Filter Summary Report: TIA,simple,Z1,Z4,ZL

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10.48INVALID-ORDER-48 $Z(s) = (I_s)$	$R_1, \infty, \infty, L_4s +$	$R_4 + \frac{1}{C_4 s}, \ \infty,$	$R_L + \frac{1}{C_L s}$)		 	102
10.49INVALID-ORDER-49 $Z(s) = (I_s)$	$R_1, \infty, \infty, L_4s +$	$R_4 + \frac{1}{C_4 s}, \ \infty,$	$L_L s + \frac{1}{C_L s}$.		 	102
10.50INVALID-ORDER-50 $Z(s) = (I_s)$	$R_1, \infty, \infty, L_4s +$	$R_4 + \frac{1}{C_4 s}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	102
10.51INVALID-ORDER-51 $Z(s) = (I_s)$	$R_1, \infty, \infty, L_4s +$	$R_4 + \frac{1}{C_4 s}, \ \infty, \ .$	$L_L s + R_L + \frac{1}{C_L s}$	$\left(\cdot \right) \ldots \cdot \cdot$	 	102
10.52INVALID-ORDER-52 $Z(s) = \left(1\right)$	$R_1, \infty, \infty, L_4s +$	$R_4 + \frac{1}{C_4 s}, \ \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} $		 	103
10.53INVALID-ORDER-53 $Z(s) = (I$	$R_1, \infty, \infty, L_4s +$	$R_4 + \frac{1}{C_4 s}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} + \hat{R}_L$		 	103
10.54INVALID-ORDER-54 $Z(s) = \left(1\right)$	$R_1, \infty, \infty, L_4s +$	$R_4 + \frac{1}{C_4 s}, \ \infty,$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$		 	103
10.55INVALID-ORDER-55 $Z(s) = \left(1.55 + 1.55$	$R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R}}$	$\frac{1}{4} + \frac{1}{L_4 s}$, ∞ , R_L	$+\frac{1}{C_L s}$ $\cdot \cdot \cdot$		 	103
10.56INVALID-ORDER-56 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	$R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R}}$	$\frac{1}{4+\frac{1}{L_4s}}$, ∞ , L_L	$s + \frac{1}{C_L s}$)		 	103
10.57INVALID-ORDER-57 $Z(s) = \begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$	$R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R}}$	$\frac{1}{4} + \frac{1}{L_4 s}$, ∞ , L_L	$s + R_L + \frac{1}{C_L s}$		 	104
10.58INVALID-ORDER-58 $Z(s) = \left(1.58180000000000000000000000000000000000$	$R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R}}$	$\frac{1}{4+\frac{1}{L_4s}}$, ∞ , $\frac{1}{C_LL_4s}$	$\left(\frac{L_L s}{L_L s^2 + 1} + R_L\right)$		 	104
10.59INVALID-ORDER-59 $Z(s) = \left(10.5918000000000000000000000000000000000000$	$R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R}}$	$\frac{1}{4} + \frac{1}{L_4 s}, \infty, \frac{R_L}{L_L}$	$\frac{\left(L_L s + \frac{1}{C_L s}\right)}{s + R_L + \frac{1}{C_L s}} $		 	104
10.60INVALID-ORDER-60 $Z(s) = (I$	$R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2}$	$\frac{1}{1} + R_4, \ \infty, \ \overline{C}$	$\left(\frac{1}{L_L s}\right) \dots \dots$		 	104
10.61INVALID-ORDER-61 $Z(s) = (I_s)$	$R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2}$	$\frac{1}{1} + R_4, \ \infty, \ \overline{C}$	$\left(\frac{R_L}{R_L s+1}\right)$		 	104
10.62INVALID-ORDER-62 $Z(s) = (I_s)$	$R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2}$	$\frac{1}{1}+R_4, \infty, R$	$R_L + \frac{1}{C_L s}$		 	105
10.63INVALID-ORDER-63 $Z(s) = (I_s)$	$R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2}$	$\frac{1}{1} + R_4$, ∞ , L	$\frac{1}{C_L s} + \frac{1}{C_L s}$		 	105
10.64INVALID-ORDER-64 $Z(s) = (I_s)$	$R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2}$	$\frac{1}{1} + R_4, \ \infty, \ \overline{C}$	$\left(\frac{L_L s}{L_L L_L s^2 + 1}\right)$		 	105
10.65INVALID-ORDER-65 $Z(s) = (I_s)$	$R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2}$	$\frac{1}{1} + R_4$, ∞ , L	$c_L s + R_L + \frac{1}{C_L s}$		 	105
10.66INVALID-ORDER-66 $Z(s) = (1)^{-1}$	$R_1, \ \infty, \ \infty, \ \frac{L_4s}{C_4L_4s^2}$	$\frac{1}{1} + R_4, \ \infty, \ \overline{C}$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$		 	105
10.67INVALID-ORDER-67 $Z(s) = (I$	$R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2}$	$\frac{1}{1}+R_4, \ \infty, \ \overline{C}$	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L \bigg)$		 	106

10.68INVALID-ORDER-68 $Z(s) = ($	$(R_1, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \propto$	$, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$	-)	 	 . 106
10.69INVALID-ORDER-69 $Z(s) = ($,			 	 . 106
10.70INVALID-ORDER-70 $Z(s) = ($	$(R_1, \infty, \infty, \infty,$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty,$	$\frac{R_L}{C_L R_L s + 1}$. 106
10.71INVALID-ORDER-71 $Z(s) = ($	$R_1, \infty, \infty,$	$\frac{R_4\left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \ \infty,$	$R_L + \frac{1}{C_L s}$.		 	 . 106
10.72INVALID-ORDER-72 $Z(s) = ($	$R_1, \infty, \infty,$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty,$	$L_L s + \frac{1}{C_L s}$.		 	 . 107
10.73INVALID-ORDER-73 $Z(s) = ($	$R_1, \infty, \infty,$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$. 107
10.74INVALID-ORDER-74 $Z(s) = ($	$R_1, \infty, \infty,$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty,$	$L_L s + R_L + \frac{1}{C_L}$	$\left(\frac{1}{\sqrt{s}}\right)$. 107
10.75INVALID-ORDER-75 $Z(s) = ($	$R_1, \infty, \infty,$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$. 107
10.76INVALID-ORDER-76 $Z(s) = ($	`	- ,	2 2 /	<u> </u>	 	 . 107
10.77INVALID-ORDER-77 $Z(s) = ($	$R_1, \infty, \infty,$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty,$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$, 	 	 . 108
10.78INVALID-ORDER-78 $Z(s) = ($	$L_1s, \infty, \infty, \infty$	R_4, ∞, R_L)			 	 . 108
10.79INVALID-ORDER-79 $Z(s) = ($,				 	 . 108
10.80INVALID-ORDER-80 $Z(s) = ($		_	- , /			
	`		,			
10.81INVALID-ORDER-81 $Z(s) = ($	$L_1s, \infty, \infty, \infty,$	$R_4, \infty, L_L s + R_1$	$L + \frac{1}{C_L s}$)		 	 . 108
10.82INVALID-ORDER-82 $Z(s) = ($	$L_1s, \infty, \infty,$	$R_4, \infty, \frac{1}{C_L s + \frac{1}{2}}$	$\left(\frac{1}{1-\frac{1}{r}}\right)$. 109
10.83INVALID-ORDER-83 $Z(s) = ($	>	· L	L ,		 	 . 109
10.84INVALID-ORDER-84 $Z(s) = ($	$(L_1s, \infty, \infty, \infty,$	$R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{L_L s + R_L}\right)}{L_L s + R_L}$	$\left(\frac{\frac{1}{C_L s}}{+\frac{1}{C_L s}}\right)$. 109
10.85INVALID-ORDER-85 $Z(s) = ($	$L_1s, \infty, \infty,$	$\frac{1}{C_4 s}$, ∞ , $\frac{1}{C_L s}$	· · · · · · · · ·		 	 . 109
10.86INVALID-ORDER-86 $Z(s) = ($	>	/	$\left(\frac{1}{2\pi s}\right)$. 109
10.87INVALID-ORDER-87 $Z(s) = ($	>		` '			
(0)	1-, 50, 50,	C_4s , $C_LL_Ls^2+$	1)	· · · · · · ·	 	

.88INVALID-ORDER-88 $Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$	10
.89INVALID-ORDER-89 $Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	10
.90INVALID-ORDER-90 $Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	١0
.91INVALID-ORDER-91 $Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	10
.92INVALID-ORDER-92 $Z(s) = (L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L + \frac{1}{C_L s})$	11
.93INVALID-ORDER-93 $Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$	1
.94INVALID-ORDER-94 $Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$	11
.95INVALID-ORDER-95 $Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$	ί1
.96INVALID-ORDER-96 $Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	11
.97INVALID-ORDER-97 $Z(s) = (L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L)$	11
.98INVALID-ORDER-98 $Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	12
.99INVALID-ORDER-99 $Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$	12
1.10 0 NVALID-ORDER-100 $Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$	12
.10INVALID-ORDER-101 $Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$	12
1.102NVALID-ORDER-102 $Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$	12
.10\$NVALID-ORDER-103 $Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	13
.104NVALID-ORDER-104 $Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	13
.10 INVALID-ORDER-105 $Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	13
.106NVALID-ORDER-106 $Z(s) = \left(L_1 s, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L\right)$	13
.10TNVALID-ORDER-107 $Z(s) = \left(L_1 s, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$	13
.10\$NVALID-ORDER-108 $Z(s) = \left(L_1 s, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$	14
.10 9 NVALID-ORDER-109 $Z(s) = \left(L_1 s, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$	14

10.11 0 NVALID-ORDER-110 $Z(s) =$	$(L_1s, \infty, \infty,$	$L_4s + \frac{1}{C_4s}, \propto$	$L_L s + \frac{1}{C_L s}$		 	 114
10.11 I NVALID-ORDER-111 $Z(s) =$	$(L_1s, \infty, \infty,$	$L_4s + \frac{1}{C_4s}, \propto$	$, \frac{L_L s}{C_L L_L s^2 + 1} \right) .$		 	 114
10.11 2 NVALID-ORDER-112 $Z(s) =$	$(L_1s, \infty, \infty,$	$L_4s + \frac{1}{C_4s}, \propto$	$L_L s + R_L + \overline{C}$	$\left(\frac{1}{Ls}\right)$	 	 114
10.11 B NVALID-ORDER-113 $Z(s) =$	$\left(L_1s, \ \infty, \ \infty, \right.$	$L_4s + \frac{1}{C_4s}, \propto$	$C_L s + \frac{1}{R_L} + \frac{1}{L_L s}$)	 	 115
10.11 4 NVALID-ORDER-114 $Z(s) =$	$(L_1s, \infty, \infty,$	$L_4s + \frac{1}{C_4s}, \propto$	$), \ \frac{L_L s}{C_L L_L s^2 + 1} + R$	$_{L}$)	 	 115
10.11 INVALID-ORDER-115 $Z(s) =$	$\left(L_1s, \ \infty, \ \infty, \right.$	$L_4s + \frac{1}{C_4s}, \propto$	$\sum_{L_L s + R_L + \frac{1}{C_L s}} \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$)	 	 115
10.11 6 NVALID-ORDER-116 $Z(s) =$	$(L_1s, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	R_L)		 	 115
10.11 T NVALID-ORDER-117 $Z(s) =$	$(L_1s, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$\frac{1}{C_L s}$)		 	 115
10.11\(\mathbb{S}\)NVALID-ORDER-118 $Z(s) = 0$	$(L_1s, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$\frac{R_L}{C_L R_L s + 1}$		 	 116
10.11 9 NVALID-ORDER-119 $Z(s) = 0$	$(L_1s, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$R_L + \frac{1}{C_L s}$.		 	 116
10.12 ONVALID-ORDER- $120 Z(s) = 10.12$	$(L_1s, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$L_L s + \frac{1}{C_L s}$.		 	 116
10.12 I NVALID-ORDER-121 $Z(s) =$	$(L_1s, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 116
10.12 2 NVALID-ORDER-122 $Z(s) =$	$(L_1s, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$L_L s + R_L + \frac{1}{C_L}$	$\left(\frac{1}{s}\right) \cdot \cdot \cdot \cdot$	 	 116
10.12 B NVALID-ORDER-123 $Z(s) =$	$\left(L_1s, \ \infty, \ \infty, \right.$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$		 	 116
10.124NVALID-ORDER- $124 Z(s) = 10.124$	$(L_1s, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L$	$\left(\cdot \right) = \left(\cdot \right) \cdot \left(\cdot \right)$	 	 117
10.12 NVALID-ORDER-125 $Z(s) =$	$\left(L_1s, \ \infty, \ \infty, \right.$	$\frac{L_4s}{C_4L_4s^2+1}, \infty.$	$= \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} $		 	 117
10.126NVALID-ORDER- $126 Z(s) = 10.12$ 6NVALID-ORDER- $126 Z(s) = 10.12$ 8NVALID-ORDER- $126 Z(s$	$(L_1s, \infty, \infty,$	$L_4s + R_4 + \frac{1}{C}$	$\frac{1}{4s}$, ∞ , R_L) .		 	 117
10.12 T NVALID-ORDER-127 $Z(s) =$	$(L_1s, \infty, \infty,$	$L_4s + R_4 + \overline{C}$	$\frac{1}{4s}$, ∞ , $\frac{1}{C_L s}$		 	 117
10.12\NVALID-ORDER-128 $Z(s) =$	$(L_1s, \infty, \infty,$	$L_4s + R_4 + \frac{1}{C}$	$\frac{1}{4s}$, ∞ , $\frac{R_L}{C_L R_L s + 1}$)	 	 117
10.129NVALID-ORDER-129 $Z(s) =$	$(L_1s, \infty, \infty,$	$L_4s + R_4 + \frac{1}{C}$	$\frac{1}{4s}$, ∞ , $R_L + \frac{1}{C_L}$	$\frac{1}{s}$ \cdots	 	 118
10.13 0 NVALID-ORDER-130 $Z(s) =$	$(L_1s, \infty, \infty,$	$L_4s + R_4 + \frac{1}{C}$	$\frac{1}{4s}$, ∞ , $L_L s + \frac{1}{C}$	$\left(\frac{1}{Ls}\right)$	 	 118
10.13INVALID-ORDER-131 $Z(s) =$	$(L_1s, \infty, \infty,$	$L_4s + R_4 + \frac{1}{C}$	$\frac{1}{4s}$, ∞ , $\frac{L_L s}{C_L L_L s^2 + 1}$	$\overline{1}$)	 	 118

10.13 2 NVALID-ORDER-132 $Z(s) = ($	$\left(L_1 s,\; \infty,\; \infty,\; \infty,\; \ldots \right)$	$L_4s + R_4 + \frac{1}{C_4}$	\bar{s} , ∞ , $L_L s$	$+R_L + \frac{1}{C}$	$\left(\frac{1}{Ls}\right)$	 	 	 118
10.13\(\text{NVALID-ORDER-133} \) $Z(s) = (10.13)$	$\left(L_1s, \ \infty, \ \infty, \right.$	$L_4s + R_4 + \frac{1}{C_4}$	$\frac{1}{c_L s}$, ∞ , $\frac{1}{C_L s}$	$\frac{1}{\frac{1}{R_L} + \frac{1}{L_L s}}$		 	 	 118
10.134NVALID-ORDER-134 $Z(s) = ($	$(L_1 s, \; \infty, \; \infty, \; \infty, \; 1)$	$L_4s + R_4 + \frac{1}{C_4}$	$\frac{L}{s}$, ∞ , $\frac{L}{C_L L}$	$\frac{r_L s}{L s^2 + 1} + R$	L)	 	 	 119
10.135NVALID-ORDER-135 $Z(s) = 1$	$\left(L_1s, \ \infty, \ \infty, \right)$	$L_4s + R_4 + \frac{1}{C_4}$	$\frac{1}{4s}$, ∞ , $\frac{R_L(}{L_L s}$	$\frac{\left(L_L s + \frac{1}{C_L s}\right)}{+R_L + \frac{1}{C_L s}}$)	 	 	 119
10.136NVALID-ORDER-136 $Z(s) = 1$	$\left(L_1s, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},$	∞ , R_L			 	 	 119
10.13 T NVALID-ORDER-137 $Z(s) = 1$	$L_1s, \infty, \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},$	$\infty, \frac{1}{C_L s}$			 	 	 119
10.13&NVALID-ORDER-138 $Z(s) = 1$	$L_1s, \infty, \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},$	∞ , $\frac{R_L}{C_L R_L s}$	$\overline{-1}$ \cdots		 	 	 119
10.13 9 NVALID-ORDER-139 $Z(s) = 0$	$L_1s, \infty, \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},$	∞ , $R_L + \overline{c}$	$\left(\frac{1}{C_L s}\right)$		 	 	 120
10.14 0 NVALID-ORDER-140 $Z(s) = 1$	$L_1s, \infty, \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},$	∞ , $L_L s +$	$\frac{1}{C_L s}$ \cdot \cdot		 	 	 120
10.14INVALID-ORDER-141 $Z(s) =$	$L_1s, \infty, \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},$	∞ , $\frac{L_L s}{C_L L_L s^2}$	$\overline{+1}$)		 	 	 120
10.142NVALID-ORDER-142 $Z(s) = 1$	$L_1s, \infty, \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},$	∞ , $L_L s + 1$	$R_L + \frac{1}{C_L s}$		 	 	 120
10.14 B NVALID-ORDER-143 $Z(s) = 1$	$L_1s, \infty, \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},$	$\infty, \ \frac{1}{C_L s + \frac{1}{R_I}}$	$\left(\frac{1}{L} + \frac{1}{L_L s}\right)$		 	 	 120
10.14 INVALID-ORDER-144 $Z(s) = 1$	\	4 4		. /		 	 	 121
10.145NVALID-ORDER-145 $Z(s) = 1$	$\left(L_1s, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},$	∞ , $\frac{R_L(L_L s)}{L_L s + R_L}$	$\left(\frac{1+\frac{1}{C_L s}}{1+\frac{1}{C_L s}}\right)$		 	 	 121
10.146NVALID-ORDER-146 $Z(s)=\left(\right.$						 	 	 121
10.14 T NVALID-ORDER-147 $Z(s) = ($	$(L_1s, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4$	$, \infty, \frac{1}{C_L s}$			 	 	 121
10.14\(\) NVALID-ORDER-148 $Z(s) = ($	$(L_1s, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4$	$, \infty, \frac{R_L}{C_L R_L}$	$\left(\frac{1}{s+1}\right)$		 	 	 121
10.14 9 NVALID-ORDER-149 $Z(s) = ($	$(L_1s, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4$	$, \infty, R_L +$	$\left(\frac{1}{C_L s}\right)$.		 	 	 122
10.15 0 NVALID-ORDER-150 $Z(s) = ($	<i>;</i>			· \		 	 	 122
10.15INVALID-ORDER-151 $Z(s) = ($	$(L_1 s, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4$	$, \infty, \frac{L_L}{C_L L_L}$	$\left(\frac{s}{s^2+1}\right)'$.		 	 	 122

