{C}}$	$\left(\frac{1}{3^{\frac{1}{s}}}\right)$	∞ , ∞ ,	$\frac{R_L \left(L_L s}{L_L s + R_I}\right)$	$+\frac{1}{C_L s}$	$\left(\frac{1}{2}\right)$.	 	 	 	 	 	137
10.24TNVALID-ORDER- $247 Z(s) = 0$	(∞, c)	∞ , o	\circ , R_4 , \propto	(R_L)				· /	 	 	 	 	 	137
10.24&NVALID-ORDER-248 $Z(s) = 0$	7				\				 	 	 	 	 	137
10.24 9 NVALID-ORDER-249 $Z(s) = 0$	>				′ 、				 	 	 	 	 	137
	>			_	,	`\								
10.25 0 NVALID-ORDER-250 $Z(s) = 0$	(∞, \circ)	∞ , c	∞ , R_4 , \circ	o, R_L	$+ {C_L s}$	<u> </u>			 	 	 	 	 	137
10.25 I NVALID-ORDER-251 $Z(s) = 0$	$\Big(\infty, \circ$	∞ , c	∞ , R_4 , \circ	o, $L_L s$	$+\frac{1}{C_L}$	$\left(\frac{1}{s}\right)$			 	 	 	 	 	138
10.25 2 NVALID-ORDER-252 $Z(s) = 0$	(∞, \circ)	∞ , c	∞ , R_4 , \circ	$\circ, \frac{1}{C_L L}$	$L_L s$)			 	 	 	 	 	138
10.253NVALID-ORDER- 253 $Z(s) = 1$	$(\infty, 0)$	∞ , c	∞ , R_4 , \circ	$c, L_L s$	$+R_{I}$	$\left(1 + \frac{1}{C_{LS}}\right)$			 	 	 	 	 	138
10.25#NVALID-ORDER-254 $Z(s) =$	>					\ ′								
10.25 Invalid-order-255 $Z(s) = 1$	$(\infty, \circ$	∞ , c	∞ , R_4 , \circ	$\circ, \frac{I}{C_L L}$	$L_L s$ $L_L s^2 + 1$	$+R_L$			 	 	 	 	 	138
10.256NVALID-ORDER-256 $Z(s) = 1$	`.				,	\ . '			 	 	 	 	 	139
10.25 T NVALID-ORDER-257 $Z(s) = 0$	(∞, \circ)	∞ , c	∞ , $\frac{1}{C_4s}$,	∞ , R_L) .				 	 	 	 	 	139
10.25\(\mathbb{R}\) NVALID-ORDER-258 $Z(s)=0$	>				/	$\left(\frac{1}{Ls}\right)$			 	 	 	 	 	139

10.25 9 NVALID-ORDER-259 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s}$, ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 139
10.26 ONVALID-ORDER-260 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right)$	$\frac{1}{C_4s}$, ∞ ,	$L_L s + R_L + \frac{1}{C_L s}$		 	 139
10.26INVALID-ORDER-261 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{1}{C_4 s}$, ∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$		 	 140
10.26 2 NVALID-ORDER-262 $Z(s) =$	$(\infty, \infty, \infty,$	$\frac{1}{C_4 s}$, ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L \bigg)$		 	 140
10.26 NVALID-ORDER-263 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{1}{C_4 s}$, ∞ ,	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$		 	 140
10.26 INVALID-ORDER-264 $Z(s) =$	$(\infty, \infty, \infty,$	$\tfrac{R_4}{C_4R_4s+1},$	$\infty, \frac{1}{C_L s}$)		 	 140
10.26 NVALID-ORDER-265 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right)$	$\frac{R_4}{C_4R_4s+1},$	∞ , $R_L + \frac{1}{C_L s}$		 	 140
10.26 C NVALID-ORDER-266 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right)$	$\frac{R_4}{C_4R_4s+1},$	∞ , $L_L s + \frac{1}{C_L s}$		 	 141
10.26 T NVALID-ORDER-267 $Z(s) =$	$(\infty, \infty, \infty, \infty,$	$\frac{R_4}{C_4R_4s+1},$	$\infty, \frac{L_L s}{C_L L_L s^2 + 1}$		 	 141
10.26&NVALID-ORDER-268 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right)$	$\frac{R_4}{C_4R_4s+1},$	∞ , $L_L s + R_L + \frac{1}{2}$	$\frac{1}{C_L s}$) \cdots	 	 141
10.26 9 NVALID-ORDER-269 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{R_4}{C_4R_4s+1},$	$\infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$		 	 141
10.27 ONVALID-ORDER-270 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{R_4}{C_4R_4s+1},$	∞ , $\frac{L_L s}{C_L L_L s^2 + 1} + L$	R_L)	 	 141
10.27INVALID-ORDER-271 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{R_4}{C_4R_4s+1},$	∞ , $\frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$	$\left(\frac{1}{2}\right)$	 	 142
10.272NVALID-ORDER-272 $Z(s) =$					 	 142
10.27 3 NVALID-ORDER-273 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$R_4 + \frac{1}{C_4 s},$	∞ , $L_L s + \frac{1}{C_L s}$		 	 142
10.27#NVALID-ORDER-274 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$R_4 + \frac{1}{C_4 s},$	$\infty, \; \frac{L_L s}{C_L L_L s^2 + 1}$		 	 142
10.27 INVALID-ORDER-275 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right)$	$R_4 + \frac{1}{C_4 s},$	∞ , $L_L s + R_L +$	$\left(\frac{1}{C_L s}\right)$	 	 142
10.27 6 NVALID-ORDER-276 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$R_4 + \frac{1}{C_4 s}$	$, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L}}$	$\frac{\overline{s}}{s}$	 	 143
10.27 NVALID-ORDER-277 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$R_4 + \frac{1}{C_4 s},$	∞ , $\frac{L_L s}{C_L L_L s^2 + 1} +$	R_L)	 	 143
10.27\NVALID-ORDER-278 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$R_4 + \frac{1}{C_4 s}$	$, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s} + 1$	$\left(\frac{\overline{s}}{\overline{s}}\right)$	 	 143
10.27 9 NVALID-ORDER-279 $Z(s) =$	$(\infty, \infty, \infty,$	$L_4s + \frac{1}{C_4s}$	$\left(\frac{1}{C_L s}\right)$		 	 143
10.28 ONVALID-ORDER- 280 $Z(s) =$	$(\infty, \infty, \infty,$	$L_4s + \frac{1}{C_4s}$	$\left(\frac{R_L}{C_L R_L s + 1}\right)$		 	 143

10.28INVALID-ORDER-281 $Z(s) =$	$\left(\infty, \infty, \infty\right)$	∞ , $L_4s + \frac{1}{C_4}$	$\frac{1}{s}$, ∞ ,	$R_L + \frac{1}{C_L s}$)	 	 	 	 	144
10.28 2 NVALID-ORDER-282 $Z(s) =$	(∞, ∞, ∞)	∞ , $L_4s + \frac{1}{C_4}$	$\frac{1}{s}$, ∞ ,	$L_L s + \frac{1}{C_L s}$	·	 	 	 	 	144
10.283NVALID-ORDER-283 $Z(s) =$	(∞, ∞, ∞)	∞ , $L_4s + \frac{1}{C_4}$	$\frac{1}{s}$, ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 	 	 	144
10.28 INVALID-ORDER-284 $Z(s) =$	(∞, ∞, ∞)	∞ , $L_4s + \frac{1}{C_4}$	$\frac{1}{s}$, ∞ ,	$L_L s + R_L$	$+\frac{1}{C_L s}$	 	 	 	 	144
10.28 Invalid-order-285 $Z(s) =$	$\left(\infty, \infty, \infty\right)$	∞ , $L_4s + \frac{1}{C_4}$	$\frac{1}{s}$, ∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{R_L}}$	$\left(\frac{1}{L_L s}\right)$.	 	 	 	 	144
10.28 6 NVALID-ORDER-286 $Z(s) =$	(∞, ∞, ∞)	$\infty, L_4 s + \frac{1}{C_4}$	$\frac{1}{s}$, ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$	$+R_L$	 	 	 	 	144
10.28¶NVALID-ORDER-287 $Z(s) =$	$\left(\infty, \infty, \infty\right)$	∞ , $L_4s + \frac{1}{C_4}$	$\frac{1}{s}$, ∞ ,	$\frac{R_L \left(L_L s + \frac{1}{C}\right)}{L_L s + R_L + \frac{1}{C}}$	$\left(\frac{1}{L^s}\right)$ $\left(\frac{1}{L^s}\right)$.	 	 	 	 	145
10.288NVALID-ORDER-288 $Z(s) =$						 	 	 	 	145
10.289NVALID-ORDER-289 $Z(s) =$	(∞, ∞, ∞)	$\infty, \ \frac{L_4s}{C_4L_4s^2+1}$	$, \infty,$	$\frac{1}{C_L s}$)		 	 	 	 	145
10.29 ONVALID-ORDER-290 $Z(s) =$	(∞, ∞, ∞)	$\infty, \ \frac{L_4s}{C_4L_4s^2+1}$	$, \infty,$	$\frac{R_L}{C_L R_L s + 1}$		 	 	 	 	145
10.29 I NVALID-ORDER-291 $Z(s) =$	(∞, ∞, ∞)	$\infty, \ \frac{L_4s}{C_4L_4s^2+1}$	$, \infty,$	$R_L + \frac{1}{C_L s}$		 	 	 	 	145
10.29 2 NVALID-ORDER-292 $Z(s) =$	$\left(\infty, \infty, \infty\right)$	$\infty, \ \frac{L_4s}{C_4L_4s^2+1}$	$, \infty,$	$L_L s + \frac{1}{C_L s}$)	 	 	 	 	146
10.29 Invalid-order-293 $Z(s) =$	(∞, ∞, ∞)	$\infty, \ \frac{L_4s}{C_4L_4s^2+1}$	$, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 	 	 	146
10.294NVALID-ORDER-294 $Z(s) =$	$\left(\infty, \infty, \infty\right)$	$\infty, \ \frac{L_4s}{C_4L_4s^2+1}$	$, \infty,$	$L_L s + R_L +$	$-\frac{1}{C_L s}$	 	 	 	 	146
10.29 NVALID-ORDER-295 $Z(s) =$	$\left(\infty, \infty, \infty\right)$	$\infty, \ \frac{L_4s}{C_4L_4s^2+1}$	$, \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L}}$	$_{\overline{\underline{\mathbb{L}}^s}}$)	 	 	 	 	146
10.29 6 NVALID-ORDER-296 $Z(s) =$	(∞, ∞, ∞)	$\infty, \ \frac{L_4s}{C_4L_4s^2+1}$	$, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} +$	$-R_L$) .	 	 	 	 	146
10.29¶NVALID-ORDER-297 $Z(s) =$	$\left(\infty, \infty, \infty\right)$	$\infty, \ \frac{L_4s}{C_4L_4s^2+1}$	$, \infty,$	$\frac{R_L \left(L_L s + \frac{1}{C_L} + $	$\left(\frac{\overline{s}}{L}\right)$	 	 	 	 	147
10.29\nabla NVALID-ORDER-298 $Z(s) =$	į.			`		 	 	 	 	147
10.299NVALID-ORDER-299 $Z(s) =$	(∞, ∞, ∞)	∞ , $L_4s + R_4$	$+ \frac{1}{C_4 s}$	$\left(\frac{1}{S}, \infty, \frac{1}{C_L s}\right)$		 	 	 	 	147
10.30 ONVALID-ORDER- $300 Z(s) =$	$\left(\infty, \infty, \infty\right)$	∞ , $L_4s + R_4$	$+ \frac{1}{C_4 s}$	$\frac{1}{6}$, ∞ , $\frac{R}{C_L R_I}$	$\left(\frac{L}{c,s+1}\right)$.	 	 	 	 	147
10.30 I NVALID-ORDER-301 $Z(s) =$	$\left(\infty, \infty, \infty\right)$	∞ , $L_4s + R_4$	$+\frac{1}{C_4 s}$	\bar{s} , ∞ , R_L +	$-\frac{1}{C_L s}$	 	 	 	 	147
10.30 2 NVALID-ORDER- 302 $Z(s) =$	(∞, ∞, ∞)	∞ , $L_4s + R_4$	$+\frac{1}{C_{4}s}$	$\frac{1}{5}$, ∞ , $L_L s$	$+\frac{1}{C_L s}$	 	 	 	 	147

10.30 B NVALID-ORDER-303 $Z(s) =$	$= \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $. 148
10.304NVALID-ORDER-304 $Z(s) =$	$= \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $. 148
10.30 NVALID-ORDER-305 $Z(s) =$	$=\left(\infty, \ \infty, \ \infty, \ L_4s + R_4 + \frac{1}{C_4s}, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$. 148
10.30 CONVALID-ORDER- 306 $Z(s) =$	$= \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $. 148
10.30 T NVALID-ORDER-307 $Z(s) =$	$= \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) \ \dots $. 148
10.30\nbeloeknvalid-Order-308 $Z(s) =$	$= \left(\infty, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ R_L \right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $. 149
10.30 9 NVALID-ORDER-309 $Z(s) =$	$= \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) \dots $. 149
10.31 0 NVALID-ORDER-310 $Z(s) =$	$= \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $. 149
	$= \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $. 149
10.31 2 NVALID-ORDER-312 $Z(s) =$	$= \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) \dots $. 149
10.31 B NVALID-ORDER-313 $Z(s) =$	$= \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) \dots $. 150
10.31\PVALID-ORDER-314 $Z(s) =$	$= \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $. 150
10.31 5 NVALID-ORDER-315 $Z(s) =$	$= \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) $. 150
	$= \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) \ \dots $. 150
10.31 T NVALID-ORDER-317 $Z(s) =$	$= \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) \ \dots $. 150
	$=\left(\infty,\ \infty,\ \infty,\ \frac{L_4s}{C_4L_4s^2+1}+R_4,\ \infty,\ R_L\right)$. 151
10.31 9 NVALID-ORDER-319 $Z(s) =$	$= \left(\infty, \ \infty, \ \infty, \ \frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ \frac{1}{C_Ls} \right) \dots $. 151
10.32 ONVALID-ORDER- 320 $Z(s) =$	$= \left(\infty, \ \infty, \ \infty, \ \frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ \frac{R_L}{C_LR_Ls+1} \right) $. 151
10.32INVALID-ORDER-321 $Z(s) =$	$= \left(\infty, \ \infty, \ \infty, \ \frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ R_L + \frac{1}{C_Ls} \right) \dots $. 151
10.32 2 NVALID-ORDER- $322 Z(s) =$	$= \left(\infty, \ \infty, \ \infty, \ \frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ L_Ls + \frac{1}{C_Ls}\right) \ \dots $. 151

10.32\(\text{SNVALID-ORDER-323} \) $Z(s) = 0$	$(\infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4$	$_{1},~\infty,~\frac{1}{C_{L}I}$	$\left(\frac{L_L s}{L_L s^2 + 1}\right)$.		 	 	 151
10.324NVALID-ORDER- 324 $Z(s) = 1$	$(\infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4$	$_{1}, \infty, L_{L}s$	$s + R_L + \overline{C}$	$\left(\frac{1}{Ls}\right)$.	 	 	 152
10.32 INVALID-ORDER-325 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{L_4s}{C_4L_4s^2+1} + R$	$_4, \ \infty, \ \overline{C_L}$	$\frac{1}{s + \frac{1}{R_L} + \frac{1}{L_L s}}$		 	 	 152
10.32 CONVALID-ORDER- 326 $Z(s) = 10.32$	$(\infty, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4$	$_{1}, \infty, \frac{1}{C_{L}I}$	$\frac{L_L s}{L_L s^2 + 1} + R$	L)	 	 	 152
10.32 TNVALID-ORDER-327 $Z(s) = 1$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{L_4s}{C_4L_4s^2+1} + R$	$_{4}, \infty, \frac{R_{L}}{L_{L}}$	$\frac{\left(L_L s + \frac{1}{C_L s}\right)}{s + R_L + \frac{1}{C_L s}}$)	 	 	 152
10.32\&NVALID-ORDER-328 $Z(s) = 1$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}},$	∞ , R_L			 	 	 152
10.32 9 NVALID-ORDER-329 $Z(s) =$	(040	/			 	 	 153
10.33©NVALID-ORDER-330 $Z(s) = 1$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}},$	∞ , $\frac{R_L}{C_L R_L}$	$\left(\frac{L}{s+1}\right)$		 	 	 153
10.33INVALID-ORDER-331 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}},$	∞ , R_L +	$-\frac{1}{C_L s}$)		 	 	 153
10.332NVALID-ORDER-332 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}},$	∞ , $L_L s$	$+\frac{1}{C_L s}$.		 	 	 153
10.33\(\textbf{S}\)NVALID-ORDER-333 $Z(s) = 0$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}},$	∞ , $\frac{L_L}{C_L L_L}$	$\left(\frac{cs}{s^2+1}\right)$	• • • •	 	 	 153
10.334NVALID-ORDER-334 $Z(s) =$	(c_4s			<u>s</u>)	 	 	 154
10.33 NVALID-ORDER-335 $Z(s) = 1$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}},$	∞ , $C_L s + C_L s + C_L s + C_L s + C_L s$	$\frac{1}{R_L + \frac{1}{L_L s}} $		 	 	 154
10.336NVALID-ORDER-336 $Z(s) =$	(040			,	 	 	 154
10.33¶NVALID-ORDER-337 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{R_4\left(L_4s+\frac{1}{C_4s}\right)}{L_4s+R_4+\frac{1}{C_4s}},$	∞ , $\frac{R_L(L)}{L_L s + 1}$	$\frac{L_L s + \frac{1}{C_L s}}{R_L + \frac{1}{C_L s}}$		 	 	 154
10.33\(\mathbb{E}\)NVALID-ORDER-338 $Z(s) = 0$	\	- 4				 	 	 154
10.33 9 NVALID-ORDER-339 $Z(s) = 0$	$(\infty, \infty, \infty, \infty,$	∞ , R_4 , $\frac{1}{C_{LS}}$				 	 	 155
10.34 ONVALID-ORDER- 340 $Z(s) = 10.34$	>	- 1	`			 	 	 155
10.34INVALID-ORDER-341 $Z(s) = 0$	$(\infty, \infty, \infty, \infty,$	∞ , R_4 , R_L +	$\frac{1}{C_L s}$)			 	 	 155
10.342NVALID-ORDER-342 $Z(s) = 0$	>		- /			 	 	 155

10.34 NVALID-ORDER-343 $Z(s) = \left(\infty, \infty, \infty, \infty, \infty, R_4, \frac{L_L s}{C_L L_L s^2 + 1}\right)$	155
10.34INVALID-ORDER-344 $Z(s) = \left(\infty, \infty, \infty, \infty, \infty, R_4, L_L s + R_L + \frac{1}{C_L s}\right)$	155
$10.34 \text{ INVALID-ORDER-345 } Z(s) = \left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \ R_4, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $	156
$10.34 \text{ 6} \text{NVALID-ORDER-346 } Z(s) = \left(\infty, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) \dots \dots$	156
$10.34\text{TNVALID-ORDER-}347 \ Z(s) = \left(\infty, \ \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) \dots $	156
10.34 NVALID-ORDER-348 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, R_L\right)$	156
10.349NVALID-ORDER-349 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, L_L s + \frac{1}{C_L s}\right)$	156
$10.35 \text{@NVALID-ORDER-} 350 \ Z(s) = \left(\infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_4 s}, \ \frac{L_L s}{C_L L_L s^2 + 1}\right) \qquad \dots $	157
10.35INVALID-ORDER-351 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, L_L s + R_L + \frac{1}{C_L s}\right)$	157
10.352NVALID-ORDER-352 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_L s}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	157
10.35 NVALID-ORDER-353 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	157
10.354NVALID-ORDER-354 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \dots \dots$	157
10.35 INVALID-ORDER-355 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{1}{C_L s}\right)$	158
10.35 6 NVALID-ORDER-356 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_L + \frac{1}{C_L s}\right)$	158
10.35TNVALID-ORDER-357 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, L_L s + \frac{1}{C_L s}\right)$	158
10.35 NVALID-ORDER-358 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s+1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$	158
10.35 9 NVALID-ORDER-359 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$	158
10.36 NVALID-ORDER-360 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	158
$10.36 \text{INVALID-ORDER-} 361 \ Z(s) = \left(\infty, \ \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) \dots $	159
$10.362 \text{NVALID-ORDER-} 362 \ 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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $	159
10.36\(\mathbb{B}\)NVALID-ORDER-363 $Z(s) = \left(\infty, \infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, R_L + \frac{1}{C_L s}\right)$	159
10.364NVALID-ORDER-364 $Z(s) = \left(\infty, \infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, L_L s + \frac{1}{C_L s}\right)$	159

10.365NVALID-ORDER-365 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$R_4 + \frac{1}{C_4 s},$	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 	 1	159
10.36 ENVALID-ORDER-366 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$R_4 + \frac{1}{C_4 s},$	$L_L s + R_L$	$+\frac{1}{C_L s}$	 	 	 1	160
10.36 T NVALID-ORDER-367 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$R_4 + \frac{1}{C_4 s},$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{R_L}}$	$\left(\frac{1}{L^s}\right)$	 • • • • •	 	 1	160
10.36\ndlandrame{8}\ndlandrame{NVALID-ORDER-368} $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$R_4 + \frac{1}{C_4 s},$	$\frac{L_L s}{C_L L_L s^2 + 1} -$	$+R_L$) .	 	 	 1	160
10.36 9 NVALID-ORDER-369 $Z(s) = 1$	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$R_4 + \frac{1}{C_4 s},$	$\frac{R_L \left(L_L s + \frac{1}{C} \right)}{L_L s + R_L + \frac{1}{C}}$	$\left(\frac{1}{L^s}\right)$ $\left(\frac{1}{C_L s}\right)$	 	 	 1	160
10.37 0 NVALID-ORDER-370 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$L_4s + \frac{1}{C_4s}$	$, \frac{1}{C_L s}$		 	 	 1	160
10.37 I NVALID-ORDER-371 $Z(s)=\left(\right.$	$(\infty, \infty, \infty, \infty, \infty,$	$L_4s + \frac{1}{C_4s}$	$, \frac{R_L}{C_L R_L s + 1}$		 	 	 1	161
10.372NVALID-ORDER-372 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$L_4s + \frac{1}{C_4s}$	$, R_L + \frac{1}{C_L s}$)	 	 	 1	161
10.37 3 NVALID-ORDER-373 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$L_4s + \frac{1}{C_4s}$	$L_L s + \frac{1}{C_L}$	$\left(\frac{1}{s}\right)$	 	 	 1	161
10.37 4 NVALID-ORDER-374 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$L_4s + \frac{1}{C_4s}$	$, \frac{L_L s}{C_L L_L s^2 + 1}$)	 	 	 1	161
10.375NVALID-ORDER-375 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$L_4s + \frac{1}{C_4s}$	$, L_L s + R_L$	$+\frac{1}{C_L s}$	 	 	 1	161
10.376NVALID-ORDER-376 $Z(s) = 1$	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$L_4s + \frac{1}{C_4s}$	$, \frac{1}{C_L s + \frac{1}{R_L} +}$	$\frac{1}{L_L s}$	 	 	 1	161
10.37 NVALID-ORDER-377 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$L_4s + \frac{1}{C_4s}$	$, \frac{L_L s}{C_L L_L s^2 + 1}$	$+R_L$	 	 	 1	162
10.37&NVALID-ORDER-378 $Z(s) = 1$	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$L_4s + \frac{1}{C_4s}$	$, \frac{R_L \left(L_L s + \frac{1}{C} + \frac{1}{C$	$\left(\frac{1}{C_L s}\right) \over \frac{1}{C_L s}$	 	 	 1	162
10.37 9 NVALID-ORDER-379 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1},$	R_L)		 	 	 1	162
10.38 0 NVALID-ORDER-380 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1},$	$\frac{1}{C_L s}$)		 	 	 1	162
10.38INVALID-ORDER-381 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1},$	$\frac{R_L}{C_L R_L s + 1}$		 	 	 1	162
10.382NVALID-ORDER-382 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1},$	$R_L + \frac{1}{C_L s}$		 	 	 1	163
10.38\$NVALID-ORDER-383 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1},$	$L_L s + \frac{1}{C_L s}$)	 	 	 1	163
10.38#NVALID-ORDER-384 $Z(s)=\left(\right.$	$(\infty, \infty, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1},$	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 	 1	163
10.38 INVALID-ORDER-385 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1},$	$L_L s + R_L$	$+\frac{1}{C_L s}$	 	 	 1	163
10.386NVALID-ORDER-386 $Z(s) = \langle$	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$\frac{L_4s}{C_4L_4s^2+1},$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L}}$	$\left(\frac{1}{L_{I}S}\right)$	 	 	 1	163

10.38¶NVALID-ORDER-387 $Z(s)=\left(\rule{0mm}{2.5mm}\right.$	$\Big(\infty,\;\infty,\;\infty,\;\infty$	$, \frac{L_4s}{C_4L_4s^2+1},$	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L$)	 	 164
10.38 NVALID-ORDER-388 $Z(s) = 1$	$\left(\infty, \ \infty, \ \infty, \ \infty\right)$	$\frac{L_4s}{C_4L_4s^2+1},$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$		 	 164
10.38 9 NVALID-ORDER-389 $Z(s) = ($	<i>i</i>		` `		 	 164
10.39 0 NVALID-ORDER-390 $Z(s) = ($	$(\infty, \infty, \infty, \infty$	$L_4s + R_4 - $	$+\frac{1}{C_4s}, \frac{1}{C_Ls}$.		 	 164
10.39INVALID-ORDER-391 $Z(s) = ($	$(\infty, \infty, \infty, \infty)$	$, L_4s + R_4 -$	$+\frac{1}{C_4s}, \frac{R_L}{C_LR_Ls+1}$)	 	 164
10.39 2 NVALID-ORDER-392 $Z(s) = ($	$(\infty, \infty, \infty, \infty$	$, L_4s + R_4 -$	$+\frac{1}{C_4s}, \ R_L + \frac{1}{C_Ls}$	$\left(\frac{1}{8}\right)$	 	 164
10.39 NVALID-ORDER-393 $Z(s) = ($	$(\infty, \infty, \infty, \infty$	$, L_4s + R_4 -$	$+\frac{1}{C_4s}$, $L_Ls+\frac{1}{C_Ls}$	$\left(\frac{1}{2s}\right)$	 	 165
10.39#NVALID-ORDER-394 $Z(s) = ($	$(\infty, \infty, \infty, \infty$	$, L_4s + R_4 -$	$+\frac{1}{C_4s}, \frac{L_Ls}{C_LL_Ls^2+1}$	$\left(1\right) \ldots $	 	 165
10.39 NVALID-ORDER-395 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty\right)$	$, L_4s + R_4 -$	$+\frac{1}{C_4s}$, L_Ls+R_R	$L + \frac{1}{C_L s}$).	 	 165
10.396NVALID-ORDER-396 $Z(s) = ($	$\left(\infty,\ \infty,\ \infty,\ \infty\right)$	$, L_4s + R_4$	$+\frac{1}{C_4s}, \frac{1}{C_Ls+\frac{1}{R_L}}$	$\left(\frac{1}{L_L s}\right)$	 	 165
10.39 T NVALID-ORDER-397 $Z(s) = ($	$(\infty, \infty, \infty, \infty$	$, L_4s + R_4 -$	$+\frac{1}{C_4s}, \frac{L_Ls}{C_LL_Ls^2+1}$	$\left(1 + R_L\right)$.	 	 165
10.39 NVALID-ORDER-398 $Z(s) = 0$	$\left(\infty, \ \infty, \ \infty, \ \infty\right)$	$, L_4s + R_4$	$+\frac{1}{C_4s}, R_L(L_Ls+L_Ls+R_L+R_L+L_Ls+R_L+R_L+R_L+R_L+R_L+R_L+R_L+R_L+R_L+R_L$	$\left(\frac{\frac{1}{C_L s}}{+\frac{1}{C_L s}}\right)$	 	 166
10.39 9 NVALID-ORDER-399 $Z(s) = ($	$(\infty, \infty, \infty, \infty)$	$C_4 s + \frac{1}{R_4} + \frac{1}{R_4}$	$\frac{1}{4^s}$, R_L)		 	 166
10.40 0 NVALID-ORDER-400 $Z(s) = 0$	$\left(\infty, \ \infty, \ \infty, \ \infty\right)$), $\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L}}$	$\left(\frac{1}{4^s}, \frac{1}{C_L s}\right)$.		 	 166
10.40INVALID-ORDER-401 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty \right)$), $\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L}}$	$\frac{1}{4^s}$, $\frac{R_L}{C_L R_L s + 1}$		 	 166
10.40 2 NVALID-ORDER-402 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	$\left(\infty, \ \infty, \ \infty, \ \infty \right)$	$C_4 s + \frac{1}{R_4} + \frac{1}{R_4}$	$\frac{1}{4^s}$, $R_L + \frac{1}{C_L s}$		 	 166
10.40 B NVALID-ORDER-403 $Z(s) = 0$	$\left(\infty, \ \infty, \ \infty, \ \infty \right)$	$C_4 s + \frac{1}{R_4} + \frac{1}{R_4}$	$\frac{1}{4^s}$, $L_L s + \frac{1}{C_L s}$		 	 167
10.40 \mathbb{I} NVALID-ORDER-404 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty\right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L}}$	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 167
10.40 NVALID-ORDER-405 $Z(s) = 0$	$\left(\infty, \ \infty, \ \infty, \ \infty\right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L}}$	$\frac{1}{4s}$, $L_L s + R_L +$	$\left(\frac{1}{C_L s}\right)$	 	 167
10.40 6 NVALID-ORDER-406 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty\right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L}}$	$\frac{1}{\frac{1}{4s}}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L}}$	$\frac{1}{s}$ \cdots	 	 167

10.40 INVALID-ORDER-407 $Z(s) = 1$						167
10.40\nablaNVALID-ORDER-408 $Z(s) = 1$	$(\infty, \infty, \infty, \infty)$	$, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$		 	 168
10.40 9 NVALID-ORDER-409 $Z(s) = ($,					
10.41 0 NVALID-ORDER-410 $Z(s) = 0$	$(\infty, \infty, \infty, \infty$	$, \frac{L_4s}{C_4L_4s^2+1} + R$	$\left(\frac{1}{C_L s}\right) \cdots $		 	 168
10.41 I NVALID-ORDER-411 $Z(s) = ($	$(\infty, \infty, \infty, \infty$	$, \frac{L_4s}{C_4L_4s^2+1} + R$	$\left(\frac{R_L}{C_L R_L s + 1}\right) \cdot \cdot$		 	 168
10.41 2 NVALID-ORDER-412 $Z(s) = ($	$(\infty, \infty, \infty, \infty$	$, \frac{L_4s}{C_4L_4s^2+1} + R$	$C_4, R_L + \frac{1}{C_L s}$.		 	 168
10.41 3 NVALID-ORDER-413 $Z(s) = ($	$\left(\infty,\ \infty,\ \infty,\ \infty$	$, \frac{L_4s}{C_4L_4s^2+1} + R$	C_4 , $L_L s + \frac{1}{C_L s}$.		 	 168
10.41 4 NVALID-ORDER-414 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty\right)$	$, \frac{L_4s}{C_4L_4s^2+1} + R$	$\left(\frac{L_L s}{C_L L_L s^2 + 1}\right)$.		 	 169
10.415NVALID-ORDER-415 $Z(s) = ($	$\Big(\infty, \ \infty, \ \infty, \ \infty$	$, \frac{L_4s}{C_4L_4s^2+1} + R$	C_4 , $L_L s + R_L + \overline{C}$	$\left(\frac{1}{Z_L s}\right)$	 	 169
10.41 6 NVALID-ORDER-416 $Z(s) = 1$	$\left(\infty,\ \infty,\ \infty,\ \infty\right)$	$\frac{L_4s}{C_4L_4s^2+1} + R$	$R_4, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$)	 	 169
10.41 T NVALID-ORDER-417 $Z(s) = 0$	$(\infty, \infty, \infty, \infty$	$, \frac{L_4s}{C_4L_4s^2+1} + R$	$\frac{L_L s}{C_L L_L s^2 + 1} + R$	(L_L)	 	 169
10.41&NVALID-ORDER-418 $Z(s) = 1$	$\left(\infty, \ \infty, \ \infty, \ \infty\right)$	$\frac{L_4s}{C_4L_4s^2+1} + F_6$	$R_4, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$)	 	 169
10.41 9 NVALID-ORDER-419 $Z(s) = 1$	$\left(\infty, \ \infty, \ \infty, \ \infty\right)$	$, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}$	$, R_L $		 	 170
10.42 0 NVALID-ORDER-420 $Z(s) = 1$	\	040	,		 	 170
10.42INVALID-ORDER-421 $Z(s) = 1$	(/		 	 170
10.42 2 NVALID-ORDER-422 $Z(s) = 1$	\	-4-	/		 	 170
10.42\SNVALID-ORDER-423 $Z(s) = 1$					 	 170
10.42#NVALID-ORDER-424 $Z(s) = ($					 	 171
10.425NVALID-ORDER-425 $Z(s) = 1$	$\left(\infty, \ \infty, \ \infty, \ \infty\right)$	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}$	$, L_L s + R_L + \frac{1}{C_L}$	\overline{s} \cdots \cdots	 	 171

10.42 6 NVALID-ORDER-426 $Z(s) = 1$	∞ , ∞ , ∞ , ∞ , $\frac{R_4(L_4s)}{L_4s+R}$	$\frac{S + \frac{1}{C_4 s}}{C_4 + \frac{1}{C_4 s}}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$		 171
10.42 T NVALID-ORDER-427 $Z(s) = 1$		- /)	 171
10.42\&NVALID-ORDER-428 $Z(s) = 0$	$\infty, \ \infty, \ \infty, \ \infty, \ \frac{R_4(L_4s)}{L_4s+R}$	$\frac{S + \frac{1}{C_4 s}}{L_4 + \frac{1}{C_L s}}, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$		 171
10.42 9 NVALID-ORDER-429 $Z(s) = ($		-4 L- /		 172
10.43 0 NVALID-ORDER-430 $Z(s) = ($	$R_1, R_2, \infty, \infty, \infty, \overline{C}$	$\left(\frac{1}{r,s}\right)$		 172
10.43INVALID-ORDER-431 $Z(s) = ($	$R_1, R_2, \infty, \infty, \infty, \overline{C}$	$\left(\frac{R_L}{LR_Ls+1}\right)$		 172
10.432NVALID-ORDER-432 $Z(s) = ($	$R_1, R_2, \infty, \infty, \infty, R$	$C_L + \frac{1}{C_L s}$		 172
10.43 B NVALID-ORDER-433 $Z(s) = ($	$R_1, R_2, \infty, \infty, \infty, L$	$_L s + \frac{1}{C_L s} $		 172
10.43 4 NVALID-ORDER-434 $Z(s)=\left(\right.$	$R_1, R_2, \infty, \infty, \infty, \overline{C}$	$\frac{L_L s}{L L_L s^2 + 1}$)		 172
10.43 INVALID-ORDER-435 $Z(s) = 0$	$R_1, R_2, \infty, \infty, \infty, L$	$_{L}s+R_{L}+\frac{1}{C_{L}s}$)		 173
10.43 6 NVALID-ORDER-436 $Z(s) = 1$	$R_1, R_2, \infty, \infty, \infty, \overline{C}$	$\left(\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$		 173
10.43¶NVALID-ORDER-437 $Z(s) = ($	$R_1, R_2, \infty, \infty, \infty, \overline{C}$	$\frac{L_L s}{L L_L s^2 + 1} + R_L \bigg) . . .$		 173
10.43\NVALID-ORDER-438 $Z(s) = 1$	$R_1, R_2, \infty, \infty, \infty, \frac{R}{I}$	$\left(\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$		 173
10.43 9 NVALID-ORDER-439 $Z(s) = ($	$R_1, \ \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \overline{c}$	$\left(\frac{1}{C_L s}\right)$		 173
10.44©NVALID-ORDER-440 $Z(s)=\{$	$R_1, \ \frac{1}{C_2 s}, \ \infty, \ \infty, \ \overline{c}$	$\left(\frac{R_L}{C_L R_L s+1}\right) \dots \dots$		 174
10.44INVALID-ORDER-441 $Z(s) = 0$	$R_1, \ \frac{1}{C_{2s}}, \ \infty, \ \infty, \ \infty, \ I$	$R_L + \frac{1}{C_L s}$		 174
10.442NVALID-ORDER-442 $Z(s)=\left(\right.$	$R_1, \ \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ I$	$L_L s + \frac{1}{C_L s}$		 174
10.44\(\mathbf{S}\)NVALID-ORDER-443 $Z(s) = ($	$R_1, \ \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \overline{c}$	$\left(\frac{L_L s}{C_L L_L s^2 + 1}\right)'$		 174
10.44 4 NVALID-ORDER-444 $Z(s) = ($	$R_1, \ \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ I$	$L_L s + R_L + \frac{1}{C_L s}$		 174
10.445NVALID-ORDER-445 $Z(s) = 1$	$R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_2 s}$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right) \cdot \cdot \cdot$		 175
10.44 © NVALID-ORDER-446 $Z(s) = ($	$R_1, \ \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \overline{C}_3$	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L \bigg) \dots .$		 175
10.44 T NVALID-ORDER-447 $Z(s) = 1$	$R_1, \ \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_2 s}$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \qquad \dots \qquad \dots$		 175