	$L_1 s, \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} $	122
10.15 & NVALID-ORDER-153 $Z(s)=$	$L_1 s, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $	122
	$L_1 s, \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 $	123
10.15 INVALID-ORDER-155 $Z(s) = 1$	$L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \dots $	123
10.156NVALID-ORDER-156 $Z(s) = 1$	$L_1 s, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L \right) \dots $	123
10.15 TNVALID-ORDER-157 $Z(s) = 1$	$L_1s, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{1}{C_Ls}$	123
10.15\(\text{NVALID-ORDER-158} \) $Z(s) = (s)$	$L_1 s, \; \infty, \; \infty, \; rac{R_4 \left(L_4 s + rac{1}{C_4 s} ight)}{L_4 s + R_4 + rac{1}{C_4 s}}, \; \infty, \; rac{R_L}{C_L R_L s + 1} ight) \; \ldots \; $	123
10.15 9 NVALID-ORDER-159 $Z(s) = 1$	$L_1 s, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L + \frac{1}{C_L s}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $	124
10.16 0 NVALID-ORDER-160 $Z(s) = 1$	$L_1 s, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$	124
10.16 INVALID-ORDER-16 1 $Z(s)=\left(\right.$	$L_1 s, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}$	124
10.16 2 NVALID-ORDER-162 $Z(s) = 1$	$L_1 s, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + R_L + \frac{1}{C_L s}\right) \dots $	124
10.16 NVALID-ORDER-163 $Z(s) = 1$	$L_1 s, \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) \dots $	124
10.164NVALID-ORDER-164 $Z(s) = 1$	$L_1s, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L$	125
10.16 Invalid-order-165 $Z(s) = 1$	$L_1 s, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \dots $	125
10.16 GNVALID-ORDER-166 $Z(s) = 0$	$\frac{1}{C_1s}$, ∞ , ∞ , R_4 , ∞ , R_L)	125
10.16 T NVALID-ORDER-167 $Z(s) = ($	$\frac{1}{C_1s}$, ∞ , ∞ , R_4 , ∞ , $L_Ls + \frac{1}{C_Ls}$)	125
10.16\%NVALID-ORDER-168 $Z(s)=\langle$	$\frac{1}{C_1s}$, ∞ , ∞ , R_4 , ∞ , $\frac{L_Ls}{C_LL_Ls^2+1}$	125
10.16 9 NVALID-ORDER-169 $Z(s) = ($	$\frac{1}{C_1s}$, ∞ , ∞ , R_4 , ∞ , $L_Ls + R_L + \frac{1}{C_Ls}$)	126
10.170NVALID-ORDER-170 $Z(s) = 1$	$\frac{1}{C_1 s}$, ∞ , ∞ , R_4 , ∞ , $\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$)	126

10.17 INVALID-ORDER-171 $Z(s)=\Big($	$\left(\frac{1}{C_1s}, \infty, \infty, \infty, \right)$	$R_4, \infty, \overline{C_L}$	$\frac{L_L s}{L_L s^2 + 1} + R_L$		 	 	126
10.17 2 NVALID-ORDER-172 $Z(s) = ($	$\left(\frac{1}{C_1s}, \infty, \infty, \right)$	$R_4, \infty, \frac{R_L}{L_L}$	$\left(\frac{\left(L_L s + \frac{1}{C_L s}\right)}{s + R_L + \frac{1}{C_L s}}\right)$		 	 	126
10.17 3 NVALID-ORDER-173 $Z(s) = ($	$\frac{1}{C_1 s}, \ \infty, \ \infty,$	$\frac{1}{C_4 s}$, ∞ , $\frac{1}{C_I}$	$\left(\frac{1}{2s}\right)$		 	 	126
10.17 4 NVALID-ORDER-174 $Z(s)=\Big($	$\langle \frac{1}{C_1 s}, \infty, \infty, \infty, \rangle$	$\frac{1}{C_4 s}$, ∞ , R_s	$L + \frac{1}{C_L s}$.		 	 	127
10.175 NVALID-ORDER-175 $Z(s)=\left(\right.$	$\left(\frac{1}{C_1s}, \infty, \infty, \right)$	$\frac{1}{C_4 s}$, ∞ , L_I	$Ls + \frac{1}{C_L s}$.		 	 	127
10.176NVALID-ORDER-176 $Z(s) = ($	$\left(\frac{1}{C_1s}, \infty, \infty, \right)$	$\frac{1}{C_4 s}$, ∞ , C_I	$\left(\frac{L_L s}{L_L s^2 + 1}\right) \cdot \cdot$		 	 	127
10.17 T NVALID-ORDER-177 $Z(s) = ($	$\frac{1}{C_1 s}$, ∞ , ∞ ,	$\frac{1}{C_4 s}$, ∞ , L_I	$Ls + R_L + \frac{1}{C_L s}$	$\left\{ \cdot \right\}$	 	 	127
10.17&NVALID-ORDER-178 $Z(s)=\Big($	$\left(\frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4s}$, ∞ , \overline{C}	$\frac{1}{Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}$		 	 	127
10.17 9 NVALID-ORDER-179 $Z(s)=\Big($	$\left(\frac{1}{C_1s}, \infty, \infty, \infty, \right)$	$\frac{1}{C_4 s}$, ∞ , C_I	$\frac{L_L s}{L_L s^2 + 1} + R_L$)	 	 	127
10.18@NVALID-ORDER-180 $Z(s) = ($	$\left(\frac{1}{C_1s}, \infty, \infty, \right)$	$\frac{1}{C_4 s}$, ∞ , $\frac{R}{L}$	$\frac{L\left(L_L s + \frac{1}{C_L s}\right)}{L s + R_L + \frac{1}{C_L s}}$		 	 	128
10.18INVALID-ORDER-181 $Z(s) = ($	$\left(\frac{1}{C_1s}, \infty, \infty, \infty, \right)$	$\frac{R_4}{C_4R_4s+1}, \propto$	$(R_L + \frac{1}{C_L s})$		 	 	128
10.18 2 NVALID-ORDER-182 $Z(s) = ($	$(\frac{1}{C_1s}, \infty, \infty, \infty,$	$\frac{R_4}{C_4R_4s+1}$, \propto	$(L_L s + \frac{1}{C_L s})$		 	 	128
10.18 3 NVALID-ORDER-183 $Z(s)=\Big($	$\left(\frac{1}{C_1s}, \infty, \infty, \right)$	$\frac{R_4}{C_4R_4s+1}$, \propto	$C_L \frac{L_L s}{C_L L_L s^2 + 1}$		 	 	128
10.18#NVALID-ORDER-184 $Z(s)=\Big($	$\left(\frac{1}{C_1s}, \infty, \infty, \infty, \right)$	$\frac{R_4}{C_4R_4s+1}$, \propto	$, L_L s + R_L +$	$-\frac{1}{C_L s}$)	 	 	128
10.18 INVALID-ORDER-185 $Z(s) = ($	$\left(\frac{1}{C_1s}, \infty, \infty, \right)$	$\frac{R_4}{C_4R_4s+1}, \ \ \circ$	$C, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L}}$	$_{\overline{\mathbb{L}^s}} \Big) \; \cdot \; \cdot \; \cdot$	 	 	129
10.186NVALID-ORDER-186 $Z(s) = ($	$\left(\frac{1}{C_1s}, \infty, \infty, \infty, \right)$	$\frac{R_4}{C_4R_4s+1}, \propto$	$\sum_{C_L L_L s^2 + 1} + \frac{L_L s}{C_L s^2 + 1} + \frac{L_L s}{C$	(R_L)	 	 	129
10.18 T NVALID-ORDER-187 $Z(s) = ($	$\left(\frac{1}{C_1s}, \infty, \infty, \infty, \right)$	$\frac{R_4}{C_4R_4s+1}, \ \ $	$\circ, \frac{R_L \left(L_L s + \frac{1}{C_L}\right)}{L_L s + R_L + \frac{1}{C_L}}$	$\left(\frac{\overline{s}}{L}\right)$	 	 	129
10.18\NVALID-ORDER-188 $Z(s) = ($	$\left(\frac{1}{C_1s}, \infty, \infty, \infty, \right)$	$R_4 + \frac{1}{C_4 s}, \ c$	$\infty, \frac{1}{C_L s}$)		 	 	129
10.18¶NVALID-ORDER-189 $Z(s) = ($	$\frac{1}{C_1 s}, \ \infty, \ \infty,$	$R_4 + \frac{1}{C_4 s}, \ c$	$\infty, \frac{R_L}{C_L R_L s + 1}$		 	 	129
10.19 0 NVALID-ORDER-190 $Z(s) = ($	$\left(\frac{1}{C_1s}, \infty, \infty, \infty, \right)$	$R_4 + \frac{1}{C_4 s}, \ c$	\propto , $R_L + \frac{1}{C_L s}$)	 	 	130
10.19 INVALID-ORDER-191 $Z(s)=\Big($	$\left(\frac{1}{C_1s}, \infty, \infty, \right)$	$R_4 + \frac{1}{C_4 s}, \ c$	∞ , $L_L s + \frac{1}{C_L s}$)	 	 	130
10.19 2 NVALID-ORDER-192 $Z(s)=\Big($	$\left(\frac{1}{C_1s}, \infty, \infty, \infty, \right)$	$R_4 + \frac{1}{C_4 s}, \ c$	$\infty, \ \frac{L_L s}{C_L L_L s^2 + 1}$		 	 	130

10.19 & NVALID-ORDER-193 $Z(s) = 0$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$R_4 + \frac{1}{C_4 s}$, c	∞ , $L_L s + R_L + \overline{C}$	$\left(\frac{1}{Ls}\right) \cdot \cdot \cdot \cdot$	 	
10.19#NVALID-ORDER-194 $Z(s) = 1$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right.$	$R_4 + \frac{1}{C_4 s},$	$\infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$)	 	
10.19 INVALID-ORDER-195 $Z(s) = 0$					 	
10.196NVALID-ORDER-196 $Z(s) = 1$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$R_4 + \frac{1}{C_4 s}, \ c$	$\infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$)	 	
10.19 T NVALID-ORDER-197 $Z(s) = 0$,		\		 	
10.19&NVALID-ORDER-198 $Z(s)=\langle$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + \frac{1}{C_4s},$	$\infty, \frac{1}{C_L s}$)		 	
10.19 9 NVALID-ORDER-199 $Z(s)=\langle$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + \frac{1}{C_4s},$	$\infty, \frac{R_L}{C_L R_L s + 1}$		 	
10.20 0 NVALID-ORDER-200 $Z(s)=\langle$	/		\		 	
10.20INVALID-ORDER-201 $Z(s)=\langle$	$\left(\frac{1}{C_1s}, \infty, \infty, \infty, \right)$	$L_4s + \frac{1}{C_4s},$	∞ , $L_L s + \frac{1}{C_L s}$		 	
10.20 2 NVALID-ORDER-202 $Z(s) = 0$	$\left(\frac{1}{C_1 s}, \infty, \infty, \right)$	$L_4s + \frac{1}{C_4s},$	∞ , $\frac{L_L s}{C_L L_L s^2 + 1}$		 	
10.20\$NVALID-ORDER-203 $Z(s) = 0$	$\left(\frac{1}{C_1s}, \infty, \infty, \infty, \right)$	$L_4s + \frac{1}{C_4s},$	∞ , $L_L s + R_L + R_L$	$\left(\frac{1}{C_L s}\right) \dots .$	 	
10.204NVALID-ORDER-204 $Z(s) = 1$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right.$	$L_4s + \frac{1}{C_4s},$	$\infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$	$\left(\cdot \right) \cdot \cdot \cdot \cdot \cdot \cdot \cdot$	 	
10.20 INVALID-ORDER-205 $Z(s) = 0$	$\left(\frac{1}{C_1s}, \infty, \infty, \infty, \right)$	$L_4s + \frac{1}{C_4s},$	∞ , $\frac{L_L s}{C_L L_L s^2 + 1} + I$	R_L)	 	
10.20 6 NVALID-ORDER-206 $Z(s)=\langle$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + \frac{1}{C_4s},$	$\infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$		 	
10.20 T NVALID-ORDER-207 $Z(s) = 0$	$\left(\frac{1}{C_1 s}, \infty, \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1}, \ \circ$	o, R_L)		 	
10.20\bigselentrian VALID-ORDER-208 $Z(s)=(0.00000000000000000000000000000000000$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1}, \circ$	$\circ, \frac{1}{C_L s}$)		 	
10.20 9 NVALID-ORDER-209 $Z(s) = 0$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1}, \ \bigcirc$	$\circ, \frac{R_L}{C_L R_L s + 1}$.		 	
10.21©NVALID-ORDER-210 $Z(s) = 0$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1}, \ \bigcirc$	$\circ, R_L + \frac{1}{C_L s}$		 	
10.21 INVALID-ORDER-211 $Z(s) = 0$	$\left(\frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1}, \ \bigcirc$	$o, L_L s + \frac{1}{C_L s}$		 	
10.21 2 NVALID-ORDER-212 $Z(s) = 0$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1}, \ \bigcirc$	$C, \frac{L_L s}{C_L L_L s^2 + 1}$.		 	
10.213NVALID-ORDER-213 $Z(s) = 0$	$\left(\frac{1}{C_1s}, \infty, \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1}, \ \bigcirc$	$\circ, \ L_L s + R_L + \overline{C}$	$\left(\frac{1}{L^s}\right) \dots \dots$	 	
10.21 INVALID-ORDER-214 $Z(s) = 0$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1},$ C	$\infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$)	 	

10.21 INVALID-ORDER-215 $Z(s) =$,	\ /		 	 	 . 134
10.21 6 NVALID-ORDER-216 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1},$	∞ , $\frac{R_L(L_L)}{L_L s + R}$	$\left(\frac{s+\frac{1}{C_L s}}{R_L+\frac{1}{C_L s}}\right)$. 134
10.21 T NVALID-ORDER-217 $Z(s) =$	$\left(\frac{1}{C_1 s}, \infty, \infty, \right)$	$L_4s + R_4 +$	$-\frac{1}{C_4s}$, ∞ ,	R_L)		 	 	 . 135
10.21 NVALID-ORDER-218 $Z(s) =$	$\left(\frac{1}{C_1 s}, \infty, \infty, \right)$	$L_4s + R_4 +$	$-\frac{1}{C_4s}$, ∞ ,	$\frac{1}{C_L s}$)		 	 	 . 135
10.21 9 NVALID-ORDER-219 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + R_4 +$	$-\frac{1}{C_4s}$, ∞ ,	$\frac{R_L}{C_L R_L s + 1}$. 135
10.22 ONVALID-ORDER-220 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + R_4 +$	$-\frac{1}{C_4s}$, ∞ ,	$R_L + \frac{1}{C_L s}$. 135
10.22 I NVALID-ORDER-221 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + R_4 +$	$-\frac{1}{C_4s}$, ∞ ,	$L_L s + \frac{1}{C_L s}$)	 	 	 . 135
10.22 2 NVALID-ORDER-222 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + R_4 +$	$-\frac{1}{C_4s}$, ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} \bigg)$. 135
10.22 NVALID-ORDER-223 $Z(s) =$	\ -		-		_ /	 	 	 . 136
10.22#NVALID-ORDER-224 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + R_4$	$+\frac{1}{C_4s}, \ \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L}}$	$\left(\frac{1}{L^{s}}\right)$.	 	 	 . 136
10.22INVALID-ORDER- $225 Z(s) =$	$\left(\frac{1}{C_1s}, \infty, \infty, \infty, \right)$	$L_4s + R_4 +$	$-\frac{1}{C_4s}$, ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} +$	$-R_L$).	 	 	 . 136
10.22 6 NVALID-ORDER-226 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + R_4$ -	$+\frac{1}{C_4s}, \infty,$	$\frac{R_L \left(L_L s + \frac{1}{C_L} + $	$\left(\frac{\overline{s}}{L^s}\right)$. 136
10.22 T NVALID-ORDER-227 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4}}$	$\frac{1}{1s}$, ∞ , R_L)		 	 	 . 136
10.22\&NVALID-ORDER-228 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_2}}$	$\frac{1}{C_L s}$, ∞ , $\frac{1}{C_L s}$	$\left(\frac{1}{8}\right)$. 137
10.22 9 NVALID-ORDER-229 $Z(s) =$	$\left(\frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4}}$	$\frac{1}{C_L}$, ∞ , $\frac{1}{C_L}$	$\frac{R_L}{R_L s+1}$.		 	 	 . 137
10.23©NVALID-ORDER-230 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4}}$	$\frac{1}{1}$, ∞ , R_L	$+\frac{1}{C_L s}$. 137
10.23INVALID-ORDER-231 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4}}$	$\frac{1}{L_s}$, ∞ , L_L	$s + \frac{1}{C_L s}$. 137
10.23 2 NVALID-ORDER-232 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4}}$	$\frac{1}{C_L}$, ∞ , $\frac{1}{C_L}$	$\frac{L_L s}{L_L s^2 + 1}$. 137
10.23 B NVALID-ORDER-233 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4}}$	$\frac{1}{L_s}$, ∞ , L_L	$s + R_L + \overline{C}$	$\left(\frac{1}{Ls}\right)$.	 	 	 . 138
10.234NVALID-ORDER-234 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4}}$	$\frac{1}{C_L}$, ∞ , $\frac{1}{C_L}$	$\frac{1}{s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$. 138

10.23 INVALID-ORDER-235 $Z(s) = 0$	\	1 1
10.236NVALID-ORDER-236 $Z(s) = 1$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\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 \dots \dots \dots \dots \dots \dots \dots \dots $
10.23 T NVALID-ORDER-237 $Z(s) = 0$	$\left(\frac{1}{C_1 s}, \infty, \infty, \right)$	$\frac{L_{4s}}{C_4L_4s^2+1} + R_4, \ \infty, \ R_L$)
10.23\NVALID-ORDER-238 $Z(s)=0$	$\left(\frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ \frac{1}{C_Ls}$
10.23 9 NVALID-ORDER-239 $Z(s) = 0$	\ -	
10.24©NVALID-ORDER-240 $Z(s) = 0$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ R_L + \frac{1}{C_Ls}$
10.24INVALID-ORDER-241 $Z(s) = 0$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ L_Ls + \frac{1}{C_Ls}$
10.242NVALID-ORDER-242 $Z(s) = 0$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1}$
10.24BNVALID-ORDER-243 $Z(s) = 0$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4$, ∞ , $L_Ls + R_L + \frac{1}{C_Ls}$)
10.24#NVALID-ORDER-244 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4$, ∞ , $\frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}$
10.245NVALID-ORDER-245 $Z(s)=1$	$\left(\frac{1}{C_1s}, \infty, \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4$, ∞ , $\frac{L_Ls}{C_LL_Ls^2+1} + R_L$)
10.246NVALID-ORDER-246 $Z(s) =$	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \ \dots $
10.24 TNVALID-ORDER-247 $Z(s) = 1$	$\left(\frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty, \ R_L$
10.24\&NVALID-ORDER-248 $Z(s) =$	$\left(\frac{1}{C_1s}, \infty, \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty, \ \frac{1}{C_Ls}$
10.24 9 NVALID-ORDER-249 $Z(s) = 1$	$\left(\frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty, \ \frac{R_L}{C_L R_L s + 1}$
10.250NVALID-ORDER-250 $Z(s) = 1$	$\left(\frac{1}{C_1s}, \infty, \infty, \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty, \ R_L + \frac{1}{C_Ls}$
10.25INVALID-ORDER-251 $Z(s) =$	$\left(\frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty, \ L_Ls + \frac{1}{C_Ls}$
10.25 2 NVALID-ORDER-252 $Z(s) = 1$	\	-4-
10.25 B NVALID-ORDER-253 $Z(s) =$	$\left(\frac{1}{C_1s}, \infty, \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty, \ L_Ls + R_L + \frac{1}{C_Ls}$

10.254NVALID-ORDER-254 $Z(s) =$	$\left(\frac{1}{C_1 s}, \infty, \infty, \right)$	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}$	$, \infty, \frac{1}{C_L s + \frac{1}{R_L}}$	$\frac{1}{1+\frac{1}{L_L s}}$	 	 	 	142
10.25 NVALID-ORDER-255 $Z(s) =$	$\left(\frac{1}{C_1s}, \infty, \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}$	$, \infty, \frac{L_L s}{C_L L_L s^2}$	$\frac{1}{1+1} + R_L$	 	 	 	142
10.256NVALID-ORDER- 256 $Z(s) =$	$\left(\frac{1}{C_1s}, \infty, \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}$	$, \infty, \frac{R_L \left(L_L s - \frac{1}{L_L s + R_L}\right)}{L_L s + R_L}$	$\left(\frac{+\frac{1}{C_L s}}{+\frac{1}{C_L s}}\right)$	 	 	 	142
10.25 T NVALID-ORDER-257 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right)$	∞ , R_4 , ∞ ,	R_L)		 	 	 	142
10.25\NVALID-ORDER-258 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right)$	∞ , R_4 , ∞ ,	$L_L s + \frac{1}{C_L s}$		 	 	 	142
10.259NVALID-ORDER-259 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right.$	∞ , R_4 , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} \bigg) .$		 	 	 	143
10.26 ONVALID-ORDER-260 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right.$	∞ , R_4 , ∞ ,	$L_L s + R_L + \frac{1}{6}$	$\frac{1}{C_L s}$)	 	 	 	143
10.26INVALID-ORDER-261 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \right.$	∞ , R_4 , ∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$	$\left(\cdot \right) $	 	 	 	143
10.26 2 NVALID-ORDER-262 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right)$	∞ , R_4 , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} + I$	R_L)	 	 	 	143
10.26\%NVALID-ORDER-263 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right.$	∞ , R_4 , ∞ ,	$\frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$		 	 	 	143
10.264NVALID-ORDER-264 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right)$	∞ , $\frac{1}{C_4 s}$, ∞ ,	$\frac{1}{C_L s}$)		 	 	 	144
10.265NVALID-ORDER- $265 Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right)$	∞ , $\frac{1}{C_4s}$, ∞ ,	$R_L + \frac{1}{C_L s}$		 	 	 	144
10.26 6 NVALID-ORDER-266 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right)$	∞ , $\frac{1}{C_4 s}$, ∞ ,	$L_L s + \frac{1}{C_L s}$		 	 	 	144
10.26 T NVALID-ORDER-267 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right)$	∞ , $\frac{1}{C_4s}$, ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 	 	144
10.268NVALID-ORDER- 268 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right.$	∞ , $\frac{1}{C_4 s}$, ∞ ,	$L_L s + R_L +$	$\frac{1}{C_L s}$.	 	 	 	144
10.269NVALID-ORDER-269 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \right.$	∞ , $\frac{1}{C_4s}$, ∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$	$\left(\frac{1}{s}\right)$	 	 	 	144
10.27 ONVALID-ORDER-270 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right)$	∞ , $\frac{1}{C_4 s}$, ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} + $	(R_L)	 	 	 	145
10.27INVALID-ORDER-271 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \right.$	$\infty, \ \frac{1}{C_4 s}, \ \infty,$	$\frac{R_L \left(L_L s + \frac{1}{C_L s} $	$\left(\frac{1}{s}\right)$	 	 	 	145
10.27 2 NVALID-ORDER-272 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right)$	∞ , $\frac{R_4}{C_4R_4s+1}$	$, \infty, R_L + \frac{1}{C_I}$	$\left(\frac{1}{Ls}\right)$	 	 	 	145
10.273NVALID-ORDER-273 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right)$	∞ , $\frac{R_4}{C_4R_4s+1}$	$, \infty, L_L s + \overline{c}$	$\left(\frac{1}{C_L s}\right)$	 	 	 	145
10.27 4 NVALID-ORDER-274 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right.$	∞ , $\frac{R_4}{C_4R_4s+1}$	$, \infty, \frac{L_L s}{C_L L_L s^2 + }$	$\overline{-1}$)	 	 	 	145

10.275 NVALID-ORDER-275 $Z(s)=\langle$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right)$	∞ ,	$\frac{R_4}{C_4R_4s+1}$, \circ	\circ , L	$r_L s + R_L + \frac{1}{C_L}$	\overline{s}	 	 	 	 	146
10.276NVALID-ORDER-276 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right.$	∞ ,	$\frac{R_4}{C_4R_4s+1}$, C	∞ , \overline{c}	$\left(\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	•	 	 	 	 	146
10.27 NVALID-ORDER-277 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \right)$	∞ ,	$\frac{R_4}{C_4R_4s+1}, \ \circ$	$\circ, \ \overline{C}$	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L$		 	 	 	 	146
10.27\$NVALID-ORDER-278 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right.$	∞ ,	$\frac{R_4}{C_4R_4s+1}, \ C$	$\infty, \frac{F}{I}$	$\left(\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$		 	 	 	 	146
10.27 9 NVALID-ORDER-279 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \right)$	∞ ,	$R_4 + \frac{1}{C_4 s},$	∞ ,	$\frac{1}{C_L s}$)		 	 	 	 	146
10.28 0 NVALID-ORDER-280 $Z(s)=($	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right)$	∞ ,	$R_4 + \frac{1}{C_4 s},$	∞ ,	$\frac{R_L}{C_L R_L s + 1}$.		 	 	 	 	147
10.28INVALID-ORDER-281 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \right)$	∞ ,	$R_4 + \frac{1}{C_4 s},$	∞ , i	$R_L + \frac{1}{C_L s}$).		 	 	 	 	147
10.28 2 NVALID-ORDER-282 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \right)$	∞ ,	$R_4 + \frac{1}{C_4 s},$	∞ , i	$L_L s + \frac{1}{C_L s}$		 	 	 	 	147
10.28\mathbb{B}\mathbb{N}\mathbb{V}\mathbb{A}\mathbb{L}\mathbb{I}\mathbb{O}\mathbb{R}\mathbb{D}\mathbb{E}\mathbb{R}-283 \ Z(s) = ($\left(\frac{R_1}{C_1R_1s+1}, \infty, \right)$	∞ ,	$R_4 + \frac{1}{C_4 s},$	∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$).		 	 	 	 	147
10.284NVALID-ORDER-284 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right)$	∞ ,	$R_4 + \frac{1}{C_4 s},$	∞ , I	$L_L s + R_L + \overline{C}$	$\left(\frac{1}{L^s}\right)$	 	 	 	 	147
10.28 INVALID-ORDER-285 $Z(s)=1$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right.$	∞ ,	$R_4 + \frac{1}{C_4 s},$	∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$)	 	 	 	 	147
10.286NVALID-ORDER-286 $Z(s)=0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right)$	∞ ,	$R_4 + \frac{1}{C_4 s},$	∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} + R$	$_L\Big)$	 	 	 	 	148
10.28 TNVALID-ORDER-287 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, \infty,\right.$	∞ ,	$R_4 + \frac{1}{C_4 s},$	∞ ,	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$		 	 	 	 	148
10.28\NVALID-ORDER-288 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \right)$	∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	R_L)		 	 	 	 	148
10.28 9 NVALID-ORDER-289 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \right)$	∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	$\frac{1}{C_L s}$)		 	 	 	 	148
10.29©NVALID-ORDER-290 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \right)$	∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	$\frac{R_L}{C_L R_L s + 1}$.		 	 	 	 	148
10.29INVALID-ORDER-291 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \right)$	∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	$R_L + \frac{1}{C_L s}$		 	 	 	 	149
10.29 2 NVALID-ORDER-292 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \right)$	∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	$L_L s + \frac{1}{C_L s}$		 	 	 	 	149
10.29 B NVALID-ORDER-293 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \right)$	∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 	 	 	149
10.294NVALID-ORDER-294 $Z(s) = 0$	>				$L_L s + R_L + \frac{1}{6}$	$\frac{1}{C_L s}$	 	 	 	 	149
10.29 INVALID-ORDER-295 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \right)$	∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$)	 	 	 	 	149
10.296NVALID-ORDER-296 $Z(s) = 0$	$(R_1 \over C_1 R_1 s + 1, \infty,$	∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} + I$	(\hat{R}_L)	 	 	 	 	150

10.29TNVALID-ORDER-297 $Z(s) = 1$	$\left(\frac{R_1}{C_1 R_1 s + 1}, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.29\nablaNVALID-ORDER-298 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, R_L\right)$
10.29 9 NVALID-ORDER-299 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, \frac{1}{C_Ls}\right)$
10.30 0 NVALID-ORDER-300 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, \frac{R_L}{C_LR_Ls+1}\right)$
10.30INVALID-ORDER-301 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, R_L + \frac{1}{C_Ls}\right)$
10.30 2 NVALID-ORDER-302 $Z(s) = 0$	$\left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$
10.30 B NVALID-ORDER-303 $Z(s) = 0$	$\left(\frac{R_1}{C_1 R_1 s+1}, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.304NVALID-ORDER-304 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.30 5 NVALID-ORDER-305 $Z(s) = 1$	$\left(\frac{R_1}{C_1 R_1 s + 1}, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.30 6 NVALID-ORDER-306 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.30TNVALID-ORDER-307 $Z(s) = 1$	$\left(\frac{R_1}{C_1 R_1 s+1}, \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) \dots $
10.30\bigselentrian NVALID-ORDER-308 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \ \infty, \ \infty, \ L_4s+R_4+\frac{1}{C_4s}, \ \infty, \ R_L\right)$
10.30 9 NVALID-ORDER-309 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls}\right)$
10.31©NVALID-ORDER-310 $Z(s) = 0$	$\left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$
10.31INVALID-ORDER-311 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, R_L + \frac{1}{C_Ls}\right)$
10.31 2 NVALID-ORDER-312 $Z(s) = 0$	$\left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right) \dots \dots$
10.31 B NVALID-ORDER-313 $Z(s) = 0$	$\left(\frac{R_1}{C_1 R_1 s + 1}, \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 $
10.314NVALID-ORDER-314 $Z(s) = 0$	$\left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$
10.31 NVALID-ORDER-315 $Z(s) = 1$	$\left(\frac{R_1}{C_1 R_1 s + 1}, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.31 6 NVALID-ORDER-316 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$
10.31 INVALID-ORDER-317 $Z(s) = 0$	$\left(\frac{R_1}{C_1 R_1 s + 1}, \ \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 \ $
10.31\nbelownvalid-order-318 $Z(s) = 1$	$\left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L\right)$

10.31 9 NVALID-ORDER-319 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\infty, \ \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \propto$	$\left(\frac{1}{C_L s} \right)$			 	 154
10.32 0 NVALID-ORDER-320 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \propto$	$\frac{R_L}{C_L R_L s +}$	$\overline{1}$ \cdots		 	 154
10.32INVALID-ORDER-321 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\infty, \ \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \propto$	$, R_L + \overline{C}$	$\left(\frac{1}{Ls}\right)$		 	 154
10.32 2 NVALID-ORDER-322 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\infty, \ \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \propto$	$L_L s + \frac{1}{6}$	$\left(\frac{1}{C_L s}\right)$		 	 155
10.32 B NVALID-ORDER-323 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\infty, \ \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \propto$	$\frac{L_L s}{C_L L_L s^2}$	$\overline{+1}$)		 	 155
10.324NVALID-ORDER-324 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\infty, \ \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \propto$	$L_L s + I$	$R_L + \frac{1}{C_L s}$		 	 155
10.32 δ NVALID-ORDER-325 $Z(s)=0$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\infty, \ \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \propto$	$, \frac{1}{C_L s + \frac{1}{R_L}}$	$\left(\frac{1}{1+\frac{1}{L_L s}}\right)$.		 	 155
10.326NVALID-ORDER-326 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\infty, \ \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \propto$	$\frac{L_L s}{C_L L_L s^2}$	$\overline{+1} + R_L$		 	 155
10.32 T NVALID-ORDER-327 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\infty, \ \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \propto$	$\sum_{L_L s + R_L} \frac{R_L \left(L_L s - L_L s + R_L \right)}{L_L s + R_L}$	$\left(\frac{+\frac{1}{C_L s}}{+\frac{1}{C_L s}}\right)$		 	 156
10.32\NVALID-ORDER-328 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4,$	∞ , R_L)			 	 156
10.32¶NVALID-ORDER-329 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4,$	$\infty, \frac{1}{C_L s}$			 	 156
10.33 0 NVALID-ORDER-330 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4,$	$\infty, \frac{R_L}{C_L R_L}$	$\overline{s+1}$)		 	 156
10.33INVALID-ORDER-331 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4,$	∞ , R_L +	$\frac{1}{C_L s}$)		 	 156
10.33 2 NVALID-ORDER-332 $Z(s) = ($	$\left\langle \frac{R_1}{C_1 R_1 s + 1}, \right\rangle$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4,$	∞ , $L_L s$ +	$-\frac{1}{C_L s}$.		 	 157
10.33 2 NVALID-ORDER-333 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4,$	∞ , $\frac{L_L}{C_L L_L s}$	$\left(\frac{s}{s^2+1}\right)'$		 	 157
10.33 4 NVALID-ORDER-334 $Z(s) = ($	$\left\langle \frac{R_1}{C_1 R_1 s + 1}, \right\rangle$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4,$	∞ , $L_L s$ +	$-R_L + \frac{1}{C_L s}$)	 	 157
10.33 NVALID-ORDER-335 $Z(s) = 1$	/		$\frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4,$		\		 	 157
10.336NVALID-ORDER-336 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4,$	∞ , $\frac{L_L}{C_L L_L s}$	$\left(\frac{s}{s^2+1} + R_L\right)$		 	 157
10.33TNVALID-ORDER-337 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	$\infty, \ \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4,$	∞ , $\frac{R_L(L)}{L_L s + 1}$	$\frac{Ls + \frac{1}{C_L s}}{R_L + \frac{1}{C_L s}} $		 	 158
10.33\NVALID-ORDER-338 $Z(s) = 1$	•		$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \ \infty$				 	 158