10.44\bigselentright{NVALID-ORDER-448}\ Z(s) =	$\left(R_1, \ \overline{C_2}\right)$	$\frac{R_2}{2R_2s+1}$, \propto	∞ , ∞ ,	∞ , I	R_L)		 	 	 	 	 . 175
10.449NVALID-ORDER-449 $Z(s) =$	$(R_1, \overline{C_2})$	$\frac{R_2}{{}_2R_2s+1}, \ \propto$	∞ , ∞ ,	∞ , $\bar{\epsilon}$	$\left(\frac{1}{C_L s}\right) \cdot \cdot \cdot$. 175
10.45 ONVALID-ORDER- 450 $Z(s) =$	$(R_1, \overline{C_2})$	$\frac{R_2}{{}_2R_2s+1}, \ \propto$	∞ , ∞ ,	∞ , $\bar{\epsilon}$	$\frac{R_L}{C_L R_L s + 1}$. 176
10.45INVALID-ORDER- 451 $Z(s) =$	$(R_1, \overline{C_2})$	$\frac{R_2}{{}_2R_2s+1}, \propto$	∞ , ∞ ,	∞ , I	$R_L + \frac{1}{C_L s}$. 176
10.45 2 NVALID-ORDER- 452 $Z(s) =$	$\left(R_1, \overline{C_2}\right)$	$\frac{R_2}{2R_2s+1}$, \propto	∞ , ∞ ,	∞ , I	$L_L s + \frac{1}{C_L s}$. 176
10.458NVALID-ORDER- 453 $Z(s) =$	$\left(R_1, \ \overline{C_2}\right)$	$\frac{R_2}{2R_2s+1}$, \propto	∞ , ∞ ,	∞ , $\bar{\epsilon}$	$\frac{L_L s}{C_L L_L s^2 + 1}$. 176
10.45 4 NVALID-ORDER-454 $Z(s) =$	$\left(R_1, \overline{C_2}\right)$	$\frac{R_2}{2R_2s+1}$, \propto	∞ , ∞ ,	∞ , I	$L_L s + R_L +$	$-\frac{1}{C_L s}$. 176
10.45 NVALID-ORDER-455 $Z(s) =$	$\left(R_1, \ \overline{C}\right)$	$\frac{R_2}{r_2R_2s+1}$, \circ	∞ , ∞ ,	∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L}}$	$_{L^{s}}$.	 	 	 	 	 . 177
10.45 CNVALID-ORDER- 456 $Z(s) =$	(R_1, \overline{C}_2)	$\frac{R_2}{2R_2s+1}$, \propto	∞ , ∞ ,	∞ , $\bar{\epsilon}$	$\frac{L_L s}{C_L L_L s^2 + 1} +$	R_L	 	 	 	 	 . 177
10.45TNVALID-ORDER- 457 $Z(s) =$	$\left(R_1, \ \overline{C}\right)$	$\frac{R_2}{\sqrt{2R_2s+1}}$, o	∞ , ∞ ,	∞ ,	$\frac{R_L \left(L_L s + \frac{1}{C_L}\right)}{L_L s + R_L + \frac{1}{C_L}}$	$\left(\frac{\overline{s}}{L}\right)$.	 	 	 	 	 . 177
10.458NVALID-ORDER- 458 $Z(s) =$	(R_1, R_2)	$_{2}+\frac{1}{C_{2}s},$	∞ , ∞ ,	∞ ,	R_L)		 	 	 	 	 . 177
10.459NVALID-ORDER- 459 $Z(s) =$	(R_1, R_2)	$_{2}+\frac{1}{C_{2}s},$	∞ , ∞ ,	∞ ,	$\frac{1}{C_L s}$)		 	 	 	 	 . 177
10.46 ONVALID-ORDER- $460 Z(s) =$	(R_1, R_2)	$_{2}+\frac{1}{C_{2}s},$	∞ , ∞ ,	∞ ,	$\frac{R_L}{C_L R_L s + 1}$. 178
10.46INVALID-ORDER- 461 $Z(s) =$	(R_1, R_2)	$_{2}+\frac{1}{C_{2}s},$	∞ , ∞ ,	∞ ,	$R_L + \frac{1}{C_L s}$. 178
10.46 2 NVALID-ORDER-462 $Z(s) =$	(R_1, R_2)	$_{2}+\frac{1}{C_{2}s},$	∞ , ∞ ,	∞ ,	$L_L s + \frac{1}{C_L s}$)	 	 	 	 	 . 178
10.46 3 NVALID-ORDER-463 $Z(s) =$	(R_1, R_2)	$_{2}+\frac{1}{C_{2}s},$	∞ , ∞ ,	∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$. 178
10.464NVALID-ORDER-464 $Z(s) =$	(R_1, R_2)	$_{2}+\frac{1}{C_{2}s},$	∞ , ∞ ,	∞ ,	$L_L s + R_L$	$+\frac{1}{C_L s}$. 178
10.46 INVALID-ORDER-465 $Z(s) =$	$\left(R_1, R\right)$	$C_2 + \frac{1}{C_2 s},$	∞ , ∞ ,	∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{R_L}}$	$\left(\frac{1}{L_L^s}\right)$.	 	 	 	 	 . 179
10.46 GNVALID-ORDER- 466 $Z(s) =$	(R_1, R_2)	$_{2}+\frac{1}{C_{2}s},$	$\infty, \ \infty,$	∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} \cdot$	$+\stackrel{\sim}{R_L}$. 179
10.46 T NVALID-ORDER-467 $Z(s) =$	$\left(R_1, R\right)$	$C_2 + \frac{1}{C_2 s}$	$\infty, \ \infty,$	∞ ,	$\frac{R_L \left(L_L s + \frac{1}{C} \right)}{L_L s + R_L + \frac{1}{C}}$	$\left(\frac{\frac{1}{L^s}}{\frac{1}{C_L^s}}\right)$. 179
10.468NVALID-ORDER- 468 $Z(s) =$	(R_1, L_2)	$_{2}s + \frac{1}{C_{2}s},$	∞ , ∞	$, \infty,$	R_L)		 	 	 	 	 . 179
10.46 9 NVALID-ORDER-469 $Z(s) =$	(R_1, L_2)	$_{2}s + \frac{1}{C_{2}s},$	∞ , ∞	$, \infty,$	$\frac{1}{C_L s}$)		 	 	 	 	 . 179

10.470NVALID-ORDER-470 $Z(s) = 0$	$\left(R_1, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$
10.47INVALID-ORDER-471 $\boldsymbol{Z}(s) = ($	$\left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$
10.472NVALID-ORDER-472 $Z(s) = 0$	$(R_1, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls})$
10.47\$NVALID-ORDER-473 $Z(s) = 0$	$\left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$
10.471NVALID-ORDER-474 $Z(s)=\langle$	$\left(R_1, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.47 INVALID-ORDER-475 $Z(s) = 0$	$\left(R_1, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$
10.476NVALID-ORDER-476 $Z(s) = 0$	$\left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
10.47 INVALID-ORDER-477 $Z(s) = 1$	$\left(R_{1}, L_{2}s + \frac{1}{C_{2}s}, \infty, \infty, \infty, \frac{R_{L}\left(L_{L}s + \frac{1}{C_{L}s}\right)}{L_{L}s + R_{L} + \frac{1}{C_{L}s}}\right) \dots \dots$
	$\left(R_1, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, R_L\right)$
10.47 9 NVALID-ORDER-479 $Z(s) = 0$	$\left(R_1, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$
10.48 0 NVALID-ORDER-480 $Z(s) = 0$	$\left(R_1, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$
10.48INVALID-ORDER-481 $Z(s) = 0$	$\left(R_1, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$
10.48 2 NVALID-ORDER-482 $Z(s) = 0$	$\left(R_1, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.48 B NVALID-ORDER-483 $Z(s) = 0$	$\left(R_1, \ L_2s + R_2 + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$
10.484NVALID-ORDER-484 $Z(s) = 0$	$\left(R_1, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.48 INVALID-ORDER-485 $Z(s) = 1$	$\left(R_{1}, L_{2}s + R_{2} + \frac{1}{C_{2}s}, \infty, \infty, \infty, \frac{1}{C_{L}s + \frac{1}{R_{L}} + \frac{1}{L_{L}s}}\right) \dots \dots$
$10.48 \text{ CNVALID-ORDER-} 486 \ Z(s) = 0$	$\left(R_1, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$
10.48 TNVALID-ORDER-487 $Z(s) = 1$	$\left(R_{1}, L_{2}s + R_{2} + \frac{1}{C_{2}s}, \infty, \infty, \infty, \frac{R_{L}\left(L_{L}s + \frac{1}{C_{L}s}\right)}{L_{L}s + R_{L} + \frac{1}{C_{L}s}}\right) \dots \dots$
10.48\bigselenvalid-order-488 $Z(s) = 0$	$\left(R_1, \frac{L_{2S}}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, R_L\right)$
10.48 9 NVALID-ORDER-489 $Z(s) = 0$	$\left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$
10.49 0 NVALID-ORDER-490 $Z(s) = 0$	$\left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$
10.49INVALID-ORDER-491 $Z(s)=\langle$	$\left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$

10.49 2 NVALID-ORDER-492 $Z(s) = \left(\frac{1}{2} \right)$	R_1 ,	$\frac{L_2s}{C_2L_2s^2+1} + R_2$, ∞ , ∞ , $L_Ls + \frac{1}{C_Ls}$	184
10.49 3 NVALID-ORDER-493 $Z(s) = \left(\frac{1}{2} \right)$	R_1 ,	$\frac{L_2s}{C_2L_2s^2+1}+R_2$, ∞ , ∞ , ∞ , $\frac{L_Ls}{C_LL_Ls^2+1}$)	184
10.494NVALID-ORDER-494 $Z(s) = \left(A_s \right)$	R_1 ,	$\frac{L_2s}{C_2L_2s^2+1} + R_2$, ∞ , ∞ , $L_Ls + R_L + \frac{1}{C_Ls}$)	184
10.49 INVALID-ORDER-495 $Z(s) = \left(\frac{1}{2} \right)$	R_1 ,	$\frac{L_2s}{C_2L_2s^2+1}+R_2$, ∞ , ∞ , ∞ , $\frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}$)	185
10.496NVALID-ORDER-496 $Z(s) = (1.496)$	R_1 ,	$\frac{L_2s}{C_2L_2s^2+1} + R_2$, ∞ , ∞ , $\frac{L_Ls}{C_LL_Ls^2+1} + R_L$	185
10.49 T NVALID-ORDER-497 $Z(s) = \left(\frac{1}{2} \right)$	R_1 ,	$\frac{L_2s}{C_2L_2s^2+1} + R_2$, ∞ , ∞ , ∞ , $\frac{R_L(L_Ls + \frac{1}{C_Ls})}{L_Ls + R_L + \frac{1}{C_Ls}}$	185
10.49\nabla NVALID-ORDER-498 $Z(s) = $	R_1 ,	$\frac{R_2\left(L_2s+\frac{1}{C_2s}\right)}{L_2s+R_2+\frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ R_L\right) \qquad . \qquad $	185
10.49 9 NVALID-ORDER-499 $Z(s) = \left(\begin{array}{c} \\ \end{array}\right)$			185
10.50 0 NVALID-ORDER-500 $Z(s) = $	R_1 ,	$\frac{R_2\left(L_2s+\frac{1}{C_2s}\right)}{L_2s+R_2+\frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_LR_Ls+1}$	186
10.50INVALID-ORDER-501 $Z(s) = 0$	R_1 ,	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_Ls}\right)$	186
10.50 2 NVALID-ORDER-502 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	R_1 ,	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ L_Ls + \frac{1}{C_Ls}\right)$	186
10.50 B NVALID-ORDER-503 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	R_1 ,	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1}$	186
_		$\frac{C_2s+L_2+C_2s}{C_2s}$	186
10.50 \mathbf{M} NVALID-ORDER-505 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	R_1 ,	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $	187
10.50 GNVALID-ORDER-506 $Z(s) = \left(\frac{1}{2} \right)$	R_1	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L$	187
10.50 T NVALID-ORDER-507 $Z(s) = \left(\frac{1}{2} \right)$	R_1 ,	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right) \dots $	187
10.50&NVALID-ORDER-508 $Z(s) = (I$		- L /	187
10.50 9 NVALID-ORDER-509 $Z(s) = \left(A \right)$	L_1s ,	$R_2, \infty, \infty, \infty, \frac{1}{C_L s}$	187
10.51 0 NVALID-ORDER-510 $Z(s) = $			188
10.51INVALID-ORDER-511 $Z(s) = (1.51INVALID-ORDER-511)$	L_1s ,	$R_2, \infty, \infty, \infty, R_L + rac{1}{C_L s}$	188

10.51 2 NVALID-ORDER-512 $Z(s) = ($	$\left(L_1s, R_2, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.51\$NVALID-ORDER-513 $Z(s) = ($	$\left(L_1s, R_2, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$
10.51 4 NVALID-ORDER-514 $Z(s) = ($	$\left(L_1s, R_2, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.51 INVALID-ORDER-515 $Z(s) = ($	$\left(L_{1}s, R_{2}, \infty, \infty, \infty, \frac{1}{C_{L}s + \frac{1}{R_{L}} + \frac{1}{L_{L}s}}\right)$
10.516NVALID-ORDER-516 $Z(s) = ($	$\left(L_1 s, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
10.51 T NVALID-ORDER-517 $Z(s) = ($	$\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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.51\$NVALID-ORDER-518 $Z(s) = ($	$\left(L_1s, \frac{1}{C_2s}, \infty, \infty, \infty, \infty, R_L\right)$
10.51 9 NVALID-ORDER-519 $Z(s) = ($	$\left(L_1s, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$
10.52 0 NVALID-ORDER-520 $Z(s) = ($	$\left(L_1s, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$
10.52INVALID-ORDER-521 $Z(s) = ($	$\left(L_1s, \frac{1}{C_2s}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$
10.52 2 NVALID-ORDER-522 $Z(s) = ($	$\left(L_1s, \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.52 \$ NVALID-ORDER-523 $Z(s) = ($	$\left(L_1s, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$
10.52#NVALID-ORDER-524 $Z(s) = ($	$\left(L_1s, \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.52 NVALID-ORDER-525 $Z(s) = ($	$\left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$
10.526NVALID-ORDER-526 $Z(s) = ($	$\left(L_1s, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$ 191
10.52 T NVALID-ORDER-527 $Z(s) = \left(\right.$	$\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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.52\nablaNVALID-ORDER-528 $Z(s) = ($	$\left(L_1s, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \infty, R_L\right)$
10.52 9 NVALID-ORDER-529 $Z(s) = ($	$\left(L_1 s, \frac{R_2}{C_2 R_2 s+1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$ 191
10.53©NVALID-ORDER-530 $Z(s) = ($	$\left(L_1s, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$
10.53 INVALID-ORDER-531 $Z(s)=\left(\right.$	$\left(L_1s, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$
10.53 2 NVALID-ORDER-532 $Z(s) = ($	$\left(L_1s, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.53 B NVALID-ORDER-533 $Z(s) = ($	$\left(L_1 s, \frac{R_2}{C_2 R_2 s+1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2+1}\right)$

10.53 4 NVALID-ORDER-534 $Z(s) = ($	$(L_1s,$	$\frac{R_2}{C_2R_2s+1}, \ \ $	∞ , ∞ , o	∞ , I	$L_L s + R_L + \frac{1}{C_L s}$		 	 	 	 	 192
10.53 INVALID-ORDER-535 $Z(s) = ($	$\left(L_1 s,\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞ ,	∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} $. 193
10.536NVALID-ORDER-536 $Z(s) = ($	`				, , ,		 	 	 	 	 . 193
10.53 T NVALID-ORDER-537 $Z(s) = \left(\frac{1}{2}\right)^{-1}$	$\left(L_1s,\right.$	$\frac{R_2}{C_2R_2s+1},$	$\infty, \ \infty, \ $	∞ ,	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$. 193
10.53\(\) NVALID-ORDER-538 $Z(s) = ($	$(L_1s,$	$R_2 + \frac{1}{C_2 s},$	∞ , ∞ ,	∞ ,	$\frac{1}{C_L s}$) \cdots		 	 	 	 	 193
10.53 9 NVALID-ORDER-539 $Z(s) = ($	$(L_1s, 1)$	$R_2 + \frac{1}{C_2 s},$	∞ , ∞ ,	∞ ,	$\frac{R_L}{C_L R_L s + 1}$		 	 	 	 	 193
10.540NVALID-ORDER-540 $Z(s) = ($	(L_1s, \cdot)	$R_2 + \frac{1}{C_2 s},$	∞ , ∞ ,	∞ ,	$R_L + \frac{1}{C_L s}$.		 	 	 	 	 194
10.54INVALID-ORDER-541 $Z(s) = ($	(L_1s, \cdot)	$R_2 + \frac{1}{C_2 s},$	$\infty, \ \infty,$	∞ ,	$L_L s + \frac{1}{C_L s}$.		 	 	 	 	 194
10.542NVALID-ORDER-542 $Z(s) = ($	(L_1s, \cdot)	$R_2 + \frac{1}{C_2 s},$	$\infty, \ \infty,$	∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} \bigg) \qquad .$		 	 	 	 	 194
10.54 B NVALID-ORDER-543 $Z(s) = ($	(L_1s, \cdot)	$R_2 + \frac{1}{C_2 s},$	$\infty, \ \infty,$	∞ ,	$L_L s + R_L + \frac{1}{C_L}$	\overline{s}).	 	 	 	 	 . 194
10.54 4 NVALID-ORDER-544 $Z(s) = ($	$\left(L_1 s,\right.$	$R_2 + \frac{1}{C_2 s},$	∞ , ∞ ,	∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$. 194
10.545NVALID-ORDER-545 $Z(s) = ($	(L_1s, \cdot)	$R_2 + \frac{1}{C_2 s},$	$\infty, \ \infty,$	∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L$) .	 	 	 	 	 . 194
10.546NVALID-ORDER-546 $Z(s) = ($	$\left(L_1 s,\right.$	$R_2 + \frac{1}{C_2 s},$	$\infty, \ \infty,$	∞ ,	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$. 195
10.54 T NVALID-ORDER-547 $Z(s) = ($							 	 	 	 	 195
10.54\bigselentrian NVALID-ORDER-548 $Z(s) = ($	$(L_1s,$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ ,	∞ ,	$, \frac{R_L}{C_L R_L s + 1}$		 	 	 	 	 195
10.54 9 NVALID-ORDER-549 $Z(s) = ($	(L_1s, \cdot)	$L_2s + \frac{1}{C_2s},$	∞ , ∞ ,	∞ ,	$R_L + \frac{1}{C_L s}$.		 	 	 	 	 195
10.55 0 NVALID-ORDER-550 $Z(s) = ($	(L_1s, \cdot)	$L_2s + \frac{1}{C_2s},$	∞ , ∞ ,	∞ ,	$L_L s + \frac{1}{C_L s}$. 195
10.55INVALID-ORDER-551 $Z(s) = ($	$(L_1s,$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ ,	∞ ,	$, \frac{L_L s}{C_L L_L s^2 + 1}$		 	 	 	 	 195
10.55 2 NVALID-ORDER-552 $Z(s) = ($	$(L_1s,$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ ,	∞ ,	$L_L s + R_L + \overline{C}$	$\left(\frac{1}{Ls}\right)$. 196
10.55 & NVALID-ORDER-553 $Z(s) = ($	$\left(L_1 s,\right.$	$L_2 s + \frac{1}{C_2 s}$	$, \infty, \infty, \infty,$, ∞	$, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$)	 	 	 	 	 . 196
10.55 4 NVALID-ORDER-554 $Z(s) = ($	$(L_1s,$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ ,	∞ ,	$, \frac{L_L s}{C_L L_L s^2 + 1} + R$	$_{L}\Big)$.	 	 	 	 	 . 196
10.55 NVALID-ORDER-555 $Z(s) = ($	L_1s ,	$L_2 s + \frac{1}{C_2 s}$	$, \infty, \infty,$, ∞	$, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$. 196

10.55©NVALID-ORDER-556 $Z(s)=\left(\right.$	$\left(L_1s,\ L_2s+R_2+\frac{1}{C_2s},\ \infty,\ \infty,\ \infty,\ R_L\right)$
10.55 T NVALID-ORDER-557 $Z(s)=\left(\rule{0mm}{2.5mm}\right.$	$(L_1 s, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s})$
10.55\nablaNVALID-ORDER-558 $Z(s) = 0$	$(L_1s, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1})$
10.55 9 NVALID-ORDER-559 $Z(s) = ($	$(L_1 s, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s})$
10.56 0 NVALID-ORDER-560 $Z(s) = ($	$(L_1 s, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s})$
10.56INVALID-ORDER-561 $Z(s)=\langle$	$(L_1 s, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1})$
10.56 2 NVALID-ORDER-562 $Z(s) = ($	$\left(L_{1}s, L_{2}s + R_{2} + \frac{1}{C_{2}s}, \infty, \infty, \infty, L_{L}s + R_{L} + \frac{1}{C_{L}s}\right)$
10.56\$NVALID-ORDER-563 $Z(s) = 1$	$\left(L_1 s, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$
10.564NVALID-ORDER-564 $Z(s) = ($	$\left(L_{1}s, L_{2}s + R_{2} + \frac{1}{C_{2}s}, \infty, \infty, \infty, \frac{L_{L}s}{C_{L}L_{L}s^{2} + 1} + R_{L}\right)$
10.56 Б NVALID-ORDER-565 $Z(s)=\langle$	$\left(L_{1}s, L_{2}s + R_{2} + \frac{1}{C_{2}s}, \infty, \infty, \infty, \infty, \frac{R_{L}\left(L_{L}s + \frac{1}{C_{L}s}\right)}{L_{L}s + R_{L} + \frac{1}{C_{L}s}}\right)$
10.566NVALID-ORDER-566 $Z(s) = 0$	$\left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L\right)$
10.56 T NVALID-ORDER-567 $Z(s) = ($	$\left(L_{1}s, \frac{L_{2}s}{C_{2}L_{2}s^{2}+1} + R_{2}, \infty, \infty, \infty, \frac{1}{C_{L}s}\right)$
	$\left(L_{1}s, \frac{L_{2}s}{C_{2}L_{2}s^{2}+1} + R_{2}, \infty, \infty, \infty, \frac{R_{L}}{C_{L}R_{L}s+1}\right)$
10.56 9 NVALID-ORDER-569 $Z(s) = ($	$\left(L_{1}s, \frac{L_{2}s}{C_{2}L_{2}s^{2}+1} + R_{2}, \infty, \infty, \infty, R_{L} + \frac{1}{C_{L}s}\right)$
10.57 0 NVALID-ORDER-570 $Z(s) = ($	$\left(L_{1}s, \frac{L_{2}s}{C_{2}L_{2}s^{2}+1} + R_{2}, \infty, \infty, \infty, L_{L}s + \frac{1}{C_{L}s}\right)$
10.57INVALID-ORDER-571 $Z(s) = ($	$\left(L_{1}s, \frac{L_{2}s}{C_{2}L_{2}s^{2}+1} + R_{2}, \infty, \infty, \infty, \frac{L_{L}s}{C_{L}L_{L}s^{2}+1}\right)$
10.57 2 NVALID-ORDER-572 $Z(s) = ($	$\left(L_{1}s, \frac{L_{2}s}{C_{2}L_{2}s^{2}+1} + R_{2}, \infty, \infty, \infty, L_{L}s + R_{L} + \frac{1}{C_{L}s}\right)$
10.57 B NVALID-ORDER-573 $Z(s) = 1$	$\left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$
10.57\PVALID-ORDER-574 $Z(s) = 0$	$\left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
10.57 INVALID-ORDER-575 $Z(s) = 1$	$\left(L_{1}s, \frac{L_{2}s}{C_{2}L_{2}s^{2}+1} + R_{2}, \infty, \infty, \infty, \frac{R_{L}\left(L_{L}s + \frac{1}{C_{L}s}\right)}{L_{L}s + R_{L} + \frac{1}{C_{L}s}}\right) \dots \dots$
10.576NVALID-ORDER-576 $Z(s) = 1$	\ - · - · C ₂ s
10.57 INVALID-ORDER-577 $Z(s) = 1$	$\left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

10.57&NVALID-ORDER-578 $Z(s) = \left(\right.$	\		- 2 -				/			 	 	 	 	 	 200
10.57 9 NVALID-ORDER-579 $Z(s) = \left(\right.$	\		2				/			 	 	 	 	 	 201
10.58 0 NVALID-ORDER-580 $Z(s) = \left(\right.$	\		020					/		 	 	 	 	 	 201
10.58INVALID-ORDER-581 $Z(s) = \left(\begin{array}{c} \\ \end{array}\right)$	L_1s ,	$\frac{R_2\left(L_2s + \frac{1}{C}\right)}{L_2s + R_2 + \frac{1}{C}}$	$\frac{\frac{1}{C_2s}}{\frac{1}{C_2s}}, \infty$	∞ , ∞ ,	∞ ,	$\frac{L_L}{C_L L_L}$	$\left(\frac{s}{s^2+1}\right)$			 	 	 	 	 	 201
10.58 2 NVALID-ORDER-582 $Z(s) = \left(\frac{1}{2} \right)$	\		020						\bar{s}	 	 	 	 	 	 201
10.58 E NVALID-ORDER-583 $Z(s) = \left(\right.$										 	 	 	 	 	 201
10.58 4 NVALID-ORDER-584 $Z(s) = \left(\right.$	L_1s ,	$\frac{R_2\left(L_2s + \frac{1}{C}\right)}{L_2s + R_2 + \frac{1}{C}}$	$\frac{\left(\frac{1}{C_2s}\right)}{\left(\frac{1}{C_2s}\right)}$, \propto	∞ , ∞ ,	∞ ,	$\frac{L_L}{C_L L_L}$	$\frac{s}{s^2+1}$ -	$+R_{L}$) .	 	 	 	 	 	 202
10.58 INVALID-ORDER-585 $Z(s) = \left(\frac{1}{2} \right)$	L_1s ,	$\frac{R_2\left(L_2s + \frac{1}{C}\right)}{L_2s + R_2 + \frac{1}{C}}$	$\frac{\frac{1}{C_2 s}}{\frac{1}{C_2 s}}, \infty$	∞ , ∞ ,	∞ ,	$\frac{R_L \left(L\right)}{L_L s + 1}$	$\frac{L s + \frac{1}{C_L}}{R_L + \frac{1}{C_L}}$	$\left(\frac{\overline{L^s}}{L^s}\right)$		 	 	 	 	 	 202
10.586NVALID-ORDER-586 $Z(s) = \left(\right.$	$\left(rac{1}{C_1 s}, ight.$	R_2, ∞, \circ	∞ , ∞ ,	R_L						 	 	 	 	 	 202
10.58¶NVALID-ORDER-587 $Z(s) = ($	$\left(\frac{1}{C_1s},\right)$	R_2, ∞, \circ	$\infty, \infty,$	$\frac{1}{C_L s}$						 	 	 	 	 	 202
10.58\(\text{NVALID-ORDER-588} \(Z(s) = \) \)	$\left\langle \frac{1}{C_1 s}, \right\rangle$	R_2, ∞, \circ	$\infty, \infty,$	$\frac{R_L}{C_L R_L}$	$\frac{1}{s+1}$					 	 	 	 	 	 202
10.589NVALID-ORDER-589 $Z(s) = ($	$\frac{1}{C_1 s}$,	R_2, ∞, c	$\infty, \infty,$	R_L +	$\frac{1}{C_L s}$)				 	 	 	 	 	 203
10.59 INVALID-ORDER-590 $Z(s) = \langle$	$\frac{1}{C_1 s}$,	R_2, ∞, c	$\infty, \infty,$	$L_L s$ +	$-\frac{1}{C_{L}}$	$\left(\frac{1}{s}\right)$.				 	 	 	 	 	 203
10.59INVALID-ORDER-591 $Z(s) = \langle$	$\frac{1}{C_1 s}$,	R_2, ∞, \circ	$\infty, \infty,$	$\frac{L_L}{C_L L_L s}$	$\frac{s}{s^2+1}$) . .				 	 	 	 	 	 203
10.59 2 NVALID-ORDER-592 $Z(s) = \langle$	<i>?</i>				,		\bar{s}).			 	 	 	 	 	 203
10.59 B NVALID-ORDER-593 $Z(s) = \left(\begin{array}{c} \\ \end{array} \right)$	>									 	 	 	 	 	 203
10.594NVALID-ORDER-594 $Z(s) = ($	$\left(\frac{1}{C_1s},\right)$	R_2, ∞, c	$\infty, \infty,$	$\frac{L_L}{C_L L_L s}$	$\frac{s}{s^2+1}$	$+R_{L}$)			 	 	 	 	 	 204
	,	R_2, ∞, ∞		/		١.				 	 	 	 	 	 204
10.596NVALID-ORDER-596 $Z(s) = ($	$\left(\frac{1}{C_1s},\right)$	$\frac{1}{C_2s}$, ∞ ,	$\infty, \infty,$	R_L						 	 	 	 	 	 204
10.59 T NVALID-ORDER-597 $Z(s) = \hat{\zeta}$	$\frac{1}{C_1 s}$,	$\frac{1}{C_2s}$, ∞ ,	$\infty, \infty,$	$\frac{1}{C_L s}$						 	 	 	 	 	 204

10.59&NVALID-ORDER-598 $Z(s) =$	$=\left(\frac{1}{C_1s},\right.$	$\frac{1}{C_2 s}$, ∞	$, \infty,$	∞ ,	$\frac{R_{I}}{C_{L}R_{I}}$	$\left(\frac{L}{s+1}\right)$. 204
10.59 9 NVALID-ORDER-599 $Z(s) =$	$=\left(\frac{1}{C_1s},\right)$	$\frac{1}{C_2 s}$, ∞	$, \infty,$	∞ ,	R_L +	$-\frac{1}{C_L s}$. 205
10.60 0 NVALID-ORDER-600 $Z(s) =$	$=\left(\frac{1}{C_1s},\right)$	$\frac{1}{C_2 s}$, ∞	$, \infty,$	∞ ,	$L_L s$	$+\frac{1}{C_L s}$)		 	 	 	 	 	 	. 205
10.60 I NVALID-ORDER-601 $Z(s) =$	$=\left(\frac{1}{C_1s},\right)$	$\frac{1}{C_2 s}$, ∞	$, \infty,$	∞ ,	$\frac{L_1}{C_L L_L}$	$\left(\frac{s}{s^2+1}\right)^{\frac{1}{2}}$. 205
10.60 2 NVALID-ORDER-602 $Z(s) =$	$=\left(\frac{1}{C_1s},\right)$	$\frac{1}{C_2 s}$, ∞	$, \infty,$	∞ ,	$L_L s$	$+R_L +$	$+\frac{1}{C_L s}$)	 	 	 	 	 	 	. 205
10.60 B NVALID-ORDER-603 $Z(s) =$	$=\left(\frac{1}{C_1s},\right.$	$, \frac{1}{C_2 s}, \propto$	∞ , ∞ ,	∞ ,	$\overline{C_L s}$	$\frac{1}{R_L} + \frac{1}{R_L}$	$\frac{1}{L^s}$. 205
10.60 4 NVALID-ORDER-604 $Z(s) =$	$=\left(\frac{1}{C_1s},\right)$	$\frac{1}{C_2 s}$, ∞	$, \infty,$	∞ ,	$\frac{L_{I}}{C_{L}L_{L}}$	$\frac{Ls}{Ls^2+1} +$	$-R_L$. 206
10.60 Invalid-order-605 $Z(s) =$	$=\left(\frac{1}{C_1s},\right.$	$, \frac{1}{C_2 s}, \propto$	∞ , ∞ ,	∞ ,	$\frac{R_L(I)}{L_L s}$	$\frac{L_L s + \frac{1}{C_L}}{+R_L + \frac{1}{C_L}}$	$\left(\frac{\overline{s}}{L^{s}}\right)$. 206
10.60 CNVALID-ORDER-606 $Z(s) =$	$=\left(\frac{1}{C_1s},\right)$	$\frac{R_2}{C_2R_2s+1}$	$\bar{l}, \infty,$	$, \infty,$	∞ ,	R_L) .			 	 	 	 	 	 	. 206
10.60 T NVALID-ORDER-607 $Z(s) =$	$=\left(\frac{1}{C_1s},\right)$	$\frac{R_2}{C_2R_2s+1}$	$_{\overline{1}}, \infty,$	$, \infty,$	∞ ,	$\frac{1}{C_L s}$. 206
10.60&NVALID-ORDER-608 $Z(s) =$	$=\left(\frac{1}{C_1s},\right)$	$\frac{R_2}{C_2R_2s+1}$	$\bar{l}, \infty,$	$, \infty,$	∞ ,	$\frac{R_L}{C_L R_L s}$	$\overline{+1}$. 206
10.60 9 NVALID-ORDER-609 $Z(s) =$	$=\left(\frac{1}{C_1s},\right)$	$\frac{R_2}{C_2R_2s+1}$	$\frac{1}{1}$, ∞ ,	$, \infty,$	∞ ,	$R_L + \overline{\epsilon}$	$\left(\frac{1}{C_L s}\right)$. 207
10.61 © NVALID-ORDER-610 $Z(s) =$	$=\left(\frac{1}{C_1s},\right)$	$\frac{R_2}{C_2R_2s+1}$	\bar{l} , ∞ ,	$, \infty,$	∞ ,	$L_L s +$	$\frac{1}{C_L s}$. 207
10.61 I NVALID-ORDER-611 $Z(s) =$	$=\left(\frac{1}{C_1s},\right.$	$\frac{R_2}{C_2R_2s+1}$	$_{\overline{1}}, \infty,$	$, \infty,$	∞ ,	$\frac{L_L s}{C_L L_L s^2}$	$\overline{(+1)}$. 207
10.612NVALID-ORDER-612 $Z(s) =$	$=\left(\frac{1}{C_1s},\right)$	$\frac{R_2}{C_2R_2s+1}$	\bar{l} , ∞ ,	$, \infty,$	∞ ,	$L_L s +$	$R_L +$	$\frac{1}{C_L s}$. 207
10.61\(\mathbb{B}\) NVALID-ORDER-613 $Z(s) =$	$=\left(\frac{1}{C_1s},\right.$	$, \frac{R_2}{C_2 R_2 s +}$	$_{\overline{1}}, \infty$	$, \infty,$	$, \infty,$	$C_L s + \frac{1}{R}$	$\frac{1}{L} + \frac{1}{L_L}$	$\left(\frac{1}{s}\right)$.	 	 	 	 	 	 	. 207
10.614NVALID-ORDER-614 $Z(s) =$	$=\left(\frac{1}{C_1s},\right)$	$\frac{R_2}{C_2R_2s+1}$	\bar{l} , ∞ ,	$, \infty,$	∞ ,	$\frac{L_L s}{C_L L_L s^2}$	+1	R_L	 	 	 	 	 	 	. 208
10.61 Invalid-order-615 $Z(s) =$	$=\left(\frac{1}{C_1s},\right.$	$, \frac{R_2}{C_2 R_2 s +}$	$_{\overline{1}}, \infty$	$, \infty,$	$, \infty,$	$\frac{R_L \left(L_L}{L_L s + R}\right)$	$\frac{s + \frac{1}{C_L s}}{R_L + \frac{1}{C_L s}}$	$\frac{)}{\overline{s}}$. 208
10.61 6 NVALID-ORDER-616 $Z(s) =$	$=\left(\frac{1}{C_1s},\right)$	$R_2 + \frac{1}{C_2}$	$\frac{1}{2s}$, \propto	o, ∞	∞ , ∞ ,	R_L			 	 	 	 	 	 	. 208
10.61 T NVALID-ORDER-617 $Z(s) =$	$=\left(\frac{1}{C_1s},\right.$	$R_2 + \frac{1}{C_2}$	$\frac{1}{2s}$, \propto	o, ∞	∞ , ∞ ,	$\frac{1}{C_L s}$. 208
10.61 NVALID-ORDER-618 $Z(s) =$	$=\left(\frac{1}{C_1s},\right.$	$R_2 + \frac{1}{C_2}$	$\frac{1}{2s}$, \propto), x	∞ , ∞ ,	$\frac{R_L}{C_L R_L s}$	$\overline{s+1}$. 208
10.61 9 NVALID-ORDER-619 $Z(s) =$	$=\left(\frac{1}{C_1s},\right.$	$R_2 + \frac{1}{C_2}$	$\frac{1}{2s}$, \propto	o, ∞	∞ , ∞ ,	$R_L +$	$\frac{1}{C_L s}$. 209

10.62 ONVALID-ORDER- $620 Z(s) =$	$\left(\frac{1}{C_1s}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$	09
10.62INVALID-ORDER-621 $Z(s) =$	$\left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$	09
10.62 2 NVALID-ORDER-622 $Z(s) =$	$\left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right) \dots \dots$	09
10.628NVALID-ORDER- 623 $Z(s) =$	$\left(\frac{1}{C_{1s}}, R_2 + \frac{1}{C_{2s}}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	09
10.624NVALID-ORDER- 624 $Z(s) =$	$\left(\frac{1}{C_1s}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$	10
10.62 Invalid-order-625 $Z(s) =$	$\left(\frac{1}{C_{1s}}, R_2 + \frac{1}{C_{2s}}, \infty, \infty, \infty, \infty, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	10
10.62 6 NVALID-ORDER-626 $Z(s) =$	$\left(\frac{1}{C_1s},\ L_2s+\frac{1}{C_2s},\ \infty,\ \infty,\ \infty,\ R_L\right)$	10
10.62TNVALID-ORDER-627 $Z(s) =$	$\left(\frac{1}{C_1s}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$	10
10.628NVALID-ORDER- 628 $Z(s) =$	$\left(\frac{1}{C_1s}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$	10
10.629NVALID-ORDER-629 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$	11
10.63 ONVALID-ORDER-630 $Z(s) =$	$\left(\frac{1}{C_1s}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$	11
10.63INVALID-ORDER-631 $Z(s) =$	$\left(\frac{1}{C_1s}, \ L_2s + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1}\right)$	11
10.63 2 NVALID-ORDER-632 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$	11
10.63BNVALID-ORDER- 633 $Z(s) =$	$\left(\frac{1}{C_{1}s}, L_{2}s + \frac{1}{C_{2}s}, \infty, \infty, \infty, \frac{1}{C_{L}s + \frac{1}{R_{L}} + \frac{1}{L_{L}s}}\right)$	11
10.634NVALID-ORDER-634 $Z(s) =$	$\left(\frac{1}{C_{1}s}, L_{2}s + \frac{1}{C_{2}s}, \infty, \infty, \infty, \frac{L_{L}s}{C_{L}L_{L}s^{2}+1} + R_{L}\right)$	12
10.63 NVALID-ORDER-635 $Z(s) =$	$\left(\frac{1}{C_{1}s}, L_{2}s + \frac{1}{C_{2}s}, \infty, \infty, \infty, \infty, \frac{R_{L}\left(L_{L}s + \frac{1}{C_{L}s}\right)}{L_{L}s + R_{L} + \frac{1}{C_{L}s}}\right)$	12
10.63 CNVALID-ORDER-636 $Z(s) =$	$\left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$	12
10.63 TNVALID-ORDER-637 $Z(s) =$	$\left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$	12
10.63\nabla NVALID-ORDER-638 $Z(s) =$	$\left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$	12
10.63 9 NVALID-ORDER-639 $Z(s) =$	$\left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$	13
10.64 ONVALID-ORDER- $640 Z(s) =$	$\left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)'$	13
	$\left(\frac{1}{C_1s}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right) \dots \dots$	13

10.642NVALID-ORDER-642 $Z(s) = 1$	$\left(\frac{1}{C_{1}s}, L_{2}s + R_{2} + \frac{1}{C_{2}s}, \infty, \infty, \infty, \frac{1}{C_{L}s + \frac{1}{R_{L}} + \frac{1}{L_{L}s}}\right)$	213
10.64 B NVALID-ORDER-643 $Z(s) = 0$	$\left(\frac{1}{C_{1s}}, L_{2s} + R_{2} + \frac{1}{C_{2s}}, \infty, \infty, \infty, \infty, \frac{L_{Ls}}{C_{L}L_{Ls^{2}+1}} + R_{L}\right)$	213
10.64#NVALID-ORDER-644 $Z(s) = 1$	$\left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	214
10.645NVALID-ORDER-645 $Z(s) = 0$	$\left(\frac{1}{C_1s}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, R_L\right)$	214
10.646NVALID-ORDER-646 $Z(s) = 0$	$\left(\frac{1}{C_1s}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{1}{C_Ls}\right) \dots \dots$	214
10.64\bar{T}\text{NVALID-ORDER-647} $Z(s) = 0$	$\left\{\frac{1}{C_1s}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right\} \dots \dots$	214
10.64\bigselentrian VALID-ORDER-648 $Z(s) = 0$	$\left\{\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right\}$	214
10.64 9 NVALID-ORDER-649 $Z(s) = 0$	$\left(\frac{1}{C_{1s}}, \frac{L_{2s}}{C_{2}L_{2}s^{2}+1} + R_{2}, \infty, \infty, \infty, L_{L}s + \frac{1}{C_{L}s}\right)$	215
10.65 ONVALID-ORDER- 650 $Z(s) = ($	$\left(\frac{1}{C_1s}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$	
10.65INVALID-ORDER-651 $Z(s) = 0$	$\frac{1}{C_{1s}}, \frac{L_{2s}}{C_{2}L_{2}s^{2}+1} + R_{2}, \infty, \infty, \infty, L_{Ls} + R_{L} + \frac{1}{C_{Ls}}$	215
10.65 2 NVALID-ORDER-652 $Z(s) = 1$	$\left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	215
10.65 & NVALID-ORDER-653 $Z(s) = 0$	$\left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	
10.654NVALID-ORDER-654 $Z(s) = 1$	$\left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	216
10.65 INVALID-ORDER-655 $Z(s) = 1$	$\left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L\right)$	216
10.65©NVALID-ORDER-656 $Z(s) = 1$	$\left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$	216
10.65 TNVALID-ORDER-657 $Z(s) = 1$	$\left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$	216
10.65&NVALID-ORDER-658 $Z(s) = 1$	$\left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$	216
10.65 9 NVALID-ORDER-659 $Z(s) = 1$	$\left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$	217
10.66 0 NVALID-ORDER-660 $Z(s) = 1$	$\left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$	217
10.66 INVALID-ORDER-66 1 $Z(s)=\langle$	$\left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$	217

10.66 2 NVALID-ORDER-662 $Z(s) =$	$\left(\frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}\right)$	$, \infty, \infty, \infty, \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$	 	 	217
10.668NVALID-ORDER- 663 $Z(s) =$	$\left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}\right)$	$, \infty, \infty, \infty, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} + R_I$		 	217
10.664NVALID-ORDER-664 $Z(s) =$	$R_2\left(L_2s+\frac{1}{s+1}\right)$				 	218
10.665NVALID-ORDER- 665 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \right)$	∞ , ∞ , R_L		 	 	218
10.66 CNVALID-ORDER-666 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \right)$	$\infty, \ \infty, \ \frac{1}{C_L s}$)	 	 	218
10.66 T NVALID-ORDER-667 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \right)$	∞ , ∞ , $\frac{R}{C_L R}$	$\left(\frac{L}{Ls+1}\right)$	 	 	218
10.66\notin NVALID-ORDER-668 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \right)$	∞ , ∞ , R_L +	$+\frac{1}{C_L s}$)	 	 	218
10.669NVALID-ORDER-669 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \right)$	∞ , ∞ , $L_L s$	$+\frac{1}{C_L s}$)	 	 	219
10.67 ONVALID-ORDER-670 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \right)$	∞ , ∞ , $\frac{L}{C_L L_L}$	$\left(\frac{Ls}{Ls^2+1}\right)'$	 	 	219
10.67INVALID-ORDER-671 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \right)$	∞ , ∞ , $L_L s$	$+R_L + \frac{1}{C_L s}$).	 	 	219
10.672NVALID-ORDER-672 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \right.$	∞ , ∞ , $\frac{1}{C_L s}$	$\frac{1}{+\frac{1}{R_L}+\frac{1}{L_Ls}}\right) . .$	 	 	219
10.673NVALID-ORDER- 673 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \right)$	∞ , ∞ , $\frac{L}{C_L L_L}$	$\left(\frac{Ls}{Ls^2+1} + R_L\right)$.	 	 	219
10.67\PVALID-ORDER-674 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \right.$	∞ , ∞ , $\frac{R_L(1)}{L_L s}$	$\frac{L_L s + \frac{1}{C_L s}}{+R_L + \frac{1}{C_L s}} \right)' . .$	 	 	220
10.67 INVALID-ORDER-675 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \right)$	∞ , ∞ , R_L)	 	 	220
10.676NVALID-ORDER-676 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \right)$	$\infty, \infty, \frac{1}{C_L s}$)	 	 	220
10.67 T NVALID-ORDER-677 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \right)$	∞ , ∞ , $\frac{1}{C_L R}$	$\left(\frac{R_L}{R_L s+1}\right)$	 	 	220
10.67\NVALID-ORDER-678 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \right)$	∞ , ∞ , R_L	$+\frac{1}{C_L s}$)	 	 	220
10.679NVALID-ORDER-679 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \right)$	∞ , ∞ , $L_L s$	$s + \frac{1}{C_L s}$)	 	 	221
10.68 ONVALID-ORDER-680 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \right)$	∞ , ∞ , $\frac{1}{C_L I}$	$\left(\frac{L_L s}{L_L s^2 + 1}\right)$	 	 	221
10.68INVALID-ORDER-681 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \right)$, ,	 	 	221
10.68 2 NVALID-ORDER-682 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \right.$	∞ , ∞ , C_{LS}	$\frac{1}{s + \frac{1}{R_L} + \frac{1}{L_L s}} \right) . .$	 	 	221
10.68 NVALID-ORDER-683 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \right)$	∞ , ∞ , $\frac{1}{C_L I}$	$\frac{L_L s}{L_L s^2 + 1} + \hat{R_L}$.	 	 	221

10.684NVALID-ORDER-684 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\frac{1}{C_2 s}$, ∞ ,	$\infty, \ \infty,$	$\frac{R_L\left(}{L_L s}\right)$	$\frac{L_L s + \frac{1}{C_L s}}{+R_L + \frac{1}{C_L s}}$			 	 	 	 222
10.68 INVALID-ORDER-685 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\tfrac{R_2}{C_2R_2s+1},$	∞ , ∞ ,	∞ ,	R_L)			 	 	 	 222
10.686NVALID-ORDER-686 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\tfrac{R_2}{C_2R_2s+1},$	∞ , ∞ ,	∞ ,	$\frac{1}{C_L s}$)			 	 	 	 222
10.68 T NVALID-ORDER-687 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\tfrac{R_2}{C_2R_2s{+}1},$	∞ , ∞ ,	∞ ,	$\frac{R_L}{C_L R_L s + 1}$			 	 	 	 222
10.68\%NVALID-ORDER-688 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\tfrac{R_2}{C_2R_2s{+}1},$	∞ , ∞ ,	∞ ,	$R_L + \frac{1}{C_L s}$			 	 	 	 222
10.68 9 NVALID-ORDER-689 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\tfrac{R_2}{C_2R_2s{+}1},$	∞ , ∞ ,	∞ ,	$L_L s + \frac{1}{C_L s}$)		 	 	 	 223
10.69©NVALID-ORDER-690 $Z(s) = ($	$\left(\frac{R_1}{C_1 R_1 s + 1},\right.$	$\tfrac{R_2}{C_2R_2s+1},$	∞ , ∞ ,	∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} \bigg)$			 	 	 	 223
10.69INVALID-ORDER-691 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\tfrac{R_2}{C_2R_2s+1},$	∞ , ∞ ,	∞ ,	$L_L s + R_L$	$+\frac{1}{C_L s}$		 	 	 	 223
10.692NVALID-ORDER-692 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞ ,	∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L}}$	$\left(\frac{1}{L^s}\right)$.		 	 	 	 223
10.69\$NVALID-ORDER-693 $Z(s)=\langle$	`				$\frac{L_L s}{C_L L_L s^2 + 1} -$. /		 	 	 	 223
10.694NVALID-ORDER-694 $Z(s)=\left \right.$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞ ,	∞ ,	$\frac{R_L \left(L_L s + \frac{1}{C_I}\right)}{L_L s + R_L + \frac{1}{C_I}}$	$\left(\frac{\frac{1}{L^s}}{\frac{1}{L^s}}\right)$.		 	 	 	 224
10.69 5 NVALID-ORDER-695 $Z(s)=\langle$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$	$, \infty,$	R_L)			 	 	 	 224
10.696NVALID-ORDER-696 $Z(s)=\langle$	$\left(\frac{R_1}{C_1 R_1 s + 1},\right.$	$R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$	$, \infty,$	$\frac{1}{C_L s}$)			 	 	 	 224
10.69 T NVALID-ORDER-697 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$	$, \infty,$	$\frac{R_L}{C_L R_L s + 1}$			 	 	 	 224
10.69&NVALID-ORDER-698 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$	$, \infty,$	$R_L + \frac{1}{C_L s}$)		 	 	 	 224
10.69 9 NVALID-ORDER-699 $Z(s)=\langle$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$	$, \infty,$	$L_L s + \frac{1}{C_L s}$	$\left(\frac{1}{8}\right)$		 	 	 	 225
10.70 0 NVALID-ORDER-700 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$	$, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$)		 	 	 	 225
10.70INVALID-ORDER-701 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$	$, \infty,$	$L_L s + R_L$	$+\frac{1}{C_L s}$)	 	 	 	 225
10.702NVALID-ORDER-702 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$), ∞	$, \frac{1}{C_L s + \frac{1}{R_L} +}$	$\frac{1}{L_L s}$		 	 	 	 225
10.70\$NVALID-ORDER-703 $Z(s)=($	$(R_1 \over C_1 R_1 s + 1,$	$R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$	∞	$\frac{L_L s}{C_L L_L s^2 + 1}$	$+\stackrel{\frown}{R_L}$		 	 	 	 225
10.704NVALID-ORDER-704 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$	o, ∞	$\frac{R_L \left(L_L s + \frac{1}{C}\right)}{L_L s + R_L + \frac{1}{C}}$	$\left(\frac{\frac{1}{C_L s}}{\frac{1}{C_L s}}\right)$		 	 	 	 226
10.70 SNVALID-ORDER-705 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$L_2s + \frac{1}{C_{2s}}$	$\frac{1}{8}$, ∞ , o	o, ∞	(R_L)	·		 	 	 	 226

10.70 CNVALID-ORDER- 706 $Z(s) = 10.70$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$	26
10.70TNVALID-ORDER- 707 $Z(s) = 10.70$ TNVALID-ORDER	$\left(\frac{R_1}{C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$	26
10.70\nnvalid-Order-708 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$	26
10.70 9 NVALID-ORDER-709 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$	27
10.71 0 NVALID-ORDER-710 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$	27
10.71 I NVALID-ORDER-711 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$	27
10.71 2 NVALID-ORDER-712 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s+\frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right) \dots \dots$	27
10.71 3 NVALID-ORDER-713 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$	27
10.71 \mathbb{I} NVALID-ORDER-714 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s+\frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L\left(L_Ls+\frac{1}{C_Ls}\right)}{L_Ls+R_L+\frac{1}{C_Ls}}\right) \dots \dots$	28
10.71 5 NVALID-ORDER-715 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s+R_2+\frac{1}{C_2s}, \infty, \infty, \infty, R_L\right)$	28
10.716NVALID-ORDER-716 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s+R_2+\frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$	28
10.71 T NVALID-ORDER-717 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s+R_2+\frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$	28
10.71\nstructure NVALID-ORDER-718 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s+R_2+\frac{1}{C_2s}, \infty, \infty, \infty, R_L+\frac{1}{C_Ls}\right)$	28
10.71 9 NVALID-ORDER-719 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s+R_2+\frac{1}{C_2s}, \infty, \infty, \infty, L_Ls+\frac{1}{C_Ls}\right) \dots \dots$	29
10.72 ONVALID-ORDER-720 $Z(s) = 10.72$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s+R_2+\frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$	29
10.72INVALID-ORDER-721 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s+R_2+\frac{1}{C_2s}, \infty, \infty, \infty, \infty, L_Ls+R_L+\frac{1}{C_Ls}\right)$	29
10.72 2 NVALID-ORDER-722 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s+R_2+\frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$	29
10.72 3 NVALID-ORDER-723 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s+R_2+\frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}+R_L\right)$	29
10.724NVALID-ORDER-724 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s+R_2+\frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{R_L\left(L_Ls+\frac{1}{C_Ls}\right)}{L_Ls+R_L+\frac{1}{C_Ls}}\right) \dots \dots$	30
10.725NVALID-ORDER- 725 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, R_L\right) \dots \dots$	30
10.72 CNVALID-ORDER-726 $Z(s) = 10.72$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$	30
10.72TNVALID-ORDER- 727 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$	30

10.72\NVALID-ORDER-728 $Z(s) = \left(\frac{1}{2}\right)$	$\frac{R_1}{C_1 R_1 s + 1}, \overline{C_2}$	$\frac{L_2s}{L_2s^2+1} + R_2$, ∞ , o	\circ , ∞ , R_L	$L_L + \frac{1}{C_L s}$).		 	 230
10.72¶NVALID-ORDER-729 $Z(s) = \left(\frac{1}{2}\right)$	$\frac{R_1}{C_1R_1s+1}, \overline{C_2}$	$\frac{L_2s}{sL_2s^2+1} + R_2, \ \infty, \ c$	\circ , ∞ , L_L	$s + \frac{1}{C_L s}$		 	 231
10.73 0 NVALID-ORDER-730 $Z(s) = \left(\frac{1}{2}\right)$	$\frac{R_1}{C_1 R_1 s + 1}, \overline{C_2}$	$\frac{L_2s}{2L_2s^2+1} + R_2, \ \infty, \ c$	$c, \infty, \overline{C_L}$	$\frac{L_L s}{L_L s^2 + 1}$).		 	 231
10.73INVALID-ORDER-731 $Z(s) = \left(\frac{1}{2}\right)^{-1}$	$\frac{R_1}{C_1R_1s+1}, \ \overline{C_2}$	$\frac{L_2s}{sL_2s^2+1} + R_2$, ∞ , o	∞ , ∞ , L_L	$s + R_L + \frac{1}{C}$	$\left(\frac{1}{Ls}\right)$	 	 231
10.73 2 NVALID-ORDER-732 $Z(s) = \left(\right.$	$\frac{R_1}{C_1 R_1 s + 1}, \overline{C_2}$	$\frac{L_2s}{{}_2L_2s^2+1} + R_2, \ \infty, \ \alpha$	∞ , ∞ , $\overline{C_L}$	$\left(\frac{1}{s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$		 	 231
10.73 B NVALID-ORDER-733 $Z(s) = \left(\frac{1}{6}\right)$	$\frac{R_1}{C_1 R_1 s + 1}, \overline{C_2}$	$\frac{L_2s}{sL_2s^2+1} + R_2, \ \infty, \ c$	$c, \infty, \overline{C_L}$	$\frac{L_L s}{L_L s^2 + 1} + R_L$	$_{L}\Big)$	 	 231
10.734NVALID-ORDER-734 $Z(s) = \left(\right.$	$\frac{R_1}{C_1R_1s+1}, \overline{C_2}$	$\frac{L_2s}{{}_2L_2s^2+1} + R_2, \ \infty, \ \alpha$	$\infty, \infty, \frac{R_L}{L_L}$	$\left(\frac{L_L s + \frac{1}{C_L s}}{L_S + R_L + \frac{1}{C_L s}}\right)$)	 	 232
10.735NVALID-ORDER-735 $Z(s) = \left(\right.$	$\frac{R_1}{C_1R_1s+1}, \frac{R_2}{L_2}$	$\frac{2\left(L_{2}s + \frac{1}{C_{2}s}\right)}{2s + R_{2} + \frac{1}{C_{2}s}}, \ \infty, \ \infty$	$, \infty, \frac{1}{C_L s}$)		 	 232
10.73 6 NVALID-ORDER-736 $Z(s) = \left(\right.$	$\frac{R_1}{C_1R_1s+1}, \frac{R_2}{L_2}$	$\frac{2\left(L_{2}s + \frac{1}{C_{2}s}\right)}{2s + R_{2} + \frac{1}{C_{2}s}}, \ \infty, \ \infty$	$, \infty, \frac{R}{C_L R}$	$\left(\frac{R_L}{L_L s+1}\right)$		 	 232
10.73 T NVALID-ORDER-737 $Z(s) = \left(\right.$	$\frac{R_1}{C_1R_1s+1}, \frac{R_2}{L_2}$	$\frac{2\left(L_{2}s + \frac{1}{C_{2}s}\right)}{2s + R_{2} + \frac{1}{C_{2}s}}, \ \infty, \ \infty$	$, \infty, R_L$	$+\frac{1}{C_L s}$.		 	 232
10.73\NVALID-ORDER-738 $Z(s) = \left(\right.$	$\frac{R_1}{C_1R_1s+1}, \frac{R_2}{L_2}$	$\frac{2(L_2s + \frac{1}{C_2s})}{2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty$	$, \infty, L_L s$	$+\frac{1}{C_L s}$.		 	 232
10.73 9 NVALID-ORDER-739 $Z(s) = \left(\right.$	$\frac{R_1}{C_1R_1s+1}, \frac{R_2}{L_2}$	$\frac{2\left(L_{2}s + \frac{1}{C_{2}s}\right)}{2s + R_{2} + \frac{1}{C_{2}s}}, \ \infty, \ \infty$	$, \infty, \frac{L}{C_L L}$	$\left(\frac{c_L s}{L s^2 + 1}\right) \cdot \cdot$		 	 233
10.74 0 NVALID-ORDER-740 $Z(s) = \left(\right.$	$\frac{R_1}{C_1R_1s+1}, \frac{R_2}{L_2}$	$\frac{2\left(L_{2}s + \frac{1}{C_{2}s}\right)}{2s + R_{2} + \frac{1}{C_{2}s}}, \ \infty, \ \infty$	$, \infty, L_L s$	$+R_L + \frac{1}{C_L s}$	$\left(\frac{1}{2}\right)$	 	 233
10.74INVALID-ORDER-741 $Z(s) = \left(\right.$	$\frac{R_1}{C_1R_1s+1}, \frac{R_2}{L_2}$	$\frac{2\left(L_2s + \frac{1}{C_2s}\right)}{2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty$	$, \infty, \frac{1}{C_L s}$	$\frac{1}{+\frac{1}{R_L} + \frac{1}{L_L s}} \right)$		 	 233
10.74 2 NVALID-ORDER-742 $Z(s) = \left(\right.$	$\frac{R_1}{C_1R_1s+1}, \frac{R_2}{L_2}$	$\frac{2\left(L_{2}s + \frac{1}{C_{2}s}\right)}{2s + R_{2} + \frac{1}{C_{2}s}}, \ \infty, \ \infty$	$, \infty, \frac{L}{C_L L}$	$\frac{c_L s}{L s^2 + 1} + R_L$)	 	 233
10.74 B NVALID-ORDER-743 $Z(s) = \left(\right.$	$\frac{R_1}{C_1R_1s+1}, \frac{R_2}{L_2}$	$\frac{2\left(L_{2}s + \frac{1}{C_{2}s}\right)}{2s + R_{2} + \frac{1}{C_{2}s}}, \ \infty, \ \infty$	$, \infty, \frac{R_L(\cdot)}{L_L s}$	$\frac{L_L s + \frac{1}{C_L s}}{+R_L + \frac{1}{C_L s}}$		 	 233
10.74 4 NVALID-ORDER-744 $Z(s) = \left(1$	$R_1 + \frac{1}{C_1 s}, R$	$R_2, \ \infty, \ \infty, \ \infty, \ R_L$)			 	 234
10.74 INVALID-ORDER-745 $Z(s) = \left(10.74 \text{ INVALID-ORDER-} \right)$	$R_1 + \frac{1}{C_1 s}, R$	$R_2, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L H}$	$\left(\frac{R_L}{R_L s+1}\right)$.			 	 234
10.746NVALID-ORDER-746 $Z(s) = \left(1.000000000000000000000000000000000000$	$R_1 + \frac{1}{C_1 s}, R$	$R_2, \infty, \infty, \infty, R_L$	$+\frac{1}{C_L s}$.			 	 234
10.74 T NVALID-ORDER-747 $Z(s) = \left(I_{s} \right)$	$R_1 + \frac{1}{C_1 s}, R$	$R_2, \ \infty, \ \infty, \ \infty, \ L_L s$	$+\frac{1}{C_L s}$			 	 234

10.74\(\mathbb{B}\)NVALID-ORDER-748 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$R_2, \infty,$	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$			 	 	 	234
10.749NVALID-ORDER-749 $Z(s) = ($	$(R_1 + \frac{1}{C_1 s},$	$R_2, \infty,$	∞ , ∞ ,	$L_L s + R_L$	$+\frac{1}{C_L s}$		 	 	 	234
10.75 0 NVALID-ORDER-750 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$R_2, \infty,$	∞ , ∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{R_L}}$	$\left(\frac{1}{L_L s}\right)$		 	 	 	235
10.75INVALID-ORDER-751 $Z(s) = ($	$(R_1 + \frac{1}{C_1 s},$	$R_2, \infty,$	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$	$+\stackrel{'}{R_L}$.		 	 	 	235
10.75\mathbb{2}\text{NVALID-ORDER-752} $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$R_2, \infty,$	∞ , ∞ ,	$\frac{R_L \left(L_L s + \frac{1}{C} \right)}{L_L s + R_L + \frac{1}{C}}$	$\left(\frac{1}{C_L s}\right)$		 	 	 	235
10.75 B NVALID-ORDER-753 $Z(s) = ($	/			\			 	 	 	235
10.754NVALID-ORDER-754 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞ ,	$\frac{1}{C_L s}$)			 	 	 	235
10.75 INVALID-ORDER-755 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞ ,	$\frac{R_L}{C_L R_L s + 1}$)		 	 	 	236
10.756NVALID-ORDER-756 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞ ,	$R_L + \frac{1}{C_L s}$	$\left(\frac{1}{2} \right)$		 	 	 	236
10.75 T NVALID-ORDER-757 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞ ,	$L_L s + \frac{1}{C_L}$	\overline{s})		 	 	 	236
10.75\NVALID-ORDER-758 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$)		 	 	 	236
10.759NVALID-ORDER-759 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞ ,	$L_L s + R_L$	$\left(1 + \frac{1}{C_L s}\right)$		 	 	 	236
10.76 0 NVALID-ORDER-760 $Z(s) = $	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{R_L}}$	$\left(\frac{1}{L_L s}\right)$.		 	 	 	236
10.76INVALID-ORDER-761 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$	$+R_L$		 	 	 	237
10.76\mathbb{2}NVALID-ORDER-762 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞ ,	$\frac{R_L \left(L_L s + \frac{1}{L_L s + R_L + R_L + \frac{1}{L_L s + R_L + \frac{1}{L_L$	$\left(\frac{\frac{1}{C_L s}}{\frac{1}{C_L s}}\right)$		 	 	 	237
10.76 B NVALID-ORDER-763 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty, R_L$			 	 	 	237
10.764NVALID-ORDER-764 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty, \frac{1}{C_L s}$			 	 	 	237
10.76 INVALID-ORDER-765 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty, \frac{R_{I}}{C_{L}R_{I}}$	$\left(\frac{L}{L}s+1\right)$.		 	 	 	237
10.766NVALID-ORDER-766 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty, R_L +$	$-\frac{1}{C_L s}$.		 	 	 	237
10.76 TNVALID-ORDER-767 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty, L_L s$	$+\frac{1}{C_L s}$		 	 	 	238
10.76\(\text{NVALID-ORDER-768} \) $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty, \frac{L_L}{C_L L_L}$	$\left(\frac{Ls}{Ls^2+1}\right)$.		 	 	 	238
10.76 9 NVALID-ORDER-769 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty, L_L s$	$+R_L+\overline{C}$	$\left(\frac{1}{L^s}\right)$.	 	 	 	238

10.77 0 NVALID-ORDER-770 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s+1}, \propto$	∞ , ∞ , ∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$	$\left(\frac{1}{2}\right)$.		 	 	 238
10.77INVALID-ORDER-771 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s},$	$\frac{R_2}{C_2R_2s+1}, \ \infty$	$, \infty, \infty, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} + 1$	$(\hat{R_L})$.		 	 	 238
10.77 2 NVALID-ORDER-772 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s+1}, \propto$	∞ , ∞ , ∞ ,	$\frac{R_L \left(L_L s + \frac{1}{C_L s} $	$\left(\frac{1}{2}\right)$.		 	 	 239
10.77 B NVALID-ORDER-773 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s}, $	$R_2 + \frac{1}{C_2 s}, \circ$	$\infty, \infty, \infty,$	R_L)			 	 	 239
10.774NVALID-ORDER-774 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s},\right)$	$R_2 + \frac{1}{C_2 s}, \ \circ$	$\infty, \infty, \infty,$	$\frac{1}{C_L s}$)			 	 	 239
10.775NVALID-ORDER-775 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s}, $	$R_2 + \frac{1}{C_2 s}, \circ$	∞ , ∞ , ∞ ,	$\frac{R_L}{C_L R_L s + 1}$			 	 	 239
10.776NVALID-ORDER-776 $Z(s) = ($	$R_1 + \frac{1}{C_1 s}$,	$R_2 + \frac{1}{C_2 s}, \circ$	∞ , ∞ , ∞ ,	$R_L + \frac{1}{C_L s}$			 	 	 239
10.77 T NVALID-ORDER-777 $Z(s) = ($	$(R_1 + \frac{1}{C_1 s}, $	$R_2 + \frac{1}{C_2 s}, \circ$	∞ , ∞ , ∞ ,	$L_L s + \frac{1}{C_L s}$			 	 	 240
10.77\nabla NVALID-ORDER-778 $Z(s) = 0$	$R_1 + \frac{1}{C_1 s}$,	$R_2 + \frac{1}{C_2 s}, \circ$	∞ , ∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$			 	 	 240
10.77 9 NVALID-ORDER-779 $Z(s) = 0$	<i>;</i>			•	$-\frac{1}{C_L s}$		 	 	 240
10.78 0 NVALID-ORDER-780 $Z(s) = 1$	$(R_1 + \frac{1}{C_1 s},$	$R_2 + \frac{1}{C_2 s}, \ c$	$\infty, \ \infty, \ \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_I}}$	$\left(\frac{1}{s}\right)$.		 	 	 240
10.78INVALID-ORDER-781 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s}, $	$R_2 + \frac{1}{C_2 s}, \circ$	∞ , ∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} +$	(R_L)		 	 	 240
10.78 2 NVALID-ORDER-782 $Z(s) = 1$	$(R_1 + \frac{1}{C_1 s},$	$R_2 + \frac{1}{C_2 s}$, c	$\infty, \ \infty, \ \infty,$	$\frac{R_L \left(L_L s + \frac{1}{C_L}\right)}{L_L s + R_L + \frac{1}{C_L}}$	$\left(\frac{\overline{s}}{\overline{s}}\right)$.		 	 	 241
10.78 2 NVALID-ORDER-783 $Z(s) = ($	$(R_1 + \frac{1}{C_1 s}, $	$L_2s + \frac{1}{C_2s},$	∞ , ∞ , ∞	$, R_L) \dots$			 	 	 241
10.78#NVALID-ORDER-784 $Z(s) = ($	$R_1 + \frac{1}{C_1 s},$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ , ∞	$, \frac{1}{C_L s}$ $) \dots$			 	 	 241
10.78 INVALID-ORDER-785 $Z(s) = 0$	$R_1 + \frac{1}{C_1 s}$,	$L_2s + \frac{1}{C_2s},$	∞ , ∞ , ∞	$, \frac{R_L}{C_L R_L s+1}$			 	 	 241
10.786NVALID-ORDER-786 $Z(s) = ($	>			'\			 	 	 241
10.78 T NVALID-ORDER-787 $Z(s) = ($	>			· · · · · · · · · · · · · · · · · · ·	\		 	 	 241
10.78\(\text{NVALID-ORDER-788} \) $Z(s) = ($	$R_1 + \frac{1}{C_1 s},$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ , ∞	$, \frac{L_L s}{C_L L_L s^2 + 1}$, 		 	 	 242
10.78 9 NVALID-ORDER-789 $Z(s) = ($	>			,	`)	 	 	 242
10.79 © NVALID-ORDER-790 $Z(s) = 1$	7				\ ′		 	 	 242
10.79INVALID-ORDER-791 $Z(s) = ($	$(R_1 + \frac{1}{C_1 s}, $	$L_2s + \frac{1}{C_2s},$	$\infty, \ \infty, \ \infty$	$, \frac{L_L s}{C_L L_L s^2 + 1} -$	$+R_L$		 	 	 242

10.79 2 NVALID-ORDER-792 $Z(s) = 1$	$\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) \dots $
	$\left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$
10.794NVALID-ORDER-794 $Z(s)=\langle$	$\left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$
10.79\$NVALID-ORDER-795 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$
10.796NVALID-ORDER-796 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right) \dots \dots$
10.79 T NVALID-ORDER-797 $Z(s) = ($	$\left(R_1 + \frac{1}{C_{1s}}, L_2s + R_2 + \frac{1}{C_{2s}}, \infty, \infty, \infty, L_Ls + \frac{1}{C_{Ls}}\right)$
10.79&NVALID-ORDER-798 $Z(s) = ($	$\left(R_1 + \frac{1}{C_{1s}}, L_2s + R_2 + \frac{1}{C_{2s}}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right) \dots \dots$
10.79 9 NVALID-ORDER-799 $Z(s) = ($	$\left(R_1 + \frac{1}{C_{1s}}, L_2s + R_2 + \frac{1}{C_{2s}}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_{Ls}}\right)$
10.80 0 NVALID-ORDER-800 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_{1s}}, \ L_2s + R_2 + \frac{1}{C_{2s}}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
	$\left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
10.802NVALID-ORDER-802 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
	$\left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L\right)$
10.804NVALID-ORDER-804 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right) \dots \dots$
10.80 SNVALID-ORDER-805 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$
10.80 6 NVALID-ORDER-806 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$
10.80 T NVALID-ORDER-807 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right) \dots \dots$
	$\left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$
10.809NVALID-ORDER- 809 $Z(s) = ($	
· ·	$\left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$
	$ \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) \dots \dots$
10.81 0 NVALID-ORDER-810 $Z(s) =$) '
10.81 0 NVALID-ORDER-810 $Z(s) = 0$ 10.81 1 NVALID-ORDER-811 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)\right) \dots \dots$

10.814NVALID-ORDER-814 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}},$	∞ , ∞ , ∞	$\left(\frac{1}{C_L s} \right)$.		 	 	246
10.81 SNVALID-ORDER-815 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}},$	∞ , ∞ , ∞	$\left(\frac{R_L}{C_L R_L s + 1}\right)$		 	 	247
10.816NVALID-ORDER-816 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}},$	∞ , ∞ , ∞	$R_L + \frac{1}{C_L s}$)	 	 	247
10.81 T NVALID-ORDER-817 $Z(s) =$	$(R_1 + \frac{1}{C_1 s},$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}},$	∞ , ∞ , ∞	$L_L s + \frac{1}{C_L s}$	$\left(\frac{1}{2}\right)$	 	 	247
10.81\&NVALID-ORDER-818 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}},$	∞ , ∞ , ∞	$, \frac{L_L s}{C_L L_L s^2 + 1}$)	 	 	247
10.81 9 NVALID-ORDER-819 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}},$	∞ , ∞ , ∞	, $L_L s + R_L$	$+\frac{1}{C_L s}$	 	 	247
10.82 ONVALID-ORDER-820 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}},$	∞ , ∞ , ∞	$, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{R_L}}$	$\left(\frac{1}{L_L s}\right)$	 	 	248
10.82INVALID-ORDER-821 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}},$	∞ , ∞ , ∞	$, \frac{L_L s}{C_L L_L s^2 + 1}$	$+R_L$).	 	 	248
10.82PNVALID-ORDER-822 $Z(s) =$	$(R_1 + \frac{1}{C_1 s},$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}},$	∞ , ∞ , ∞	$, \frac{R_L \left(L_L s + \frac{1}{C}\right)}{L_L s + R_L + \frac{1}{C}}$	$\left(\frac{1}{L_L s}\right) \over \frac{1}{C_L s}$	 	 	248
10.82 NVALID-ORDER-823 $Z(s) =$	$(L_1s + \frac{1}{C_1s})$	$R_2, \infty, \infty, \infty$	∞ , R_L) .			 	 	248
10.824NVALID-ORDER-824 $Z(s) =$	$(L_1s + \frac{1}{C_1s},$	$R_2, \infty, \infty, \infty$	$\infty, \frac{1}{C_L s}$).			 	 	248
10.825NVALID-ORDER- 825 $Z(s) =$	$(L_1s + \frac{1}{C_1s},$	$R_2, \infty, \infty, \infty$	∞ , $\frac{\stackrel{'}{R_L}}{C_L R_L s +}$	$\overline{1}$)		 	 	249
10.82 6 NVALID-ORDER-826 $Z(s) =$	$(L_1s + \frac{1}{C_1s},$	$R_2, \infty, \infty, \infty$	∞ , $R_L + \overline{C}$	$\left(\frac{1}{L^s}\right)$		 	 	249
10.82TNVALID-ORDER-827 $Z(s) =$	$(L_1s + \frac{1}{C_1s},$	$R_2, \infty, \infty, \infty$	∞ , $L_L s + \overline{\epsilon}$	$\left(\frac{1}{C_L s}\right)$		 	 	249
10.828NVALID-ORDER-828 $Z(s) =$	$(L_1s + \frac{1}{C_1s},$	$R_2, \infty, \infty, \infty$	∞ , $\frac{L_L s}{C_L L_L s^2}$	$\overline{+1}$)		 	 	249
10.829NVALID-ORDER-829 $Z(s) =$	>			,		 	 	249
10.83 0 NVALID-ORDER-830 $Z(s) =$	$L_1s + \frac{1}{C_1s}$	$R_2, \infty, \infty, \infty$	$\infty, \ \frac{1}{C_L s + \frac{1}{R_I}}$	$\left(\frac{1}{L_L s}\right)$.		 	 	250
10.83INVALID-ORDER-831 $Z(s) =$	$(L_1s + \frac{1}{C_1s},$	$R_2, \infty, \infty, \infty$	∞ , $\frac{L_L s}{C_L L_L s^2}$	$\frac{1}{1+1} + R_L$		 	 	250
10.832NVALID-ORDER-832 $Z(s) =$	$\left(L_1 s + \frac{1}{C_1 s}\right)$	$R_2, \infty, \infty, \infty$	∞ , $\frac{R_L(L_L s)}{L_L s + R_L}$	$\left(\frac{+\frac{1}{C_L s}}{L+\frac{1}{C_L s}}\right)$		 	 	250
10.83\(\text{NVALID-ORDER-833} \) $Z(s) =$	$\left(L_1 s + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2s}$, ∞ , ∞ ,	$\infty, \frac{1}{C_L s}$			 	 	250