10.33 9 NVALID-ORDER-339 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}$	$\frac{1}{\overline{s}}, \infty,$	$\frac{1}{C_L s}$			 	 	 	 158
10.340NVALID-ORDER- $340 Z(s) = 10.34$ 0NVALID-ORDER- $340 Z(s) = 10.34$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}$	$\frac{)}{\overline{s}}, \infty,$	$\frac{R_L}{C_L R_L s +}$	$\overline{1}$.		 	 	 	 158
10.34INVALID-ORDER-341 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}$	$\frac{)}{\bar{s}}, \infty,$	$R_L + \overline{C}$	$\left(\frac{1}{Ls}\right)$		 	 	 	 158
10.342NVALID-ORDER-342 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}$	$\frac{)}{\bar{s}}, \infty,$	$L_L s + \frac{1}{6}$	$\frac{1}{C_L s}$		 	 	 	 159
10.34BNVALID-ORDER- 343 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}$	$\frac{)}{\overline{s}}, \infty,$	$\frac{L_L s}{C_L L_L s^2}$	$\overline{+1}$) .		 	 	 	 159
10.34\(\text{INVALID-ORDER-344}\) $Z(s) = 0$	($\frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}$				/	 	 	 	 159
10.345NVALID-ORDER-345 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}$	$\frac{)}{\overline{s}}, \infty,$	$\frac{1}{C_L s + \frac{1}{R_L}}$	$+\frac{1}{L_L s}$)	 	 	 	 159
10.346NVALID-ORDER- 346 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}$	$\frac{)}{\bar{s}}, \infty,$	$\frac{L_L s}{C_L L_L s^2}$	$\frac{1}{1} + R$	L .	 	 	 	 159
10.34 INVALID-ORDER-347 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1},\right.$	∞ , ∞ ,	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}$	$\frac{)}{\bar{s}}, \infty,$	$\frac{R_L \left(L_L s + L_L s + R_L \right)}{L_L s + R_L}$	$\left(\frac{+\frac{1}{C_L s}}{c+\frac{1}{C_L s}}\right)$)	 	 	 	 160
10.34&NVALID-ORDER-348 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s},\right.$	∞ , ∞ ,	R_4, ∞, R_4	$_{L}$)				 	 	 	 160
10.349NVALID-ORDER- 349 $Z(s) = 1$	$(R_1 + \frac{1}{C_1 s})$	∞ , ∞ ,	R_4, ∞, L_1	$Ls + \frac{1}{C_I}$	$\left(\frac{1}{\sqrt{s}}\right)$.			 	 	 	 160
10.35 ONVALID-ORDER- $350 Z(s) = 10.35$	$(R_1 + \frac{1}{C_1 s},$	∞ , ∞ ,	$R_4, \infty, \overline{C_1}$	$\frac{L_L s}{L_L L_L s^2 + 1}$	·) ·			 	 	 	 160
10.35INVALID-ORDER- 351 $Z(s) = 1$	$(R_1 + \frac{1}{C_1 s},$	∞ , ∞ ,	R_4, ∞, L_1	$Ls + R_s$	$L + \frac{1}{C_L s}$)		 	 	 	 160
10.35\(2\text{NVALID-ORDER-352}\) $Z(s) = 1$	$(R_1 + \frac{1}{C_1 s},$	∞ , ∞ ,	$R_4, \infty, \overline{C}$	$\frac{1}{Ls+\frac{1}{R_L}}$	$\left(\frac{1}{L_L s}\right)$			 	 	 	 161
10.358NVALID-ORDER- 353 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s},\right.$	∞ , ∞ ,	$R_4, \infty, \overline{C_1}$	$\frac{L_L s}{L L_L s^2 + 1}$	$+R_L$			 	 	 	 161
10.354NVALID-ORDER-354 $Z(s) =$	$(R_1 + \frac{1}{C_1 s},$	∞ , ∞ ,	$R_4, \infty, \frac{R}{L}$	$L_L \left(L_L s + L_L s + R_L s + R_L$	$\left(\frac{1}{C_L s}\right)$			 	 	 	 161
10.35 Invalid-order- $355 Z(s) = 0$	/			\				 	 	 	 161
10.356NVALID-ORDER- 356 $Z(s) = 1$	$(R_1 + \frac{1}{C_1 s})$	∞ , ∞ ,	$\frac{1}{C_4 s}$, ∞ , R	$R_L + \frac{1}{C_L}$	$\left(\frac{1}{\sqrt{s}}\right)$.			 	 	 	 161
10.35 TNVALID-ORDER- 357 $Z(s) = 1$	$(R_1 + \frac{1}{C_1 s})$	∞ , ∞ ,	$\frac{1}{C_4 s}$, ∞ , L	$L_L s + \overline{c}$	$\left(\frac{1}{Ls}\right)$.			 	 	 	 162
10.35\(\) NVALID-ORDER-358 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s})$	∞ , ∞ ,	$\frac{1}{C_4 s}$, ∞ , \overline{C}	$\frac{L_L s}{C_L L_L s^2 +}$	$\overline{1}$.			 	 	 	 162

10.35 9 NVALID-ORDER-359 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty\right)$	$\frac{1}{C_4 s}$, ∞ ,	$L_L s + R_L + \frac{1}{C_L s}$)	 	 162
10.36 ONVALID-ORDER- 360 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty\right)$	$, \frac{1}{C_4 s}, \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$		 	 162
10.36INVALID-ORDER-361 $Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty)$	$\frac{1}{C_4s}$, ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L \bigg)$		 	 162
10.362NVALID-ORDER-362 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty\right)$	$, \frac{1}{C_4 s}, \infty,$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$		 	 163
$10.36 \text{ NVALID-ORDER-} 363 \ Z(s) =$	>		΄,		 	 163
10.36#NVALID-ORDER-364 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty\right)$	$\frac{R_4}{C_4R_4s+1},$	∞ , $L_L s + \frac{1}{C_L s}$		 	 163
10.36 INVALID-ORDER-365 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty\right)$	$\frac{R_4}{C_4R_4s+1},$	$\infty, \frac{L_L s}{C_L L_L s^2 + 1}$		 	 163
10.36 6 NVALID-ORDER-366 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty\right)$	$\frac{R_4}{C_4R_4s+1},$	∞ , $L_L s + R_L +$	$\left(\frac{1}{C_L s}\right)$.	 	 163
10.36TNVALID-ORDER- 367 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty\right)$	$, \frac{R_4}{C_4R_4s+1},$	$\infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L}}$	$\left(\frac{1}{s}\right)$	 	 164
$10.36 \& \text{NVALID-ORDER-368} \ Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty)$	$\frac{R_4}{C_4R_4s+1},$	∞ , $\frac{L_L s}{C_L L_L s^2 + 1}$ +	$(\hat{R_L})$	 	 164
10.36 9 NVALID-ORDER-369 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty\right)$	$, \frac{R_4}{C_4 R_4 s + 1},$	\propto , $\frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$	$\left(\frac{s}{s}\right)$	 	 164
10.370NVALID-ORDER-370 $Z(s) =$					 	 164
10.37 I NVALID-ORDER-371 $Z(s) =$	<i>;</i>		,		 	 164
10.372NVALID-ORDER-372 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \infty, \infty\right)$	$R_4 + \frac{1}{C_4 s}$	r , ∞ , $R_L + \frac{1}{C_L s}$		 	 165
10.37\$NVALID-ORDER-373 $Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty)$	$R_4 + \frac{1}{C_4 s}$	$L_L s + \frac{1}{C_L s}$)	 	 165
10.374NVALID-ORDER-374 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \infty, \infty\right)$	$R_4 + \frac{1}{C_4 s}$	$\left(\frac{L_L s}{C_L L_L s^2 + 1} \right)$		 	 165
10.37 INVALID-ORDER-375 $Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty)$	$R_4 + \frac{1}{C_4 s}$	$L_L s + R_L - R_L$	$+\frac{1}{C_L s}$	 	 165
10.376NVALID-ORDER-376 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty\right)$	$R_4 + \frac{1}{C_4 s}$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L}}$	$\frac{1}{L^s}$	 	 165
$10.37 \text{ \it I} \text{NVALID-ORDER-377 } Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty)$	$R_4 + \frac{1}{C_4 s}$	$_{c}$, ∞ , $\frac{L_{L}s}{C_{L}L_{L}s^{2}+1}$ +	$+R_L$) .	 	 165
10.37 NVALID-ORDER-378 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty\right)$	$R_4 + \frac{1}{C_4 s}$	$\frac{1}{S}$, ∞ , $\frac{R_L \left(L_L s + \frac{1}{C_L} L_L $	$\left(\frac{\overline{z}^{s}}{\overline{L}^{s}}\right)$	 	 166
10.37 9 NVALID-ORDER-379 $Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty)$	$L_4s + \frac{1}{C_4}$	$_{\overline{s}}, \infty, R_L$)		 	 166
10.38 0 NVALID-ORDER-380 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty\right)$	$L_4s + \frac{1}{C_4}$	$\frac{1}{s}$, ∞ , $\frac{1}{C_L s}$)		 	 166

10.38INVALID-ORDER-381 $Z(s) = $	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + \frac{1}{C_4s}, \ \infty,$	$\frac{R_L}{C_L R_L s + 1}$		 166
$10.38 2 \text{NVALID-ORDER-} 382 \ Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty,$	$L_4s + \frac{1}{C_4s}, \ \infty,$	$R_L + \frac{1}{C_L s}$)		 166
$10.38 {\tt B} {\tt NVALID-ORDER-383} \ Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty,$	$L_4s + \frac{1}{C_4s}, \ \infty,$	$L_L s + \frac{1}{C_L s}$.		 167
10.384NVALID-ORDER-384 $Z(s) = $	$(R_1 + \frac{1}{C_1 s}, \infty, \infty,$	$L_4s + \frac{1}{C_4s}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$		 167
10.38 INVALID-ORDER-385 $Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty,$	$L_4s + \frac{1}{C_4s}, \ \infty,$	$L_L s + R_L + \frac{1}{C_L}$	$\left(\frac{1}{2}\right)$	
10.38©NVALID-ORDER-386 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + \frac{1}{C_4s}, \ \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} $		 167
10.38 T NVALID-ORDER-387 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + \frac{1}{C_4s}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L$)	
10.38 NVALID-ORDER-388 $Z(s)=$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + \frac{1}{C_4s}, \ \infty,$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$		 168
10.38 9 NVALID-ORDER-389 $Z(s)=$					 168
10.39©NVALID-ORDER-390 $Z(s) = $	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$\frac{1}{C_L s}$)		
10.39 INVALID-ORDER-391 $Z(s) = \displaystyle$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$\frac{R_L}{C_L R_L s + 1}$		
10.39 2 NVALID-ORDER-392 $Z(s)=$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$R_L + \frac{1}{C_L s}$		
10.39 & NVALID-ORDER-393 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$L_L s + \frac{1}{C_L s}$)		
10.394NVALID-ORDER-394 $Z(s) = $	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} \bigg) \qquad . .$		
10.39 5 NVALID-ORDER-395 $Z(s) = \displaystyle$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$L_L s + R_L + \frac{1}{C_L s}$)	 169
10.396NVALID-ORDER-396 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$		 169
10.39 T NVALID-ORDER-397 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L$		 169
10.39\(\text{NVALID-ORDER-398} \) $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1}, \ \infty,$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$		 169
10.39 9 NVALID-ORDER-399 $Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty,$	$L_4s + R_4 + \frac{1}{C_4s}$	\bar{g}, ∞, R_L)		 170
10.40 © NVALID-ORDER-400 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + R_4 + \frac{1}{C_4s}$	$\frac{1}{C_L s}$, ∞ , $\frac{1}{C_L s}$)		 170
10.40 INVALID-ORDER-401 $Z(s) = \displaystyle$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + R_4 + \frac{1}{C_4s}$	$\frac{R_L}{C_L R_L s + 1}$		 170
10.40 2 NVALID-ORDER-402 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + R_4 + \frac{1}{C_4s}$	$\frac{1}{S}$, ∞ , $R_L + \frac{1}{C_L s}$)	

10.40 B NVALID-ORDER-403 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \right)$	$L_4s + R_4 + \frac{1}{C_4s}, \ \infty,$	$L_L s + \frac{1}{C_L s}$.		 	170
10.40 4 NVALID-ORDER-404 $Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty, 1$	$L_4s + R_4 + \frac{1}{C_4s}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	170
10.405NVALID-ORDER-405 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \right)$	$L_4s + R_4 + \frac{1}{C_4s}, \ \infty,$	$L_L s + R_L + \frac{1}{C_L s}$	$\left(\frac{1}{2}\right)$	 	171
10.40 GNVALID-ORDER-406 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + R_4 + \frac{1}{C_4s}, \ \infty,$	$, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$		 	171
10.40 TNVALID-ORDER-407 $Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty, \infty)$	$L_4s + R_4 + \frac{1}{C_4s}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L$)	 	171
10.40 NVALID-ORDER-408 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$L_4s + R_4 + \frac{1}{C_4s}, \ \infty,$	$, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$		 	171
10.40 9 NVALID-ORDER-409 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ R$	$\left(L\right) = \left(1, \ldots, L\right)$		 	171
10.41 0 NVALID-ORDER-410 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ \frac{1}{C_2}$	$\left(\frac{1}{Ls}\right)$		 	172
10.41INVALID-ORDER-411 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ \overline{C_s}$	$\frac{R_L}{LR_Ls+1}$		 	172
10.41 2 NVALID-ORDER-412 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ R$	$C_L + \frac{1}{C_L s}$		 	172
10.41 B NVALID-ORDER-413 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ L_3$	$Ls + \frac{1}{C_L s}$		 	172
10.414NVALID-ORDER-414 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ \overline{C_4}$	$\frac{L_L s}{L L_L s^2 + 1}$		 	172
10.415NVALID-ORDER-415 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ L_3$	$Ls + R_L + \frac{1}{C_L s}$		 	173
10.416NVALID-ORDER-416 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ \overline{C_4}$	$\frac{1}{Ls + \frac{1}{R_L} + \frac{1}{L_Ls}} $		 	173
10.41 T NVALID-ORDER-417 $Z(s) =$	\	4 4	. /		 	173
10.41 NVALID-ORDER-418 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_s}{L_s}$	$\frac{L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$		 	173
10.41 9 NVALID-ORDER-419 $Z(s) =$					 	173
$10.42 \text{O} \text{NVALID-ORDER-420} \ Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty,$	$\frac{1}{C_L s}$)		 	174
10.42 I NVALID-ORDER-421 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty,$	$\frac{R_L}{C_L R_L s + 1}$		 	174
10.42 2 NVALID-ORDER-422 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty,$	$R_L + \frac{1}{C_L s}$		 	174

10.42 B NVALID-ORDER- 423 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty$	$, L_L s + \frac{1}{C_L s}$		 	174
10.42INVALID-ORDER- 424 $Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty$	$, \frac{L_L s}{C_L L_L s^2 + 1}$		 	174
10.425NVALID-ORDER- 425 $Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty$	$, L_L s + R_L +$	$\frac{1}{C_L s}$ \cdots	 	174
10.42 6 NVALID-ORDER- 426 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty$	$, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L}}$	$\left(\frac{1}{s}\right)$	 	175
10.42TNVALID-ORDER- 427 $Z(s) =$	$(R_1 + \frac{1}{C_1 s}, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty$	$, \frac{L_L s}{C_L L_L s^2 + 1} +$	$\stackrel{'}{R_L}$)	 	175
10.42\%NVALID-ORDER-428 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty$	$, \frac{R_L \left(L_L s + \frac{1}{C_L s} + \frac{1}{C_L $	$\left(\frac{1}{s}\right)$	 	175
10.42 9 NVALID-ORDER-429 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty,$	R_L)		 	175
10.43 ONVALID-ORDER- 430 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty,$	$\frac{1}{C_L s}$ \cdots		 	175
10.43INVALID-ORDER-431 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty,$	$\frac{R_L}{C_L R_L s + 1}$		 	176
10.432NVALID-ORDER-432 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty,$	$R_L + \frac{1}{C_L s}$		 	176
10.438NVALID-ORDER- 433 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \ \infty,$	$L_L s + \frac{1}{C_L s}$		 	176
10.434NVALID-ORDER-434 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	176
10.43 NVALID-ORDER-435 $Z(s) =$		040		/	 	176
10.436NVALID-ORDER-436 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right.$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$)	 	177
10.43TNVALID-ORDER- 437 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} + R$	c_L)	 	177
10.43\NVALID-ORDER-438 $Z(s) =$	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \ \infty,$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$)	 	177
10.439NVALID-ORDER- 439 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$R_4, \infty, \frac{1}{C_L s} \Big) . .$			 	177
10.44 ONVALID-ORDER- 440 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$R_4, \infty, \frac{R_L}{C_L R_L s + 1}$)		 	177
10.44INVALID-ORDER- 441 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$R_4, \infty, R_L + \frac{1}{C_L s}$	$\left(\frac{1}{3}\right)$		 	178