10.834NVALID-ORDER-834 Z(s) =	$\left(L_1s + \frac{1}{C_1s},\right.$	$\frac{1}{C_2s}$, ∞ , ∞	$\infty, \infty,$	$\frac{R_L}{C_L R_L s + 1}$)		 	 	 	 250
10.835NVALID-ORDER- 835 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right.$	$\frac{1}{C_2s}$, ∞ , ∞	$\infty, \infty,$	$R_L + \frac{1}{C_L}$	$\left(\frac{1}{s}\right)$		 	 	 	 251
10.836NVALID-ORDER-836 $Z(s) =$	$\dot{L}_1 s + \frac{1}{C_1 s},$	$\frac{1}{C_2s}$, ∞ , ∞	$\infty, \infty,$	$L_L s + \frac{1}{C_I}$	$\left(\frac{1}{2s}\right)$		 	 	 	 251
10.83TNVALID-ORDER-837 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right.$	$\frac{1}{C_2s}$, ∞ , ∞	$\infty, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$	$\left(\frac{1}{1}\right)^{\frac{1}{2}}$		 	 	 	 251
10.83\(\text{NVALID-ORDER-838} \) $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right.$	$\frac{1}{C_2s}$, ∞ , ∞	$\infty, \infty,$	$L_L s + R_L$	$L + \frac{1}{C_L s}$		 	 	 	 251
10.83 9 NVALID-ORDER-839 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right.$	$\frac{1}{C_2s}$, ∞ , ∞	$\infty, \infty,$	$\frac{1}{C_L s + \frac{1}{R_L}}$	$\frac{1}{\frac{1}{L_L s}}$		 	 	 	 251
10.84 ONVALID-ORDER-840 Z(s) =	`			,	, ,		 	 	 	 252
10.84INVALID-ORDER-841 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right.$	$\frac{1}{C_2s}$, ∞ , ∞	$\infty, \infty,$	$R_L \left(L_L s + L_L s + R_L - L_L s + R_L s + R_$	$\left(\frac{1}{C_L s}\right) + \frac{1}{C_L s}$		 	 	 	 252
10.84 2 NVALID-ORDER-842 $Z(s) =$	$(L_1s + \frac{1}{C_1s},$	$\frac{R_2}{C_2R_2s+1}, \ \ c$	$\infty, \infty,$	∞ , R_L			 	 	 	 252
10.84BNVALID-ORDER-843 $Z(s) =$	$(L_1s + \frac{1}{C_1s},$	$\frac{R_2}{C_2R_2s+1}, \ \ ($	∞ , ∞ ,	$\infty, \frac{1}{C_L s}$)		 	 	 	 252
10.84INVALID-ORDER-844 $Z(s) =$	$\dot{L}_1 s + \frac{1}{C_1 s},$	$\frac{R_2}{C_2R_2s+1}, \ \ ($	∞ , ∞ ,	∞ , $\frac{R}{C_L R}$	$\left(\frac{c_L}{Ls+1}\right)$.		 	 	 	 252
10.845NVALID-ORDER- 845 $Z(s) =$	$(L_1s + \frac{1}{C_1s},$	$\frac{R_2}{C_2R_2s+1}, \ \ ($	∞ , ∞ ,	∞ , R_L -	$+\frac{1}{C_L s}$		 	 	 	 253
10.84 6 NVALID-ORDER-846 $Z(s) =$	$\dot{L}_1 s + \frac{1}{C_1 s},$	$\frac{R_2}{C_2R_2s+1}, \ \ $	∞ , ∞ ,	∞ , $L_L s$	$+\frac{1}{C_L s}$		 	 	 	 253
10.84TNVALID-ORDER-847 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right.$	$\frac{R_2}{C_2R_2s+1}, \ \ ($	$\infty, \ \infty,$	∞ , $\frac{L}{C_L L}$	$\left(\frac{Ls}{Ls^2+1}\right)$		 	 	 	 253
10.848NVALID-ORDER-848 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right.$	$\frac{R_2}{C_2R_2s+1}, \ \ ($	∞ , ∞ ,	∞ , $L_L s$	$+R_L+c$	$\frac{1}{C_L s}$	 	 	 	 253
10.849NVALID-ORDER-849 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty, \frac{1}{C_L s}$	$\frac{1}{+\frac{1}{R_L}+\frac{1}{L_L s}}$) .	 	 	 	 253
10.85 ONVALID-ORDER-850 $Z(s) =$	$(L_1s + \frac{1}{C_1s},$	$\frac{R_2}{C_2R_2s+1},$	$\infty, \infty,$	∞ , $\frac{L}{C_L L}$	$\frac{Ls}{Ls^2+1} + I$	\hat{R}_L	 	 	 	 254
10.85INVALID-ORDER-851 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty, \frac{R_L(}{L_L s}$	$\frac{L_L s + \frac{1}{C_L s}}{+R_L + \frac{1}{C_L s}}$	-) .	 	 	 	 254
10.85 2 NVALID-ORDER-852 $Z(s) =$, ·			,	`		 	 	 	 254
10.85 INVALID-ORDER-853 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right.$	$R_2 + \frac{1}{C_2 s},$	∞ , ∞	$\infty, \ \infty, \ \frac{1}{C_L s}$	<u>.</u>		 	 	 	 254
10.854NVALID-ORDER-854 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right.$	$R_2 + \frac{1}{C_2 s},$	∞ , ∞	$0, \infty, \frac{1}{C_L}$	$\frac{R_L}{R_L s+1}$		 	 	 	 254
10.855NVALID-ORDER- 855 $Z(s) =$	$\left(L_1 s + \frac{1}{C_1 s},\right.$	$R_2 + \frac{1}{C_2 s},$	∞ , ∞	∞ , ∞ , R_L	$+\frac{1}{C_L s}$		 	 	 	 255

10.856NVALID-ORDER-856 $Z(s) = \left(\right.$	$L_1s + \frac{1}{C_1s},$	$R_2 + \frac{1}{C_2 s}, \ \infty$	$, \infty, \infty,$	$L_L s + \overline{c}$	$\left(\frac{1}{C_L s}\right)$. 255
10.85 T NVALID-ORDER-857 $Z(s) = 0$	$L_1s + \frac{1}{C_1s}$	$R_2 + \frac{1}{C_2 s}, \ \infty$	$, \infty, \infty,$	$\frac{L_L s}{C_L L_L s^2 +}$	$\overline{+1}$)		 	 	 . 255
10.85\nabla NVALID-ORDER-858 $Z(s) = 0$	$L_1 s + \frac{1}{C_1 s},$	$R_2 + \frac{1}{C_2 s}, \ \infty$	$, \infty, \infty,$	$L_L s + I$	$R_L + \frac{1}{C_L s}$)	 	 	 . 255
10.85 9 NVALID-ORDER-859 $Z(s) = \left(\frac{1}{2} \right)$	$L_1s + \frac{1}{C_1s},$	$R_2 + \frac{1}{C_2 s}, \ \infty$	∞ , ∞ , ∞ ,	$\frac{1}{C_L s + \frac{1}{R_L}}$	$\left(\frac{1}{L_L s}\right)$. 255
10.86 0 NVALID-ORDER-860 $Z(s) = \left(\right.$	$L_1s + \frac{1}{C_1s}$	$R_2 + \frac{1}{C_2 s}, \ \infty$	$, \infty, \infty,$	$\frac{L_L s}{C_L L_L s^2 +}$	$\overline{+1} + R_L$. 256
10.86INVALID-ORDER-861 $Z(s) = \left(\right.$	$L_1s + \frac{1}{C_1s},$	$R_2 + \frac{1}{C_2 s}, \ \infty$	∞ , ∞ , ∞ ,	$R_L \left(L_L s + L_L s + R_L $	$\left(\frac{+\frac{1}{C_L s}}{L+\frac{1}{C_L s}}\right)$. 256
10.86 2 NVALID-ORDER-862 $Z(s) = \left(\right.$	$L_1s + \frac{1}{C_1s}$	$L_2s + \frac{1}{C_2s}, \ \infty$	$\infty, \infty, \infty,$	$, R_L$. 256
10.86 3 NVALID-ORDER-863 $Z(s) = 0$	$L_1s + \frac{1}{C_1s}$	$L_2s + \frac{1}{C_2s}, \ \infty$	$\infty, \infty, \infty,$	$, \frac{1}{C_L s}$. 256
10.864NVALID-ORDER-864 $Z(s) = 0$	$L_1 s + \frac{1}{C_1 s},$	$L_2s + \frac{1}{C_2s}, \ \infty$	$\infty, \infty, \infty,$	$\frac{R_L}{C_L R_L s}$	$\overline{+1}$)		 	 	 . 256
10.86 INVALID-ORDER-865 $Z(s) = ($	$L_1s + \frac{1}{C_1s}$	$L_2s + \frac{1}{C_2s}, \ \infty$	$\infty, \infty, \infty,$	$R_L + \overline{C}$	$\left(\frac{1}{C_L s}\right)$. 257
10.866NVALID-ORDER-866 $Z(s) = 0$	$L_1 s + \frac{1}{C_1 s},$	$L_2s + \frac{1}{C_2s}, \ \infty$	$\infty, \infty, \infty,$	$, L_L s +$	$\frac{1}{C_L s}$)		 	 	 . 257
10.86 T NVALID-ORDER-867 $Z(s) = 0$	$L_1s + \frac{1}{C_1s},$	$L_2s + \frac{1}{C_2s}, \ \infty$	$\infty, \infty, \infty,$	$\frac{L_L s}{C_L L_L s^2}$	$\left(\frac{1}{1+1}\right)$. 257
10.86\nabla NVALID-ORDER-868 $Z(s) = \left(\begin{array}{c} \\ \end{array} \right)$	$L_1s + \frac{1}{C_1s},$	$L_2s + \frac{1}{C_2s}, \ \infty$	$\infty, \infty, \infty,$	$L_L s + 1$	$R_L + \frac{1}{C_L s}$	$\left(\frac{1}{2}\right)$. 257
10.86 9 NVALID-ORDER-869 $Z(s) = \left(\right.$	$L_1s + \frac{1}{C_1s},$	$L_2s + \frac{1}{C_2s}, \circ$	∞ , ∞ , ∞	$, \frac{1}{C_L s + \frac{1}{R}}$	$\left(\frac{1}{L} + \frac{1}{L_L s}\right)$. 257
10.870NVALID-ORDER-870 $Z(s) = \left(\right.$	$L_1s + \frac{1}{C_1s}$	$L_2s + \frac{1}{C_2s}, \ \infty$	$\infty, \infty, \infty,$	$\frac{L_L s}{C_L L_L s^2}$	$\frac{1}{r+1} + R_L$)	 	 	 . 258
10.87INVALID-ORDER-871 $Z(s) = \left(\begin{array}{c} 1 & 1 \\ 1 & 1 \end{array}\right)$	$L_1s + \frac{1}{C_1s},$	$L_2s + \frac{1}{C_2s}, \ \circ$	∞, ∞, ∞	$, \frac{R_L \left(L_L + \frac{1}{L_L s + R}\right)}{L_L s + R}$	$\frac{s + \frac{1}{C_L s}}{R_L + \frac{1}{C_L s}}$. 258
10.872NVALID-ORDER-872 $Z(s) = \left(\right.$	$L_1s + \frac{1}{C_1s}$	$L_2s + R_2 + \overline{c}$	$\frac{1}{C_{2}s}$, ∞ , ∞	∞ , ∞ , R	R_L)		 	 	 . 258
10.87 3 NVALID-ORDER-873 $Z(s) = 0$	$L_1s + \frac{1}{C_1s}$	$L_2s + R_2 + \overline{c}$	$\frac{1}{C_{2}s}$, ∞ , ∞	∞ , ∞ , \overline{c}	$\left(\frac{1}{C_L s}\right)$. 258
10.874NVALID-ORDER-874 $Z(s) = 0$	$L_1s + \frac{1}{C_1s}$	$L_2s + R_2 + \overline{c}$	$\frac{1}{C_{2s}}$, ∞ , ∞	∞ , ∞ , \overline{c}	$\left(\frac{R_L}{C_L R_L s + 1}\right)$. 258
10.875NVALID-ORDER-875 $Z(s) = 0$	$L_1 s + \frac{1}{C_1 s},$	$L_2s + R_2 + \overline{c}$	$\frac{1}{C_2s}$, ∞ , ∞	∞ , ∞ , R	$R_L + \frac{1}{C_L s}$. 259
10.876NVALID-ORDER-876 $Z(s) = 0$	$L_1 s + \frac{1}{C_1 s},$	$L_2s + R_2 + \overline{c}$	$\frac{1}{C_{2s}}$, ∞ , ∞	∞ , ∞ , L	$L_L s + \frac{1}{C_L s}$)	 	 	 . 259
10.87 INVALID-ORDER-877 $Z(s) = ($	$L_1s + \frac{1}{C_1s}$	$L_2s + R_2 + \overline{c}$	$\frac{1}{Z_{2}s}$, ∞ , ∞	$\infty, \infty, \overline{C}$	$\left(\frac{L_L s}{C_L L_L s^2 + 1}\right)$. 259

10.87&NVALID-ORDER-878 $Z(s) = ($	$L_1s + \frac{1}{C_1s}, \ L_2s + R_2 + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ L_Ls + R_L + \frac{1}{C_Ls}$
10.879NVALID-ORDER-879 $Z(s)=\langle$	$L_1s + \frac{1}{C_1s}, \ L_2s + R_2 + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}} $
10.88©NVALID-ORDER-880 $Z(s) = ($	$L_1s + \frac{1}{C_1s}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_{Ls}}{C_LL_Ls^2 + 1} + R_L$
10.88INVALID-ORDER-881 $Z(s) = 1$	$L_1s + \frac{1}{C_1s}, \ L_2s + R_2 + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right) \ \dots \ $
10.882NVALID-ORDER-882 $Z(s) = ($	$L_1s + \frac{1}{C_1s}, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ R_L$
	$L_1s + \frac{1}{C_1s}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{1}{C_Ls}$
	$\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) $
10.88 INVALID-ORDER-885 $Z(s) = 0$	$L_1s + \frac{1}{C_1s}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}$
	$L_1s + \frac{1}{C_1s}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}$
10.88TNVALID-ORDER-887 $Z(s) = 0$	$L_1s + \frac{1}{C_1s}, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1}$
10.88\(\text{NVALID-ORDER-888} \(Z(s) = \)	$L_1s + \frac{1}{C_1s}, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ L_Ls + R_L + \frac{1}{C_Ls}$
10.88 9 NVALID-ORDER-889 $Z(s) = 1$	$L_1s + \frac{1}{C_1s}, \ \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}} $
10.89©NVALID-ORDER-890 $Z(s) = ($	$L_1s + \frac{1}{C_1s}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L$
10.89INVALID-ORDER-891 $Z(s) = 1$	$L_1s + \frac{1}{C_1s}, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right) $
10.89 2 NVALID-ORDER-892 $Z(s) = 1$	$L_1s + \frac{1}{C_1s}, \ \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ R_L$
10.89\$NVALID-ORDER-893 $Z(s) = 1$	$L_1s + \frac{1}{C_1s}, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \frac{1}{C_Ls}$
10.894NVALID-ORDER-894 $Z(s) = 1$	$L_1s + \frac{1}{C_1s}, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}$
10.89\$NVALID-ORDER-895 $Z(s) = 1$	$L_1s + \frac{1}{C_1s}, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}$
10.896NVALID-ORDER-896 $Z(s) = 1$	$L_1s + \frac{1}{C_1s}, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}$
10.89 T NVALID-ORDER-897 $Z(s) = 1$	$L_1s + \frac{1}{C_1s}, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}$

C_1s C_2s C_2s C_2s C_2s	263
	263
$\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, \infty, \frac{L_{L}s}{C_{L}L_{L}s^{2} + 1} + R_{L}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $	264
$\left(L_{1}s + \frac{1}{C_{1}s}, \frac{R_{2}\left(L_{2}s + \frac{1}{C_{2}s}\right)}{L_{2}s + R_{2} + \frac{1}{C_{2}s}}, \infty, \infty, \infty, \infty, \frac{R_{L}\left(L_{L}s + \frac{1}{C_{L}s}\right)}{L_{L}s + R_{L} + \frac{1}{C_{L}s}}\right) \dots \dots$	264
$\left(\frac{L_1s}{C_1L_1s^2+1},\ R_2,\ \infty,\ \infty,\ \infty,\ R_L\right)$	264
$\left(\frac{L_1s}{C_1L_1s^2+1},\ R_2,\ \infty,\ \infty,\ \frac{1}{C_Ls}\right)$	264
$\left(\frac{L_1s}{C_1L_1s^2+1},\ R_2,\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$	264
$\left(\frac{L_1s}{C_1L_1s^2+1}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$	265
$\left(\frac{L_1s}{C_1L_1s^2+1},\ R_2,\ \infty,\ \infty,\ \infty,\ L_Ls+\frac{1}{C_Ls}\right)$	265
$\left(\frac{L_1s}{C_1L_1s^2+1}, R_2, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)'$	265
$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$	265
$\left(\frac{L_1s}{C_1L_1s^2+1}, R_2, \infty, \infty, \infty, \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$	265
$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	266
$\left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}, R_{2}, \infty, \infty, \infty, \frac{R_{L}\left(L_{L}s+\frac{1}{C_{L}s}\right)}{L_{L}s+R_{L}+\frac{1}{C_{L}s}}\right)$	266
$\left(\frac{L_1s}{C_1L_1s^2+1}, \frac{1}{C_2s}, \infty, \infty, \infty, \infty, R_L\right)$	266
$\left(\frac{L_1s}{C_1L_1s^2+1}, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$	266
$\left(\frac{L_1s}{C_1L_1s^2+1}, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$	266
$\left(\frac{L_1s}{C_1L_1s^2+1}, \frac{1}{C_2s}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$	267
$\left(\frac{L_1s}{C_1L_1s^2+1}, \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$	267
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	267
$\left(\frac{L_1s}{C_1L_1s^2+1}, \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$	267
	$ \begin{pmatrix} L_1 s + \frac{1}{C_1 s}, & R_2 (L_2 s + \frac{1}{C_2 s}) \\ L_2 s + \frac{1}{C_1 s}, & R_2 (L_2 s + \frac{1}{C_2 s}) \\ L_2 s + \frac{1}{C_1 s}, & R_2 (L_2 s + \frac{1}{C_2 s}) \\ L_2 s + \frac{1}{C_1 s}, & R_2 (L_2 s + \frac{1}{C_2 s}) \\ L_2 s + \frac{1}{C_1 s}, & R_2 (L_2 s + \frac{1}{C_2 s}) \\ L_2 s + \frac{1}{C_1 s}, & R_2 (L_2 s + \frac{1}{C_2 s}) \\ L_2 s + \frac{1}{C_1 s}, & \frac{1}{C_2 s + C_2 s}, & \infty, \infty, \infty, \frac{1}{C_1 L_1 s^2 + 1} + R_L) \end{pmatrix} $ $ \begin{pmatrix} L_1 s + \frac{1}{C_1 s}, & R_2 (L_2 s + \frac{1}{C_2 s}) \\ L_2 s + R_2 + \frac{1}{C_2 s}, & R_2 (L_2 s + \frac{1}{C_2 s}) \\ L_2 s + R_2 + \frac{1}{C_2 s}, & R_2 (L_2 s + \frac{1}{C_2 s}) \\ \end{pmatrix} $ $ \begin{pmatrix} \frac{L_1 s}{C_1 L_1 s^2 + 1}, & R_2, \infty, \infty, \infty, \infty, \frac{R_L}{C_L s} \\ \frac{L_1 s}{C_1 L_1 s^2 + 1}, & R_2, \infty, \infty, \infty, \frac{R_L}{C_L s} \\ \end{pmatrix} $ $ \begin{pmatrix} \frac{L_1 s}{C_1 L_1 s^2 + 1}, & R_2, \infty, \infty, \infty, & R_L + \frac{1}{C_L s} \\ \end{pmatrix} $ $ \begin{pmatrix} \frac{L_1 s}{C_1 L_1 s^2 + 1}, & R_2, \infty, \infty, \infty, & L_L s + \frac{1}{C_L s} \\ \end{pmatrix} $ $ \begin{pmatrix} \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} \\ \end{pmatrix} $ $ \begin{pmatrix} \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} \\ \end{pmatrix} $ $ \begin{pmatrix} \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} \\ \end{pmatrix} $ $ \begin{pmatrix} \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} \\ \end{pmatrix} $ $ \begin{pmatrix} \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} \\ \end{pmatrix} $ $ \begin{pmatrix} \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} \\ \end{pmatrix} $ $ \begin{pmatrix} \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} \\ \end{pmatrix} $ $ \begin{pmatrix} \frac{L_1 s}{C_1 L_1 s^2 + 1}, & \frac{L_2 s}{C_2 s}, \infty, \infty, \infty, & \frac{L_L s}{C_L L_L s^2 + 1} \\ \end{pmatrix} $ $ \begin{pmatrix} \frac{L_1 s}{C_1 L_1 s^2 + 1}, & \frac{L_2 s}{C_2 s}, \infty, \infty, \infty, & \frac{L_L s}{C_L L_L s^2 + 1} \\ \end{pmatrix} $ $ \begin{pmatrix} \frac{L_1 s}{C_1 L_1 s^2 + 1}, & \frac{L_2 s}{C_2 s}, \infty, \infty, \infty, & \frac{L_L s}{C_L L_L s^2 + 1} \\ \end{pmatrix} $ $ \begin{pmatrix} \frac{L_1 s}{C_1 L_1 s^2 + 1}, & \frac{L_2 s}{C_2 s}, \infty, \infty, \infty, & \frac{L_L s}{C_L L_L s^2 + 1} \\ \end{pmatrix} $ $ \begin{pmatrix} \frac{L_1 s}{C_1 L_1 s^2 + 1}, & \frac{L_2 s}{C_2 s}, \infty, \infty, \infty, & \frac{L_L s}{C_L L_L s^2 + 1} \\ \end{pmatrix} $ $ \begin{pmatrix} \frac{L_1 s}{C_1 L_1 s^2 + 1}, & \frac{L_2 s}{C_2 s}, \infty, \infty, \infty, & \frac{L_L s}{C_L L_L s^2 + 1} \\ \end{pmatrix} $ $ \begin{pmatrix} \frac{L_1 s}{C_1 L_1 s^2 + 1}, & \frac{L_2 s}{C_2 s}, \infty, \infty, \infty, & \frac{L_L s}{C$

10.91 9 NVALID-ORDER-919 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞ ,	$\overline{C_L s}$	$\frac{1}{+\frac{1}{R_L}+\frac{1}{L_L s}}$)		 	 	 	 	 . 267
10.92 0 NVALID-ORDER-920 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞ ,	$\frac{I}{C_L L}$	$\frac{L_L s}{L s^2 + 1} + R$	L		 	 	 	 	 . 268
10.92INVALID-ORDER-921 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{1}{C_2s}$, ∞ ,	∞ , ∞ ,	$\frac{R_L}{L_L}$	$\frac{\left(L_L s + \frac{1}{C_L s}\right)}{s + R_L + \frac{1}{C_L s}}$)		 	 	 	 	 . 268
10.92 2 NVALID-ORDER-922 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞ ,	∞ ,	R_L)			 	 	 	 	 . 268
10.92 \$ NVALID-ORDER-923 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞ ,	∞ ,	$\frac{1}{C_L s}$.			 	 	 	 	 . 268
10.924NVALID-ORDER-924 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞ ,	∞ ,	$\frac{R_L}{C_L R_L s + 1}$. 268
10.925NVALID-ORDER-925 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞ ,	∞ ,	$R_L + \frac{1}{C_L s}$	$\left(\cdot \right) \cdot \cdot$. 269
10.926NVALID-ORDER-926 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞ ,	∞ ,	$L_L s + \frac{1}{C_L}$	$\left(\frac{s}{s}\right)$.		 	 	 	 	 . 269
10.92 T NVALID-ORDER-927 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞ ,	∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$)		 	 	 	 	 . 269
10.92\NVALID-ORDER-928 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞ ,	∞ ,	$L_L s + R_L$	$L + \frac{1}{C_L s}$. 269
10.92 9 NVALID-ORDER-929 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2}{C_2R_2s+1}$	$, \infty, \infty$	$, \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} +}$	$\left(\frac{1}{L_L s}\right)$. 269
10.93 0 NVALID-ORDER-930 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$. 270
10.93INVALID-ORDER-931 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2}{C_2R_2s+1}$	$, \infty, \infty$	$, \infty,$	$\frac{R_L \left(L_L s + \frac{1}{2}\right)}{L_L s + R_L + \frac{1}{2}}$	$\left(\frac{\frac{1}{C_L s}}{\frac{1}{C_L s}}\right)$	•	 	 	 	 	 . 270
10.93 2 NVALID-ORDER-932 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$. 270
10.93 % NVALID-ORDER-933 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$R_2 + \frac{1}{C_2 s}$	∞ , ∞ , ∞	∞	$, \frac{R_L}{C_L R_L s + 1}$. 270
10.934NVALID-ORDER-934 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$R_2 + \frac{1}{C_2 s}$	$\frac{1}{2}$, ∞ , ∞	∞	$, R_L + \frac{1}{C_L}$	\overline{s} .		 	 	 	 	 . 270
10.935NVALID-ORDER-935 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$R_2 + \frac{1}{C_2 s}$	$\frac{1}{2}$, ∞ , ∞), ∞	$L_L s + \overline{C}$	$\left(\frac{1}{L^s}\right)$.		 	 	 	 	 . 271
10.936NVALID-ORDER-936 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$R_2 + \frac{1}{C_2 s}$	$\frac{1}{2}$, ∞ , ∞), ∞	$, \frac{L_L s}{C_L L_L s^2 +}$	$\overline{1}$) .		 	 	 	 	 . 271
10.93 T NVALID-ORDER-937 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$R_2 + \frac{1}{C_2 s}$	∞ , ∞ , ∞	∞	$, L_L s + R$	$L + \frac{1}{C_L}$	\overline{s}	 	 	 	 	 . 271
10.93\NVALID-ORDER-938 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$R_2 + \frac{1}{C_2 s}$	$\frac{1}{8}$, ∞ , ∞	o, ∞	$, \frac{1}{C_L s + \frac{1}{R_L}}$	$\frac{1}{+\frac{1}{L_L s}}$. 271
10.93 9 NVALID-ORDER-939 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$R_2 + \frac{1}{C_2 s}$	$\frac{1}{2}$, ∞ , ∞	∞	$, \frac{L_L s}{C_L L_L s^2 +}$	$\overline{1} + R_L$. 271
10.940NVALID-ORDER-940 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$R_2 + \frac{1}{C_{2}}$	$\frac{1}{8}$, ∞ , ∞	o, ∞	$, R_L \left(L_L s + L_L s + R_L s + R_$	$\left(\frac{1}{C_L^s}\right) + \frac{1}{C_L^s}$. 272

10.94INVALID-ORDER-941 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2s\right)$	$s + \frac{1}{C_2 s}, \ \infty,$	∞ , ∞ ,	R_L).			 	 	 272
10.94 2 NVALID-ORDER-942 $Z(s) =$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2\right)$	$s + \frac{1}{C_2 s}, \ \infty,$	∞ , ∞ ,	$\frac{1}{C_L s}$			 	 	 272
10.94 NVALID-ORDER- 943 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2\right)$	$s + \frac{1}{C_2 s}, \ \infty,$	∞ , ∞ ,	$\frac{R_L}{C_L R_L s + 1}$	$_{\overline{1}}$)		 	 	 272
10.94INVALID-ORDER-944 $Z(s) =$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2\right)$	$s + \frac{1}{C_2 s}, \ \infty,$	∞ , ∞ ,	$R_L + \frac{1}{C_I}$	$\left(\frac{1}{Ls}\right)$		 	 	 272
10.945NVALID-ORDER-945 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2\right)$	$s + \frac{1}{C_2 s}, \ \infty,$	∞ , ∞ ,	$L_L s + \overline{c}$	$\left(\frac{1}{C_L s}\right)$		 	 	 273
10.94 6 NVALID-ORDER-946 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2s\right)$	$s + \frac{1}{C_2 s}, \ \infty,$	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 +}$	$\overline{-1}$)		 	 	 273
10.94TNVALID-ORDER- 947 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2s\right)$	$s + \frac{1}{C_2 s}, \ \infty,$	∞ , ∞ ,	$L_L s + R$	$R_L + \frac{1}{C_L s}$		 	 	 273
10.94\nstructure NVALID-ORDER-948 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2\right)$	$s + \frac{1}{C_2 s}, \ \infty,$	∞ , ∞ ,	$\frac{1}{C_L s + \frac{1}{R_L}}$	$\left(\frac{1}{1+\frac{1}{L_L s}}\right)$.		 	 	 273
10.949NVALID-ORDER-949 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2\right)$	$s + \frac{1}{C_2 s}, \ \infty,$	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 +}$	$\overline{-1} + R_L$		 	 	 273
10.95 ONVALID-ORDER- 950 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2\right)$	$s + \frac{1}{C_2 s}, \ \infty,$	$\infty, \infty,$	$\frac{R_L \left(L_L s - L_L s + R_L \right)}{L_L s + R_L}$	$\left(\frac{+\frac{1}{C_L s}}{+\frac{1}{C_L s}}\right)$		 	 	 274
10.95INVALID-ORDER- 951 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2\right)$	$s + R_2 + \frac{1}{C_2 s},$	∞ , ∞	$, \infty, R_I$	L)		 	 	 274
10.95 2 NVALID-ORDER-952 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2\right)$	$s + R_2 + \frac{1}{C_2 s},$	∞ , ∞	$, \infty, \frac{1}{C_L}$	$\left(\frac{1}{\sqrt{s}}\right)$		 	 	 274
10.95 NVALID-ORDER-953 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2s\right)$	$s + R_2 + \frac{1}{C_2 s},$	∞ , ∞	$, \infty, \overline{C_L}$	$\left(\frac{R_L}{R_L s+1}\right)$		 	 	 274
10.954NVALID-ORDER-954 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2s\right)$	$s + R_2 + \frac{1}{C_2 s},$	∞ , ∞	$, \infty, R_I$	$\left(1 + \frac{1}{C_L s}\right)$		 	 	 274
10.95 INVALID-ORDER- 955 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2s\right)$	$s + R_2 + \frac{1}{C_2 s},$	∞ , ∞	$, \infty, L_L$	$\left(s + \frac{1}{C_L s} \right)$		 	 	 275
10.95 CNVALID-ORDER- 956 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2s\right)$	$s + R_2 + \frac{1}{C_2 s},$	∞ , ∞	$, \infty, \overline{C_L}$	$\left(\frac{L_L s}{L_L s^2 + 1}\right)$		 	 	 275
10.95TNVALID-ORDER- 957 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2s\right)$	$s + R_2 + \frac{1}{C_2 s},$	∞ , ∞	$, \infty, L_L$	$Ls + R_L +$	$-\frac{1}{C_L s}$	 	 	 275
10.95 NVALID-ORDER-958 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2\right)$	$s + R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$	∞ , ∞ , \overline{C}_{I}	$\frac{1}{Ls + \frac{1}{R_L} + \frac{1}{L_I}}$	$\left(\frac{1}{2s}\right)$.	 	 	 275
10.959NVALID-ORDER-959 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2\right)$	$s + R_2 + \frac{1}{C_2 s},$	∞ , ∞	$, \infty, \overline{C_L}$	$\frac{L_L s}{L_L s^2 + 1} +$	R_L) .	 	 	 275
10.96 ONVALID-ORDER-960 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, L_2\right)$	$s + R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$	$\infty, \infty, \frac{R_I}{L_I}$	$\frac{L\left(L_L s + \frac{1}{C_L}\right)}{L_L s + R_L + \frac{1}{C_L}}$	$\left(\frac{\overline{s}}{\overline{c}s}\right)$.	 	 	 276
10.96INVALID-ORDER-961 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \overline{C_2}\right)$	$\frac{L_2s}{L_2s^2+1} + R_2,$	∞ , ∞ ,	∞ , R_L)		 	 	 276
10.96 2 NVALID-ORDER-962 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \frac{C_2}{C_2}\right)$	$\frac{L_2s}{L_2s^2+1} + R_2,$	∞ , ∞ ,	∞ , $\frac{1}{C_L s}$	· · · · ·		 	 	 276

10.96BNVALID-ORDER-963 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{L_2s}{C_2L_2s^2+1} + R_2,$	∞ , ∞ , ∞	$\left(\frac{R_L}{C_L R_L s + 1}\right)$		 	 	276
10.964NVALID-ORDER-964 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,$	∞ , ∞ , ∞	$R_L + \frac{1}{C_L s}$)	 	 	276
10.965NVALID-ORDER- 965 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,$	∞ , ∞ , ∞	$L_L s + \frac{1}{C_L s}$	$\left(\frac{1}{5}\right)$	 	 	277
10.96 6 NVALID-ORDER-966 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,$	∞ , ∞ , ∞	$, \frac{L_L s}{C_L L_L s^2 + 1}$)	 	 	277
10.96TNVALID-ORDER- 967 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{L_2s}{C_2L_2s^2+1} + R_2,$	∞ , ∞ , ∞	$, L_L s + R_L$	$+\frac{1}{C_L s}$).	 	 	277
10.96&NVALID-ORDER-968 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{L_2s}{C_2L_2s^2+1} + R_2,$	∞ , ∞ , ∞	$C, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{R_L}}$	$\frac{1}{L_L s}$	 	 	277
10.969NVALID-ORDER-969 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{L_2s}{C_2L_2s^2+1} + R_2,$	∞ , ∞ , ∞	$, \frac{L_L s}{C_L L_L s^2 + 1}$	$+R_L$) .	 	 	277
10.97 0 NVALID-ORDER-970 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2,$	∞ , ∞ , ∞	$\supset, \frac{R_L \left(L_L s + \frac{1}{C}\right)}{L_L s + R_L + \frac{1}{C}}$	$\left(\frac{\frac{1}{C_L s}}{\frac{1}{C_L s}}\right)$	 	 	278
10.97 I NVALID-ORDER-971 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, ($	∞ , ∞ , ∞ ,	R_L)		 	 	278
10.97 2 NVALID-ORDER-972 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, ($	∞ , ∞ , ∞ ,	$\frac{1}{C_L s}$		 	 	278
10.97 & NVALID-ORDER-973 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, ($	$\infty, \ \infty, \ \infty,$	$\frac{R_L}{C_L R_L s + 1}$		 	 	278
10.974NVALID-ORDER-974 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, ($	$\infty, \ \infty, \ \infty,$	$R_L + \frac{1}{C_L s}$		 	 	278
10.975NVALID-ORDER-975 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, ($	∞ , ∞ , ∞ ,	$L_L s + \frac{1}{C_L s}$		 	 	279
10.976NVALID-ORDER- 976 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, ($	∞ , ∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 	279
10.97INVALID-ORDER- $977 Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, ($	$\infty, \ \infty, \ \infty,$	$L_L s + R_L +$	$-\frac{1}{C_L s}$.	 	 	279
10.97&NVALID-ORDER-978 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, ($	∞ , ∞ , ∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_I}}$	$\left(\frac{1}{\sqrt{s}}\right)$	 	 	279
10.97 9 NVALID-ORDER-979 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, ($	$\infty, \ \infty, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} +$	$-R_L$)	 	 	279
10.98 ONVALID-ORDER- $980~Z(s) =$	•	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, ($,	· · ·	 	 	280
10.98INVALID-ORDER-981 $Z(s) =$	$(L_1s + R_1 +$	$+\frac{1}{C_1s}, R_2, \infty,$	∞ , ∞ , R_L	,		 	 	280