10.44 2 NVALID-ORDER- 442 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right)$	∞ , ∞ ,	$R_4, \infty,$	$L_L s + \frac{1}{C_L s}$)		 	 	178
10.443NVALID-ORDER- 443 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right)$	$\infty, \infty,$	$R_4, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 	178
10.44INVALID-ORDER- 444 $Z(s) =$	$(L_1s + \frac{1}{C_1s}, c)$	$\infty, \infty,$	$R_4, \infty,$	$L_L s + R_L + \frac{1}{C_L s}$		 	 	178
10.445NVALID-ORDER- 445 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right)$	$\infty, \ \infty,$	$R_4, \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$		 	 	178
10.44 6 NVALID-ORDER-446 $Z(s) =$	$(L_1s + \frac{1}{C_1s}, c)$	$\infty, \infty,$	$R_4, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L$		 	 	179
10.44TNVALID-ORDER- 447 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right)$	∞ , ∞ ,	$R_4, \infty,$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$		 	 	179
10.448NVALID-ORDER- 448 $Z(s) =$	$(L_1s + \frac{1}{C_1s}, c)$	$\infty, \infty,$	$\frac{1}{C_4 s}$, ∞ ,	R_L)		 	 	179
10.44 9 NVALID-ORDER-449 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right)$	$\infty, \infty,$	$\frac{1}{C_4 s}$, ∞ ,	$\frac{1}{C_L s}$)		 	 	179
10.45 ONVALID-ORDER- $450 Z(s) =$	$(L_1s + \frac{1}{C_1s}, $	$\infty, \ \infty,$	$\frac{1}{C_4 s}$, ∞ ,	$\frac{R_L}{C_L R_L s + 1}$		 	 	179
10.45INVALID-ORDER- 451 $Z(s) =$	$(L_1s + \frac{1}{C_1s}, c)$	$\infty, \infty,$	$\frac{1}{C_4 s}$, ∞ ,	$R_L + \frac{1}{C_L s}$)		 	 	180
10.45 2 NVALID-ORDER- 452 $Z(s) =$	$(L_1s + \frac{1}{C_1s}, c)$	$\infty, \infty,$	$\frac{1}{C_4 s}$, ∞ ,	$L_L s + \frac{1}{C_L s}$.		 	 	180
10.458NVALID-ORDER- 453 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right)$	$\infty, \infty,$	$\frac{1}{C_4 s}$, ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 	180
10.454NVALID-ORDER- 454 $Z(s) =$	$(L_1s + \frac{1}{C_1s}, $	$\infty, \ \infty,$	$\frac{1}{C_4 s}$, ∞ ,	$L_L s + R_L + \frac{1}{C_L s}$)	 	 	180
10.45 δ NVALID-ORDER-455 $Z(s)=$	$\left(L_1s + \frac{1}{C_1s},\right)$	$\infty, \ \infty,$	$\frac{1}{C_4 s}$, ∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} $		 	 	180
10.456NVALID-ORDER- 456 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \right)$	$\infty, \ \infty,$	$\frac{1}{C_4 s}$, ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L$		 	 	181
10.45 T NVALID-ORDER- 457 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right)$	$\infty, \ \infty,$	$\frac{1}{C_4 s}$, ∞ ,	$\left\{ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right)$		 	 	181
10.45\NVALID-ORDER-458 $Z(s) =$	$(L_1s + \frac{1}{C_1s}, c)$	$\infty, \infty,$	$\frac{R_4}{C_4R_4s+1}$	$, \infty, R_L$)		 	 	181
10.459NVALID-ORDER- 459 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right)$	$\infty, \infty,$	$\frac{R_4}{C_4R_4s+1}$	$, \infty, \frac{1}{C_L s}$)		 	 	181
10.46 ONVALID-ORDER- $460 Z(s) =$	$(L_1s + \frac{1}{C_1s}, c)$	$\infty, \infty,$	$\frac{R_4}{C_4R_4s+1}$	$, \infty, \frac{R_L}{C_L R_L s + 1}$		 	 	181
10.46INVALID-ORDER- 461 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s},\right)$	$\infty, \infty,$	$\frac{R_4}{C_4R_4s+1}$	$R_L + \frac{1}{C_L s}$		 	 	182
10.46 2 NVALID-ORDER- 462 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \right)$	$\infty, \infty,$	$\frac{R_4}{C_4R_4s+1}$	$, \infty, L_L s + \frac{1}{C_L s}$		 	 	182
10.463NVALID-ORDER- 463 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \right)$	$\infty, \infty,$	$\frac{R_4}{C_4R_4s+1}$	$, \infty, \frac{L_L s}{C_L L_L s^2 + 1} $		 	 	182

10.464NVALID-ORDER-464 $Z(s) = ($	$\left(L_1s + \frac{1}{C_1s},\right)$	∞ , ∞ ,	$\frac{R_4}{C_4R_4s+1},$	∞ ,	$L_L s + R_L + \frac{1}{C_L s}$	$\left(\frac{1}{2} \right)$	 	 	 18	2
10.46 \mathbf{b} NVALID-ORDER-465 $Z(s) = ($	$\left(L_1 s + \frac{1}{C_1 s},\right.$	$\infty, \infty,$	$\frac{R_4}{C_4R_4s+1},$	∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$		 	 	 18	2
10.46 NVALID-ORDER-466 $Z(s) = ($	$(L_1s + \frac{1}{C_1s},$	$\infty, \ \infty,$	$\frac{R_4}{C_4R_4s+1},$	∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L$)	 	 	 18	3
10.46 T NVALID-ORDER-467 $Z(s) = ($	$\left(L_1 s + \frac{1}{C_1 s},\right.$	$\infty, \infty,$	$\frac{R_4}{C_4R_4s+1},$	∞ ,	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$		 	 	 18	3
10.46NVALID-ORDER-468 $Z(s) = ($	$\left(L_1 s + \frac{1}{C_1 s}, \right)$	∞ , ∞ ,	$R_4 + \frac{1}{C_4 s}$	$, \infty,$	R_L)		 	 	 18	3
10.46 9 NVALID-ORDER-469 $Z(s) = ($	$(L_1s + \frac{1}{C_1s},$	∞ , ∞ ,	$R_4 + \frac{1}{C_4 s}$	$, \infty,$	$\frac{1}{C_L s}$)		 	 	 18	3
10.47 0 NVALID-ORDER-470 $Z(s) = ($	$(L_1s + \frac{1}{C_1s}, \cdot)$	∞ , ∞ ,	$R_4 + \frac{1}{C_4 s}$	$, \infty,$	$\left(\frac{R_L}{C_L R_L s + 1}\right)$.		 	 	 18	3
10.47INVALID-ORDER-471 $Z(s) = ($	$(L_1s + \frac{1}{C_1s}, $	∞ , ∞ ,	$R_4 + \frac{1}{C_4 s}$	$, \infty,$	$R_L + \frac{1}{C_L s}$).		 	 	 18	4
10.47 2 NVALID-ORDER-472 $Z(s) = ($	$(L_1s + \frac{1}{C_1s}, \cdot)$	∞ , ∞ ,	$R_4 + \frac{1}{C_4 s}$	$, \infty,$	$L_L s + \frac{1}{C_L s}$		 	 	 18	4
10.47 3 NVALID-ORDER-473 $Z(s) = ($	$(L_1s + \frac{1}{C_1s},$	∞ , ∞ ,	$R_4 + \frac{1}{C_4 s}$	$, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 	 18	4
10.474NVALID-ORDER-474 $Z(s) = ($	>				,	$\left(\frac{1}{\sqrt{s}}\right)$	 	 	 18	4
10.47 Invalid-order-475 $Z(s) = ($	$L_1s + \frac{1}{C_1s},$	$\infty, \infty,$	$R_4 + \frac{1}{C_4 s}$	$, \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$		 	 	 18	4
10.476NVALID-ORDER-476 $Z(s) = ($	$(L_1s + \frac{1}{C_1s},$	$\infty, \ \infty,$	$R_4 + \frac{1}{C_4 s}$	$, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L$	<i>i</i> .)	 	 	 18	5
10.47 INVALID-ORDER-477 $Z(s) = ($	$\left(L_1 s + \frac{1}{C_1 s},\right.$	∞ , ∞ ,	$R_4 + \frac{1}{C_4 s}$	$, \infty,$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$		 	 	 18	5
10.478NVALID-ORDER-478 $Z(s) = ($	$(L_1s + \frac{1}{C_1s}, $	∞ , ∞ ,	$L_4s + \frac{1}{C_4s}$	$\frac{1}{8}$, ∞	$, R_L $ \ldots		 	 	 18	5
10.47 9 NVALID-ORDER-479 $Z(s) = ($	$(L_1s + \frac{1}{C_1s}, \cdot)$	∞ , ∞ ,	$L_4s + \frac{1}{C_4s}$	$\frac{1}{8}$, ∞	$, \frac{1}{C_L s}$)		 	 	 18	5
10.48 0 NVALID-ORDER-480 $Z(s) = ($	$(L_1s + \frac{1}{C_1s}, \cdot)$	∞ , ∞ ,	$L_4s + \frac{1}{C_4s}$	$\frac{1}{8}$, ∞	$, \frac{\stackrel{\prime}{R_L}}{C_L R_L s + 1}$.		 	 	 18	5
10.48INVALID-ORDER-481 $Z(s) = ($	$(L_1s + \frac{1}{C_1s},$	∞ , ∞ ,	$L_4s + \frac{1}{C_4s}$	$\frac{1}{8}$, ∞	$R_L + \frac{1}{C_L s}$		 	 	 18	6
10.48 2 NVALID-ORDER-482 $Z(s) = ($	$\langle L_1 s + \frac{1}{C_1 s}, \rangle$	$\infty, \ \infty,$	$L_4s + \frac{1}{C_4s}$	$\frac{1}{8}$, ∞	$L_L s + \frac{1}{C_L s}$		 	 	 18	6
10.48 B NVALID-ORDER-483 $Z(s) = ($	>				\'		 	 	 18	6
10.484NVALID-ORDER-484 $Z(s) = ($	>				/	$\left(\frac{1}{Ls}\right)$.	 	 	 18	6
10.48 INVALID-ORDER-485 $Z(s) = ($	$\left(L_1 s + \frac{1}{C_1 s},\right.$	$\infty, \infty,$	$L_4s + \frac{1}{C_4}$	$\frac{1}{s}$, ∞	$C_L s + \frac{1}{R_L} + \frac{1}{L_L s}$)	 	 	 18	6

10.48 6 NVALID-ORDER-486 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, c\right)$	o, ∞,	$L_4s + \frac{1}{C_4s},$	∞ , $\frac{1}{C_L L}$	$\frac{C_{LS}}{C_{LS}^2+1} + R$	$_{L}\Big) . .$	 	 	 187
10.48 TNVALID-ORDER- 487 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \right)$	$\infty, \infty,$	$L_4s + \frac{1}{C_4s}$	$, \infty, \frac{R_L}{L_L}$	$\left(\frac{L_L s + \frac{1}{C_L s}}{s + R_L + \frac{1}{C_L s}}\right)$)	 	 	 187
10.488NVALID-ORDER- 488 $Z(s) =$	$(L_1s + \frac{1}{C_1s}, c)$	o, ∞,	$\frac{L_4s}{C_4L_4s^2+1},$	∞ , R_L)			 	 	 187
10.48 9 NVALID-ORDER-489 $Z(s) =$	$(L_1s + \frac{1}{C_1s}, c)$	o, ∞,	$\frac{L_4s}{C_4L_4s^2+1},$	$\infty, \frac{1}{C_L s}$			 	 	 187
10.49 ONVALID-ORDER- $490 Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, c\right)$	o, ∞,	$\frac{L_4s}{C_4L_4s^2+1},$	∞ , $\frac{R}{C_L R_L}$	$\left(\frac{L}{s+1}\right)$		 	 	 187
10.49INVALID-ORDER- $491 Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, c\right)$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1},$	∞ , R_L +	$-\frac{1}{C_L s}$. 188
10.49 2 NVALID-ORDER-492 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, c\right)$	o, ∞,	$\frac{L_4s}{C_4L_4s^2+1},$	∞ , $L_L s$	$+\frac{1}{C_L s}$.		 	 	 188
10.49 S NVALID-ORDER- 493 $Z(s) =$	>				,		 	 	 188
10.49INVALID-ORDER- 494 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, c\right)$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1},$	∞ , $L_L s$	$+R_L + \frac{1}{C_L}$	\overline{s})	 	 	 . 188
10.49 INVALID-ORDER-495 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \right)$	$\infty, \infty,$	$\tfrac{L_4s}{C_4L_4s^2+1},$	∞ , $\overline{C_L s}$	$\left(\frac{1}{R_L} + \frac{1}{L_L s}\right)$		 	 	 188
10.49 6 NVALID-ORDER-496 $Z(s) =$	$(L_1s + \frac{1}{C_1s}, c)$	o, ∞,	$\frac{L_4s}{C_4L_4s^2+1},$	∞ , $\frac{L_{L}}{C_{L}L_{L}}$	$\frac{Ls}{s^2+1} + R_L$)	 	 	 189
10.49 T NVALID-ORDER-497 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \right)$	$\infty, \ \infty,$	$\frac{L_4s}{C_4L_4s^2+1},$	∞ , $\frac{R_L(1)}{L_L s}$	$\frac{C_L s + \frac{1}{C_L s}}{+R_L + \frac{1}{C_L s}}$		 	 	 189
10.498NVALID-ORDER- 498 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, c\right)$	o, ∞,	$L_4s + R_4$	$+\frac{1}{C_4s}$, ∞	$, R_L$)		 	 	 189
10.499NVALID-ORDER- $499 Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, c\right)$	∞ , ∞ ,	$L_4s + R_4$	$+\frac{1}{C_4s}$, ∞	$, \frac{1}{C_L s}$.		 	 	 . 189
10.50 ONVALID-ORDER- $500 Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, c\right)$	o, ∞,	$L_4s + R_4$	$+\frac{1}{C_4s}$, ∞	$, \frac{R_L}{C_L R_L s + 1}$)	 	 	 . 189
10.50INVALID-ORDER- $501 Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, c\right)$	\circ , ∞ ,	$L_4s + R_4$	$+\frac{1}{C_4s}$, ∞	$, R_L + \frac{1}{C_L}$	$\left(\frac{1}{s}\right)$. 190
10.50 2 NVALID-ORDER- $502 Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, c\right)$	\circ , ∞ ,	$L_4s + R_4$	$+\frac{1}{C_4s}$, ∞	$, L_L s + \frac{1}{C_I}$	$\left(\frac{1}{2s}\right) \cdot \cdot \cdot$. 190
10.50 S NVALID-ORDER- 503 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, c\right)$	∞ , ∞ ,	$L_4s + R_4$	$+\frac{1}{C_4s}$, ∞	$, \frac{L_L s}{C_L L_L s^2 + 1}$	$\left(\frac{1}{2} \right) \cdot \cdot \cdot $. 190
10.50 INVALID-ORDER- 504 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, c\right)$	∞ , ∞ ,	$L_4s + R_4$	$+\frac{1}{C_4s}$, ∞	$, L_L s + R_s$	$L + \frac{1}{C_L s}$. 190
10.50 NVALID-ORDER- 505 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \right)$	∞ , ∞ ,	$L_4s + R_4$	$+\frac{1}{C_4s}, \propto$	$, \frac{1}{C_L s + \frac{1}{R_L}}$	$\left(\frac{1}{L_L s}\right)$.	 	 	 190
10.50 6 NVALID-ORDER-506 $Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, c\right)$	o, ∞,	$L_4s + R_4$ -	$+\frac{1}{C_4s}$, ∞	$, \frac{L_L s}{C_L L_L s^2 + 1}$	$\left(1 + R_L\right)$	 	 	 191
10.50TNVALID-ORDER- $507 Z(s) =$	$\left(L_1s + \frac{1}{C_1s}, \right)$	$\infty, \ \infty,$	$L_4s + R_4$	$+\frac{1}{C_4s}, \propto$	$\frac{R_L \left(L_L s + \frac{1}{L_L s + R_L} - \frac{1}{L_L s + R_L}\right)}{L_L s + R_L}$	$\left(\frac{\frac{1}{C_L s}}{+\frac{1}{C_L s}}\right)$.	 	 	 191