10.98 2 NVALID-ORDER-982 $Z(s) =$	$\left(L_1s + R_1 + \frac{1}{C_1s},\right.$	$R_2, \infty, \infty,$	∞ , $\bar{\epsilon}$	$\left(\frac{1}{C_L s}\right) \cdot \cdot \cdot$		 	 	 	280
10.983NVALID-ORDER-983 $Z(s) =$	$(L_1s + R_1 + \frac{1}{C_1s}),$	$R_2, \infty, \infty,$	∞ , $\bar{\epsilon}$	$\frac{R_L}{C_L R_L s + 1}$		 	 	 	280
10.984NVALID-ORDER-984 $Z(s) =$	$(L_1s + R_1 + \frac{1}{C_1s}),$	$R_2, \infty, \infty,$	∞ , I	$R_L + \frac{1}{C_L s}$		 	 	 	280
10.985NVALID-ORDER-985 $Z(s) =$	$(L_1s + R_1 + \frac{1}{C_1s},$	$R_2, \infty, \infty,$	∞ , I	$L_L s + \frac{1}{C_L s}$		 	 	 	281
10.98 6 NVALID-ORDER-986 $Z(s) =$	$\left(L_1s + R_1 + \frac{1}{C_1s},\right.$	$R_2, \infty, \infty,$	∞ , \bar{c}	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 	 	281
10.98 T NVALID-ORDER-987 $Z(s) =$	$\left(L_1s + R_1 + \frac{1}{C_1s},\right.$	$R_2, \infty, \infty,$	∞ , I	$L_L s + R_L +$	$\frac{1}{C_L s}$	 	 	 	281
10.98 NVALID-ORDER-988 $Z(s) =$	$\left(L_1s + R_1 + \frac{1}{C_1s},\right.$	$R_2, \infty, \infty,$	∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L}}$	$\frac{1}{s}$.	 	 	 	281
10.98 9 NVALID-ORDER-989 $Z(s) =$	$\left(L_1s + R_1 + \frac{1}{C_1s},\right.$	$R_2, \infty, \infty,$	∞ , \bar{c}	$\frac{L_L s}{C_L L_L s^2 + 1} +$	R_L	 	 	 	281
10.99©NVALID-ORDER-990 $Z(s) =$	$\left(L_1s + R_1 + \frac{1}{C_1s},\right.$	$R_2, \infty, \infty,$	∞ ,	$\frac{R_L \left(L_L s + \frac{1}{C_L s} $	$\left(\frac{1}{s}\right)$.	 	 	 • • • • • •	282
10.99 I NVALID-ORDER-991 $Z(s) =$	$(L_1s + R_1 + \frac{1}{C_1s}),$	$\frac{1}{C_2s}$, ∞ , ∞ ,	∞	R_L)		 	 	 	282
10.99 2 NVALID-ORDER-992 $Z(s) =$	$\left(L_1s + R_1 + \frac{1}{C_1s},\right.$	$\frac{1}{C_2s}$, ∞ , ∞ ,	∞ ,	$\frac{1}{C_L s}$)		 	 	 	282
10.99 B NVALID-ORDER-993 $Z(s) =$	$\left(L_1s + R_1 + \frac{1}{C_1s},\right.$	$\frac{1}{C_2s}$, ∞ , ∞ ,	∞	$\frac{R_L}{C_L R_L s + 1}$		 	 	 	282
10.994NVALID-ORDER-994 $Z(s) =$	$\left(L_1s + R_1 + \frac{1}{C_1s},\right.$	$\frac{1}{C_2s}$, ∞ , ∞ ,	∞	$R_L + \frac{1}{C_L s}$		 	 	 	282
10.995NVALID-ORDER-995 $Z(s) =$	$\left(L_1s + R_1 + \frac{1}{C_1s},\right.$	$\frac{1}{C_2s}$, ∞ , ∞ ,	∞ ,	$L_L s + \frac{1}{C_L s}$		 	 	 	283
10.99 CONVALID-ORDER-996 $Z(s) =$	$\left(L_1s + R_1 + \frac{1}{C_1s},\right.$	$\frac{1}{C_2s}$, ∞ , ∞ ,	∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} \bigg)$		 	 	 	283
10.99 T NVALID-ORDER-997 $Z(s) =$	$\left(L_1s + R_1 + \frac{1}{C_1s},\right.$	$\frac{1}{C_2 s}$, ∞ , ∞ ,	∞ ,	$L_L s + R_L +$	$-\frac{1}{C_L s}$	 	 	 	283
10.99&NVALID-ORDER-998 $Z(s) =$	$\left(L_1s + R_1 + \frac{1}{C_1s},\right.$	$\frac{1}{C_2 s}$, ∞ , ∞	$, \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L}}$	$\left(\frac{1}{L^s}\right)$	 	 	 	283
10.99 9 NVALID-ORDER-999 $Z(s) =$	$\left(L_1s + R_1 + \frac{1}{C_1s},\right.$	$\frac{1}{C_2s}$, ∞ , ∞ ,	∞	$\frac{L_L s}{C_L L_L s^2 + 1} +$	$-R_L$	 	 	 	283
10.10 ON VALID-ORDER- $1000 \ Z(s) =$	$= \left(L_1 s + R_1 + \frac{1}{C_1 s}\right)$	$\frac{1}{C_2s}$, $\frac{1}{C_2s}$, ∞ , o	o, ∞	$\frac{R_L \left(L_L s + \frac{1}{C}\right)}{L_L s + R_L + \frac{1}{C}}$	$\left(\frac{1}{L^s}\right)$ $\left(\frac{1}{C_L^s}\right)$	 	 	 	284
10.10 0N VALID-ORDER-1001 $Z(s)$ =	$= \left(L_1 s + R_1 + \frac{1}{C_1 s}\right)$	$\frac{R_2}{C_2R_2s+1}$, c	∞, ∞	$, \infty, R_L$		 	 	 	284
10.10 0X VALID-ORDER-1002 $Z(s)$ =	$= \left(L_1 s + R_1 + \frac{1}{C_1 s}\right)$	$\frac{R_2}{C_2R_2s+1}$, c	∞ , ∞	$, \infty, \frac{1}{C_L s}$		 	 	 	284
10.10 ON VALID-ORDER- 1003 $Z(s) =$	$= \left(L_1 s + R_1 + \frac{1}{C_1 s}\right)$	$\frac{R_2}{C_2R_2s+1}$, c	∞ , ∞	$, \infty, \frac{R_L}{C_L R_L}$	$\frac{1}{s+1}$	 	 	 	284

10.100MVALID-ORDER-1004 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty\right)$	$R_{L} + \frac{1}{C_{L}s}$
10.100NVALID-ORDER-1005 $Z(s) = (L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty)$, $L_L s + \frac{1}{C_L s}$ $\ldots \ldots \ldots$
10.1000 VALID-ORDER-1006 $Z(s) = (L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty)$	$, \frac{L_L s}{C_L L_L s^2 + 1}$ $\qquad \qquad \qquad$
10.100NVALID-ORDER-1007 $Z(s) = (L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty)$	$L_{L}s + R_{L} + \frac{1}{C_{L}s}$
10.10 0N VALID-ORDER-1008 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty\right)$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$
10.10 DN VALID-ORDER-1009 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty\right)$	$, \frac{L_L s}{C_L L_L s^2 + 1} + R_L $
10.10 IN VALID-ORDER-1010 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty\right)$	$, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} $
10.10INVALID-ORDER-1011 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)$	$\circ,\;R_L\Big)$
10.10 IN VALID-ORDER-1012 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty \right)$	$\circ, \frac{1}{C_L s}$ $\cdots \cdots \cdots$
10.10 IN VALID-ORDER-1013 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty \right)$	$\circ, \frac{R_L}{C_L R_L s + 1}$
10.10INVALID-ORDER-1014 $Z(s) = (L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty)$	$\circ, R_L + \frac{1}{C_L s}$ $\cdots \cdots \cdots$
10.10 INVALID-ORDER-1015 $Z(s) = (L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty)$	$\circ, L_L s + \frac{1}{C_L s}$ $\cdots \cdots \cdots$
10.10 IN VALID-ORDER-1016 $Z(s) = (L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty)$	$\circ, \frac{L_L s}{C_L L_L s^2 + 1}$
10.10INVALID-ORDER-1017 $Z(s) = (L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty)$	\circ , $L_L s + R_L + \frac{1}{C_L s}$ \circ
10.10 IN VALID-ORDER-1018 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)$	$\infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right) \dots $
10.10 IN VALID-ORDER-1019 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty \right)$	$\circ, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \bigg) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.10 2N VALID-ORDER-1020 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \right)$	$ \otimes, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} \qquad \qquad$
10.102NVALID-ORDER-1021 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \right)$	∞, R_L)
10.10 2N VALID-ORDER-1022 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \right)$	$\infty, \frac{1}{C_L s}$)
10.10 2N VALID-ORDER-1023 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \right)$	∞ , $\frac{R_L}{C_L R_L s + 1}$)
10.102N VALID-ORDER-1024 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \right)$	∞ , $R_L + \frac{1}{C_L s}$ (288)
10.10 2N VALID-ORDER-1025 $Z(s) = (L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty)$	$\infty, L_L s + \frac{1}{C_L s}$

10.10 2N VALID-ORDER- 1026 $Z(s) = \left(L_1 s + \frac{1}{2}\right)$	$-R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty$	$\infty, \frac{L_L s}{C_L L_L s^2 + 1}$)	 289
10.10 2N VALID-ORDER- 1027 $Z(s) = (L_1 s + L_2 s)$	$-R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty$	∞ , $L_L s + R_L + \frac{1}{C_L s}$)	 289
10.10 2N VALID-ORDER-1028 $Z(s) = (L_1 s - L_2 s)$	$+R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty,$	∞ , $\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$	 289
10.10 2N VALID-ORDER- 1029 $Z(s) = \left(L_1 s + \frac{1}{2}\right)$	$-R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty$	∞ , $\frac{L_L s}{C_L L_L s^2 + 1} + R_L$)	 289
10.10 BN VALID-ORDER-1030 $Z(s) = \left(L_1 s - \frac{1}{2}\right)$	$+R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty,$	∞ , $\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$	 290

1 Examined H(z) for TIA simple Z1 Z4 ZL: $\frac{Z_1Z_4Z_Lg_m}{Z_1Z_4g_m+2Z_1Z_Lg_m+Z_4+2Z_L}$

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

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

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

Parameters:

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

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

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

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

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

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

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

wo: $\sqrt{\frac{1}{L_L(2C_4+C_L)}}$
bandwidth: $\frac{1}{R_L(2C_4+C_L)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1R_Lg_m}{R_1g_m+1}$
Qz: 0
Wz: None

3.4 BP-4
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

$$\begin{array}{l} \text{Q:} \ \frac{R_4\sqrt{\frac{1}{L_L(2C_4+C_L)}}(2C_4+C_L)}{2} \\ \text{wo:} \ \sqrt{\frac{1}{L_L(2C_4+C_L)}} \\ \text{bandwidth:} \ \frac{2}{R_4(2C_4+C_L)} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{R_1R_4g_m}{2(R_1g_m+1)} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

3.5 BP-5
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

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

3.6 BP-6
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, R_L\right)$$

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

Q:
$$2C_4R_L\sqrt{\frac{1}{C_4L_4}}$$

wo: $\sqrt{\frac{1}{C_4L_4}}$
bandwidth: $\frac{1}{2C_4R_L}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1R_Lg_m}{R_1g_m+1}$
Qz: 0
Wz: None

3.7 BP-7
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

Q:
$$\sqrt{2}R_L\sqrt{\frac{1}{L_4(2C_4+C_L)}}$$
 (2C₄ + C_L)
wo: $\sqrt{2}\sqrt{\frac{1}{L_4(2C_4+C_L)}}$
bandwidth: $\frac{1}{R_L(2C_4+C_L)}$
K-LP: 0
K-HP: 0
K-BP: $\frac{R_1R_Lg_m}{R_1g_m+1}$
Qz: 0
Wz: None

3.8 BP-8
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

Q:
$$R_L \sqrt{\frac{L_4 + 2L_L}{L_4 L_L (2C_4 + C_L)}} (2C_4 + C_L)$$

wo:
$$\sqrt{\frac{L_4 + 2L_L}{L_4L_L(2C_4 + C_L)}}$$
 bandwidth: $\frac{1}{R_L(2C_4 + C_L)}$ K-LP: 0 K-HP: 0 K-BP: $\frac{R_1R_Lg_m}{R_1g_m + 1}$ Qz: 0 Wz: None

3.9 BP-9
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, R_L\right)$$

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

$$\begin{aligned} \text{Q:} & \frac{2C_4R_4R_L\sqrt{\frac{1}{C_4L_4}}}{R_4+2R_L} \\ \text{wo:} & \sqrt{\frac{1}{C_4L_4}} \\ \text{bandwidth:} & \frac{R_4+2R_L}{2C_4R_4R_L} \\ \text{K-LP:} & 0 \\ \text{K-HP:} & 0 \\ \text{K-BP:} & \frac{R_1R_4R_Lg_m}{(R_4+2R_L)(R_1g_m+1)} \\ \text{Qz:} & 0 \\ \text{Wz:} & \text{None} \end{aligned}$$

3.10 BP-10
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

Q:
$$\frac{\sqrt{2}R_4\sqrt{\frac{1}{L_4(2C_4+C_L)}}(2C_4+C_L)}{\frac{2}{2}}$$
 wo:
$$\sqrt{2}\sqrt{\frac{1}{L_4(2C_4+C_L)}}$$

bandwidth:
$$\frac{2}{R_4(2C_4+C_L)}$$
 K-LP: 0
K-HP: 0
K-BP: $\frac{R_1R_4g_m}{2(R_1g_m+1)}$ Qz: 0
Wz: None

3.11 BP-11
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

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

3.12 BP-12
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

$$Q: \frac{R_4 \sqrt{\frac{L_4 + 2L_L}{L_4 L_L (2C_4 + C_L)}}}{2} (2C_4 + C_L)}$$
 wo:
$$\sqrt{\frac{L_4 + 2L_L}{L_4 L_L (2C_4 + C_L)}}$$
 bandwidth:
$$\frac{2}{R_4 (2C_4 + C_L)}$$

K-LP: 0 K-HP: 0

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

Qz: 0 Wz: None

3.13 BP-13
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{R_4R_L\sqrt{\frac{L_4+2L_L}{L_4L_L(2C_4+C_L)}}}{R_4+2R_L} (2C_4+C_L)} \\ \text{wo:} \ \sqrt{\frac{L_4+2L_L}{L_4L_L(2C_4+C_L)}} \\ \text{bandwidth:} \ \frac{R_4+2R_L}{R_4R_L(2C_4+C_L)} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{R_1R_4R_Lg_m}{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

3.14 BP-14
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_1R_4g_ms}{(C_LR_4s + 2)(L_1g_ms + 1)}$$

Q:
$$\frac{\sqrt{2}C_{L}L_{1}R_{4}g_{m}\sqrt{\frac{1}{C_{L}L_{1}R_{4}g_{m}}}}{C_{L}R_{4}+2L_{1}g_{m}}$$
wo:
$$\sqrt{2}\sqrt{\frac{1}{C_{L}L_{1}R_{4}g_{m}}}$$
bandwidth:
$$\frac{C_{L}R_{4}+2L_{1}g_{m}}{C_{L}L_{1}R_{4}g_{m}}$$

K-LP: 0

K-HP: 0 K-BP: $\frac{L_1R_4g_m}{C_LR_4+2L_1g_m}$ Qz: 0

Wz: None

3.15 BP-15
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{L_1R_4R_Lg_ms}{\left(L_1g_ms + 1\right)\left(C_LR_4R_Ls + R_4 + 2R_L\right)}$$

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_L L_1 R_4 R_L g_m \sqrt{\frac{R_4 + 2 R_L}{C_L L_1 R_4 R_L g_m}}}{C_L R_4 R_L + L_1 R_4 g_m + 2 L_1 R_L g_m} \\ \text{wo:} \ \sqrt{\frac{R_4 + 2 R_L}{C_L L_1 R_4 R_L g_m}} \\ \text{bandwidth:} \ \frac{C_L R_4 R_L + L_1 R_4 g_m + 2 L_1 R_L g_m}{C_L L_1 R_4 R_L g_m} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{L_1 R_4 R_L g_m}{C_L R_4 R_L + L_1 R_4 g_m + 2 L_1 R_L g_m} \\ \text{Qz:} \ 0 \end{array}$$

Wz: None

3.16 BP-16
$$Z(s) = (\infty, R_2, \infty, \infty, \infty, R_L)$$

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

Q:
$$\frac{\sqrt{2}C_{4}L_{1}R_{L}g_{m}\sqrt{\frac{1}{C_{4}L_{1}R_{L}g_{m}}}}{2C_{4}R_{L}+L_{1}g_{m}}}{\sqrt{2}\sqrt{\frac{1}{C_{4}L_{1}R_{L}g_{m}}}}$$
 wo:
$$\frac{\sqrt{2}\sqrt{\frac{1}{C_{4}L_{1}R_{L}g_{m}}}}{2}$$
 bandwidth:
$$\frac{2C_{4}R_{L}+L_{1}g_{m}}{2C_{4}L_{1}R_{L}g_{m}}$$

K-LP: 0

K-HP: 0 K-BP: $\frac{L_1R_Lg_m}{2C_4R_L+L_1g_m}$ Qz: 0

Wz: None

3.17 BP-17 $Z(s) = \left(\infty, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

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

Parameters:

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

K-LP: 0

 $\begin{array}{l} \text{K-HP: 0} \\ \text{K-BP: } \frac{L_1R_Lg_m}{2C_4R_L+C_LR_L+L_1g_m} \\ \text{Qz: 0} \end{array}$

Wz: None

3.18 BP-18 $Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$

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

Q:
$$\frac{\sqrt{2}C_4L_1R_4R_Lg_m\sqrt{\frac{R_4+2R_L}{C_4L_1R_4R_Lg_m}}}{2C_4R_4R_L+L_1R_4g_m+2L_1R_Lg_m}$$
 wo:
$$\sqrt{\frac{\frac{R_4}{C_4L_1R_4R_Lg_m}}{C_4L_1R_4R_Lg_m}}$$

$$\text{bandwidth: } \frac{\sqrt{2}\sqrt{\frac{\frac{R_4}{2} + R_L}{C_4L_1R_4R_Lg_m}}(2C_4R_4R_L + L_1R_4g_m + 2L_1R_Lg_m)}{2C_4L_1R_4R_Lg_m\sqrt{\frac{R_4 + 2R_L}{C_4L_1R_4R_Lg_m}}}$$

K-LP: 0 K-HP: 0

K-BP: $\frac{L_{1}R_{4}R_{L}g_{m}}{2C_{4}R_{4}R_{L}+L_{1}R_{4}g_{m}+2L_{1}R_{L}g_{m}}$ Qz: 0

Wz: None

3.19 BP-19
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

Parameters:

Q:
$$\frac{\sqrt{2}L_{1}R_{4}g_{m}\sqrt{\frac{1}{L_{1}R_{4}g_{m}}(2C_{4}+C_{L})}(2C_{4}+C_{L})}{2C_{4}R_{4}+C_{L}R_{4}+2L_{1}g_{m}}$$
wo:
$$\sqrt{2}\sqrt{\frac{1}{L_{1}R_{4}g_{m}}(2C_{4}+C_{L})}$$

bandwidth: $\frac{2C_4R_4 + C_LR_4 + 2L_1g_m}{L_1R_4g_m(2C_4 + C_L)}$

K-LP: 0 K-HP: 0

K-BP: $\frac{L_1 R_4 g_m}{2C_4 R_4 + C_L R_4 + 2L_1 g_m}$ Qz: 0

Wz: None

3.20 BP-20
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

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

wo: $\sqrt{\frac{R_4+2R_L}{L_1R_4R_Lg_m(2C_4+C_L)}}$ bandwidth: $\frac{2C_4R_4R_L+C_LR_4R_L+L_1R_4g_m+2L_1R_Lg_m}{L_1R_4R_Lg_m(2C_4+C_L)}$ K-LP: 0 K-HP: 0 K-BP: $\frac{L_1 R_4 R_L g_m}{2C_4 R_4 R_L + C_L R_4 R_L + L_1 R_4 g_m + 2L_1 R_L g_m}$ Qz: 0

Wz: None

3.21 BP-21
$$Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

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

Parameters:

Q: $\frac{C_1\sqrt{\frac{1}{C_1L_1}}}{\frac{g_m}{Wo:}\sqrt{\frac{1}{C_1L_1}}}$ bandwidth: $\frac{g_m}{C}$ K-LP: 0 K-HP: 0 K-BP: $\frac{R_4 R_L}{R_4 + 2R_L}$ Qz: 0 Wz: None

3.22 BP-22
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L\right)$$

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

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

wo:
$$\sqrt{\frac{1}{C_1L_1}}$$
 bandwidth: $\frac{R_1g_m+1}{C_1R_1}$ K-LP: 0 K-HP: 0 K-BP: $\frac{R_1R_4R_Lg_m}{(R_4+2R_L)(R_1g_m+1)}$ Qz: 0 Wz: None

4 LP

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

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

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

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

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

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

4.3 LP-3
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, R_L\right)$$

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

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

4.4 LP-4
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

$$\begin{array}{l} \text{Q:} \ \frac{C_1R_L\sqrt{\frac{g_m}{C_1R_L(2C_4+C_L)}}}{C_1+2C_4R_Lg_m+C_LR_Lg_m} \\ \text{wo:} \ \sqrt{\frac{g_m}{C_1R_L(2C_4+C_L)}} \\ \text{bandwidth:} \ \frac{C_1+2C_4R_Lg_m+C_LR_Lg_m}{C_1R_L(2C_4+C_L)} \\ \text{K-LP:} \ R_L \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \text{None} \end{array}$$

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

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

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

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

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

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

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

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

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

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

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

4.9 LP-9
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

Q:
$$\frac{C_1C_LR_1R_4R_L\sqrt{\frac{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L}{C_1C_LR_1R_4R_L}}}{C_1C_LR_1R_4R_L}$$
 wo:
$$\sqrt{\frac{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L}{C_1C_LR_1R_4R_L}}$$
 bandwidth:
$$\frac{C_1R_1R_4+2C_1R_1R_4R_L}{C_1C_LR_1R_4R_L}$$
 K-LP:
$$\frac{R_1R_4g_m+2R_1R_Lg_m}{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L}$$
 K-HP: 0 K-BP: 0 Qz: None Wz: None

4.10 LP-10
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L\right)$$

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

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

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

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

$$\begin{array}{l} C_1R_1R_L\sqrt{\frac{R_1g_m+1}{C_1R_1R_L(2C_4+C_L)}}(2C_4+C_L) \\ Q\colon \frac{C_1R_1+2C_4R_1R_Lg_m+2C_4R_L+C_LR_1R_Lg_m+C_LR_L}{C_1R_1R_L(2C_4+C_L)} \\ \text{wo: } \sqrt{\frac{R_1g_m+1}{C_1R_1R_L(2C_4+C_L)}} \\ \text{bandwidth: } \frac{C_1R_1+2C_4R_1R_Lg_m+2C_4R_L+C_LR_1R_Lg_m+C_LR_L}{C_1R_1R_L(2C_4+C_L)} \\ \text{K-LP: } \frac{R_1R_Lg_m}{R_1g_m+1} \\ \text{K-HP: } 0 \\ \text{K-BP: } 0 \\ \text{Qz: None} \\ \text{Wz: None} \end{array}$$

4.12 LP-12
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

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

Q:
$$\frac{\sqrt{2}C_{1}C_{4}R_{1}R_{4}R_{L}}{C_{1}R_{1}R_{4}+2C_{1}R_{1}R_{L}+2C_{4}R_{1}R_{4}R_{L}}}{C_{1}C_{4}R_{1}R_{4}R_{L}}$$
wo:
$$\sqrt{\frac{R_{1}R_{4}g_{m}}{2} + R_{1}R_{L}g_{m} + \frac{R_{4}}{2} + R_{L}}{C_{1}C_{4}R_{1}R_{4}R_{L}}}$$
bandwidth:
$$\frac{\sqrt{2}\sqrt{\frac{R_{1}R_{4}g_{m}}{2} + R_{1}R_{L}g_{m} + \frac{R_{4}}{2} + R_{L}}}{C_{1}C_{4}R_{1}R_{4}R_{L}}}{C_{1}C_{4}R_{1}R_{4}R_{L}}$$

$$E_{1}C_{1}C_{4}R_{1}R_{4}R_{L}$$

$$E_{2}C_{1}C_{4}R_{1}R_{4}R_{L}$$

$$E_{3}C_{1}C_{4}R_{1}R_{4}R_{L}$$

$$E_{4}C_{1}C_{4}R_{1}R_{4}R_{L}$$

$$E_{5}C_{1}C_{4}R_{1}R_{4}R_{L}$$

$$E_{7}C_{1}C_{4}R_{1}R_{4}R_{L}$$

$$E_{8}C_{1}C_{4}R_{1}R_{4}R_{L}$$

$$E_{8}C_{1}C_{4}R_{1}R_{1}R_{1}R_{$$

4.13 LP-13
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

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

4.14 LP-14
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

$$C_1R_1R_4R_L\sqrt{\frac{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L}{C_1R_1R_4R_L(2C_4+C_L)}}}(2C_4+C_L)$$
 Q:
$$\frac{1}{C_1R_1R_4+2C_1R_1R_L+2C_4R_1R_4R_Lg_m+2C_4R_4R_L+C_LR_1R_4R_Lg_m+C_LR_4R_L}}{C_1R_1R_4R_L(2C_4+C_L)}$$
 wo:
$$\sqrt{\frac{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L}{C_1R_1R_4R_L(2C_4+C_L)}}}$$
 bandwidth:
$$\frac{C_1R_1R_4+2C_1R_1R_L+2C_4R_1R_4R_Lg_m+2C_4R_4R_L+C_LR_1R_4R_Lg_m+C_LR_4R_L}{C_1R_1R_4R_L(2C_4+C_L)}}$$
 K-LP:
$$\frac{R_1R_4R_Lg_m}{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L}$$
 K-HP: 0 K-BP: 0 Qz: None Wz: None

4.15 LP-15
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m}{(2C_4 + C_L) (C_1 L_1 s^2 + L_1 g_m s + 1)}$$

Q:
$$\frac{C_1\sqrt{\frac{1}{C_1L_1}}}{g_m}$$
 wo:
$$\sqrt{\frac{1}{C_1L_1}}$$
 bandwidth:
$$\frac{g_m}{C_1}$$
 K-LP:
$$\frac{L_1g_m}{2C_4+C_L}$$
 K-HP: 0 K-BP: 0 Qz: None Wz: None

4.16 LP-16
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

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

5 BS

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

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

$$\begin{array}{l} \text{Q:} \ \frac{2L_L\sqrt{\frac{1}{C_LL_L}}}{R_4} \\ \text{wo:} \ \sqrt{\frac{1}{C_LL_L}} \\ \text{bandwidth:} \ \frac{R_4}{2L_L} \\ \text{K-LP:} \ \frac{R_1R_4g_m}{2(R_1g_m+1)} \\ \text{K-HP:} \ \frac{R_1R_4g_m}{2(R_1g_m+1)} \\ \text{K-BP:} \ 0 \end{array}$$

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

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

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

$$\begin{array}{l} \text{Q:} \ \frac{L_L\sqrt{\frac{1}{C_LL_L}}(R_4 + 2R_L)}{R_4R_L} \\ \text{wo:} \ \sqrt{\frac{1}{C_LL_L}} \\ \text{bandwidth:} \ \frac{R_4R_L}{L_L(R_4 + 2R_L)} \\ \text{K-LP:} \ \frac{R_1R_4R_Lg_m}{R_1R_4g_m + 2R_1R_Lg_m + R_4 + 2R_L} \\ \text{K-HP:} \ \frac{R_1R_4g_m + 2R_1R_Lg_m}{R_1R_4g_m + 2R_1R_Lg_m + R_4 + 2R_L} \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \sqrt{\frac{1}{C_LL_L}} \end{array}$$

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

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

$$\begin{array}{l} \text{Q:} \ \frac{L_4\sqrt{\frac{1}{C_4L_4}}}{2R_L} \\ \text{wo:} \ \sqrt{\frac{1}{C_4L_4}} \\ \text{bandwidth:} \ \frac{2R_L}{L_4} \\ \text{K-LP:} \ \frac{R_1R_Lg_m}{R_1g_m+1} \\ \text{K-HP:} \ \frac{R_1R_Lg_m}{R_1g_m+1} \end{array}$$

K-BP: 0 Qz: None Wz:
$$\sqrt{\frac{1}{C_4L_4}}$$

5.4 BS-4
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, R_L\right)$$

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

Q:
$$\frac{L_4\sqrt{\frac{1}{C_4L_4}}(R_4+2R_L)}{2R_4R_L}$$
 wo:
$$\sqrt{\frac{1}{C_4L_4}}$$

bandwidth: $\frac{2R_4R_L}{L_4(R_4+2R_L)}$ K-LP: $\frac{R_1R_4R_Lg_m}{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L}$ K-HP: $\frac{R_1R_4R_Lg_m}{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L}$ K-BP: 0

Qz: None Wz: $\sqrt{\frac{1}{C_4L_4}}$

5.5 BS-5
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

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

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

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

K-BP: 0 Qz: None Wz:
$$\sqrt{\frac{1}{C_1L_1}}$$

5.6 BS-6
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

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

$$\begin{array}{l} \text{Q:} \ \frac{L_1\sqrt{\frac{1}{C_1L_1}}(R_1g_m+1)}{R_1} \\ \text{wo:} \ \sqrt{\frac{1}{C_1L_1}} \\ \text{bandwidth:} \ \frac{R_1}{L_1(R_1g_m+1)} \\ \text{K-LP:} \ \frac{R_1R_4R_Lg_m}{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L} \\ \text{K-HP:} \ \frac{R_1R_4g_m+2R_1R_Lg_m}{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L} \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \sqrt{\frac{1}{C_1L_1}} \end{array}$$

6 **GE**

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

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

Q:
$$\frac{2L_L\sqrt{\frac{1}{C_LL_L}}}{R_4+2R_L}$$

wo:
$$\sqrt{\frac{1}{C_L L_L}}$$

bandwidth: $\frac{R_4 + 2R_L}{2L_L}$
K-LP: $\frac{R_1 R_4 g_m}{2(R_1 g_m + 1)}$
K-HP: $\frac{R_1 R_4 g_m}{2(R_1 g_m + 1)}$
K-BP: $\frac{R_1 R_4 R_L g_m}{(R_4 + 2R_L)(R_1 g_m + 1)}$
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
$$Z(s) = \left(R_1, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

6.3 GE-3
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \infty, \infty, \infty, R_L\right)$$

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

$$\begin{aligned} &\text{Q: } \frac{L_4\sqrt{\frac{1}{C_4L_4}}}{R_4+2R_L} \\ &\text{wo: } \sqrt{\frac{1}{C_4L_4}} \\ &\text{bandwidth: } \frac{R_4+2R_L}{L_4} \\ &\text{K-LP: } \frac{R_1R_Lg_m}{R_1g_m+1} \\ &\text{K-HP: } \frac{R_1R_Lg_m}{R_1g_m+1} \\ &\text{K-BP: } \frac{R_1R_4R_Lg_m}{(R_4+2R_L)(R_1g_m+1)} \\ &\text{Qz: } \frac{L_4\sqrt{\frac{1}{C_4L_4}}}{R_4} \end{aligned}$$

6.4 GE-4
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, \infty, R_L\right)$$

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

Q:
$$C_4\sqrt{\frac{1}{C_4L_4}}$$
 $(R_4 + 2R_L)$
wo: $\sqrt{\frac{1}{C_4L_4}}$
bandwidth: $\frac{1}{C_4(R_4 + 2R_L)}$
K-LP: $\frac{R_1R_4R_Lg_m}{R_1R_4g_m + 2R_1R_Lg_m + R_4 + 2R_L}$
K-HP: $\frac{R_1R_4g_m + 2R_1R_Lg_m}{R_1R_4g_m + 2R_1R_Lg_m + R_4 + 2R_L}$
K-BP: $\frac{R_1R_Lg_m}{R_1g_m + 1}$
Qz: $C_4R_4\sqrt{\frac{1}{C_4L_4}}$
Wz: $\sqrt{\frac{1}{C_4L_4}}$

6.5 GE-5
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

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

$$\begin{aligned} &\text{Q: } \frac{L_{1}g_{m}\sqrt{\frac{1}{C_{1}L_{1}}}}{R_{1}g_{m}+1} \\ &\text{wo: } \sqrt{\frac{1}{C_{1}L_{1}}} \\ &\text{bandwidth: } \frac{R_{1}g_{m}+1}{L_{1}g_{m}} \\ &\text{K-LP: } \frac{R_{4}R_{L}}{R_{4}+2R_{L}} \\ &\text{K-HP: } \frac{R_{4}R_{L}}{R_{4}+2R_{L}} \\ &\text{K-BP: } \frac{R_{1}R_{4}R_{L}g_{m}}{(R_{4}+2R_{L})(R_{1}g_{m}+1)} \end{aligned}$$

Qz:
$$\frac{(R_4+2R_L)(R_1)}{R_1}$$

Wz:
$$\sqrt{\frac{1}{C_1L_1}}$$

6.6 GE-6
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

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

Q:
$$\frac{C_1\sqrt{\frac{1}{C_1L_1}}(R_1g_m+1)}{g_m}$$

wo: $\sqrt{\frac{1}{C_1L_1}}$

bandwidth:
$$\frac{g_m}{C_1(R_1g_m+1)}$$

bandwidth:
$$\frac{g_m}{C_1(R_1g_m+1)}$$
K-LP: $\frac{R_1R_4R_Lg_m}{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L}$
K-HP: $\frac{R_1R_4g_m+2R_1R_Lg_m}{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L}$
K-BP: $\frac{R_4R_L}{R_4+2R_L}$

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

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

Qz: $C_1 R_1 \sqrt{\frac{1}{C_1 L_1}}$

Wz:
$$\sqrt{\frac{1}{C_1L_1}}$$

7 \mathbf{AP}

INVALID-NUMER

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

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

Parameters:

Q: $\frac{2C_{4}C_{L}R_{4}R_{L}\sqrt{\frac{1}{C_{4}C_{L}R_{4}R_{L}}}}{2C_{4}R_{4}+C_{L}R_{4}+2C_{L}R_{L}}$ wo: $\sqrt{\frac{1}{C_{4}C_{L}R_{4}R_{L}}}$ bandwidth: $\frac{2C_{4}R_{4}+C_{L}R_{4}+2C_{L}R_{L}}{2C_{4}C_{L}R_{4}R_{L}}$ K-LP: $\frac{R_{1}R_{4}g_{m}}{2(R_{1}g_{m}+1)}$ K-HP: 0

K-HP: 0

Wz: None

K-BP: $\frac{C_L R_1 R_4 R_L g_m}{(R_1 g_m + 1)(2C_4 R_4 + C_L R_4 + 2C_L R_L)}$ Qz: 0

8.2 INVALID-NUMER-2 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

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

Q:
$$\frac{C_4 C_L R_4 R_L \sqrt{\frac{1}{C_4 C_L R_4 R_L}}}{C_4 R_4 + 2C_4 R_L + C_L R_L}$$

wo:
$$\sqrt{\frac{1}{C_4 C_L R_4 R_L}}$$

bandwidth: $\frac{C_4R_4+2C_4R_L+C_LR_L}{C_4C_LR_4R_L}$ K-LP: $\frac{R_1R_Lg_m}{R_1g_m+1}$ K-HP: 0

K-BP: $\frac{C_4 R_1 R_4 R_L g_m}{(R_1 g_m + 1)(C_4 R_4 + 2C_4 R_L + C_L R_L)}$ Qz: 0

Wz: None

8.3 INVALID-NUMER-3 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

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

Parameters:

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

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

K-LP: 0

K-B1: 0

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

Wz: None

8.4 INVALID-NUMER-4 $Z(s) = \left(\infty, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

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

Q:
$$\frac{\sqrt{2}C_4C_LL_1R_Lg_m\sqrt{\frac{2C_4+C_L}{C_4C_LL_1R_Lg_m}}}{2C_4C_LR_L+2C_4L_1g_m+C_LL_1g_m}$$

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

wo.
$$\bigvee C_4 C_L L_1 R_L g_m$$

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

K-LP: $\frac{L_1g_m}{2C_4+C_L}$ K-HP: 0

K-BP: $\frac{C_L L_1 R_L g_m}{2C_4 C_L R_L + 2C_4 L_1 g_m + C_L L_1 g_m}$ Qz: 0

Wz: None

8.5 INVALID-NUMER-5 $Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$

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

Parameters:

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

8.6 INVALID-NUMER-6
$$Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$$

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

$$\begin{aligned} &\text{Q:} \ \frac{C_4C_LL_1R_4g_m\sqrt{\frac{2C_4+C_L}{C_4C_LL_1R_4g_m}}}{C_4C_LR_4+2C_4L_1g_m+C_LL_1g_m} \\ &\text{wo:} \ \sqrt{\frac{2C_4+C_L}{C_4C_LL_1R_4g_m}} \\ &\text{bandwidth:} \ \frac{C_4C_LR_4+2C_4L_1g_m+C_LL_1g_m}{C_4C_LL_1R_4g_m} \\ &\text{K-LP:} \ \frac{L_1g_m}{2C_4+C_L} \\ &\text{K-HP:} \ 0 \\ &\text{K-BP:} \ \frac{C_4L_1R_4g_m}{C_4C_LR_4+2C_4L_1g_m+C_LL_1g_m} \\ &\text{Qz:} \ 0 \\ &\text{Wz:} \ \text{None} \end{aligned}$$

8.7 INVALID-NUMER-7 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

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

Parameters:

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

8.8 INVALID-NUMER-8
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \infty, R_L\right)$$

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

$$\begin{aligned} &\text{Q:} \ \frac{C_1C_4\sqrt{\frac{g_m}{C_1C_4(R_4+2R_L)}}(R_4+2R_L)}{C_1+C_4R_4g_m+2C_4R_Lg_m} \\ &\text{wo:} \ \sqrt{\frac{g_m}{C_1C_4(R_4+2R_L)}} \\ &\text{bandwidth:} \ \frac{C_1+C_4R_4g_m+2C_4R_Lg_m}{C_1C_4(R_4+2R_L)} \\ &\text{K-LP:} \ R_L \\ &\text{K-HP:} \ 0 \\ &\text{K-BP:} \ \frac{C_4R_4R_Lg_m}{C_1+C_4R_4g_m+2C_4R_Lg_m} \\ &\text{Qz:} \ 0 \\ &\text{Wz:} \ \text{None} \end{aligned}$$

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

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

Parameters:

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

8.10 INVALID-NUMER-10
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L\right)$$

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

$$\begin{array}{c} C_1C_4R_1\sqrt{\frac{R_1g_m+1}{C_1C_4R_1(R_4+2R_L)}}(R_4+2R_L)}\\ Q\colon \frac{C_1R_1+C_4R_1R_4g_m+2C_4}{C_1R_1+C_4R_1R_4g_m+2C_4}R_1R_Lg_m+C_4R_4+2C_4R_L}\\ \text{wo: }\sqrt{\frac{R_1g_m+1}{C_1C_4R_1(R_4+2R_L)}}\\ \text{bandwidth: }\frac{C_1R_1+C_4R_1R_4g_m+2C_4R_1R_Lg_m+C_4R_4+2C_4R_L}{C_1C_4R_1(R_4+2R_L)}\\ \text{K-LP: }\frac{R_1R_Lg_m}{R_1g_m+1}\\ \text{K-HP: 0}\\ \text{K-BP: }\frac{C_4R_1R_4R_Lg_m}{C_1R_1+C_4R_1R_4g_m+2C_4R_1R_Lg_m+C_4R_4+2C_4R_L}\\ \text{Qz: 0}\\ \text{Wz: None} \end{array}$$

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

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

Parameters:

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

8.12 INVALID-NUMER-12
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

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

$$\begin{array}{l} \text{Q:} \ \frac{C_1C_LR_4R_L\sqrt{\frac{g_m(R_4+2R_L)}{C_1C_LR_4R_L(R_1g_m+1)}}(R_1g_m+1)}{C_1R_1R_4g_m+2C_1R_1R_Lg_m+C_1R_4+2C_1R_L+C_LR_4R_Lg_m}\\ \text{wo:} \ \sqrt{\frac{g_m(R_4+2R_L)}{C_1C_LR_4R_L(R_1g_m+1)}}\\ \text{bandwidth:} \ \frac{C_1R_1R_4g_m+2C_1R_1R_Lg_m+C_1R_4+2C_1R_L+C_LR_4R_Lg_m}{C_1C_LR_4R_L(R_1g_m+1)}\\ \text{K-LP:} \ \frac{R_4R_L}{R_4+2R_L}\\ \text{K-HP:} \ 0\\ \text{K-BP:} \ \frac{C_1R_1R_4g_m+2C_1R_1R_Lg_m}{C_1R_1R_4g_m+2C_1R_1R_Lg_m+C_1R_4+2C_1R_L+C_LR_4R_Lg_m}\\ \text{Qz:} \ 0\\ \text{Wz:} \ \text{None} \end{array}$$

8.13 INVALID-NUMER-13 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_L\right)$

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

Parameters:

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

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

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

$$\begin{aligned} & \text{Q:} \ \frac{C_1 R_L \sqrt{\frac{g_m}{C_1 R_L (2 C_4 R_1 g_m + 2 C_4 + C_L R_1 g_m + C_L)}}}{C_1 R_1 g_m + C_4 + C_L R_1 g_m + C_L}) \\ & \text{Wo:} \ \frac{g_m}{C_1 R_L (2 C_4 R_1 g_m + 2 C_4 + C_L R_1 g_m + C_L)} \\ & \text{bandwidth:} \ \frac{G_1 R_1 g_m + C_1 + 2 C_4 R_L g_m + C_L}{C_1 R_L (2 C_4 R_1 g_m + 2 C_4 + C_L R_1 g_m + C_L)} \\ & \text{K-LP:} \ R_L \\ & \text{K-HP:} \ 0 \\ & \text{K-BP:} \ \frac{C_1 R_1 R_L g_m}{C_1 R_1 g_m + C_1 + 2 C_4 R_L g_m + C_L R_L g_m} \\ & \text{Qz:} \ 0 \\ & \text{Wz:} \ \text{None} \end{aligned}$$

8.15 INVALID-NUMER-15 $Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, R_L\right)$

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

Parameters:

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

8.16 INVALID-NUMER-16
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{1}{C_L s}\right)$$

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

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

8.17 INVALID-NUMER-17 $Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{R_L}{C_L R_L s + 1}\right)$

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

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_1R_4R_L\sqrt{\frac{g_m(R_4+2R_L)}{C_1R_4R_L(2C_4R_1g_m+2C_4+C_LR_1g_m+C_L)}}}(2C_4R_1g_m+2C_4+C_LR_1g_m+C_L)}{C_1R_1R_4g_m+2C_1R_1R_Lg_m+C_1R_4+2C_1R_L+2C_4R_4R_Lg_m+C_LR_4R_Lg_m} \\ & \text{wo:} \ \sqrt{\frac{g_m(R_4+2R_L)}{C_1R_4R_L(2C_4R_1g_m+2C_4+C_LR_1g_m+C_L)}} \\ & \text{bandwidth:} \ \frac{C_1R_1R_4g_m+2C_1R_1R_Lg_m+C_1R_4+2C_1R_L+2C_4R_4R_Lg_m+C_LR_4R_Lg_m}{C_1R_4R_L(2C_4R_1g_m+2C_4+C_LR_1g_m+C_L)} \\ & \text{K-LP:} \ \frac{R_4R_L}{R_4+2R_L} \\ & \text{K-HP:} \ 0 \\ & \text{K-BP:} \ \frac{C_1R_1R_4g_m+2C_1R_1R_Lg_m}{C_1R_1R_4g_m+2C_1R_1R_Lg_m} + C_1R_4R_Lg_m} \\ & \text{Qz:} \ 0 \\ & \text{Wz:} \ \text{None} \end{aligned}$$

9 INVALID-WZ

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

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

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

9.2 INVALID-WZ-2 $Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, R_L + \frac{1}{C_L s}\right)$

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

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

Wz:
$$\sqrt{\frac{1}{C_1 C_L R_1 R_L}}$$

9.3 INVALID-WZ-3 $Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, R_L\right)$

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

Parameters:

$$\begin{array}{l} \text{Q:} & \frac{C_1C_4\sqrt{\frac{g_m}{C_1C_4(R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L)}}(R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L)}{C_1R_1g_m+C_1+C_4R_4g_m+2C_4R_Lg_m} \\ \text{Wo:} & \sqrt{\frac{g_m}{C_1C_4(R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L)}} \\ \text{bandwidth:} & \frac{C_1R_1g_m+C_1+C_4R_4g_m+2C_4R_Lg_m}{C_1C_4(R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L)} \\ \text{K-LP:} & R_L \\ \text{K-HP:} & \frac{R_1R_4R_Lg_m}{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L} \\ \text{K-BP:} & \frac{R_Lg_m(C_1R_1+C_4R_4)}{C_1R_1g_m+C_1+C_4R_4g_m+2C_4R_Lg_m} \\ \text{Qz:} & \frac{C_1C_4R_1R_4\sqrt{\frac{g_m}{C_1C_4(R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L)}}}{C_1R_1+C_4R_4} \\ \text{Wz:} & \sqrt{\frac{1}{C_1C_4R_1R_4}} \end{array}$$

10 INVALID-ORDER

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

10.10 INVALID-ORDER-10
$$Z(s) = \left(L_1 s, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

10.42 INVALID-ORDER-42
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

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

$$H(s) = \frac{L_4 R_1 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(R_1 q_m + 1\right) \left(2C_4 C_L L_4 L_L s^4 + 2C_4 C_L L_4 R_L s^3 + 2C_4 L_4 s^2 + C_L L_4 s^2 + 2C_L L_1 s^2 + 2C_L R_L s + 2\right)}$$

10.44 INVALID-ORDER-44
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

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

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

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

10.47 INVALID-ORDER-47
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

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

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

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

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

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

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

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

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

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

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

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

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

10.54 INVALID-ORDER-54
$$Z(s) = \left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}, \infty, \infty, \infty, \infty, \frac{R_{L}\left(L_{L}s+\frac{1}{C_{L}s}\right)}{L_{L}s+R_{L}+\frac{1}{C_{L}s}}\right)$$

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

10.55 INVALID-ORDER-55
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.56 INVALID-ORDER-56
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

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

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

10.58 INVALID-ORDER-58
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

$$H(s) = \frac{L_4 R_1 R_4 R_L g_m s \left(C_L L_L s^2 + 1\right)}{\left(R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_4 R_L s^4 + 2 C_4 L_4 R_L R_L s^2 + C_L L_4 L_L R_4 s^3 + 2 C_L L_4 L_L R_4 s^3 + C_L L_4 R_L R_2 s^2 + 2 C_L L_L R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L \right)}$$

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

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

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

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

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

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

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

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

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

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

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

$$H(s) = \frac{R_1 g_m \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_2 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_4 s^2 + C_L R_4 s + 2 C_$$

10.67 INVALID-ORDER-67
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

10.69 INVALID-ORDER-69
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

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

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

10.71 INVALID-ORDER-71
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.72 INVALID-ORDER-72
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

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

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

10.74 INVALID-ORDER-74
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

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

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

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

$$H(s) = \frac{R_{1}R_{4}g_{m}\left(C_{4}L_{4}s^{2}+1\right)\left(C_{L}L_{L}R_{L}s^{2}+L_{L}s+R_{L}\right)}{\left(R_{1}g_{m}+1\right)\left(C_{4}C_{L}L_{4}L_{L}R_{4}s^{4}+2C_{4}C_{L}L_{L}R_{4}s^{3}+2C_{4}L_{4}L_{L}s^{3}+C_{4}L_{4}R_{4}s^{2}+2C_{4}L_{4}R_{4$$

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

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

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

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

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

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

10.80 INVALID-ORDER-80
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_1L_LR_4g_ms^2}{(L_1g_ms + 1)\left(C_LL_LR_4s^2 + 2L_Ls + R_4\right)}$$

10.81 INVALID-ORDER-81
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_1R_4g_ms\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{\left(L_1g_ms + 1\right)\left(2C_LL_Ls^2 + C_LR_4s + 2C_LR_Ls + 2\right)}$$

10.82 INVALID-ORDER-82
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_1L_LR_4R_Lg_ms^2}{(L_1g_ms + 1)\left(C_LL_LR_4R_Ls^2 + L_LR_4s + 2L_LR_Ls + R_4R_L\right)}$$

10.83 INVALID-ORDER-83
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1R_4g_ms\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(L_1g_ms + 1\right)\left(C_LL_LR_4s^2 + 2C_LL_LR_Ls^2 + 2L_Ls + R_4 + 2R_L\right)}$$

10.84 INVALID-ORDER-84
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{L_1R_4R_Lg_ms\left(C_LL_Ls^2 + 1\right)}{\left(L_1g_ms + 1\right)\left(C_LL_LR_4s^2 + 2C_LL_LR_Ls^2 + C_LR_4R_Ls + R_4 + 2R_L\right)}$$

10.85 INVALID-ORDER-85
$$Z(s) = \left(\infty, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.86 INVALID-ORDER-86
$$Z(s) = \left(\infty, \ R_2, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

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

10.87 INVALID-ORDER-87
$$Z(s) = \left(\infty, \ R_2, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.88 INVALID-ORDER-88
$$Z(s) = \left(\infty, \ R_2, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.89 INVALID-ORDER-89
$$Z(s) = \left(\infty, \ R_2, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.90 INVALID-ORDER-90
$$Z(s) = \left(\infty, \ R_2, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

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

10.92 INVALID-ORDER-92
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

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

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

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

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

10.95 INVALID-ORDER-95
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.96 INVALID-ORDER-96
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.97 INVALID-ORDER-97
$$Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

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

10.99 INVALID-ORDER-99
$$Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$$

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

10.100 INVALID-ORDER-100
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.101 INVALID-ORDER-101
$$Z(s) = \left(\infty, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

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

10.102 INVALID-ORDER-102
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.103 INVALID-ORDER-103
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.104 INVALID-ORDER-104
$$Z(s) = \left(\infty, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.105 INVALID-ORDER-105
$$Z(s) = \left(\infty, \ \frac{R_2}{C_2 R_2 s + 1}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.106 INVALID-ORDER-106
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

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

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

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

10.108 INVALID-ORDER-108
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.109 INVALID-ORDER-109
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.110 INVALID-ORDER-110
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.111 INVALID-ORDER-111
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.112 INVALID-ORDER-112
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

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

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

10.114 INVALID-ORDER-114
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

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

10.116 INVALID-ORDER-116
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

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

10.117 INVALID-ORDER-117
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.118 INVALID-ORDER-118
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.119 INVALID-ORDER-119
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.120 INVALID-ORDER-120
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.121 INVALID-ORDER-121
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.122 INVALID-ORDER-122
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.123 INVALID-ORDER-123
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.124 INVALID-ORDER-124
$$Z(s) = \left(\infty, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

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

10.126 INVALID-ORDER-126
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

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

10.127 INVALID-ORDER-127
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.128 INVALID-ORDER-128
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.129 INVALID-ORDER-129
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.130 INVALID-ORDER-130
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.131 INVALID-ORDER-131
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.132 INVALID-ORDER-132
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.133 INVALID-ORDER-133
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.134 INVALID-ORDER-134
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

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

10.136 INVALID-ORDER-136
$$Z(s) = \left(\infty, \ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

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

10.137 INVALID-ORDER-137
$$Z(s) = \left(\infty, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls}\right)$$

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

10.138 INVALID-ORDER-138
$$Z(s) = \left(\infty, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_LR_Ls+1}\right)$$

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

10.139 INVALID-ORDER-139
$$Z(s) = \left(\infty, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_Ls}\right)$$

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

10.140 INVALID-ORDER-140
$$Z(s) = \left(\infty, \ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

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

10.141 INVALID-ORDER-141
$$Z(s) = \left(\infty, \ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.142 INVALID-ORDER-142
$$Z(s) = \left(\infty, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ L_Ls + R_L + \frac{1}{C_Ls}\right)$$

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

10.143 INVALID-ORDER-143
$$Z(s) = \left(\infty, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

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

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

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

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

10.146 INVALID-ORDER-146
$$Z(s) = \left(\infty, \ \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$L_1R_Lq_m s\left(C_4L_4R_4s^2 + L_4s + R_4\right)$$

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

10.147 INVALID-ORDER-147
$$Z(s) = \left(\infty, \ \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls}\right)$$

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

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

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

10.149 INVALID-ORDER-149
$$Z(s) = \left(\infty, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_1g_ms\left(C_LR_Ls + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(L_1g_ms + 1\right)\left(C_4C_LL_4R_4s^3 + 2C_4C_LL_4R_Ls^3 + 2C_4L_4s^2 + C_LL_4s^2 + C_LR_4s + 2C_LR_Ls + 2\right)}$$

10.150 INVALID-ORDER-150
$$Z(s) = \left(\infty, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_1g_ms\left(C_LL_Ls^2 + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(L_1g_ms + 1\right)\left(2C_4C_LL_4L_1s^4 + C_4C_LL_4R_4s^3 + 2C_4L_4s^2 + C_LL_4s^2 + 2C_LL_4s^2 + C_LR_4s + 2\right)}$$

10.151 INVALID-ORDER-151
$$Z(s) = \left(\infty, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_1L_Lg_ms^2\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(L_1g_ms + 1\right)\left(C_4C_LL_4L_LR_4s^4 + 2C_4L_4L_Ls^3 + C_4L_4R_4s^2 + C_LL_4L_Ls^3 + C_LL_LR_4s^2 + L_4s + 2L_Ls + R_4\right)}$$

10.152 INVALID-ORDER-152
$$Z(s) = \left(\infty, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_1g_ms\left(C_LL_Ls^2 + C_LR_Ls + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{(L_1g_ms + 1)\left(2C_4C_LL_4L_Ls^4 + C_4C_LL_4R_4s^3 + 2C_4C_LL_4R_Ls^3 + 2C_4L_4s^2 + C_LL_4s^2 + 2C_LL_Ls^2 + C_LR_4s + 2C_LR_Ls + 2\right)}$$

10.153 INVALID-ORDER-153
$$Z(s) = \left(\infty, \ \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_1L_LR_Lg_ms^2\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{(L_1g_ms + 1)\left(C_4C_LL_4L_LR_4R_Ls^4 + C_4L_4L_LR_4s^3 + 2C_4L_4L_LR_4s^3 + C_4L_4R_4R_Ls^2 + C_LL_4L_LR_4s^3 + C_LL_LR_4R_Ls^2 + L_4L_Ls^2 + L_4R_Ls + L_LR_4s + 2L_LR_4s + R_4R_L\right)}$$

10.154 INVALID-ORDER-154
$$Z(s) = \left(\infty, \ \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.155 INVALID-ORDER-155
$$Z(s) = \left(\infty, \ \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

10.156 INVALID-ORDER-156 $Z(s) = (\infty, \infty, R_3, \infty, \infty, R_L)$

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

10.157 INVALID-ORDER-157 $Z(s) = \left(\infty, \infty, R_3, \infty, \infty, \frac{1}{C_L s}\right)$

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

10.158 INVALID-ORDER-158 $Z(s) = \left(\infty, \infty, R_3, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

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

10.159 INVALID-ORDER-159
$$Z(s) = \left(\infty, \infty, R_3, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.160 INVALID-ORDER-160
$$Z(s) = \left(\infty, \infty, R_3, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.161 INVALID-ORDER-161
$$Z(s) = \left(\infty, \infty, R_3, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.162 INVALID-ORDER-162
$$Z(s) = \left(\infty, \infty, R_3, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.163 INVALID-ORDER-163
$$Z(s) = \left(\infty, \infty, R_3, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.164 INVALID-ORDER-164
$$Z(s) = \left(\infty, \infty, R_3, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

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

10.166 INVALID-ORDER-166
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, R_L\right)$$

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

10.167 INVALID-ORDER-167
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.168 INVALID-ORDER-168
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.169 INVALID-ORDER-169
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.170 INVALID-ORDER-170
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.171 INVALID-ORDER-171
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.172 INVALID-ORDER-172
$$Z(s) = \left(\infty, \ \infty, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.173 INVALID-ORDER-173
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.174 INVALID-ORDER-174
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.175 INVALID-ORDER-175
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.176 INVALID-ORDER-176
$$Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.177 INVALID-ORDER-177
$$Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.178 INVALID-ORDER-178
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.179 INVALID-ORDER-179
$$Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.180 INVALID-ORDER-180
$$Z(s) = \left(\infty, \ \infty, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

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

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

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

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

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

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

10.184 INVALID-ORDER-184
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.185 INVALID-ORDER-185
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.186 INVALID-ORDER-186
$$Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.187 INVALID-ORDER-187
$$Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.188 INVALID-ORDER-188
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.189 INVALID-ORDER-189
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.190 INVALID-ORDER-190
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.191 INVALID-ORDER-191
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.192 INVALID-ORDER-192
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.193 INVALID-ORDER-193
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.194 INVALID-ORDER-194
$$Z(s) = \left(\infty, \ \infty, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_4 R_4 s + 1\right)}{\left(C_1s + g_m\right) \left(C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_4 s^2 + 2C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.195 INVALID-ORDER-195
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

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

10.197 INVALID-ORDER-197
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, R_L\right)$$

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

10.198 INVALID-ORDER-198
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \infty, \frac{1}{C_Ls}\right)$$

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

10.199 INVALID-ORDER-199
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$$

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

10.200 INVALID-ORDER-200
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$$

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

10.201 INVALID-ORDER-201
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.202 INVALID-ORDER-202
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

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

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

10.204 INVALID-ORDER-204
$$Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \infty, \ \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_LR_Lg_ms\left(C_4L_4s^2+1\right)}{\left(C_1s+g_m\right)\left(C_4C_LL_4L_LR_Ls^4+C_4L_4L_Ls^3+C_4L_4R_Ls^2+2C_4L_LR_Ls^2+C_LL_LR_Ls^2+L_Ls+R_L\right)}$$

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

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

10.206 INVALID-ORDER-206
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

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

10.207 INVALID-ORDER-207
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, R_L\right)$$

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

10.208 INVALID-ORDER-208
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$$

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

10.209 INVALID-ORDER-209
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.210 INVALID-ORDER-210
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$$

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

10.211 INVALID-ORDER-211
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.212 INVALID-ORDER-212
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.213 INVALID-ORDER-213
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.214 INVALID-ORDER-214
$$Z(s) = \left(\infty, \ \infty, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.215 INVALID-ORDER-215
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

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

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

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

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

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

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

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

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

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

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

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

10.222 INVALID-ORDER-222
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

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

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

$$\begin{aligned} \mathbf{10.224} \quad \mathbf{INVALID\text{-}ORDER\text{-}224} \ Z(s) &= \left(\infty, \ \infty, \ \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right) \\ H(s) &= \frac{L_L R_L g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_1 s + q_m \right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_4 s^2 + C_4 R_4 R_L s + C_L L_L R_4 s^2 + L_L s + R_L \right) } \end{aligned}$$

10.225 INVALID-ORDER-225
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

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

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

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

10.228 INVALID-ORDER-228
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.229 INVALID-ORDER-229
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$$

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

10.230 INVALID-ORDER-230
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$$

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

10.231 INVALID-ORDER-231
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.232 INVALID-ORDER-232
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.233 INVALID-ORDER-233
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

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

10.234 INVALID-ORDER-234
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

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

10.235 INVALID-ORDER-235
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

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

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

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

10.238 INVALID-ORDER-238
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{g_m\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1s + g_m\right)\left(C_4C_LL_4R_4s^3 + 2C_4L_4s^2 + C_LL_4s^2 + C_LR_4s + 2\right)}$$

10.239 INVALID-ORDER-239
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1s + g_m\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + C_L R_4 R_L s + L_4 s + R_4 + 2R_L\right)}$$

10.240 INVALID-ORDER-240
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{g_m\left(C_LR_Ls + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1s + g_m\right)\left(C_4C_LL_4R_4s^3 + 2C_4C_LL_4R_Ls^3 + 2C_4L_4s^2 + C_LL_4s^2 + C_LR_4s + 2C_LR_Ls + 2\right)}$$

10.241 INVALID-ORDER-241
$$Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \ \infty, \ \infty, \ L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{g_m\left(C_LL_Ls^2 + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1s + g_m\right)\left(2C_4C_LL_4L_Ls^4 + C_4C_LL_4R_4s^3 + 2C_4L_4s^2 + C_LL_4s^2 + 2C_LL_Ls^2 + C_LR_4s + 2\right)}$$

10.242 INVALID-ORDER-242
$$Z(s) = \left(\infty, \ \infty, \ \frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_Lg_ms\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1s + g_m\right)\left(C_4C_LL_4L_LR_4s^4 + 2C_4L_4L_Ls^3 + C_4L_4R_4s^2 + C_LL_4L_Ls^3 + C_LL_LR_4s^2 + L_4s + 2L_Ls + R_4\right)}$$

10.243 INVALID-ORDER-243
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_2 s}}, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.244 INVALID-ORDER-244
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

10.245 INVALID-ORDER-245
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.246 INVALID-ORDER-246
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \infty, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

10.247 INVALID-ORDER-247 $Z(s) = (\infty, \infty, \infty, R_4, \infty, R_L)$

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

10.248 INVALID-ORDER-248 $Z(s) = \left(\infty, \infty, \infty, R_4, \infty, \frac{1}{C_L s}\right)$

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

10.249 INVALID-ORDER-249 $Z(s) = \left(\infty, \infty, \infty, R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

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

10.250 INVALID-ORDER-250 $Z(s) = \left(\infty, \infty, \infty, R_4, \infty, R_L + \frac{1}{C_L s}\right)$

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

10.251 INVALID-ORDER-251
$$Z(s) = \left(\infty, \infty, \infty, R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.252 INVALID-ORDER-252
$$Z(s) = \left(\infty, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.253 INVALID-ORDER-253
$$Z(s) = \left(\infty, \infty, \infty, R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.254 INVALID-ORDER-254
$$Z(s) = \left(\infty, \infty, \infty, R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.255 INVALID-ORDER-255
$$Z(s) = \left(\infty, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 R_4 R_4 R_5 r^2 + 2 C_4 R_5 R_5 r^2 + 2 C_5 R_5 R_5 r^2$$

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

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

10.257 INVALID-ORDER-257
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L\right)$$

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

10.258 INVALID-ORDER-258
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_{4s}}, \infty, L_L s + \frac{1}{C_{Ls}}\right)$$

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

10.259 INVALID-ORDER-259
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.260 INVALID-ORDER-260
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.261 INVALID-ORDER-261
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_{4}s}, \infty, \frac{1}{C_{L}s + \frac{1}{R_{L}} + \frac{1}{L_{L}s}}\right)$$

$$H(s) = \frac{L_{L}R_{1}R_{4}R_{L}g_{m}s}{\left(C_{1}R_{1}s + R_{1}g_{m} + 1\right)\left(C_{L}L_{L}R_{4}R_{L}s^{2} + L_{L}R_{4}s + 2L_{L}R_{L}s + R_{4}R_{L}\right)}$$

10.262 INVALID-ORDER-262
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.263 INVALID-ORDER-263
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.264 INVALID-ORDER-264
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s}\right)$$

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

10.265 INVALID-ORDER-265
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.266 INVALID-ORDER-266
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.267 INVALID-ORDER-267
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.268 INVALID-ORDER-268
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.269 INVALID-ORDER-269
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.270 INVALID-ORDER-270
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 g_m \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.271 INVALID-ORDER-271
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 s + R_1 q_m + 1\right) \left(2C_4 C_L L_L R_L s^3 + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.272 INVALID-ORDER-272
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.273 INVALID-ORDER-273
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.274 INVALID-ORDER-274
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.275 INVALID-ORDER-275
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.276 INVALID-ORDER-276
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.277 INVALID-ORDER-277
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + 2 L_L s + R_4 + 2 R_L\right)}$$

10.278 INVALID-ORDER-278
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_1 R_4 R_L g_m \left(C_L L_L s^2 + 1 \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + C_L R_4 R_L s + R_4 + 2 R_L \right)}$$

10.279 INVALID-ORDER-279
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

10.280 INVALID-ORDER-280
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.281 INVALID-ORDER-281
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.282 INVALID-ORDER-282
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.283 INVALID-ORDER-283
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 g_m s \left(C_4 R_4 s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.284 INVALID-ORDER-284
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.285 INVALID-ORDER-285
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_1 R_L g_m s \left(C_4 R_4 s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_4 s^2 + 2 C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.286 INVALID-ORDER-286
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 R_4 s + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.287 INVALID-ORDER-287
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.288 INVALID-ORDER-288
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_4 L_4 s^2 + 1 \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 L_4 s^2 + 2 C_4 R_L s + 1 \right)}$$

10.289 INVALID-ORDER-289
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + 1\right)}{s \left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 s^2 + 2C_4 + C_L\right)}$$

10.290 INVALID-ORDER-290
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_4 L_4 s^2 + 1 \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2 C_4 R_L s + C_L R_L s + 1 \right)}$$

10.291 INVALID-ORDER-291
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_L R_L s + 1 \right)}{s \left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.292 INVALID-ORDER-292
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{s \left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 + C_L\right)}$$

10.293 INVALID-ORDER-293
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.294 INVALID-ORDER-294
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.295 INVALID-ORDER-295
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_1 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.296 INVALID-ORDER-296
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.297 INVALID-ORDER-297
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.298 INVALID-ORDER-298
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_1 R_L g_m s}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2C_4 L_4 R_L s^2 + L_4 s + 2R_L\right)}$$

10.299 INVALID-ORDER-299
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

10.300 INVALID-ORDER-300
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_1 R_L g_m s}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + L_4 s + 2 R_L\right)}$$

10.301 INVALID-ORDER-301
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 g_m s \left(C_L R_L s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L R_L s + 2\right)}$$

10.302 INVALID-ORDER-302
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2C_4 C_L L_4 L_L s^4 + 2C_4 L_4 s^2 + C_L L_4 s^2 + 2C_L L_L s^2 + 2\right)}$$

10.303 INVALID-ORDER-303
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L R_1 g_m s}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 L_4 L_L s^2 + C_L L_4 L_L s^2 + L_4 + 2 L_L\right)}$$

10.304 INVALID-ORDER-304
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2 C_L R_L s + 2\right)}$$

10.305 INVALID-ORDER-305
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_1 R_L g_m s}{(C_1 R_1 s + R_1 g_m + 1) (2C_4 L_4 L_L R_L s^2 + C_L L_4 L_L R_L s^2 + L_4 L_L s + L_4 R_L + 2L_L R_L)}$$

10.306 INVALID-ORDER-306
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_4 R_1 g_m s \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 L_L s^3 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + 2 C_L L_L R_L s^2 + L_4 s + 2 L_L s + 2 R_L\right)}$$

10.307 INVALID-ORDER-307
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_4 R_1 R_L g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_4 R_L s^2 + 2 C_L L_L R_L s^2 + L_4 s + 2 R_L\right)}$$

10.308 INVALID-ORDER-308
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + 1\right)}$$

10.309 INVALID-ORDER-309
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{s \left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 + C_L\right)}$$

10.310 INVALID-ORDER-310
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.311 INVALID-ORDER-311
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_L R_L s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{s \left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.312 INVALID-ORDER-312
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{s \left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L\right)}$$

10.313 INVALID-ORDER-313
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.314 INVALID-ORDER-314
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{s \left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s$$

10.316 INVALID-ORDER-316
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + 1\right)}$$

$$\begin{aligned} \textbf{10.317} \quad \textbf{INVALID-ORDER-317} \ \ Z(s) &= \left(\infty, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right) \\ H(s) &= \frac{R_1 R_L g_m \left(C_L L_L s^2 + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_1 R_1 s + R_1 q_m + 1 \right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_4 R_4 s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_4 s + 2 C_4 R_4 s + C_4 L_4 L_5 s^2 + C_4 L_4 L_5 s^3 + C_4 C_L L_5$$

10.318 INVALID-ORDER-318
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_1 R_4 R_L g_m s}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right)}$$

10.319 INVALID-ORDER-319
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 g_m s}{(C_1 R_1 s + R_1 g_m + 1) (2C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2L_4 s + 2R_4)}$$

10.320 INVALID-ORDER-320
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 R_L g_m s}{(C_1 R_1 s + R_1 g_m + 1) (2C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2L_4 R_L s + 2R_4 R_L)}$$

10.321 INVALID-ORDER-321
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 g_m s \left(C_L R_L s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L R_4 R_L s + 2 L_4 s + 2 R_4\right)}$$

10.322 INVALID-ORDER-322
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_L R_4 s^2 + 2 L_4 s + 2 R_4\right)}$$

10.323 INVALID-ORDER-323
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{L_4 L_L R_1 R_4 g_m s}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 L_4 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2 L_4 L_L s + L_4 R_4 + 2 L_L R_4\right)}$$

10.324 INVALID-ORDER-324
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L L_4 R_4 s^2 +$$

10.325 INVALID-ORDER-325
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_1 R_4 R_L g_m s}{(C_1 R_1 s + R_1 g_m + 1) (2C_4 L_4 L_L R_4 R_L s^2 + C_L L_4 L_L R_4 R_L s^2 + L_4 L_L R_4 s + 2L_4 L_L R_4 s + L_4 R_4 R_L + 2L_L R_4 R_L)}$$

10.326 INVALID-ORDER-326
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.327 INVALID-ORDER-327
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_{4s}}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.328 INVALID-ORDER-328
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + L_4 s + R_4 + 2 R_L \right)}$$

10.329 INVALID-ORDER-329
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4R_4s^3 + 2C_4L_4s^2 + C_LR_4s + 2\right)}$$

10.330 INVALID-ORDER-330
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_4R_1s + R_1g_m + 1\right)\left(C_4C_LL_4R_4R_4s^3 + C_4L_4R_4s^2 + 2C_4L_4R_4s^2 + C_4L_4R_4s^2 + C_4L_4R_$$

10.331 INVALID-ORDER-331
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_LR_Ls + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4R_4s^3 + 2C_4C_LL_4R_Ls^3 + 2C_4L_4s^2 + C_LL_4s^2 + C_LR_4s + 2C_LR_Ls + 2\right)}$$

10.332 INVALID-ORDER-332
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_LL_Ls^2 + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1R_1s + R_1g_m + 1\right)\left(2C_4C_LL_4L_Ls^4 + C_4C_LL_4R_4s^3 + 2C_4L_4s^2 + C_LL_4s^2 + 2C_LL_4s^2 + C_LR_4s + 2\right)}$$

10.333 INVALID-ORDER-333
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_LR_1g_ms\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_4R_1s + R_1g_m + 1\right)\left(C_4C_LL_4L_LR_4s^4 + 2C_4L_4L_Ls^3 + C_4L_4R_4s^2 + C_4L_4L_Ls^3 + C_4L_4R_4s^2 + L_4s + 2L_4s + R_4\right)}$$

10.334 INVALID-ORDER-334
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_LL_Ls^2 + C_LR_Ls + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1R_1s + R_1g_m + 1\right)\left(2C_4C_LL_4L_Ls^4 + C_4C_LL_4R_4s^3 + 2C_4C_LL_4R_Ls^3 + 2C_4L_4s^2 + C_LL_4s^2 + C_LL_4s^2 + C_LR_4s + 2C_LR_Ls + 2\right)}$$

10.335 INVALID-ORDER-335
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_1 R_L g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_4 s^3 + C_4 L_4 R_4 R_L s^2 + C_L L_4 L_L R_4 s^3 + C_L L_4 R_4 R_L s^2 + L_4 L_L s^2 + L_4 R_4 s + 2 L_L R_4$$

10.336 INVALID-ORDER-336
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

10.337 INVALID-ORDER-337
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_4 R_L s^2 + C_L$$

10.338 INVALID-ORDER-338 $Z(s) = (\infty, \infty, \infty, \infty, R_4, R_L)$

$$H(s) = \frac{R_1 R_4 R_L g_m \left(C_4 L_4 s^2 + 1 \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 R_4 R_L s + R_4 + 2 R_L \right)}$$

10.339 INVALID-ORDER-339
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2\right)}$$

10.340 INVALID-ORDER-340
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_4 R_L g_m \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2R_L\right)}$$

10.341 INVALID-ORDER-341
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.342 INVALID-ORDER-342
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.343 INVALID-ORDER-343
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2 L_L s + R_4\right)}$$

10.344 INVALID-ORDER-344
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4$$

10.345 INVALID-ORDER-345
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_1 R_4 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 R_L s^4 + C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 R_4 R_L s^2 + 2 C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2 L_L R_4 s$$

10.346 INVALID-ORDER-346
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_{1}R_{4}g_{m}\left(C_{4}L_{4}s^{2}+1\right)\left(C_{L}L_{L}R_{L}s^{2}+L_{L}s+R_{L}\right)}{\left(C_{1}R_{1}s+R_{1}g_{m}+1\right)\left(C_{4}C_{L}L_{4}L_{L}R_{4}s^{4}+2C_{4}C_{L}L_{L}R_{4}s^{2}+2C_{4}L_{L}R_{4}s^{3}+2C_{4}L_{4}L_{L}s^{3}+C_{4}L_{4}R_{4}s^{2}+2C_{4}L_{4}R_{4}s^{2}+2C_{4}L_{L}R_{4}s^{2}+2C_$$

10.347 INVALID-ORDER-347
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.348 INVALID-ORDER-348
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, R_L\right)$$

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

10.349 INVALID-ORDER-349
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, L_L s + \frac{1}{C_L s}\right)$$

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

10.350 INVALID-ORDER-350
$$Z(s) = \left(\infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_4 s}, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.351 INVALID-ORDER-351
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 R_1 q_m s + C_1 s + q_m\right) \left(2C_L L_L s^2 + C_L R_4 s + 2C_L R_5 s + 2C_L R$$

10.352 INVALID-ORDER-352
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.353 INVALID-ORDER-353
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.354 INVALID-ORDER-354
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.355 INVALID-ORDER-355
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{1}{C_L s}\right)$$

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

10.356 INVALID-ORDER-356
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_L + \frac{1}{C_L s}\right)$$

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

10.357 INVALID-ORDER-357
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, L_L s + \frac{1}{C_L s}\right)$$

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

10.358 INVALID-ORDER-358
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.359 INVALID-ORDER-359
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.360 INVALID-ORDER-360
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.361 INVALID-ORDER-361
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 R_1 g_m s + C_1 s + g_m \right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.362 INVALID-ORDER-362
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1 \right) \left(C_L L_L s^2 + 1 \right)}{\left(C_1 R_1 g_m s + C_1 s + g_m \right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1 \right)}$$

10.363 INVALID-ORDER-363
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, R_L + \frac{1}{C_L s}\right)$$

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

10.364 INVALID-ORDER-364
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.365 INVALID-ORDER-365
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.366 INVALID-ORDER-366
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.367 INVALID-ORDER-367
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.368 INVALID-ORDER-368
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + 2 L_L s + R_4 + 2 R_L\right)}$$

10.369 INVALID-ORDER-369
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.370 INVALID-ORDER-370
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{1}{C_L s}\right)$$

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

10.371 INVALID-ORDER-371
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.372 INVALID-ORDER-372
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, R_L + \frac{1}{C_L s}\right)$$

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

10.373 INVALID-ORDER-373
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, L_L s + \frac{1}{C_L s}\right)$$

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

10.374 INVALID-ORDER-374
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 R_1 s + 1\right) \left(C_4 R_4 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.375 INVALID-ORDER-375
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.376 INVALID-ORDER-376
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_{L}R_{L}g_{m}s\left(C_{1}R_{1}s+1\right)\left(C_{4}R_{4}s+1\right)}{\left(C_{1}R_{1}g_{m}s+C_{1}s+g_{m}\right)\left(C_{4}C_{L}L_{L}R_{4}R_{L}s^{3}+C_{4}L_{L}R_{4}s^{2}+2C_{4}L_{L}R_{L}s^{2}+C_{4}R_{4}R_{L}s+C_{L}L_{L}R_{L}s^{2}+L_{L}s+R_{L}\right)}$$

10.377 INVALID-ORDER-377
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$q_m \left(C_1 R_1 s + 1\right) \left(C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1 \right) \left(C_4 R_4 s + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.378 INVALID-ORDER-378
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_{L}g_{m}\left(C_{1}R_{1}s+1\right)\left(C_{4}R_{4}s+1\right)\left(C_{L}L_{L}s^{2}+1\right)}{\left(C_{1}R_{1}g_{m}s+C_{1}s+g_{m}\right)\left(C_{4}C_{L}L_{L}R_{4}s^{3}+2C_{4}C_{L}L_{L}R_{L}s^{3}+C_{4}C_{L}R_{4}R_{L}s^{2}+C_{4}R_{4}s+2C_{4}R_{L}s+C_{L}L_{L}s^{2}+C_{L}R_{L}s+1\right)}$$

10.379 INVALID-ORDER-379
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_4 L_4 s^2 + 2C_4 R_L s + 1\right) \left(C_1 R_1 g_m s + C_1 s + g_m\right)}$$

10.380 INVALID-ORDER-380
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \frac{1}{C_Ls}\right)$$

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

10.381 INVALID-ORDER-381
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L R_L s + 1\right)}$$

10.382 INVALID-ORDER-382
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_{4s}}{C_4 L_4 s^2 + 1}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m (C_1 R_1 s + 1) (C_4 L_4 s^2 + 1) (C_L R_L s + 1)}{s (C_1 R_1 g_m s + C_1 s + g_m) (C_4 C_L L_4 s^2 + 2C_4 C_L R_L s + 2C_4 + C_L)}$$

10.383 INVALID-ORDER-383
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_{4s}}{C_4 L_4 s^2 + 1}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1 \right) \left(C_4 L_4 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right)}{s \left(C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 + C_L \right)}$$

10.384 INVALID-ORDER-384
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_{4s}}{C_4L_4s^2+1}, \frac{L_{Ls}}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.385 INVALID-ORDER-385
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_{4s}}{C_4 L_4 s^2 + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{s \left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + 2C_4 C_L R_L s + 2C_4 + C_L\right)}$$