10.50&NVALID-ORDER-508 $Z(s) = \left(\frac{1}{2}\right)$	$\left(L_1 s + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, 1$	R_L)		 	191
10.50 9 NVALID-ORDER-509 $Z(s) = ($	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \ \infty, \ $	$\left(\frac{1}{C_L s}\right)$		 	191
10.51 © NVALID-ORDER-510 $Z(s) = ($	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty,$	$\left(\frac{R_L}{C_L R_L s + 1}\right)$		 	191
10.51INVALID-ORDER-511 $Z(s) = ($	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \ \infty, \ 1$	$R_L + \frac{1}{C_L s}$		 	192
10.512NVALID-ORDER-512 $Z(s) = ($	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ 1$	$L_L s + \frac{1}{C_L s}$		 	192
10.51 B NVALID-ORDER-513 $Z(s) = ($	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ $	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	192
10.51#NVALID-ORDER-514 $Z(s) = ($	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ 1$	$L_L s + R_L + \frac{1}{C_L s}$)	 	192
10.51 NVALID-ORDER-515 $Z(s) = ($	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} $		 	192
10.51 6 NVALID-ORDER-516 $Z(s) = ($	$\left(L_1 s + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L \bigg)$		 	193
10.51 T NVALID-ORDER-517 $Z(s) = ($	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty,$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$		 	193
10.51&NVALID-ORDER-518 $Z(s) = ($	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty,$	R_L)		 	193
10.519NVALID-ORDER-519 $Z(s) = ($	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty,$	$\left(\frac{1}{C_L s}\right)$		 	193
10.520NVALID-ORDER-520 $Z(s) = ($	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty,$	$\frac{R_L}{C_L R_L s + 1}$		 	193
10.52INVALID-ORDER-521 $Z(s) = ($	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty,$	$R_L + \frac{1}{C_L s}$).		 	194
10.52 2 NVALID-ORDER-522 $Z(s) = ($	$(L_1s + \frac{1}{C_1s}, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty,$	$L_L s + \frac{1}{C_L s}$		 	194
10.52 3 NVALID-ORDER-523 $Z(s) = ($	$(L_1s + \frac{1}{C_1s}, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$)		 	194
10.524NVALID-ORDER-524 $Z(s) = ($	$(L_1s + \frac{1}{C_1s}, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty,$	$L_L s + R_L + \frac{1}{C_L}$	$\left(\frac{1}{\sqrt{s}}\right)$	 	194
10.52 Invalid-order-525 $Z(s) = ($	$(L_1s + \frac{1}{C_1s}, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty$	$, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$	·	 	194
10.526NVALID-ORDER-526 $Z(s) = ($	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L$	(L)	 	195
10.52 T NVALID-ORDER-527 $Z(s) = ($	$\left(L_1 s + \frac{1}{C_1 s}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty$	$, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$		 	195

$$\begin{array}{lll} 10.528 \text{NVALID-ORDER-528} \ Z(s) = \left(L_{1}s + \frac{1}{C_{1}s}, \, \infty, \, \infty, \, \frac{R_{4}(L_{s+} + \frac{1}{C_{s+}})}{L_{s+} + R_{c} + \frac{1}{C_{s+}}}, \, \infty, \, R_{L}\right) & 195 \\ 10.528 \text{NVALID-ORDER-520} \ Z(s) = \left(L_{1}s + \frac{1}{C_{1}s}, \, \infty, \, \infty, \, \frac{R_{4}(L_{s+} + \frac{1}{C_{s+}})}{L_{s+} + R_{1} + \frac{1}{C_{s+}}}, \, \infty, \, \frac{R_{4}(L_{s+} + \frac{1}{C_{s+}})}{L_{s+} + R_{1} + \frac{1}{C_{s+}}}, \, \infty, \, \frac{R_{4}(L_{s+} + \frac{1}{C_{s+}})}{R_{2} + R_{4} + \frac{1}{C_{4}s}}, \, \infty, \, \frac{R_{4}(L_{s+} + \frac{1}{C_{s+}})}{R_{2} + R_{4} + \frac{1}{C_{4}s}}, \, \infty, \, \frac{R_{4}(L_{s+} + \frac{1}{C_{s+}})}{R_{2} + R_{4} + \frac{1}{C_{4}s}}, \, \infty, \, \frac{R_{4}(L_{s+} + \frac{1}{C_{4}s})}{R_{2} + R_{4} + \frac{1}{C_{4}s}}, \, \infty, \, \frac{R_{4}(L_{s+} + \frac{1}{C_{4}s})}{R_{4} + R_{4} + \frac{1}{C_{4}s}}, \, \infty, \, R_{4}(L_{s+} + \frac{1}{C_{4}s}) & 196 \\ 10.538 \text{NVALID-ORDER-532} \ Z(s) = \left(L_{1}s + \frac{1}{C_{1}s}, \, \infty, \, \infty, \, \frac{R_{4}(L_{s+} + \frac{1}{C_{4}s})}{R_{4} + R_{4} + \frac{1}{C_{4}s}}, \, \infty, \, \frac{L_{5}s}{L_{4} + R_{4} + \frac{1}{C_{4}s}}, \, \infty, \, \frac{L_{5}s}{L_{5} + R_{4} + \frac{1}{C_{4}s}}, \, \infty, \, \frac{R_{4}(L_{5}s + \frac{1}{C_{4}s})}{L_{5} + R_{4} + \frac{1}{C_{4}s}}, \, \infty, \, \frac{R_{5}(L_{5}s + \frac{1}{C_{4}s})}{L_{5} + R_{4} + \frac{1}{C_{4}s}}, \, \infty, \, \frac{R_{5}(L_{5}s + \frac{1}{C_{4}s})}{L_{5} + R_{4} + \frac{1}{C_{4}s}}, \, \infty, \, \frac{R_{5}(L_{5}s + \frac{1}{C_{4}s})}{L_{5} + R_{5} + \frac{1}{C_{5}s}}, \, \frac{R_{5}(L_{5}s + \frac{1}{C_{5}s})}{L_{5} + R_{5} + \frac{1}{C_{5}s}}, \, \frac{R_{5}(L_{5}s + \frac{1}{C_{5}s})}{L_{5} + R_{5} + \frac{1}{C_{5}s}}, \, \frac{R_{5}$$

10.54TNVALID-ORDER-547 $Z(s)=\left(\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , \propto	$\circ, \frac{1}{C_4 s}$	$, \infty,$	R_L					 	 	 	 	 	 199
10.54\&NVALID-ORDER-548 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	$0, \frac{1}{C_4 s}$	$, \infty,$	$\frac{R}{C_L R}$	$\left(\frac{L}{L}s+1\right)$				 	 	 	 	 	 199
10.549NVALID-ORDER-549 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	$0, \frac{1}{C_4 s}$	$, \infty,$	R_L -	$+\frac{1}{C_L s}$				 	 	 	 	 	 199
10.55 0 NVALID-ORDER-550 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	$0, \frac{1}{C_4 s}$	$, \infty,$	$L_L s$	$+\frac{1}{C_L s}$	$\Big)$			 	 	 	 	 	 199
10.55INVALID-ORDER-551 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	$\circ, \frac{1}{C_4s}$	$, \infty,$	$\frac{L}{C_L L_L}$	$\left(\frac{Ls}{Ls^2+1}\right)$				 	 	 	 	 	 199
10.55 2 NVALID-ORDER-552 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , \propto	$0, \frac{1}{C_4 s}$	$, \infty,$	$L_L s$	$+R_L$	$+\frac{1}{C_L s}$) .		 	 	 	 	 	 200
10.55\(\mathbb{E}\)NVALID-ORDER-553 $Z(s) = 1$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , o	$\infty, \frac{1}{C_4 s}$	$, \infty,$	$\overline{C_L s}$	$\frac{1}{\frac{1}{R_L} + \frac{1}{R_L}}$	$\frac{1}{L^s}$			 	 	 	 	 	 200
10.554NVALID-ORDER-554 $Z(s)=\langle$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	$0, \frac{1}{C_4 s}$	$, \infty,$	$\frac{L}{C_L L_L}$	$\frac{L^s}{L^{s^2+1}}$ -	$+R_L$			 	 	 	 	 	 200
10.55 INVALID-ORDER-555 $Z(s) = 1$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , o	$\infty, \frac{1}{C_4 s}$	$, \infty,$	$\frac{R_L\left(\frac{1}{L_L s}\right)}{L_L s}$	$\frac{L_L s + \frac{1}{C}}{+R_L + \frac{1}{C}}$	$\left(\frac{\frac{1}{L^s}}{\frac{1}{C_L^s}}\right)$			 	 	 	 	 	 200
10.556NVALID-ORDER-556 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	$0, \ \frac{R}{C_4 R}$	$\frac{R_4}{A_4s+1}$,	∞ ,	R_L				 	 	 	 	 	 200
10.55 T NVALID-ORDER-557 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	$0, \ \frac{R}{C_4 R}$	$\frac{\mathbb{R}_4}{\mathbb{R}_4 s + 1}$,	∞ ,	$\frac{1}{C_L s}$				 	 	 	 	 	 201
10.55&NVALID-ORDER-558 $Z(s)=\langle$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	$0, \ \frac{R}{C_4 R}$	$\frac{R_4}{A_4s+1}$,	∞ ,	$\frac{R_L}{C_L R_L s}$	$\overline{+1}$			 	 	 	 	 	 201
10.55 9 NVALID-ORDER-559 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	$0, \ \frac{R}{C_4 R}$	$\frac{\mathbb{R}_4}{\mathbb{R}_4 s + 1}$,	∞ ,	$R_L +$	$\frac{1}{C_L s}$			 	 	 	 	 	 201
10.56 0 NVALID-ORDER-560 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	$0, \ \frac{R}{C_4 R}$	$\frac{R_4}{A_4s+1}$,	∞ ,	$L_L s +$	$\left(\frac{1}{C_L s}\right)$			 	 	 	 	 	 201
10.56INVALID-ORDER-561 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	$\circ, \ \frac{R}{C_4 R}$	$\frac{\mathbb{R}_4}{4s+1}$,	∞ ,	$\frac{L_L s}{C_L L_L s}$	$\left(\frac{3}{2+1}\right)$			 	 	 	 	 	 201
10.56 2 NVALID-ORDER-562 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	$\circ, \ \frac{R}{C_4 R}$	$\frac{R_4}{R_4s+1}$,	∞ ,	$L_L s +$	R_L +	$\frac{1}{C_L s}$	$\Big)$.	 	 	 	 	 	 201
10.56\$NVALID-ORDER-563 $Z(s) = 1$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , o	∞ , $\frac{1}{C_4R}$	$\frac{R_4}{R_4s+1}$,	∞ ,	$\overline{C_L s} + \overline{I}$	$\frac{1}{R_L} + \frac{1}{L_L}$	$\frac{1}{s}$		 	 	 	 	 	 202
10.564NVALID-ORDER-564 $Z(s)=\langle$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	$0, \ \frac{R}{C_4 R}$	$\frac{\mathbb{R}_4}{\mathbb{R}_4 s + 1}$,	∞ ,	$\frac{L_L s}{C_L L_L s}$	$\frac{3}{2+1}$ +	R_L		 	 	 	 	 	 202
10.56 NVALID-ORDER-565 $Z(s) = 1$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , o	∞ , $\frac{I}{C_4R}$	$\frac{R_4}{R_4s+1}$,	∞ ,	$\frac{R_L \left(L_L + \frac{1}{L_L s + \frac{1}{L_L s}}\right)}{L_L s + \frac{1}{L_L s + \frac{1}{L_L s}}}$	$\frac{1}{C_L s} + \frac{1}{C_L s}$ $R_L + \frac{1}{C_L s}$	$\left(\frac{\overline{s}}{\overline{s}}\right)$		 	 	 	 	 	 202
10.566NVALID-ORDER-566 $Z(s)=\langle$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	o, R_4 -	$+\frac{1}{C_4s}$	$, \infty,$	R_L				 	 	 	 	 	 202
10.56 T NVALID-ORDER-567 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	o, R_4 -	$+\frac{1}{C_4s}$	$, \infty,$	$\frac{1}{C_L s}$				 	 	 	 	 	 202
10.56\%NVALID-ORDER-568 $Z(s)=\langle$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞	\circ , R_4 -	$+\frac{1}{C_4s}$	$, \infty,$	$\frac{R_I}{C_L R_L}$	$\left(\frac{1}{s+1}\right)$			 	 	 	 	 	 203

10.56 9 NVALID-ORDER-569 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$R_4 + \frac{1}{C_4 s},$	∞ , F	$R_L + \frac{1}{C_L s}$. 203
10.57 ONVALID-ORDER- $570 Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$R_4 + \frac{1}{C_4 s},$	∞ , I	$L_L s + \frac{1}{C_L s}$. 203
10.57INVALID-ORDER-571 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$R_4 + \frac{1}{C_4 s},$	∞ , \bar{c}	$\frac{L_L s}{C_L L_L s^2 + 1}$. 203
10.57 2 NVALID-ORDER-572 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$R_4 + \frac{1}{C_4 s},$	∞ , I	$L_L s + R_L +$	$\frac{1}{C_L s}$. 203
10.57 B NVALID-ORDER-573 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$R_4 + \frac{1}{C_4 s},$	∞ , $\bar{\epsilon}$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L}}$	$\left(\frac{1}{s}\right)$.	 	 	 	 	. 203
10.574NVALID-ORDER-574 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$R_4 + \frac{1}{C_4 s},$	∞ , \overline{c}	$\frac{L_L s}{C_L L_L s^2 + 1} +$	$R_L\Big)$. 204
10.57 NVALID-ORDER-575 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\infty, \ \infty,$	$R_4 + \frac{1}{C_4 s},$	∞ , $\frac{1}{2}$	$\frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L}}$	$\frac{1}{\overline{s}}$.	 	 	 	 	. 204
10.576NVALID-ORDER- 576 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	R_L)		 	 	 	 	. 204
10.57 NVALID-ORDER- $577 Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	$\frac{1}{C_L s}$)		 	 	 	 	. 204
10.57&NVALID-ORDER-578 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	$\frac{R_L}{C_L R_L s + 1}$. 204
10.579NVALID-ORDER-579 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	$R_L + \frac{1}{C_L s}$. 205
10.58 ONVALID-ORDER- 580 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	$L_L s + \frac{1}{C_L s}$. 205
10.58INVALID-ORDER- 581 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$. 205
10.58 2 NVALID-ORDER-582 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	$L_L s + R_L +$	$-\frac{1}{C_L s}$. 205
10.58RNVALID-ORDER- 583 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_R}}$	$\left[- \right]$.	 	 	 	 	. 205
10.584NVALID-ORDER- 584 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$L_4s + \frac{1}{C_4s},$	∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} +$	R_L	 	 	 	 	. 206
10.58 INVALID-ORDER-585 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	$\infty, \ \infty,$	$L_4s + \frac{1}{C_4s},$	∞ ,	$\frac{R_L \left(L_L s + \frac{1}{C_L} \right)}{L_L s + R_L + \frac{1}{C_L}}$	$\left(\frac{\overline{s}}{Ls}\right)$. 206
10.58 6 NVALID-ORDER-586 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1}$, (∞ , F	R_L)		 	 	 	 	. 206
10.58 T NVALID-ORDER-587 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1}$, (∞ , \overline{c}	$\left(\frac{1}{C_L s}\right) \dots $. 206
10.58\NVALID-ORDER-588 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1}$, (∞ , \overline{c}	$\left(\frac{R_L}{C_L R_L s + 1}\right)$. 206
10.589NVALID-ORDER- 589 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1}$, (∞ , F	$R_L + \frac{1}{C_L s}$. 207
10.59 ONVALID-ORDER- $590 Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1},\right.$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1},$	∞ , L	$L_L s + \frac{1}{C_L s}$. 207

10.61INVALID-ORDER-611 $Z(s) =$	$\left\langle \frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right\rangle$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}$.)	
10.612NVALID-ORDER-612 $Z(s) = 1$	$\left\langle \frac{L_1 s}{C_1 L_1 s^2 + 1}, \ \infty, \ \infty, \right\rangle$	$\frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \ \infty, \ L_Ls + R_s$	$L + \frac{1}{C_L s}$ \rightarrow \ldots	
10.61 B NVALID-ORDER-613 $Z(s) = 1$	$\left\langle \frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right\rangle$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L}} + \frac{1}{R_L} + \frac{1}$	$\left(\frac{1}{L_L s}\right)$	
10.614NVALID-ORDER-614 $Z(s) = 1$	\	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}$. /	
10.615NVALID-ORDER-615 $Z(s)=\left \right.$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{L_L s + R_L + \frac{1}{L_L s}}\right)}{L_L s + R_L + \frac{1}{L_L s + \frac{1}{L_L s}}}$	$\left(rac{1}{C_L s} ight) \over \left(rac{1}{C_L s} ight)$	
10.616NVALID-ORDER-616 $Z(s)=\langle$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ R_L$		
10.61 T NVALID-ORDER-617 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ \frac{1}{C_Ls}$		
10.61\$NVALID-ORDER-618 $Z(s)=\langle$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ \frac{R_L}{C_LR_Ls^2+1}$	$\overline{-1}$)	
10.61 9 NVALID-ORDER-619 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right)$	$\frac{L_{4s}}{C_4L_4s^2+1} + R_4, \ \infty, \ R_L + \overline{C}_{4s}$	$\left(\frac{1}{C_L s}\right)$	
10.62 0 NVALID-ORDER-620 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ L_Ls +$	$\left(rac{1}{C_L s} ight)$	
10.62INVALID-ORDER-621 $Z(s)=\langle$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2}$	$\overline{+1}$)	
10.62 2 NVALID-ORDER-622 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ L_Ls + 1$	$R_L + \frac{1}{C_L s}$)	
10.62\$NVALID-ORDER-623 $Z(s) = 1$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R}}$	$\left(\frac{1}{L} + \frac{1}{L_L s}\right)$	
10.624NVALID-ORDER-624 $Z(s)=\langle$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2}$	$\frac{1}{1}+R_L$	
10.625NVALID-ORDER-625 $Z(s) = 1$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right)$	$\frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ \frac{R_L(L_Ls)}{L_Ls+R_0}$	$\left(\frac{s+\frac{1}{C_L s}}{L+\frac{1}{C_L s}}\right)$	
10.626NVALID-ORDER-626 $Z(s) = 1$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \infty, \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty, \ R_L $		
10.62TNVALID-ORDER-627 $Z(s) = 1$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty, \ \frac{1}{C_Ls}$		
10.62\ndlandramannoonder-628 $Z(s) = 1$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty, \ \frac{R_L}{C_L R_L s + 1}$)	
10.629NVALID-ORDER-629 $Z(s) = 1$	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty, \ R_L + \frac{1}{C_L}$	$\frac{1}{s}$	