10.386 INVALID-ORDER-386
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.387 INVALID-ORDER-387
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{g_m\left(C_1R_1s+1\right)\left(C_4L_4s^2+1\right)\left(C_LL_LR_Ls^2+L_Ls+R_L\right)}{\left(C_1R_1g_ms+C_1s+g_m\right)\left(C_4C_LL_4L_1s^4+2C_4C_LL_LR_Ls^3+C_4L_4s^2+2C_4L_Ls^2+2C_4R_Ls+C_LL_Ls^2+1\right)}$$

10.388 INVALID-ORDER-388
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \frac{R_L\left(L_Ls+\frac{1}{C_Ls}\right)}{L_Ls+R_L+\frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_Lg_m\left(C_1R_1s+1\right)\left(C_4L_4s^2+1\right)\left(C_LL_Ls^2+1\right)}{\left(C_1R_1g_ms+C_1s+g_m\right)\left(C_4C_LL_4L_Ls^4+C_4C_LL_4R_Ls^3+2C_4C_LL_4R_Ls^3+C_4L_4s^2+2C_4R_Ls+C_LL_4s^2+C_LR_Ls+1\right)}$$

10.389 INVALID-ORDER-389
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, R_L\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 R_L s^2 + L_4 s + 2 R_L\right)}$$

10.390 INVALID-ORDER-390
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 R_1 s + 1\right)}{\left(2C_4 L_4 s^2 + C_L L_4 s^2 + 2\right) \left(C_1 R_1 g_m s + C_1 s + g_m\right)}$$

10.391 INVALID-ORDER-391
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + L_4 s + 2 R_L\right)}$$

10.392 INVALID-ORDER-392
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 C_L L_4 R_L s^3 + 2C_4 L_4 s^2 + C_L L_4 s^2 + 2C_L R_L s + 2\right)}$$

10.393 INVALID-ORDER-393
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2\right)}$$

10.394 INVALID-ORDER-394
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 L_L s^2 + C_L L_4 L_L s^2 + L_4 + 2 L_L\right)}$$

10.395 INVALID-ORDER-395
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2 C_L R_L s + 2\right)}$$

10.396 INVALID-ORDER-396
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_L g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 L_L R_L s^2 + C_L L_4 L_L R_L s^2 + L_4 L_L s + L_4 R_L + 2 L_L R_L\right)}$$

10.397 INVALID-ORDER-397
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 L_L s^3 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + 2 C_L L_L R_L s^2 + L_4 s + 2 L_L s + 2 R_L\right)}$$

10.398 INVALID-ORDER-398
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 C_L L_4 L_L R_L s^4 + 2C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_4 R_L s^2 + 2C_L L_L R_L s^2 + L_4 s + 2R_L\right)}$$

10.399 INVALID-ORDER-399
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 2C_4 R_L s + 1\right)}$$

10.400 INVALID-ORDER-400
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{s \left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2C_4 + C_L\right)}$$

10.401 INVALID-ORDER-401
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.402 INVALID-ORDER-402
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1\right) \left(C_L R_L s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{s \left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.403 INVALID-ORDER-403
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{s \left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 + C_L\right)}$$

10.404 INVALID-ORDER-404
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_4 s^4 + C_4 C_L L_4 R_4 s^3 + C_4 L_4 s^2 + 2C_4 L_4 s^2 + C_4 R_4 s + C_4 L_4 s^2 + 1\right)}$$

10.405 INVALID-ORDER-405
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{s \left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 C_L R_L s + 2C_4 + C_L\right)}$$

$$\begin{aligned} \textbf{10.406} \quad & \textbf{INVALID-ORDER-406} \ \ Z(s) = \left(\infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right) \\ H(s) = & \frac{L_L R_L g_m s \left(C_1 R_1 s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_L R_4 s^2 + C_4 R_4 R_L s + C_L L_L R_4 s^2 + L_L s + R_L \right)} \end{aligned}$$

10.407 INVALID-ORDER-407
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 q_m s + C_1 s + q_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.408 INVALID-ORDER-408
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_4 S^4 + C_4 C_L L_4 R_4 s^3 + 2C_4 C_L L_4 R_4 s^3 + 2C_4 C_L L_4 R_4 s^2 + C_4 R_4 s + 2C_4 R_4$$

10.409 INVALID-ORDER-409
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, R_L\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right)}$$

10.410 INVALID-ORDER-410
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_{4s}}{C_4 L_4 s^2 + 1} + R_4, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2L_4 s + 2R_4\right)}$$

10.411 INVALID-ORDER-411
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right)}$$

10.412 INVALID-ORDER-412
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L R_4 R_L s + 2 L_4 s + 2 R_4\right)}$$

10.413 INVALID-ORDER-413
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_L R_4 s^2 + 2 L_4 s + 2 R_4\right)}$$

10.414 INVALID-ORDER-414
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_{4s}}{C_4 L_4 s^2 + 1} + R_4, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L R_4 g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2 L_4 L_L s + L_4 R_4 + 2 L_L R_4\right)}$$

10.415 INVALID-ORDER-415
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L L_4 R_4 s^2 + 2 C_L$$

10.416 INVALID-ORDER-416
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_4 L_L R_4 R_L g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 L_L R_4 R_L s^2 + C_L L_4 L_L R_4 R_L s^2 + L_4 L_L R_4 s + 2 L_4 L_L R_4 R_L s + L_4 R_4 R_L + 2 L_L R_4 R_L\right)}$$

10.417 INVALID-ORDER-417
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_4 s^3 + 2 C_L L_4 L_L R_4 s^3 + 2 C_L L_4 L_L R_4 s^2 + 2 L_4 L_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 L_4 R_4 s^2 + 2 L_4 R_$$

10.418 INVALID-ORDER-418
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_4 R_L s^4 + 2 C_4 L_4 R_4 R_L s^2 + C_L L_4 L_L R_4 s^3 + 2 C_L L_4 L_L R_4 s^3 + C_L L_4 R_4 R_L s^2 + 2 C_L L_L R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L \right)}$$

10.419 INVALID-ORDER-419
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + L_4 s + R_4 + 2R_L\right)}$$

10.420 INVALID-ORDER-420
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{g_m\left(C_1R_1s + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1R_1g_ms + C_1s + g_m\right)\left(C_4C_LL_4R_4s^3 + 2C_4L_4s^2 + C_LL_4s^2 + C_LR_4s + 2\right)}$$

10.421 INVALID-ORDER-421
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{R_Lg_m\left(C_1R_1s + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1R_1g_ms + C_1s + g_m\right)\left(C_4C_LL_4R_4R_Ls^3 + C_4L_4R_4s^2 + 2C_4L_4R_Ls^2 + C_LL_4R_Ls^2 + C_LR_4R_Ls + L_4s + R_4 + 2R_L\right)}$$

10.422 INVALID-ORDER-422
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{g_m\left(C_1R_1s + 1\right)\left(C_LR_Ls + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1R_1g_ms + C_1s + g_m\right)\left(C_4C_LL_4R_4s^3 + 2C_4C_LL_4R_Ls^3 + 2C_4L_4s^2 + C_LL_4s^2 + C_LR_4s + 2C_LR_Ls + 2\right)}$$

10.423 INVALID-ORDER-423
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{g_m\left(C_1R_1s + 1\right)\left(C_LL_Ls^2 + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1R_1g_ms + C_1s + g_m\right)\left(2C_4C_LL_4L_Ls^4 + C_4C_LL_4R_4s^3 + 2C_4L_4s^2 + C_LL_4s^2 + 2C_LL_Ls^2 + C_LR_4s + 2\right)}$$

10.424 INVALID-ORDER-424
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_Lg_ms\left(C_1R_1s + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1R_1g_ms + C_1s + g_m\right)\left(C_4C_LL_4L_LR_4s^4 + 2C_4L_4L_Ls^3 + C_4L_4R_4s^2 + C_LL_4L_Ls^3 + C_LL_LR_4s^2 + L_4s + 2L_Ls + R_4\right)}$$

10.425 INVALID-ORDER-425
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{g_m\left(C_1R_1s + 1\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_4R_1g_{rs}s + C_1s + g_{rs}\right)\left(2C_4C_LL_4L_1s^4 + C_4C_LL_4R_4s^3 + 2C_4C_LL_4R_1s^3 + 2C_4L_4s^2 + C_LL_4s^2 + 2C_LL_4s^2 + C_LL_4s^2 + C_LL_4s^2$$

10.426 INVALID-ORDER-426
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 R_1 s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_L s^3 + C_4 L_4 R_L R_2 s^2 + C_L L_4 L_L R_4 s^3 + C_4 L_4 R_L R_2 s^2 + L_4 R_L R_2 s^$$

10.427 INVALID-ORDER-427
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_4 L_L s^3 + C_L L_4 L_L s^2 + L_4 s + 2 L_L s + R_4 + 2 L_L s +$$

10.428 INVALID-ORDER-428
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 L_L s^3 + C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_L R_4 s^2 + C_L L_4 R_4 s^2 + C_L L_4 R_4 s^3 +$$

10.429 INVALID-ORDER-429 $Z(s) = (R_1, R_2, \infty, \infty, \infty, R_L)$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + R_4 + 2R_L\right)}$$

10.430 INVALID-ORDER-430 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_4 g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + 2C_4 R_4 s + C_L R_4 s + 2\right)}$$

10.431 INVALID-ORDER-431 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.432 INVALID-ORDER-432 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_4 g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.433 INVALID-ORDER-433 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_4 g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.434 INVALID-ORDER-434 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L R_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2 L_L s + R_4\right)}$$

10.435 INVALID-ORDER-435
$$Z(s) = \left(R_1, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_$$

10.436 INVALID-ORDER-436
$$Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_4 R_L g_m s \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 R_L s^4 + C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_4 s^3 + C_4 L_4 R_4 R_L s^2 + 2 C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2 L_L R_4 s + 2 L_L R_4 R_L s^2 + 2 C_4 L_L R_4 R_L s^2 + C_4 L_4 R_4 R_L s^2 + C_4 R_4 R_L s^2 + C_$$

10.437 INVALID-ORDER-437
$$Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.438 INVALID-ORDER-438
$$Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.439 INVALID-ORDER-439
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.440 INVALID-ORDER-440
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.441 INVALID-ORDER-441
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.442 INVALID-ORDER-442
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.443 INVALID-ORDER-443
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.444 INVALID-ORDER-444
$$Z(s) = \left(R_1, \frac{1}{C_{2s}}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_{Ls}}\right)$$

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

10.445 INVALID-ORDER-445
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.446 INVALID-ORDER-446
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.447 INVALID-ORDER-447
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.448 INVALID-ORDER-448
$$Z(s) = \left(R_1, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1 \right)}{\left(2C_4 R_L s + 1 \right) \left(C_1 L_1 g_m s^2 + C_1 s + g_m \right)}$$

10.449 INVALID-ORDER-449
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m (C_1 L_1 s^2 + 1)}{s (2C_4 + C_L) (C_1 L_1 g_m s^2 + C_1 s + g_m)}$$

10.450 INVALID-ORDER-450
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right)}{\left(2C_4 R_L s + C_L R_L s + 1\right) \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right)}$$

10.451 INVALID-ORDER-451
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_L R_L s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.452 INVALID-ORDER-452
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(2C_4 C_L L_L s^2 + 2C_4 + C_L \right)}$$

10.453 INVALID-ORDER-453
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(2C_4 L_L s^2 + C_L L_L s^2 + 1\right) \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right)}$$

10.454 INVALID-ORDER-454
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(C_1 L_1 q_m s^2 + C_1 s + q_m \right) \left(2C_4 C_L L_L s^2 + 2C_4 C_L R_L s + 2C_4 + C_L \right)}$$

10.455 INVALID-ORDER-455
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.456 INVALID-ORDER-456
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.457 INVALID-ORDER-457
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1 \right)}$$

10.458 INVALID-ORDER-458
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 R_4 R_L s + R_4 + 2 R_L\right)}$$

10.459 INVALID-ORDER-459
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right)}{\left(2C_4 R_4 s + C_L R_4 s + 2\right) \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right)}$$

10.460 INVALID-ORDER-460
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.461 INVALID-ORDER-461
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.462 INVALID-ORDER-462
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.463 INVALID-ORDER-463
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_4 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2 L_L s + R_4\right)}$$

10.464 INVALID-ORDER-464
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 q_m s^2 + C_1 s + q_m\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_4 s +$$

10.465 INVALID-ORDER-465
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2L_L R_L s + R_4 R_L\right)}$$

10.466 INVALID-ORDER-466
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + 2 L_L s + R_4 + 2 R_L\right)}$$

10.467 INVALID-ORDER-467
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.468 INVALID-ORDER-468
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right)}{\left(C_4 R_4 s + 2 C_4 R_L s + 1\right) \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right)}$$

10.469 INVALID-ORDER-469
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 R_4 s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L R_4 s + 2C_4 + C_L \right)}$$

10.470 INVALID-ORDER-470
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.471 INVALID-ORDER-471
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 R_4 s + 1 \right) \left(C_L R_L s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.472 INVALID-ORDER-472
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 R_4 s + 1 \right) \left(C_L L_L s^2 + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right)}$$

10.473 INVALID-ORDER-473
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.474 INVALID-ORDER-474
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 R_4 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.475 INVALID-ORDER-475
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_4 s^2 + 2C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.476 INVALID-ORDER-476
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 R_4 s + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.477 INVALID-ORDER-477
$$Z(s) = \left(R_1, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.478 INVALID-ORDER-478
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_4 L_4 s^2 + 2 C_4 R_L s + 1\right) \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right)}$$

10.479 INVALID-ORDER-479
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 L_4 s^2 + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + 2C_4 + C_L \right)}$$

10.480 INVALID-ORDER-480
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L R_L s + 1\right)}$$

10.481 INVALID-ORDER-481
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 L_4 s^2 + 1 \right) \left(C_L R_L s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.482 INVALID-ORDER-482
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 L_4 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + 2C_4 + C_L \right)}$$

10.483 INVALID-ORDER-483
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.484 INVALID-ORDER-484
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 L_4 s^2 + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(C_1 L_1 q_m s^2 + C_1 s + q_m \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.485 INVALID-ORDER-485
$$Z(s) = \left(R_1, \ L_2s + R_2 + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.486 INVALID-ORDER-486
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 L_4 s^2 + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.487 INVALID-ORDER-487
$$Z(s) = \left(R_1, \ L_2s + R_2 + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)}{\left(C_1L_1g_ms^2 + C_1s + g_m\right)\left(C_4C_LL_4L_Ls^4 + C_4C_LL_4R_Ls^3 + 2C_4C_LL_LR_Ls^3 + C_4L_4s^2 + 2C_4R_Ls + C_LL_Ls^2 + C_LR_Ls + 1\right)}$$

10.488 INVALID-ORDER-488
$$Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 L_4 R_L s^2 + L_4 s + 2 R_L\right)}$$

10.489 INVALID-ORDER-489
$$Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(2C_4 L_4 s^2 + C_L L_4 s^2 + 2\right) \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right)}$$

10.490 INVALID-ORDER-490
$$Z(s) = \left(R_1, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + L_4 s + 2R_L\right)}$$

10.491 INVALID-ORDER-491
$$Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L R_L s + 2\right)}$$

10.492 INVALID-ORDER-492
$$Z(s) = \left(R_1, \frac{L_{2s}}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2\right)}$$

10.493 INVALID-ORDER-493
$$Z(s) = \left(R_1, \frac{L_{2s}}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{L_{Ls}}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{L_4 L_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 L_4 L_L s^2 + C_L L_4 L_L s^2 + L_4 + 2 L_L\right)}$$

10.494 INVALID-ORDER-494
$$Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2 C_L R_L s + 2\right)}$$

10.495 INVALID-ORDER-495
$$Z(s) = \left(R_1, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_4L_LR_Lg_ms\left(C_1L_1s^2 + 1\right)}{\left(C_1L_1g_ms^2 + C_1s + g_m\right)\left(2C_4L_4L_LR_Ls^2 + C_LL_4L_LR_Ls^2 + L_4L_Ls + L_4R_L + 2L_LR_L\right)}$$

10.496 INVALID-ORDER-496
$$Z(s) = \left(R_1, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{L_4g_ms\left(C_1L_1s^2+1\right)\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(C_1L_1g_ms^2 + C_1s + g_m\right)\left(2C_4C_LL_4L_LR_Ls^4 + 2C_4L_4L_Ls^3 + 2C_4L_4R_Ls^2 + C_LL_4L_Ls^3 + 2C_LL_LR_Ls^2 + L_4s + 2L_Ls + 2R_L\right)}$$

10.497 INVALID-ORDER-497
$$Z(s) = \left(R_1, \frac{L_{2s}}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{L_4R_Lg_ms\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)}{\left(C_1L_1q_ms^2 + C_1s + q_m\right)\left(2C_4C_LL_4L_LR_Ls^4 + 2C_4L_4R_Ls^2 + C_LL_4L_Ls^3 + C_LL_4R_Ls^2 + 2C_LL_4R_Ls^2 + L_4s + 2R_L\right)}$$

10.498 INVALID-ORDER-498
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 2C_4 R_L s + 1\right)}$$

10.499 INVALID-ORDER-499
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{g_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)}{s\left(C_1L_1g_ms^2 + C_1s + g_m\right)\left(C_4C_LL_4s^2 + C_4C_LR_4s + 2C_4 + C_L\right)}$$

10.500 INVALID-ORDER-500
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2C_4 R_L s + C_L R_L s + 1\right)}$$

10.501 INVALID-ORDER-501
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{g_m\left(C_1L_1s^2 + 1\right)\left(C_LR_Ls + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)}{s\left(C_1L_1g_ms^2 + C_1s + g_m\right)\left(C_4C_LL_4s^2 + C_4C_LR_4s + 2C_4C_LR_Ls + 2C_4 + C_L\right)}$$

10.502 INVALID-ORDER-502
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{g_m\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)}{s\left(C_1L_1g_ms^2 + C_1s + g_m\right)\left(C_4C_LL_4s^2 + 2C_4C_LL_Ls^2 + C_4C_LR_4s + 2C_4 + C_L\right)}$$

10.503 INVALID-ORDER-503
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_Lg_ms\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)}{\left(C_1L_1g_ms^2 + C_1s + g_m\right)\left(C_4C_LL_4L_Ls^4 + C_4C_LL_LR_4s^3 + C_4L_4s^2 + 2C_4L_Ls^2 + C_4R_4s + C_LL_Ls^2 + 1\right)}$$

10.504 INVALID-ORDER-504
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{g_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{s\left(C_1L_1g_ms^2 + C_1s + g_m\right)\left(C_4C_LL_4s^2 + 2C_4C_LL_Ls^2 + C_4C_LR_4s + 2C_4C_LR_Ls + 2C_4C_LL_Ls^2\right)}$$

10.505 INVALID-ORDER-505
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$L_L R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + C_4 L_L R_4 s^2 + 2 C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.506 INVALID-ORDER-506
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(C_1L_1g_ms^2 + C_1s + g_m\right)\left(C_4C_LL_4L_Ls^4 + C_4C_LL_LR_4s^3 + 2C_4C_LL_LR_Ls^3 + C_4L_4s^2 + 2C_4L_Ls^2 + C_4R_4s + 2C_4R_Ls + C_LL_Ls^2 + 1\right)}$$

10.507 INVALID-ORDER-507
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)}{\left(C_1L_1g_ms^2 + C_1s + g_m\right)\left(C_4C_LL_4L_1s^4 + C_4C_LL_4R_1s^3 + C_4C_LL_4R_4s^3 + 2C_4C_LL_4R_4s^3 + C_4C_LR_4s^2 + C_4R_4s + 2C_4R_4s + 2C_4R_4s + 2C_4R_4s + C_4L_4s^2 + C_4R_4s + 2C_4R_4s + 2C_4R_$$

10.508 INVALID-ORDER-508 $Z(s) = (L_1 s, R_2, \infty, \infty, \infty, R_L)$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right)}$$

10.509 INVALID-ORDER-509
$$Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 L_4 s + 2 R_4\right)}$$

10.510 INVALID-ORDER-510 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right)}$$

10.511 INVALID-ORDER-511 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L R_4 R_L s + 2 L_4 s + 2 R_4\right)}$$

10.512 INVALID-ORDER-512 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_L R_4 s^2 + 2 L_4 s + 2 R_4\right)}$$

10.513 INVALID-ORDER-513 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_4 L_L R_4 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 L_4 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2 L_4 L_L s + L_4 R_4 + 2 L_L R_4\right)}$$

10.514 INVALID-ORDER-514 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L L_4 R_4 s^2$$

10.515 INVALID-ORDER-515
$$Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 L_4 L_L R_4 R_L s^2 + C_L L_4 L_L R_4 R_L s^2 + L_4 L_L R_4 s + 2 L_4 L_L R_4 R_L + 2 L_L R_4 R_L\right)}$$

10.516 INVALID-ORDER-516
$$Z(s) = \left(L_1 s, \ R_2, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.517 INVALID-ORDER-517
$$Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_4 R_L s^4 + 2 C_4 L_4 R_4 R_L s^2 + C_L L_4 L_L R_4 s^3 + 2 C_L L_4 L_L R_4 s^3 + C_L L_4 R_4 R_L s^2 + 2 C_L L_L R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L \right)}$$

10.518 INVALID-ORDER-518
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + L_4 s + R_4 + 2R_L\right)}$$

10.519 INVALID-ORDER-519
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 \right)}$$

10.520 INVALID-ORDER-520
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + C_L R_4 R_L s + L_4 s + R_4 + 2R_L\right)}$$

10.521 INVALID-ORDER-521
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_L R_L s + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 C_L R_L s + 2 \right)}$$

10.522 INVALID-ORDER-522
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2 \right)}$$

10.523 INVALID-ORDER-523
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + C_L L_4 L_L s^3 + C_L L_L R_4 s^2 + L_4 s + 2L_L s + R_4\right)}$$

10.524 INVALID-ORDER-524
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_L s + 2 \right)}$$

10.525 INVALID-ORDER-525
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_4 s^3 + C_4 L_4 R_4 R_L s^2 + C_L L_4 L_L R_4 s^3 + C_L L_L R_4 R_L s^2 + L_4 L_L s^2 + L_4 R_L s + L_L R_4 s + 2 L_$$

10.526 INVALID-ORDER-526
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + L_4 s + 2 L_L s + R_4 + 2 C_4 L_4 R_4 s^2 + 2 C_4$$

10.527 INVALID-ORDER-527
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.528 INVALID-ORDER-528
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + R_4 + 2R_L\right)}$$

10.529 INVALID-ORDER-529
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + 2C_4 R_4 s + C_L R_4 s + 2\right)}$$

10.530 INVALID-ORDER-530
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2R_L\right)}$$

10.531 INVALID-ORDER-531
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.532 INVALID-ORDER-532
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.533 INVALID-ORDER-533
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2L_L s + R_4\right)}$$

10.534 INVALID-ORDER-534
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 s^2 + 2 C_4 L_4 s^2 + 2 C_4 L_$$

10.535 INVALID-ORDER-535
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 R_L s^4 + C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_4 s^3 + C_4 L_4 R_4 R_L s^2 + 2 C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2 L_L R_4 s + R_4 R_L \right)}$$

10.536 INVALID-ORDER-536
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 R_L s + C_L R_$$

10.537 INVALID-ORDER-537
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 L_4 R_4 s^2 +$$

10.538 INVALID-ORDER-538
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$$

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

10.539 INVALID-ORDER-539
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.540 INVALID-ORDER-540
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$$

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

10.541 INVALID-ORDER-541
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

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

10.542 INVALID-ORDER-542
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.543 INVALID-ORDER-543
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.544 INVALID-ORDER-544
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.545 INVALID-ORDER-545
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.546 INVALID-ORDER-546
$$Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.547 INVALID-ORDER-547
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$H(s) = \frac{L_1 R_L g_m s}{(2C_4 R_L s + 1) \left(C_1 L_1 s^2 + L_1 g_m s + 1\right)}$$

10.548 INVALID-ORDER-548
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_L g_m s}{(C_1 L_1 s^2 + L_1 g_m s + 1) \left(2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.549 INVALID-ORDER-549
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.550 INVALID-ORDER-550
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_L s^2 + 2 C_4 + C_L\right)}$$

10.551 INVALID-ORDER-551
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L g_m s^2}{(C_1 L_1 s^2 + L_1 g_m s + 1) \left(2 C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.552 INVALID-ORDER-552
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.553 INVALID-ORDER-553
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_L g_m s^2}{(C_1 L_1 s^2 + L_1 g_m s + 1) \left(2 C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.554 INVALID-ORDER-554
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.555 INVALID-ORDER-555
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.556 INVALID-ORDER-556
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$H(s) = \frac{L_1 R_4 R_L g_m s}{(C_1 L_1 s^2 + L_1 g_m s + 1) \left(2 C_4 R_4 R_L s + R_4 + 2 R_L\right)}$$

10.557 INVALID-ORDER-557
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_4 g_m s}{(C_1 L_1 s^2 + L_1 g_m s + 1) \left(2 C_4 R_4 s + C_L R_4 s + 2\right)}$$

10.558 INVALID-ORDER-558
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_4 R_L g_m s}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.559 INVALID-ORDER-559
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.560 INVALID-ORDER-560
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.561 INVALID-ORDER-561
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_4 g_m s^2}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2 L_L s + R_4\right)}$$

10.562 INVALID-ORDER-562
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.563 INVALID-ORDER-563
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_4 R_L g_m s^2}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2 L_L R_L s + R_4 R_L\right)}$$

10.564 INVALID-ORDER-564
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + 2 L_L s + R_4 + 2 R_L\right)}$$

10.565 INVALID-ORDER-565
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_4 R_L g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.566 INVALID-ORDER-566
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 R_4 s + 2 C_4 R_L s + 1\right)}$$

10.567 INVALID-ORDER-567
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 R_4 s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L R_4 s + 2 C_4 + C_L \right)}$$

10.568 INVALID-ORDER-568
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.569 INVALID-ORDER-569
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 R_4 s + 1 \right) \left(C_L R_L s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.570 INVALID-ORDER-570
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 R_4 s + 1 \right) \left(C_L L_L s^2 + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right)}$$

10.571 INVALID-ORDER-571
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L g_m s^2 \left(C_4 R_4 s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1 \right)}$$

10.572 INVALID-ORDER-572
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 R_4 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.573 INVALID-ORDER-573
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_L g_m s^2 \left(C_4 R_4 s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_4 s^2 + 2 C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L \right)}$$

10.574 INVALID-ORDER-574
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.575 INVALID-ORDER-575
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.576 INVALID-ORDER-576
$$Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 L_4 s^2 + 2 C_4 R_L s + 1\right)}$$

10.577 INVALID-ORDER-577
$$Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 + C_L\right)}$$

10.578 INVALID-ORDER-578
$$Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L R_L s + 1\right)}$$

10.579 INVALID-ORDER-579
$$Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.580 INVALID-ORDER-580
$$Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + 2C_4 + C_L\right)}$$

10.581 INVALID-ORDER-581
$$Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L g_m s^2 \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.582 INVALID-ORDER-582
$$Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.583 INVALID-ORDER-583
$$Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_L g_m s^2 \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.584 INVALID-ORDER-584
$$Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L s^4 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 L_L s^2 + 2C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.585 INVALID-ORDER-585
$$Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.586 INVALID-ORDER-586
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 L_4 R_L g_m s^2}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 L_4 R_L s^2 + L_4 s + 2 R_L\right)}$$

10.587 INVALID-ORDER-587
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 g_m s^2}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 L_4 s^2 + C_L L_4 s^2 + 2\right)}$$

10.588 INVALID-ORDER-588
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 L_4 R_L g_m s^2}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + L_4 s + 2 R_L\right)}$$

10.589 INVALID-ORDER-589
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 g_m s^2 \left(C_L R_L s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L R_L s + 2 \right)}$$

10.590 INVALID-ORDER-590
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 g_m s^2 \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2\right)}$$

10.591 INVALID-ORDER-591
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_4 L_L g_m s^2}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 L_4 L_L s^2 + C_L L_4 L_L s^2 + L_4 + 2 L_L\right)}$$

10.592 INVALID-ORDER-592
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 g_m s^2 \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2 C_L R_L s + 2\right)}$$

10.593 INVALID-ORDER-593
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_4 L_L R_L g_m s^2}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 L_4 L_L R_L s^2 + C_L L_4 L_L R_L s^2 + L_4 L_L s + L_4 R_L + 2 L_L R_L\right)}$$

10.594 INVALID-ORDER-594
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 L_4 g_m s^2 \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 L_L s^3 + 2 C_4 L_4 L_L s^3 + 2 C_L L_4 L_L s^3 + 2 C_L L_4 L_L s^2 + L_4 s + 2 L_L s + 2 R_L\right)}$$

10.595 INVALID-ORDER-595
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 L_4 R_L g_m s^2 \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_4 R_L s^2 + 2 C_L L_L R_L s^2 + L_4 s + 2 R_L\right)}$$

10.596 INVALID-ORDER-596
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + 1\right)}$$

10.597 INVALID-ORDER-597
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right)}$$

10.598 INVALID-ORDER-598
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.599 INVALID-ORDER-599
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_L R_L s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.600 INVALID-ORDER-600
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_L L_L s^2 + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right)}$$

10.601 INVALID-ORDER-601
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L g_m s^2 \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1 \right)}$$

10.602 INVALID-ORDER-602
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.603 INVALID-ORDER-603
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_L g_m s^2 \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_4 s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.604 INVALID-ORDER-604
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.605 INVALID-ORDER-605
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 L_L L_4 s^4 + C_4 C_L L_4 R_L s^3 + C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + C_4 C_L L_4 R_L s^2 + C_4 L_4 s^2 + C_4 L_$$

10.606 INVALID-ORDER-606
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 L_4 R_4 R_L g_m s^2}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right)}$$

10.607 INVALID-ORDER-607
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_4 g_m s^2}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 L_4 s + 2 R_4\right)}$$

10.608 INVALID-ORDER-608
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 L_4 R_4 R_L g_m s^2}{(C_1 L_1 s^2 + L_1 g_m s + 1) (2C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2L_4 R_L s + 2R_4 R_L)}$$

10.609 INVALID-ORDER-609
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_4 g_m s^2 \left(C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L R_4 R_L s + 2 L_4 s + 2 R_4\right)}$$

10.610 INVALID-ORDER-610
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_4 g_m s^2 \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_L R_4 s^2 + 2 L_4 s + 2 R_4\right)}$$

10.611 INVALID-ORDER-611
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_4 L_L R_4 g_m s^2}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 L_4 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2 L_4 L_L s + L_4 R_4 + 2 L_L R_4\right)}$$

10.612 INVALID-ORDER-612
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1L_4R_4g_ms^2\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{\left(C_1L_1s^2 + L_1g_ms + 1\right)\left(2C_4C_LL_4L_LR_4s^4 + 2C_4C_LL_4R_4s^3 + 2C_4L_4R_4s^2 + 2C_LL_4L_Ls^3 + C_LL_4R_4s^2 + 2C_LL_4R_4s^2 + 2C$$

10.613 INVALID-ORDER-613
$$Z(s) = \begin{pmatrix} \frac{1}{C_1 s}, & \frac{R_2}{C_2 R_2 s + 1}, & \infty, & \infty, & \infty, & \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \end{pmatrix}$$

$$H(s) = \frac{L_1 L_4 L_L R_4 R_L g_m s^2}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 L_4 L_L R_4 R_L s^2 + C_L L_4 L_L R_4 R_L s^2 + L_4 L_L R_4 s + 2 L_4 L_L R_4 R_L + 2 L_L R_4 R_L\right)}$$

10.614 INVALID-ORDER-614
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_{1}L_{4}R_{4}g_{m}s^{2}\left(C_{L}L_{L}R_{L}s^{2} + L_{L}s + R_{L}\right)}{\left(C_{1}L_{1}s^{2} + L_{1}g_{m}s + 1\right)\left(2C_{4}C_{L}L_{4}L_{L}R_{4}s^{4} + 2C_{4}L_{4}L_{L}R_{4}s^{3} + 2C_{4}L_{4}R_{L}R_{2}s^{2} + C_{L}L_{4}L_{L}R_{4}s^{3} + 2C_{L}L_{4}L_{L}R_{4}s^{2} + 2L_{4}L_{L}s^{2} + L_{4}R_{4}s + 2L_{4}R_{L}s + 2L_{4}L_{L}R_{4}s^{2} + 2L_$$

10.615 INVALID-ORDER-615
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.616 INVALID-ORDER-616
$$Z(s) = \left(\frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + L_4 s + R_4 + 2 R_L \right)}$$

10.617 INVALID-ORDER-617
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2\right)}$$

10.618 INVALID-ORDER-618
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + C_L R_4 R_L s + L_4 s + R_4 + 2R_L\right)}$$

10.619 INVALID-ORDER-619
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_L R_L s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.620 INVALID-ORDER-620
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.621 INVALID-ORDER-621
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L g_m s^2 \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + C_L L_4 L_L s^3 + C_L L_L R_4 s^2 + L_4 s + 2 L_L s + R_4 \right)}$$

10.622 INVALID-ORDER-622
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.623 INVALID-ORDER-623
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.624 INVALID-ORDER-624
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.625 INVALID-ORDER-625
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^3 + C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_L R_4 s^2 + 2 C_L L_L R_4 s^2 + C_L L_4 R_4 s^$$

10.626 INVALID-ORDER-626
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_4 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + R_4 + 2R_L\right)}$$

10.627 INVALID-ORDER-627
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2\right)}$$

10.628 INVALID-ORDER-628
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_4 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.629 INVALID-ORDER-629
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.630 INVALID-ORDER-630
$$Z(s) = \left(\frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.631 INVALID-ORDER-631
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_4 g_m s^2 \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2 L_L s + R_4\right)}$$

10.632 INVALID-ORDER-632
$$Z(s) = \left(\frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_$$

10.633 INVALID-ORDER-633
$$Z(s) = \left(\frac{1}{C_{1}s}, L_{2}s + \frac{1}{C_{2}s}, \infty, \infty, \infty, \frac{1}{C_{L}s + \frac{1}{R_{L}} + \frac{1}{L_{L}s}}\right)$$

10.634 INVALID-ORDER-634
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_$$

10.635 INVALID-ORDER-635
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_4 R_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_L s^4 + C_4 C_L L_4 R_L s^3 + 2 C_4 C_L L_L R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4$$

10.636 INVALID-ORDER-636
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.637 INVALID-ORDER-637
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.638 INVALID-ORDER-638
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.639 INVALID-ORDER-639
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.640 INVALID-ORDER-640
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.641 INVALID-ORDER-641
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.642 INVALID-ORDER-642
$$Z(s) = \left(\frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.643 INVALID-ORDER-643
$$Z(s) = \left(\frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.644 INVALID-ORDER-644
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.645 INVALID-ORDER-645
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{\left(2C_4 R_L s + 1 \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.646 INVALID-ORDER-646
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{s \left(2C_4 + C_L \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.647 INVALID-ORDER-647
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{\left(2C_4 R_L s + C_L R_L s + 1 \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.648 INVALID-ORDER-648
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L R_L s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{s \left(2C_4 C_L R_L s + 2C_4 + C_L \right) \left(C_1 L_1 q_m s^2 + C_1 R_1 q_m s + C_1 s + q_m \right)}$$

10.649 INVALID-ORDER-649
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{s \left(2C_4 C_L L_L s^2 + 2C_4 + C_L\right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$$

10.650 INVALID-ORDER-650
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(2C_4 L_L s^2 + C_L L_L s^2 + 1\right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$$

10.651 INVALID-ORDER-651
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.652 INVALID-ORDER-652
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.653 INVALID-ORDER-653
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.654 INVALID-ORDER-654
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.655 INVALID-ORDER-655
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(2C_4 R_4 R_L s + R_4 + 2R_L\right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$$

10.656 INVALID-ORDER-656
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(2C_4 R_4 s + C_L R_4 s + 2\right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$$

10.657 INVALID-ORDER-657
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

$$\textbf{10.658} \quad \textbf{INVALID-ORDER-658} \ Z(s) = \left(\frac{1}{C_1 s}, \ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_L R_L s + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right) }$$

10.659 INVALID-ORDER-659
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.660 INVALID-ORDER-660
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_4 g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2 L_L s + R_4\right)}$$

10.661 INVALID-ORDER-661
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L$$

10.662 INVALID-ORDER-662
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_4 R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2L_L R_L s + R_4 R_L\right)}$$

10.663 INVALID-ORDER-663
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_R R$$

10.664 INVALID-ORDER-664
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_4 S^2 + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.665 INVALID-ORDER-665
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 R_4 s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{\left(C_4 R_4 s + 2 C_4 R_L s + 1 \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.666 INVALID-ORDER-666
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{s \left(C_4 C_L R_4 s + 2 C_4 + C_L \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.667 INVALID-ORDER-667
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 R_4 s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1 \right)}$$

10.668 INVALID-ORDER-668
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1 \right) \left(C_L R_L s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{s \left(C_1 L_1 q_m s^2 + C_1 R_1 q_m s + C_1 s + q_m \right) \left(C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.669 INVALID-ORDER-669
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L\right)}$$

10.670 INVALID-ORDER-670
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_4 R_4 s + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.671 INVALID-ORDER-671
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.672 INVALID-ORDER-672
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_4 R_4 s + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 q_m s^2 + C_1 R_1 q_m s + C_1 s + q_m\right) \left(C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_4 s^2 + 2C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.673 INVALID-ORDER-673
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.674 INVALID-ORDER-674
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.675 INVALID-ORDER-675
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_4 L_4 s^2 + 2 C_4 R_L s + 1\right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$$

10.676 INVALID-ORDER-676
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{s \left(C_4 C_L L_4 s^2 + 2C_4 + C_L \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.677 INVALID-ORDER-677
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.678 INVALID-ORDER-678
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_L R_L s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{s \left(C_1 L_1 q_m s^2 + C_1 R_1 q_m s + C_1 s + q_m \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.679 INVALID-ORDER-679
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 + C_L \right)}$$

10.680 INVALID-ORDER-680
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.681 INVALID-ORDER-681
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.682 INVALID-ORDER-682
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.683 INVALID-ORDER-683
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.684 INVALID-ORDER-684
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 q_m s^2 + C_1 R_1 q_m s + C_1 s + q_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L L_4 s^2 + C_L R_L s + 1\right)}$$

10.685 INVALID-ORDER-685
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(2 C_4 L_4 R_L s^2 + L_4 s + 2 R_L\right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$$

10.686 INVALID-ORDER-686
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(2C_4 L_4 s^2 + C_L L_4 s^2 + 2\right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$$

10.687 INVALID-ORDER-687
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + L_4 s + 2 R_L\right)}$$

10.688 INVALID-ORDER-688
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_L R_L s + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_A C_I L_A R_I s^3 + 2 C_A L_A s^2 + C_I L_A s^2 + 2 C_I R_I s + 2\right)}$$

10.689 INVALID-ORDER-689
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2\right)}$$

10.690 INVALID-ORDER-690
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 L_4 L_L s^2 + C_L L_4 L_L s^2 + L_4 + 2L_L\right)}$$

10.691 INVALID-ORDER-691
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2 C_L R_L s + 2\right)}$$

10.692 INVALID-ORDER-692
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 L_L R_L s^2 + C_L L_4 L_L R_L s^2 + L_4 L_L s + L_4 R_L + 2 L_L R_L\right)}$$

10.693 INVALID-ORDER-693
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 L_L s^3 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + 2 C_L L_L R_L s^2 + L_4 s + 2 L_L s + 2 R_L\right)}$$

10.694 INVALID-ORDER-694
$$Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{L_4R_Lg_ms\left(C_LL_Ls^2 + 1\right)\left(C_1L_1s^2 + C_1R_1s + 1\right)}{\left(C_1L_1g_ms^2 + C_1R_1g_ms + C_1s + g_m\right)\left(2C_4C_LL_4L_LR_Ls^4 + 2C_4L_4R_Ls^2 + C_LL_4L_Ls^3 + C_LL_4R_Ls^2 + 2C_LL_LR_Ls^2 + L_4s + 2R_L\right)}$$

10.695 INVALID-ORDER-695
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + 1 \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.696 INVALID-ORDER-696
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2C_4 + C_L \right)}$$

10.697 INVALID-ORDER-697
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.698 INVALID-ORDER-698
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L R_L s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.699 INVALID-ORDER-699
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 + C_L\right)}$$

10.700 INVALID-ORDER-700
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 L_L L_L s^4 + C_4 L_L L_R s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.701 INVALID-ORDER-701
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 C_L R_L s + 2C_4 + C_L \right)}$$

10.702 INVALID-ORDER-702
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_4 s^2 + 2 C_4 L_L R_4 s^2 + C_4 R_4 R_L s + C_L L_L R_4 s^2 + L_L s + R_L\right)}$$

10.703 INVALID-ORDER-703
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.704 INVALID-ORDER-704
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_4 s + 2 C_4 R_4 s + C_4 L_4 R_4 s^2 + C_4 R_4 s + C_4$$

10.705 INVALID-ORDER-705
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right)}$$

10.706 INVALID-ORDER-706
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 L_4 s + 2 R_4\right)}$$

10.707 INVALID-ORDER-707
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right)}$$

10.708 INVALID-ORDER-708
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_L R_L s + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L R_4 R_L s + 2 L_4 s + 2 R_4\right)}$$

10.709 INVALID-ORDER-709
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

10.710 INVALID-ORDER-710
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L R_4 g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2 L_4 L_L s + L_4 R_4 + 2 L_L R_4\right)}$$

10.711 INVALID-ORDER-711
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_$$

10.712 INVALID-ORDER-712
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_4 R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 L_L R_4 R_L s^2 + C_L L_4 L_L R_4 R_L s^2 + L_4 L_L R_4 s + 2 L_4 L_L R_4 R_L + 2 L_L R_4 R_L\right)}$$

10.713 INVALID-ORDER-713
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.714 INVALID-ORDER-714
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.715 INVALID-ORDER-715
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + L_4 s + R_4 + 2R_L\right)}$$

10.716 INVALID-ORDER-716
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 \right)}$$

10.717 INVALID-ORDER-717
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 L_L R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + C_L R_4 R_L s + L_4 s + R_4 + 2R_L\right)}$$

10.718 INVALID-ORDER-718
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L R_L s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 C_L R_L s + 2 \right)}$$

10.719 INVALID-ORDER-719
$$Z(s) = \left(\frac{R_1}{C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{g_m\left(C_LL_Ls^2 + 1\right)\left(C_1L_1s^2 + C_1R_1s + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1L_1g_ms^2 + C_1R_1g_ms + C_1s + g_m\right)\left(2C_4C_LL_4L_Ls^4 + C_4C_LL_4R_4s^3 + 2C_4L_4s^2 + C_LL_4s^2 + 2C_LL_4s^2 + C_LR_4s + 2\right)}$$

$$\textbf{10.720} \quad \textbf{INVALID-ORDER-720} \ Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \ L_2s + R_2 + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{L_Lg_ms\left(C_1L_1s^2 + C_1R_1s + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1L_1g_ms^2 + C_1R_1g_ms + C_1s + g_m\right)\left(C_4C_LL_4L_LR_4s^4 + 2C_4L_4L_Ls^3 + C_4L_4R_4s^2 + C_LL_4L_Ls^3 + C_LL_LR_4s^2 + L_4s + 2L_Ls + R_4\right)}$$

10.721 INVALID-ORDER-721
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_4 s^2 + C_L R_4 s + 2 C_L$$

10.723 INVALID-ORDER-723
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_L R_4 s^2 + 2 C_L L_L R_4 s^2 + L_4 s + 2 C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_4$$

10.724 INVALID-ORDER-724
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.725 INVALID-ORDER-725
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + R_4 + 2R_L\right)}$$

10.726 INVALID-ORDER-726
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2\right)}$$

10.727 INVALID-ORDER-727
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.728 INVALID-ORDER-728
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.729 INVALID-ORDER-729
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.730 INVALID-ORDER-730
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2 L_L s + R_4\right)}$$

10.731 INVALID-ORDER-731
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^$$

10.732 INVALID-ORDER-732
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_4 R_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 R_L s^4 + C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 R_4 R_L s^2 + 2 C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2 L_$$

10.733 INVALID-ORDER-733
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_4 s^2 + 2 C_4 R_4 R_L s + C_4 R_4 R_4 s^2 + 2 C_4 R_4 R_4 s^2 +$$

10.735 INVALID-ORDER-735
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.736 INVALID-ORDER-736
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.737 INVALID-ORDER-737
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.738 INVALID-ORDER-738
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.739 INVALID-ORDER-739
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.740 INVALID-ORDER-740
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.741 INVALID-ORDER-741
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.742 INVALID-ORDER-742
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.743 INVALID-ORDER-743
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.744 INVALID-ORDER-744
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s}{\left(2C_4 R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.745 INVALID-ORDER-745
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s}{\left(2 C_4 R_L s + C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.746 INVALID-ORDER-746
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_L R_L s + 1 \right)}{\left(2C_4 C_L R_L s + 2C_4 + C_L \right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1 \right)}$$

10.747 INVALID-ORDER-747
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_L L_L s^2 + 1 \right)}{\left(2C_4 C_L L_L s^2 + 2C_4 + C_L \right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1 \right)}$$

10.748 INVALID-ORDER-748
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_1 g_m s^2}{\left(2C_4 L_L s^2 + C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.749 INVALID-ORDER-749
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1 \right) \left(2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.750 INVALID-ORDER-750
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.751 INVALID-ORDER-751
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1 \right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.752 INVALID-ORDER-752
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.753 INVALID-ORDER-753
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_4 R_L g_m s}{\left(2 C_4 R_4 R_L s + R_4 + 2 R_L\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.754 INVALID-ORDER-754
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s}{\left(2 C_4 R_4 s + C_L R_4 s + 2\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.755 INVALID-ORDER-755
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 R_L g_m s}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) (2C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2R_L)}$$

10.756 INVALID-ORDER-756
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.757 INVALID-ORDER-757
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.758 INVALID-ORDER-758
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_1 R_4 g_m s^2}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) (2C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2L_L s + R_4)}$$

10.759 INVALID-ORDER-759
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.760 INVALID-ORDER-760
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_1 R_4 R_L g_m s^2}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2 L_L R_L s + R_4 R_L\right)}$$

10.761 INVALID-ORDER-761
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + 2 L_L s + R_4 + 2 R_L\right)}$$

10.762 INVALID-ORDER-762
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 R_L g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.763 INVALID-ORDER-763
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 R_4 s + 1\right)}{\left(C_4 R_4 s + 2 C_4 R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.764 INVALID-ORDER-764
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 R_4 s + 1 \right)}{\left(C_4 C_L R_4 s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1 \right)}$$

10.765 INVALID-ORDER-765
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.766 INVALID-ORDER-766
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 R_4 s + 1 \right) \left(C_L R_L s + 1 \right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1 \right) \left(C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.767 INVALID-ORDER-767
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 + C_L\right)}$$

10.768 INVALID-ORDER-768
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_1 g_m s^2 \left(C_4 R_4 s + 1 \right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1 \right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1 \right)}$$

10.769 INVALID-ORDER-769
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.770 INVALID-ORDER-770
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_1 R_L g_m s^2 \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_4 s^2 + 2 C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.771 INVALID-ORDER-771
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.772 INVALID-ORDER-772
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.773 INVALID-ORDER-773
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_4 L_4 s^2 + 2 C_4 R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.774 INVALID-ORDER-774
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 L_4 s^2 + 1 \right)}{\left(C_4 C_L L_4 s^2 + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1 \right)}$$

10.775 INVALID-ORDER-775
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L R_L s + 1\right)}$$

10.776 INVALID-ORDER-776
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.777 INVALID-ORDER-777
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + 2C_4 + C_L\right)}$$

10.778 INVALID-ORDER-778
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_1 g_m s^2 \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.779 INVALID-ORDER-779
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + 2C_4 C_L R_L s + 2C_4 + C_L\right)}$$

10.780 INVALID-ORDER-780
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_1 R_L g_m s^2 \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.781 INVALID-ORDER-781
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.782 INVALID-ORDER-782
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.783 INVALID-ORDER-783
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_L g_m s^2}{(2C_4 L_4 R_L s^2 + L_4 s + 2R_L) (C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1)}$$

10.784 INVALID-ORDER-784
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 g_m s^2}{(2C_4 L_4 s^2 + C_L L_4 s^2 + 2) (C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1)}$$

10.785 INVALID-ORDER-785
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_L g_m s^2}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) (2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + L_4 s + 2R_L)}$$

10.786 INVALID-ORDER-786
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 g_m s^2 \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L R_L s + 2\right)}$$

10.787 INVALID-ORDER-787
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 g_m s^2 \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2\right)}$$

10.788 INVALID-ORDER-788
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_4 L_L R_1 g_m s^2}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 L_4 L_L s^2 + C_L L_4 L_L s^2 + L_4 + 2 L_L\right)}$$

10.789 INVALID-ORDER-789
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 g_m s^2 \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2 C_L R_L s + 2\right)}$$

10.790 INVALID-ORDER-790
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_4 L_L R_1 R_L g_m s^2}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) (2C_4 L_4 L_L R_L s^2 + C_L L_4 L_L R_L s^2 + L_4 L_L s + L_4 R_L + 2L_L R_L)}$$

10.791 INVALID-ORDER-791
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 L_4 R_1 g_m s^2 \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 L_L s^3 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + 2 C_L L_L R_L s^2 + L_4 s + 2 L_L s + 2 R_L\right)}$$

10.793 INVALID-ORDER-793
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_4 L_4 s^2 + C_4 R_4 s + 2C_4 R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.794 INVALID-ORDER-794
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1 \right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2C_4 + C_L \right)}$$

10.795 INVALID-ORDER-795
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.796 INVALID-ORDER-796
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_L R_L s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 q_m s + L_1 s + R_1 \right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.797 INVALID-ORDER-797
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_L L_L s^2 + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1 \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right)}$$

10.798 INVALID-ORDER-798
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_1 g_m s^2 \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.799 INVALID-ORDER-799
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 C_L R_L$$

10.800 INVALID-ORDER-800
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_1 R_L g_m s^2 \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_4 s^2 + 2 C_4 L_L R_4 s^2 + C_4 R_4 R_L s + C_L L_L R_4 s^2 + L_L s + R_L\right)}$$

10.801 INVALID-ORDER-801
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.802 INVALID-ORDER-802
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_{1}R_{1}R_{L}g_{m}s\left(C_{L}L_{L}s^{2}+1\right)\left(C_{4}L_{4}s^{2}+C_{4}R_{4}s+1\right)}{\left(C_{1}L_{1}R_{1}s^{2}+L_{1}R_{1}g_{m}s+L_{1}s+R_{1}\right)\left(C_{4}C_{L}L_{4}L_{L}s^{4}+C_{4}C_{L}L_{4}R_{L}s^{3}+C_{4}C_{L}L_{L}R_{4}s^{3}+2C_{4}C_{L}L_{L}R_{4}s^{3}+C_{4}C_{L}L_{4}R_{L}s^{2}+C_{4}L_{4}s^{2}+C_{4}R_{4}s+2C_{4}R_{4}s+2C_{4}R_{L}s+C_{L}L_{L}s^{2}+C_{L}R_{L}s^{2}+C_{L}L_{L}s^{2}+C_{L}$$

10.803 INVALID-ORDER-803
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 R_L g_m s^2}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right)}$$

10.804 INVALID-ORDER-804
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 g_m s^2}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) (2C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2L_4 s + 2R_4)}$$

10.805 INVALID-ORDER-805
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 R_L g_m s^2}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) (2C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2L_4 R_L s + 2R_4 R_L)}$$

10.806 INVALID-ORDER-806
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 g_m s^2 \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L R_4 R_L s + 2 L_4 s + 2 R_4\right)}$$

10.807 INVALID-ORDER-807
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 g_m s^2 \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_L R_4 s^2 + 2 L_4 s + 2 R_4\right)}$$

10.808 INVALID-ORDER-808
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_4 L_L R_1 R_4 g_m s^2}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 L_4 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2 L_4 L_L s + L_4 R_4 + 2 L_L R_4\right)}$$

10.809 INVALID-ORDER-809
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 g_m s^2 \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_$$

10.810 INVALID-ORDER-810
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_4 L_L R_1 R_4 R_L g_m s^2}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) \left(2 C_4 L_4 L_L R_4 R_L s^2 + C_L L_4 L_L R_4 R_L s^2 + L_4 L_L R_4 s + 2 L_4 L_L R_4 R_L + 2 L_L R_4 R_L\right)}$$

10.811 INVALID-ORDER-811
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_{1}L_{4}R_{1}R_{4}g_{m}s^{2}\left(C_{L}L_{L}R_{L}s^{2} + L_{L}s + R_{L}\right)}{\left(C_{1}L_{1}R_{1}s^{2} + L_{1}R_{1}g_{m}s + L_{1}s + R_{1}\right)\left(2C_{4}C_{L}L_{4}L_{L}R_{4}R_{L}s^{4} + 2C_{4}L_{4}L_{L}R_{4}s^{3} + 2C_{4}L_{4}L_{L}R_{4}s^{3} + 2C_{L}L_{4}L_{L}R_{4}s^{3} + 2C_{L}L_{4}L_{L}R_{4}s^{2} + 2L_{4}L_{L}s^{2} + L_{4}R_{4}s + 2C_{4}L_{4}R_{4}R_{L}s^{2} + 2C_{4}L_{4}R_{4}R_{L}s^{2} + C_{4}L_{4}R_{4}R_{L}s^{2} + C_{4}L_{4}R_{4}R_{L}s^{2} + C_{4}L_{4}L_{L}R_{4}s^{3} + 2C_{4}L_{4}L_{L}R_{4}s^{3} + 2C_{4}L_{4}L_{4}R_{4}s^{3} + 2C_{4}L_{4}R_{4}s^{3} + 2C_{4}L_{4}L_{4}R_{4}s^{3} + 2C_{4}L_{4}L_{4}R_{4}s^{3} + 2C_{4}L_{4}L_{4}R_{4}s^{3} + 2C_{4}L_{4}L_{4}R_{4}s^{3} + 2C_{4}L_{4}L_{4}R_{4}s^{3} + 2C_{4}L_{4}L_{4}R_{4}s^{3} + 2C_{4}L_{4}R_{4}R_{4}s^{3} + 2C_{4}L_{4}L_{4}R_{4}s^{4} + 2C_{4}L_{4}L_{4}R_{4}s^{3} + 2C_{4}L_{4}L_{4}R_{4}s^{3} + 2C_{4}L_{4}L_{4}R_{4}s^{3} + 2C_{4}L_{4}R_{4}R_{4}s^{3} + 2C_{4}L_{4}L_{4}R_{4}s^{3} + 2C_{4}L_{4}R_{4}R_{4}s^{3} + 2C_{4}L_{4}R_{4}R_{4}R_{4}s^{3} + 2C_{$$

10.812 INVALID-ORDER-812
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.813 INVALID-ORDER-813
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_4 R_1 s^2 + L_4 R_1 g_m s + L_4 s + R_4\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_4 s^2 + L_4 s + R_4 + 2R_4\right)}$$

10.814 INVALID-ORDER-814
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2\right)}$$

10.815 INVALID-ORDER-815
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + C_L R_4 R_L s + L_4 s + R_4 + 2R_L\right)}$$

10.816 INVALID-ORDER-816
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_L R_L s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 C_L R_4 s + 2 C_L R_4 s + 2 C_L R_4 s^2 + C_L R_4 s^2 +$$

10.817 INVALID-ORDER-817
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

$$\textbf{10.818} \quad \textbf{INVALID-ORDER-818} \ Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} \right)$$

$$H(s) = \frac{L_1 L_L R_1 g_m s^2 \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1 \right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + L_4 s + 2 L_L s + R_4 \right) }$$

$$\textbf{10.819} \quad \textbf{INVALID-ORDER-819} \ Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \ \infty, \ \infty, \ \infty, \ \sum L_L s + R_L + \frac{1}{C_L s} \right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1 \right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_4 s^2 + C_L R_4 s + 2 C_L R_L s + 2 \right)}$$

$$\begin{aligned} \mathbf{10.820} \quad \mathbf{INVALID\text{-}ORDER\text{-}820} \ Z(s) &= \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right) \\ H(s) &= \frac{L_1 L_L R_1 R_L g_m s^2 \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1 \right) \left(C_4 C_L L_4 L_L R_4 s^4 + C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_L s^3 + C_4 L_4 R_L s^2 + C_L L_4 L_L R_L s^3 + C_L L_L R_4 R_L s^2 + L_4 L_L s^2 + L_4 R_L s + L_L R_4 s^4 + C_4 L_4 L_1 R_2 s^4 + C_4 L_4 R_4 s^2 + L_4 s + R_4 \right) \\ \mathbf{10.821} \quad \mathbf{INVALID\text{-}ORDER\text{-}821} \ Z(s) &= \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L \right) \\ H(s) &= \frac{L_1 R_1 g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right) \left(C_4 L_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1 \right) \left(C_4 C_1 L_4 L_4 R_4 s^4 + 2 C_4 C_1 L_4 L_4 R_4 s^4 + 2 C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_4 s^2$$

10.822 INVALID-ORDER-822
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.823 INVALID-ORDER-823
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_4 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 R_4 R_L s + R_4 + 2 R_L\right)}$$

10.824 INVALID-ORDER-824
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + 2C_4 R_4 s + C_L R_4 s + 2\right)}$$

10.825 INVALID-ORDER-825
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.826 INVALID-ORDER-826
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.827 INVALID-ORDER-827
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.828 INVALID-ORDER-828
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_1 R_4 g_m s^2 \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2 L_L s + R_4\right)}$$

10.829 INVALID-ORDER-829
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4$$

10.830 INVALID-ORDER-830
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_1 R_4 R_L g_m s^2 \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L R_4 R_L s^4 + C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_4 s^3 + C_4 L_4 R_4 R_L s^2 + 2 C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2 L_L R_4 s +$$

10.831 INVALID-ORDER-831
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.832 INVALID-ORDER-832
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 R_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 R_4 s^2 + 2 C_4 R_4 R_L s^2 + C_4 R_4 R_L s^3 + C_4 R_4 R_L s^$$

10.833 INVALID-ORDER-833
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.834 INVALID-ORDER-834
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.835 INVALID-ORDER-835
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.836 INVALID-ORDER-836
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.837 INVALID-ORDER-837
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.838 INVALID-ORDER-838
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.839 INVALID-ORDER-839
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.840 INVALID-ORDER-840
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.841 INVALID-ORDER-841
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.842 INVALID-ORDER-842
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2C_4 R_L s + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.843 INVALID-ORDER-843
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{s \left(2C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.844 INVALID-ORDER-844
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2C_4 R_L s + C_L R_L s + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.845 INVALID-ORDER-845
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$g_m \left(C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)$$

$$H(s) = \frac{g_m \left(C_L R_L s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(2 C_4 C_L R_L s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.846 INVALID-ORDER-846
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L L_L s^2 + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(2 C_4 C_L L_L s^2 + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.847 INVALID-ORDER-847
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2C_4 L_L s^2 + C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.848 INVALID-ORDER-848
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.849 INVALID-ORDER-849
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.850 INVALID-ORDER-850
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.851 INVALID-ORDER-851
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_L L_L s^2 + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1 \right)}$$

10.852 INVALID-ORDER-852
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{\left(2 C_4 R_4 R_L s + R_4 + 2 R_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.853 INVALID-ORDER-853
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{\left(2 C_4 R_4 s + C_L R_4 s + 2 \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.854 INVALID-ORDER-854
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{\left(2 C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2 R_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.855 INVALID-ORDER-855
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.856 INVALID-ORDER-856
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_L L_L s^2 + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 \right)}$$

10.857 INVALID-ORDER-857
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_4 g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2L_L s + R_4\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.858 INVALID-ORDER-858
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.859 INVALID-ORDER-859
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_4 R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2 L_L R_L s + R_4 R_L\right)}$$

10.860 INVALID-ORDER-860
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + 2 L_L s + R_4 + 2 R_L\right)}$$

10.861 INVALID-ORDER-861
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_4 s^2 + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.862 INVALID-ORDER-862
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 R_4 s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{\left(C_4 R_4 s + 2 C_4 R_L s + 1 \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.863 INVALID-ORDER-863
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(C_4 C_L R_4 s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.864 INVALID-ORDER-864
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 R_4 s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.865 INVALID-ORDER-865
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1\right) \left(C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{s \left(C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.866 INVALID-ORDER-866
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{s \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.867 INVALID-ORDER-867
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_4 R_4 s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.868 INVALID-ORDER-868
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.869 INVALID-ORDER-869
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_4 R_4 s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_4 s^2 + 2C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.870 INVALID-ORDER-870
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.871 INVALID-ORDER-871
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.872 INVALID-ORDER-872
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_4 L_4 s^2 + 2 C_4 R_L s + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.873 INVALID-ORDER-873
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(C_4 C_L L_4 s^2 + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.874 INVALID-ORDER-874
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.875 INVALID-ORDER-875
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{s \left(C_4 C_L L_4 s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.876 INVALID-ORDER-876
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{s \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 q_m s^2 + C_1 L_1 s^2 + L_1 q_m s + R_1 q_m + 1\right)}$$

10.877 INVALID-ORDER-877
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.878 INVALID-ORDER-878
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{s \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.879 INVALID-ORDER-879
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.880 INVALID-ORDER-880
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.881 INVALID-ORDER-881
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.882 INVALID-ORDER-882
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2C_4 L_4 R_L s^2 + L_4 s + 2R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.883 INVALID-ORDER-883
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2C_4 L_4 s^2 + C_L L_4 s^2 + 2\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.884 INVALID-ORDER-884
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + L_4 s + 2R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.885 INVALID-ORDER-885
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 q_m s^2 + C_1 L_1 s^2 + L_1 q_m s + R_1 q_m + 1\right) \left(2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L R_L s + 2\right)}$$

10.886 INVALID-ORDER-886
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2\right)}$$

10.887 INVALID-ORDER-887
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2C_4 L_4 L_L s^2 + C_L L_4 L_L s^2 + L_4 + 2L_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.888 INVALID-ORDER-888
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2 C_L R_L s + 2\right)}$$

10.889 INVALID-ORDER-889
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 L_4 L_L R_L s^2 + C_L L_4 L_L R_L s^2 + L_4 L_L s + L_4 R_L + 2 L_L R_L\right)}$$

10.890 INVALID-ORDER-890
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 L_L s^3 + 2 C_4 L_4 L_L s^3 + 2 C_L L_4 L_L s^2 + L_4 s + 2 L_L s + 2 R_L\right)}$$

10.891 INVALID-ORDER-891
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_4 R_L s^2 + 2 C_L L_4 R_L s^2 + L_4 s + 2 R_L\right)}$$

10.892 INVALID-ORDER-892
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{\left(C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + 1 \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.893 INVALID-ORDER-893
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.894 INVALID-ORDER-894
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.895 INVALID-ORDER-895
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L R_L s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{s \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_4 s + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.896 INVALID-ORDER-896
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{s \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.897 INVALID-ORDER-897
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.898 INVALID-ORDER-898
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{s \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s$$

10.900 INVALID-ORDER-900
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 q_m s^2 + C_1 L_1 s^2 + L_1 q_m s + R_1 q_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_2 s^3 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.901 INVALID-ORDER-901
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_4 s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2C_4 R_4$$

10.902 INVALID-ORDER-902
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2 C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.903 INVALID-ORDER-903
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2L_4 s + 2R_4\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.904 INVALID-ORDER-904
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right)}$$

10.905 INVALID-ORDER-905
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L L_4 R_L s + 2 L_4 s + 2 R_4\right)}$$

10.906 INVALID-ORDER-906
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

10.907 INVALID-ORDER-907
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L R_4 g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 L_4 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2 L_4 L_L s + L_4 R_4 + 2 L_L R_4\right)}$$

10.908 INVALID-ORDER-908
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L L_4 R_4 s^2 + 2 C_L L_4 R_4$$

10.909 INVALID-ORDER-909
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_4 R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 L_4 L_L R_4 R_L s^2 + C_L L_4 L_L R_4 R_L s^2 + L_4 L_L R_4 s + 2 L_4 L_L R_4 R_L + 2 L_L R_4 R_L\right)}$$

10.910 INVALID-ORDER-910
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.911 INVALID-ORDER-911
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_4 R_L s^4 + 2 C_4 L_4 R_4 R_L s^2 + C_L L_4 L_L R_4 s^3 + 2 C_L L_4 L_L R_4 s^3 + C_L L_4 R_4 R_L s^2 + 2 C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_4 R_L s^2 + C_4 L_4 R_4 R_L s^2 +$$

10.912 INVALID-ORDER-912
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + L_4 s + R_4 + 2 R_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.913 INVALID-ORDER-913
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 \right)}$$

10.914 INVALID-ORDER-914
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + C_L R_4 R_L s + L_4 s + R_4 + 2 R_L \right)}$$

10.915 INVALID-ORDER-915
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L R_L s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 C_L R_L s + 2 \right)}$$

10.916 INVALID-ORDER-916
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L L_L s^2 + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2 \right)}$$

10.917 INVALID-ORDER-917
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + C_L L_4 L_L s^3 + C_L L_L R_4 s^2 + L_4 s + 2 L_L s + R_4\right)}$$

10.918 INVALID-ORDER-918
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_4 s^2 + C_L R_4 s + 2 C_L$$

10.919 INVALID-ORDER-919
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.920 INVALID-ORDER-920
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.921 INVALID-ORDER-921
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_4 s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^3 + C_L L_4$$

10.922 INVALID-ORDER-922
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 R_4 R_L s + R_4 + 2 R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.923 INVALID-ORDER-923
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2\right)}$$

10.924 INVALID-ORDER-924
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2R_L\right)}$$

10.925 INVALID-ORDER-925
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.926 INVALID-ORDER-926
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 L_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 L_4 s^$$

10.927 INVALID-ORDER-927
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2 L_L s + R_4\right)}$$

10.928 INVALID-ORDER-928
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_4 R_4 s^2 + 2 C_4 R_$$

10.929 INVALID-ORDER-929
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.930 INVALID-ORDER-930
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_4 s^2 +$$

10.931 INVALID-ORDER-931
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 R_4 R_L s + C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 R_L s^4 + C_4 L_4 R_4 R_L s^4$$

10.932 INVALID-ORDER-932
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.933 INVALID-ORDER-933
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.934 INVALID-ORDER-934
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.935 INVALID-ORDER-935
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.936 INVALID-ORDER-936
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.937 INVALID-ORDER-937
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.938 INVALID-ORDER-938
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.939 INVALID-ORDER-939
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.940 INVALID-ORDER-940
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.941 INVALID-ORDER-941
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1 \right)}{\left(2C_4 R_L s + 1 \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1 \right)}$$

10.942 INVALID-ORDER-942
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right)}{s \left(2C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.943 INVALID-ORDER-943
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1 \right)}{\left(2C_4 R_L s + C_L R_L s + 1 \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1 \right)}$$

10.944 INVALID-ORDER-944
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_L R_L s + 1 \right)}{s \left(2 C_4 C_L R_L s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1 \right)}$$

10.945 INVALID-ORDER-945
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{s \left(2 C_4 C_L L_L s^2 + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.946 INVALID-ORDER-946
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(2 C_4 L_L s^2 + C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.947 INVALID-ORDER-947
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1 \right)}$$

10.948 INVALID-ORDER-948
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_1 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(2C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.949 INVALID-ORDER-949
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.950 INVALID-ORDER-950
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.951 INVALID-ORDER-951
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right)}{\left(2 C_4 R_4 R_L s + R_4 + 2 R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.952 INVALID-ORDER-952
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_1 L_1 s^2 + 1\right)}{\left(2 C_4 R_4 s + C_L R_4 s + 2\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.953 INVALID-ORDER-953
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right)}{\left(2 C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2 R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.954 INVALID-ORDER-954
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.955 INVALID-ORDER-955
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.956 INVALID-ORDER-956
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 R_4 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(2C_4 L_1 R_4 s^2 + C_1 L_1 R_4 s^2 + 2L_1 s + R_4\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.957 INVALID-ORDER-957
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_4 s$$

10.958 INVALID-ORDER-958
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_1 R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2 L_L R_L s + R_4 R_L\right)}$$

10.959 INVALID-ORDER-959
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$R_1 R_4 q_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_4 s^2 + 2 L_L s + R_4 + 2 R_L\right)}$$

10.960 INVALID-ORDER-960
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_1 R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.961 INVALID-ORDER-961
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right)}{\left(C_4 R_4 s + 2 C_4 R_L s + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.962 INVALID-ORDER-962
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 R_4 s + 1 \right)}{s \left(C_4 C_L R_4 s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1 \right)}$$

10.963 INVALID-ORDER-963
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.964 INVALID-ORDER-964
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right) \left(C_L R_L s + 1\right)}{s \left(C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.965 INVALID-ORDER-965
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right)}{s \left(2C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.966 INVALID-ORDER-966
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.967 INVALID-ORDER-967
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{s \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.968 INVALID-ORDER-968
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_1 R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_4 s^2 + 2C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.969 INVALID-ORDER-969
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

$$\textbf{10.970} \quad \textbf{INVALID-ORDER-970} \ Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1}, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_4R_4s + 1\right)\left(C_LL_Ls^2 + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_LR_4s^3 + 2C_4C_LL_LR_Ls^3 + C_4C_LR_4s^2 + C_4R_4s + 2C_4R_Ls + C_LL_Ls^2 + C_LR_Ls + 1\right) }$$

10.971 INVALID-ORDER-971
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_4 L_4 s^2 + 2 C_4 R_L s + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.972 INVALID-ORDER-972
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{s \left(C_4 C_L L_4 s^2 + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.973 INVALID-ORDER-973
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.974 INVALID-ORDER-974
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{s \left(C_4 C_L L_4 s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.975 INVALID-ORDER-975
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{s \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.976 INVALID-ORDER-976
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 q_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 q_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.977 INVALID-ORDER-977
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{s \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.978 INVALID-ORDER-978
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_1 R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.979 INVALID-ORDER-979
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.980 INVALID-ORDER-980
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.981 INVALID-ORDER-981
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_1 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(2C_4 L_4 R_L s^2 + L_4 s + 2R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.982 INVALID-ORDER-982
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(2 C_4 L_4 s^2 + C_L L_4 s^2 + 2\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.983 INVALID-ORDER-983
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_1 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(2 C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + L_4 s + 2 R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.984 INVALID-ORDER-984
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L R_L s + 2\right)}$$

10.985 INVALID-ORDER-985
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2\right)}$$

10.986 INVALID-ORDER-986
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L R_1 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(2 C_4 L_4 L_L s^2 + C_L L_4 L_L s^2 + L_4 + 2 L_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.987 INVALID-ORDER-987
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2 C_L R_L s + 2\right)}$$

10.988 INVALID-ORDER-988
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_1 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 R_1 q_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 q_m + 1\right) \left(2 C_4 L_4 L_L R_L s^2 + C_L L_4 L_L R_L s^2 + L_4 L_L s + L_4 R_L + 2 L_L R_L\right)}$$

10.989 INVALID-ORDER-989
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_4 R_1 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 L_L s^3 + 2 C_4 L_4 R_L s^3 + 2 C_L L_4 L_L R_L s^2 + L_4 s + 2 L_L s + 2 R_L\right)}$$

10.990 INVALID-ORDER-990
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_4 R_1 R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 R_L s^2 + C_L L_4 R_L s^3 + C_L L_4 R_L s^2 + 2 C_L L_4 R_L s^2 + L_4 s + 2 R_L\right)}$$

10.991 INVALID-ORDER-991
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + 1 \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1 \right)}$$

10.992 INVALID-ORDER-992
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{s \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.993 INVALID-ORDER-993
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.994 INVALID-ORDER-994
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{s \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2C_4 C_L R_L s + 2C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.995 INVALID-ORDER-995
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{s \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.996 INVALID-ORDER-996
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.997 INVALID-ORDER-997
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{s \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.998 INVALID-ORDER-998
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.999 INVALID-ORDER-999
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.1000 INVALID-ORDER-1000
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_4 s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2C_4 R$$

10.1001 INVALID-ORDER-1001
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_1 R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(2 C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.1002 INVALID-ORDER-1002
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 L_4 s + 2 R_4\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.1003 INVALID-ORDER-1003
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right)}$$

10.1004 INVALID-ORDER-1004
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L L_4 R_L s + 2 L_4 s + 2 R_4\right)}$$

10.1005 INVALID-ORDER-1005
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_L R_4 s^2 + 2 L_4 s + 2 R_4\right)}$$

10.1006 INVALID-ORDER-1006
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L R_1 R_4 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 L_4 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2 L_4 L_L s + L_4 R_4 + 2 L_L R_4\right)}$$

10.1007 INVALID-ORDER-1007
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_$$

10.1008 INVALID-ORDER-1008
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_1 R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 L_4 L_L R_4 R_L s^2 + C_L L_4 L_L R_4 R_L s^2 + L_4 L_L R_4 s + 2 L_4 L_L R_4 R_L + 2 L_L R_4 R_L\right)}$$

10.1009 INVALID-ORDER-1009
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.1010 INVALID-ORDER-1010
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$L_4 R_1 R_4 R_L g_m s \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right)$$

$$H(s) = \frac{L_4 R_1 R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_4 R_L s^4 + 2 C_4 L_4 R_4 R_L s^2 + C_L L_4 L_L R_4 s^3 + 2 C_L L_4 L_L R_4 s^3 + C_L L_4 R_4 R_L s^2 + 2 C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_4 R_L s^2 + C_4 R_4 R_L s^2$$

10.1011 INVALID-ORDER-1011
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + L_4 s + R_4 + 2 R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.1012 INVALID-ORDER-1012
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2\right)}$$

10.1013 INVALID-ORDER-1013
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + C_L R_4 R_L s + L_4 s + R_4 + 2 R_L\right)}$$

10.1014 INVALID-ORDER-1014
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.1015 INVALID-ORDER-1015
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2\right)}$$

10.1016 INVALID-ORDER-1016
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + C_L L_4 L_L s^3 + C_L L_L R_4 s^2 + L_4 s + 2 L_L s + R_4\right)}$$

10.1017 INVALID-ORDER-1017
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_4 s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.1018 INVALID-ORDER-1018
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.1019 INVALID-ORDER-1019
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R^3 + 2 C_4 L_4 L_L R^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^3 + C_L L_4 L_L R^3 + C_L L_4 L_L R^3 + 2 C_L L_4 L_L R^3 + C_L L_4 L_L R^3$$

10.1020 INVALID-ORDER-1020
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.1021 INVALID-ORDER-1021
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$H(s) = \frac{R_1 R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 R_4 R_L s + R_4 + 2 R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.1022 INVALID-ORDER-1022
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2\right)}$$

10.1023 INVALID-ORDER-1023
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2R_L\right)}$$

10.1024 INVALID-ORDER-1024
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.1025 INVALID-ORDER-1025
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 L_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4$$

10.1026 INVALID-ORDER-1026
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 R_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2 L_L s + R_4\right)}$$

10.1027 INVALID-ORDER-1027
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2$$

10.1028 INVALID-ORDER-1028
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.1029 INVALID-ORDER-1029
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4$$

10.1030 INVALID-ORDER-1030
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_1 R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_4 R_L s + C_4 C_L R_4 R_L s^3 + C_4 R_4 R$$