10.63 ONVALID-ORDER- 630 $Z(s) = 10.63$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.63INVALID-ORDER-631 $Z(s) =$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.632NVALID-ORDER-632 $Z(s) =$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + R_L + \frac{1}{C_L s}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.63 B NVALID-ORDER-633 $Z(s) =$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.634NVALID-ORDER-634 $Z(s) =$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.635NVALID-ORDER-635 $Z(s) =$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.636NVALID-ORDER-636 $Z(s) = 1$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, R_4, \infty, \frac{1}{C_Ls}\right) \dots \dots$
10.63TNVALID-ORDER- 637 $Z(s) = 1$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \infty, R_4, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$
10.63\(\text{NVALID-ORDER-638} \(Z(s) = 1 \)	$(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, R_4, \infty, R_L + \frac{1}{C_Ls})$
10.63 9 NVALID-ORDER-639 $Z(s) = 0$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, R_4, \infty, L_Ls + \frac{1}{C_Ls}\right)$
	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, R_4, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$
	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, R_4, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.642NVALID-ORDER- 642 $Z(s) = 1$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, R_4, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$
10.64 B NVALID-ORDER-643 $Z(s) = 0$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, R_4, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$
10.64#NVALID-ORDER-644 $Z(s) =$	$\left(L_{1}s + R_{1} + \frac{1}{C_{1}s}, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.645NVALID-ORDER-645 $Z(s) = 1$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{1}{C_4s}, \infty, R_L\right) \dots \dots$
10.64 CNVALID-ORDER- 646 $Z(s) = 1$	$(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{1}{C_4s}, \infty, \frac{1}{C_Ls})$
	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{1}{C_4s}, \infty, \frac{R_L}{C_LR_Ls+1}\right)$
	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \infty, \frac{1}{C_4s}, \infty, R_L + \frac{1}{C_Ls}\right) \dots \dots$
	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{1}{C_4s}, \infty, L_Ls + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
	$\left(L_{1}s + R_{1} + \frac{1}{C_{1}s}, \infty, \infty, \frac{1}{C_{4}s}, \infty, \frac{L_{L}s}{C_{L}L_{L}s^{2}+1}\right)$

10.65INVALID-ORDER-651 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \right. $	∞ , ∞ , $\frac{1}{C_4s}$, ∞	$L_L s + R_L + \frac{1}{C_L}$	\overline{s})	 	219
10.65 2 NVALID-ORDER-652 $Z(s) = \left(\frac{1}{2}\right)$	$(L_1s + R_1 + \frac{1}{C_1s}, c)$	∞ , ∞ , $\frac{1}{C_4s}$, ∞	$, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$		 	219
10.65 B NVALID-ORDER-653 $Z(s) = ($	$(L_1s + R_1 + \frac{1}{C_1s}, \propto$	∞ , ∞ , $\frac{1}{C_4s}$, ∞	$\frac{L_L s}{C_L L_L s^2 + 1} + R_L$)	 	219
10.654NVALID-ORDER-654 $Z(s) = \left(\frac{1}{2}\right)^{-1}$	$(L_1s + R_1 + \frac{1}{C_1s}, \circ)$	∞ , ∞ , $\frac{1}{C_4s}$, ∞	$, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$		 	220
10.65 INVALID-ORDER-655 $Z(s) = ($					 	220
10.65 6 NVALID-ORDER-656 $Z(s) = ($	$L_1s + R_1 + \frac{1}{C_1s}, \ \alpha$	$c, \infty, \frac{R_4}{C_4 R_4 s + 1}$	$, \infty, \frac{1}{C_L s}$		 	220
10.65 T NVALID-ORDER-657 $Z(s) = ($	$\sum_{1} L_1 s + R_1 + \frac{1}{C_1 s}, \propto$	∞ , ∞ , $\frac{R_4}{C_4R_4s+1}$	$, \infty, \frac{R_L}{C_L R_L s + 1}$		 	220
10.65\NVALID-ORDER-658 $Z(s) = ($	$(L_1s + R_1 + \frac{1}{C_1s}), \propto$	∞ , ∞ , $\frac{R_4}{C_4R_4s+1}$	$, \infty, R_L + \frac{1}{C_L s}$		 	220
10.65 9 NVALID-ORDER-659 $Z(s) = ($	$\sum_{1} L_1 s + R_1 + \frac{1}{C_1 s}, \propto$	∞ , ∞ , $\frac{R_4}{C_4R_4s+1}$, ∞ , $L_L s + \frac{1}{C_L s}$)	 	221
10.66 0 NVALID-ORDER-660 $Z(s) = ($	$(L_1s + R_1 + \frac{1}{C_1s}), \propto$	∞ , ∞ , $\frac{R_4}{C_4R_4s+1}$	$, \infty, \frac{L_L s}{C_L L_L s^2 + 1}$		 	221
10.66INVALID-ORDER-661 $Z(s) = ($	$\sum_{1} L_1 s + R_1 + \frac{1}{C_1 s}, \propto$	∞ , ∞ , $\frac{R_4}{C_4R_4s+1}$	$, \infty, L_L s + R_L$	$+\frac{1}{C_L s}$)	 	221
10.662NVALID-ORDER-662 $Z(s) = ($	$(L_1s + R_1 + \frac{1}{C_1s}, c)$	∞ , ∞ , $\frac{R_4}{C_4R_4s+1}$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{R}}$	$\left(\frac{1}{L_s}\right)$	 	221
10.66\(\mathbb{B}\) NVALID-ORDER-663 $Z(s) = ($	$(L_1s + R_1 + \frac{1}{C_1s}), \propto$	∞ , ∞ , $\frac{R_4}{C_4R_4s+1}$	$, \infty, \frac{L_L s}{C_L L_L s^2 + 1}$	$+R_L$)	 	221
10.664NVALID-ORDER-664 $Z(s) = ($	$(L_1s + R_1 + \frac{1}{C_1s}, \circ)$	∞ , ∞ , $\frac{R_4}{C_4R_4s+1}$	$\frac{R_L(L_L s + C_L)}{L_L s + R_L + C_L}$	$\left(\frac{1}{L^s}\right)$	 	222
10.66 INVALID-ORDER-665 $Z(s) = ($	$\sum L_1 s + R_1 + \frac{1}{C_1 s}, \propto$	∞ , ∞ , $R_4 + \frac{1}{C_4}$	\bar{s} , ∞ , R_L)		 	222
10.666NVALID-ORDER-666 $Z(s) = ($	$(L_1s + R_1 + \frac{1}{C_1s}), \propto$	∞ , ∞ , $R_4 + \frac{1}{C_4}$	$\frac{1}{s}$, ∞ , $\frac{1}{C_L s}$)		 	222
10.66 T NVALID-ORDER-667 $Z(s) = \left(\begin{array}{c} 1 & 1 \\ 1 & 1 \end{array}\right)$	$\sum_{1} L_1 s + R_1 + \frac{1}{C_1 s}, \propto$	∞ , ∞ , $R_4 + \frac{1}{C_4}$	$\frac{1}{s}$, ∞ , $\frac{\stackrel{'}{R_L}}{C_L R_L s + 1}$		 	222
10.66\nabla NVALID-ORDER-668 $Z(s) = ($	$(L_1s + R_1 + \frac{1}{C_1s}, \ \alpha)$	$\infty, \ \infty, \ R_4 + \frac{1}{C_4}$	$\frac{1}{s}$, ∞ , $R_L + \frac{1}{C_L s}$)	 	222
10.669NVALID-ORDER-669 $Z(s) = ($	$\sum_{1} L_1 s + R_1 + \frac{1}{C_1 s}, \propto$	∞ , ∞ , $R_4 + \frac{1}{C_4}$	$\frac{1}{s}$, ∞ , $L_L s + \frac{1}{C_L}$	$\left(\frac{1}{8}\right)$	 	223
10.67 0 NVALID-ORDER-670 $Z(s) = ($	$(L_1s + R_1 + \frac{1}{C_1s}, \ \alpha)$	∞ , ∞ , $R_4 + \frac{1}{C_4}$	$\frac{L_L s}{c_L L_L s^2 + 1}$) ·	 	223
10.67INVALID-ORDER-671 $Z(s) = ($	$\sum_{1} L_1 s + R_1 + \frac{1}{C_1 s}, \propto$	∞ , ∞ , $R_4 + \frac{1}{C_4}$	$\frac{1}{s}$, ∞ , $L_L s + R_L$	$\left(+\frac{1}{C_L s}\right) \dots$	 	223
10.672NVALID-ORDER-672 $Z(s) = \left(\frac{1}{2}\right)^{-1}$	$(L_1s + R_1 + \frac{1}{C_1s}, \circ)$	∞ , ∞ , $R_4 + \frac{1}{C_4}$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{R_L}}$	$\frac{1}{L_L s}$	 	223

10.67\$NVALID-ORDER-673 $Z(s)=\left(\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$
10.674NVALID-ORDER-674 $Z(s)=\langle$	$\left(L_1 s + R_1 + \frac{1}{C_1 s}, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.67 NVALID-ORDER-675 $Z(s) = 0$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, R_L\right)$
10.676NVALID-ORDER-676 $Z(s)=\langle$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls}\right)$
10.67 T NVALID-ORDER-677 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{R_L}{C_LR_Ls + 1}\right) \dots \dots$
10.67&NVALID-ORDER-678 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, R_L + \frac{1}{C_Ls}\right)$
10.67 9 NVALID-ORDER-679 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, L_Ls + \frac{1}{C_Ls}\right) \dots \dots$
10.68©NVALID-ORDER-680 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$
10.68INVALID-ORDER-681 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.682NVALID-ORDER-682 $Z(s) = 1$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$
10.68 B NVALID-ORDER-683 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$
10.684NVALID-ORDER-684 $Z(s) = 1$	$\left(L_{1}s + R_{1} + \frac{1}{C_{1}s}, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.68 INVALID-ORDER-685 $Z(s) = 0$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1}, \infty, R_L\right) \dots \dots$
10.686NVALID-ORDER-686 $Z(s)=\langle$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1}, \infty, \frac{1}{C_Ls}\right)$
10.68 T NVALID-ORDER-687 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1}, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$
10.68\bigselength{B} NVALID-ORDER-688 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1}, \infty, R_L + \frac{1}{C_Ls}\right) \dots \dots$
10.68 9 NVALID-ORDER-689 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{L_4s}{C_4\overline{L}_4s^2 + 1}, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.69©NVALID-ORDER-690 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$
10.69INVALID-ORDER-691 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.692NVALID-ORDER-692 $Z(s) = 1$	$\left(L_{1}s + R_{1} + \frac{1}{C_{1}s}, \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)\right) \qquad \dots $
10.69 & NVALID-ORDER-693 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right) \dots \dots$
10.694NVALID-ORDER-694 $Z(s)=\langle$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1}, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$

10.69 5 NVALID-ORDER-695 $Z(s)=\langle$	$\left(L_{1}s + R_{1} + \frac{1}{C_{1}s}, \infty, \infty, L_{4}s + R_{4} + \frac{1}{C_{4}s}, \infty, R_{L}\right)$
10.69 GNVALID-ORDER-696 $Z(s) = 0$	$(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls})$
10.69 TNVALID-ORDER-697 $Z(s) = 0$	$(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{R_L}{C_LR_Ls + 1})$
10.69&NVALID-ORDER-698 $Z(s)=\langle$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, R_L + \frac{1}{C_Ls}\right)$
10.69 9 NVALID-ORDER-699 $Z(s) = 0$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.70 © NVALID-ORDER-700 $Z(s) = 0$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$
10.70INVALID-ORDER-701 $Z(s) = 0$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.70 2 NVALID-ORDER-702 $Z(s) = 1$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$
10.70 & NVALID-ORDER-703 $Z(s)=0$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$
10.70 4 NVALID-ORDER-704 $Z(s) = 1$	$\left(L_{1}s + R_{1} + \frac{1}{C_{1}s}, \infty, \infty, L_{4}s + R_{4} + \frac{1}{C_{4}s}, \infty, \frac{R_{L}\left(L_{L}s + \frac{1}{C_{L}s}\right)}{L_{L}s + R_{L} + \frac{1}{C_{L}s}}\right) \dots \dots$
10.70\$NVALID-ORDER-705 $Z(s) = 1$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, R_L\right)$
10.70 6 NVALID-ORDER-706 $Z(s) = 1$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, \frac{1}{C_Ls}\right)$
10.70 T NVALID-ORDER-707 $Z(s) = 0$	$\left(L_{1}s + R_{1} + \frac{1}{C_{1}s}, \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 $
10.70&NVALID-ORDER-708 $Z(s) = 1$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, R_L + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.70 9 NVALID-ORDER-709 $Z(s) = 1$	$\left(L_{1}s + R_{1} + \frac{1}{C_{1}s}, \infty, \infty, \frac{1}{C_{4}s + \frac{1}{R_{4}} + \frac{1}{L_{4}s}}, \infty, L_{L}s + \frac{1}{C_{L}s}\right) \dots \dots$
10.71 0 NVALID-ORDER-710 $Z(s) = 0$	$\left(L_{1}s + R_{1} + \frac{1}{C_{1}s}, \infty, \infty, \frac{1}{C_{4}s + \frac{1}{R_{4}} + \frac{1}{L_{4}s}}, \infty, \frac{L_{L}s}{C_{L}L_{L}s^{2} + 1}\right) \dots \dots$
10.71INVALID-ORDER-711 $Z(s) = 1$	$\left(L_{1}s + R_{1} + \frac{1}{C_{1}s}, \infty, \infty, \frac{1}{C_{4}s + \frac{1}{R_{4}} + \frac{1}{L_{4}s}}, \infty, L_{L}s + R_{L} + \frac{1}{C_{L}s}\right) \dots \dots$
10.712NVALID-ORDER-712 $Z(s) = 1$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.71 B NVALID-ORDER-713 $Z(s) = 0$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.71 4 NVALID-ORDER-714 $Z(s)=1$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \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 $

10.71 5 NVALID-ORDER-715 $Z(s) = \left(\right.$	$L_1s + R_1 + \frac{1}{C_1s},$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1}$ +	$R_4, \infty,$	R_L)		 	 	25	32
10.716NVALID-ORDER-716 $Z(s) = \left(\right.$	$L_1s + R_1 + \frac{1}{C_1s},$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1}$ +	$R_4, \infty,$	$\frac{1}{C_L s}$)		 	 	25	32
10.71 T NVALID-ORDER-717 $Z(s) = \left(\right.$	$L_1s + R_1 + \frac{1}{C_1s},$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1}$ +	$R_4, \infty,$	$\frac{R_L}{C_L R_L s + 1}$		 	 	25	32
10.71&NVALID-ORDER-718 $Z(s) = \left(\right.$	$L_1s + R_1 + \frac{1}{C_1s},$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1}$ +	$R_4, \infty,$	$R_L + \frac{1}{C_L s}$)	 	 	25	32
10.71 9 NVALID-ORDER-719 $Z(s) = \left(\right.$	$\left(L_1s + R_1 + \frac{1}{C_1s},\right)$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1}$ +	$R_4, \infty,$	$L_L s + \frac{1}{C_L s}$	$\left(\frac{1}{8}\right)$	 	 	25	33
10.72 0 NVALID-ORDER-720 $Z(s) = \left(\begin{array}{c} \\ \end{array} \right)$	$L_1s + R_1 + \frac{1}{C_1s},$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1}$ +	$R_4, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$)	 	 	25	33
10.72INVALID-ORDER-721 $Z(s) = \left(\begin{array}{c} \\ \end{array} \right)$	$L_1s + R_1 + \frac{1}{C_1s},$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1}$ +	$R_4, \infty,$	$L_L s + R_L$	$+\frac{1}{C_L s}$	 	 	23	33
10.72 2 NVALID-ORDER-722 $Z(s) = \left(\right.$	$(L_1s + R_1 + \frac{1}{C_1s}),$	$\infty, \ \infty,$	$\frac{L_4s}{C_4L_4s^2+1}$ +	$R_4, \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \dots}$	$\frac{1}{L_L s}$	 	 	23	33
10.72 INVALID-ORDER-723 $Z(s) = \left(\right.$	$(L_1s + R_1 + \frac{1}{C_1s}),$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1}$ +	$R_4, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$	$+R_L$	 	 	25	33
10.724NVALID-ORDER-724 $Z(s) = \left(\right.$	$(L_1s + R_1 + \frac{1}{C_1s}),$	$\infty, \ \infty,$	$\frac{L_4s}{C_4L_4s^2+1}$ +	$R_4, \infty,$	$\frac{R_L \left(L_L s + \frac{1}{C}\right)}{L_L s + R_L + \frac{1}{C}}$	$\left(\frac{\frac{1}{C_L s}}{\frac{1}{C_L s}}\right)$.	 	 	25	34
10.725NVALID-ORDER-725 $Z(s) = \left(\begin{array}{c} 1 & 1 \\ 1 & 1 \end{array}\right)$	$L_1 s + R_1 + \frac{1}{C_1 s},$	$\infty, \ \infty,$	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4}}$	$\frac{1}{s}$, ∞ , I	R_L)		 	 	25	34
10.72 6 NVALID-ORDER-726 $Z(s) = \left(\right.$	$(L_1s + R_1 + \frac{1}{C_1s}),$	∞ , ∞ ,	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4}}$	$\left(\frac{1}{s}\right)$, ∞ , $\frac{1}{s}$	$\left(\frac{1}{C_L s}\right) \dots$		 	 	23	34
10.72 T NVALID-ORDER-727 $Z(s) = \left(\right.$	$(L_1s + R_1 + \frac{1}{C_1s}),$	∞ , ∞ ,	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4}}$	$\left(\frac{s}{s}\right)$, ∞ , $\frac{s}{s}$	$\frac{R_L}{C_L R_L s + 1}$		 	 	25	34
10.72\$NVALID-ORDER-728 $Z(s) = \left(\right.$	$(L_1s + R_1 + \frac{1}{C_1s}),$	∞ , ∞ ,	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4}}$	$\left(\frac{s}{s}\right)$, ∞ , I	$R_L + \frac{1}{C_L s}$		 	 	25	34
10.72 9 NVALID-ORDER-729 $Z(s) = \left(\right.$	$(L_1s + R_1 + \frac{1}{C_1s}),$	∞ , ∞ ,	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4}}$	$\left(\frac{1}{s}\right)$, ∞ , 1	$L_L s + \frac{1}{C_L s}$)	 	 	25	35
10.73 0 NVALID-ORDER-730 $Z(s) = \left(\right.$	\		04		/		 	 	25	35
10.73INVALID-ORDER-731 $Z(s) = \left(\right.$	\		- 4			,	 	 	25	35
10.732NVALID-ORDER-732 $Z(s) = \left(\right.$	$(L_1s + R_1 + \frac{1}{C_1s}),$	$\infty, \ \infty,$	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4}}$	$\left(\frac{s}{s}\right)$, ∞ , $\frac{s}{s}$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_I}}$	$\left(\frac{1}{2s}\right)$	 	 	25	35
10.73\$NVALID-ORDER-733 $Z(s) = \left(\right.$	$(L_1s + R_1 + \frac{1}{C_1s}),$	$\infty, \ \infty,$	$\frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4}}$	$\frac{1}{s}$, ∞ , $\frac{1}{s}$	$\frac{L_L s}{C_L L_L s^2 + 1} +$	$-R_L$) .	 	 	23	35

10.734NVALID-ORDER-734 $Z(s) = ($	$L_1s + R_1 + \frac{1}{C_1s}, \ \infty,$	$ \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \propto $	$\supset, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}} $	
10.73 NVALID-ORDER-735 $Z(s) = 0$	$\left\langle \frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \right.$	$R_4, \infty, \frac{1}{C_L s} \bigg) . .$		
10.73 6 NVALID-ORDER-736 $Z(s) = ($	$\left\langle \frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \right\rangle$	$R_4, \infty, \frac{R_L}{C_L R_L s + 1}$		
10.73 T NVALID-ORDER-737 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	$\left\langle \frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \right\rangle$	$R_4, \infty, R_L + \frac{1}{C_L s}$		
10.73\NVALID-ORDER-738 $Z(s) = 0$	$\left\langle \frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \right.$	$R_4, \infty, L_L s + \frac{1}{C_L s}$)	
10.73 9 NVALID-ORDER-739 $Z(s) = ($	$\sum_{C_1s+\frac{1}{R_1}+\frac{1}{L_1s}}^{C_1s+\frac{1}{R_1}+\frac{1}{L_1s}}, \ \infty, \ \infty,$	$R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}$		
10.74 0 NVALID-ORDER-740 $Z(s) = ($	$\sum_{C_1s+\frac{1}{R_1}+\frac{1}{L_1s}}^{C_1s+\frac{1}{R_1}+\frac{1}{L_1s}}, \ \infty, \ \infty,$	$R_4, \infty, L_L s + R_L = 0$	$+\frac{1}{C_L s}$	
10.74INVALID-ORDER-741 $Z(s) = ($	$\sum_{C_1s+\frac{1}{R_1}+\frac{1}{L_1s}}, \ \infty, \ \infty,$	$R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L}}$	$\left(\frac{1}{L^{S}}\right)$	
10.742NVALID-ORDER-742 $Z(s) = ($	$\left(\frac{1}{C_1s + \frac{1}{R_1} + \frac{1}{L_1s}}, \ \infty, \ \infty, \right)$,	\ . '	
10.74 B NVALID-ORDER-743 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	$\left\langle \frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \right\rangle$	$R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L}\right)}{L_L s + R_L + \frac{1}{C_L}}$	$\left(\frac{\overline{L^s}}{L^s}\right)$	
10.74\PVALID-ORDER-744 $Z(s) = 0$	$\left\langle \frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \right. \infty, \infty, \right.$	$\frac{1}{C_4s}$, ∞ , R_L)		
10.74 5 NVALID-ORDER-745 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	$\left\langle \frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \right.$	$\frac{1}{C_4 s}$, ∞ , $\frac{R_L}{C_L R_L s + 1}$		
10.74 6 NVALID-ORDER-746 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	$\left\langle \frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \right. \infty, \infty, \right.$	$\frac{1}{C_4 s}$, ∞ , $R_L + \frac{1}{C_L s}$)	
10.74 T NVALID-ORDER-747 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	$\left(\frac{1}{C_1s + \frac{1}{R_1} + \frac{1}{L_1s}}, \ \infty, \ \infty, \right)$	$\frac{1}{C_4s}$, ∞ , $L_Ls + \frac{1}{C_Ls}$	<u> </u>	
10.74&NVALID-ORDER-748 $Z(s) = ($	$\left\langle \frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \right. \infty, \infty, \right.$	$\frac{1}{C_4 s}$, ∞ , $\frac{L_L s}{C_L L_L s^2 + 1}$)	
10.74 9 NVALID-ORDER-749 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	$\left\langle \frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \right\rangle$	$\frac{1}{C_4s}$, ∞ , $L_Ls + R_L$	$+\frac{1}{C_L s}$	
10.75 0 NVALID-ORDER-750 $Z(s) = ($	$\left\langle \frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \right.$	$\frac{1}{C_4s}$, ∞ , $\frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{R_L}}$	$\left(\frac{1}{L_L s}\right)$	 239
10.75INVALID-ORDER-751 $Z(s) = ($	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \right)$	$\frac{1}{C_4 s}$, ∞ , $\frac{L_L s}{C_L L_L s^2 + 1}$	$+R_L$)	

$$\begin{array}{lll} 10.75 \& \text{NVALID-ORDER-752} & Z(s) = \left(\frac{1}{C_1 + \frac{1}{R_1^2} + \frac{1}{L_1^2}}, \; \infty, \; \infty, \; \frac{1}{C_1 \times n}, \; \frac{n_L(L_1 \times n)_{C_2}}{L_1 \times n} + \frac{1}{C_2 \times n}\right) & 239 \\ 10.75 \& \text{NVALID-ORDER-753} & Z(s) = \left(\frac{1}{C_1 \times n} + \frac{1}{R_1^2} + \frac{1}{L_1^2}, \; \infty, \; \infty, \; \frac{n_L}{C_1 R_1 \times n_1} + \frac{1}{C_2 \times n}\right) & 240 \\ 10.75 \& \text{NVALID-ORDER-754} & Z(s) = \left(\frac{1}{C_1 \times n} + \frac{1}{R_1^2} + \frac{1}{L_1^2}, \; \infty, \; \infty, \; \frac{n_L}{C_1 R_1 \times n_1}, \; \infty, \frac{n_L}{C_1 \times n_1} + \frac{1}{C_1 \times n_1}\right) & 240 \\ 10.75 \& \text{NVALID-ORDER-755} & Z(s) = \left(\frac{1}{C_1 \times n} + \frac{1}{R_1^2} + \frac{1}{L_1^2}, \; \infty, \; \infty, \; \frac{n_L}{C_1 R_1 \times n_1}, \; \infty, \frac{n_L}{C_1 R_2 \times n_1}\right) & 240 \\ 10.75 \& \text{NVALID-ORDER-756} & Z(s) = \left(\frac{1}{C_1 \times n} + \frac{1}{R_1^2} + \frac{1}{L_1^2}, \; \infty, \; \infty, \; \frac{n_L}{C_1 R_2 \times n_1}, \; \infty, \; \frac{n_L}{C_1 R_2 \times n_1}\right) & 240 \\ 10.75 \& \text{NVALID-ORDER-757} & Z(s) = \left(\frac{1}{C_1 \times n} + \frac{1}{R_1^2} + \frac{1}{L_1^2}, \; \infty, \; \infty, \; \frac{n_L}{C_1 R_2 \times n_1}, \; \infty, \; L_L s + \frac{1}{C_L s}\right) & 240 \\ 10.75 \& \text{NVALID-ORDER-758} & Z(s) = \left(\frac{1}{C_1 \times n} + \frac{1}{R_1^2} + \frac{1}{L_1^2}, \; \infty, \; \infty, \; \frac{n_L}{C_1 R_2 \times n_1}, \; \infty, \; \frac{1}{C_1 L_1 L_2 \times n_1}\right) & 240 \\ 10.75 \& \text{NVALID-ORDER-759} & Z(s) = \left(\frac{1}{C_1 \times n} + \frac{1}{R_1^2} + \frac{1}{L_1^2}, \; \infty, \; \infty, \; \frac{n_L}{C_1 R_2 \times n_1}, \; \infty, \; \frac{1}{C_1 L_1 L_2 \times n_1}\right) & 241 \\ 10.76 \& \text{NVALID-ORDER-760} & Z(s) = \left(\frac{1}{C_1 \times n} + \frac{1}{R_1^2} + \frac{1}{L_1^2}, \; \infty, \; \infty, \; \frac{n_L}{C_1 R_2 \times n_1}, \; \infty, \; \frac{1}{C_1 L_2 \times n_1^2} + \frac{1}{C_1 L_2}\right) & 241 \\ 10.76 \& \text{NVALID-ORDER-762} & Z(s) = \left(\frac{1}{C_1 \times n} + \frac{1}{R_1^2} + \frac{1}{L_1^2}, \; \infty, \; \infty, \; \frac{n_L}{C_1 R_2 \times n_1}, \; \infty, \; \frac{1}{C_1 L_2 \times n_1^2} + \frac{1}{C_1 \times n_1^2}}\right) & 241 \\ 10.76 \& \text{NVALID-ORDER-762} & Z(s) = \left(\frac{1}{C_1 \times n} + \frac{1}{R_1^2} + \frac{1}{L_1^2}, \; \infty, \; \infty, \; \frac{n_L}{C_1 R_2 \times n_1}, \; \infty, \; \frac{n_L}{C_1 L_2 \times n_1^2} + \frac{1}{C_1 \times n_1^2}}\right) & 242 \\ 10.76 \& \text{NVALID-ORDER-762} & Z(s) = \left(\frac{1}{C_1 \times n} + \frac{1}{R_1^2} + \frac{1}{L_1^2}, \; \infty, \; \infty, \; R_1 + \frac{1}{C_1 \times s}, \; \infty, \; \frac{n_L}{C_1 \times n_1^2} + \frac{1}{C_1 \times n_1^2}\right) & 242 \\ 10.76 \& \text{NVALID-ORDER-762} & Z(s) = \left(\frac{1}{C_1 \times n} + \frac{1}{R_1^2} + \frac{1}{L_1^2}, \;$$

10.77 0 NVALID-ORDER-770 $Z(s) = ($	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \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) \dots $
10.77INVALID-ORDER-771 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	$\left(\frac{1}{C_{1}s + \frac{1}{R_{1}} + \frac{1}{L_{1}s}}, \infty, \infty, 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 $
10.772NVALID-ORDER-772 $Z(s) = ($	$\left(\frac{1}{C_{1}s + \frac{1}{R_{1}} + \frac{1}{L_{1}s}}, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.77 B NVALID-ORDER-773 $Z(s) = 0$	$\left(\frac{1}{C_1s + \frac{1}{R_1} + \frac{1}{L_1s}}, \infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, R_L\right)$
10.77\PVALID-ORDER-774 $Z(s) = 0$	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$
10.77 NVALID-ORDER-775 $Z(s) = 0$	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$
10.776NVALID-ORDER-776 $Z(s) = ($	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.77 NVALID-ORDER-777 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	$\left(\frac{1}{C_{1}s + \frac{1}{R_{1}} + \frac{1}{L_{1}s}}, \infty, \infty, L_{4}s + \frac{1}{C_{4}s}, \infty, L_{L}s + \frac{1}{C_{L}s}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.77&NVALID-ORDER-778 $Z(s) = ($	$\left(\frac{1}{C_1 s + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \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 $
10.77 9 NVALID-ORDER-779 $Z(s) = ($	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \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 $
10.78 0 NVALID-ORDER-780 $Z(s) = ($	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \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) \right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.78INVALID-ORDER-781 $Z(s) = ($	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
10.78 2 NVALID-ORDER-782 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	$\left(\frac{1}{C_{1}s + \frac{1}{R_{1}} + \frac{1}{L_{1}s}}, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.78 B NVALID-ORDER-783 $Z(s) = ($	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L\right)$
10.784NVALID-ORDER-784 $Z(s) = 0$	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.78 NVALID-ORDER-785 $Z(s) = 0$	$\left(\frac{1}{C_{1}s + \frac{1}{R_{1}} + \frac{1}{L_{1}s}}, \infty, \infty, \frac{L_{4}s}{C_{4}L_{4}s^{2} + 1}, \infty, \frac{R_{L}}{C_{L}R_{L}s + 1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.78 NVALID-ORDER-786 $Z(s) = 0$	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L + \frac{1}{C_L s}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.78 T NVALID-ORDER-787 $Z(s) = ($	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + \frac{1}{C_L s}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $

$$\begin{aligned} & 10.75 \&nvalid-Order 788 \ Z(s) = \left(\frac{1}{c_1 + \frac{1}{c_1 + \frac{1}{c_1 + \frac{1}{c_2 + \frac{$$

$$\begin{aligned} &10.80 \text{EVALID-ORDER-806} \ Z(s) = \left(\frac{c_1 + \frac{1}{4c_1 + \frac{1}{1c_2}}}{c_1 + \frac{1}{4c_1 + \frac{1}{1c_2}}}, \, \infty, \, \infty, \, \frac{c_1 + \frac{1}{4c_1 + \frac{1}{1c_2}}}{c_2 + \frac{1}{8c_1 + \frac{1}{1c_2}}}, \, \infty, \, c_2 \cdot \frac{c_1 + \frac{1}{4c_1 + \frac{1}{1c_2}}}{c_2 + \frac{1}{8c_1 + \frac{1}{1c_2}}}, \, \infty, \, c_3 \cdot \frac{c_1 + \frac{1}{4c_1 + \frac{1}{1c_2}}}{c_2 + \frac{1}{8c_1 + \frac{1}{1c_2}}}, \, \infty, \, c_4 \cdot \frac{c_1 + \frac{1}{4c_1 + \frac{1}{1c_2}}}{c_2 + \frac{1}{8c_2 + \frac{1}{1c_2}}}, \, c_5 \cdot \frac{c_1 + c_2 + \frac{1}{1c_2}}{c_2 + \frac{1}{8c_2 + \frac{1}{1c_2}}}, \, c_6 \cdot \frac{c_1 + c_2 + \frac{1}{1c_2}}{c_2 + \frac{1}{8c_2 + \frac{1}{1c_2}}}, \, c_6 \cdot \frac{c_1 + c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}{c_2 + \frac{1}{8c_2 + \frac{1}{1c_2}}}, \, c_6 \cdot \frac{c_1 + c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}{c_2 + \frac{1}{8c_2 + \frac{1}{1c_2}}}, \, c_6 \cdot \frac{c_1 + c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}{c_2 + \frac{1}{8c_2 + \frac{1}{1c_2}}}, \, c_6 \cdot \frac{c_1 + c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}{c_2 + \frac{1}{8c_2 + \frac{1}{1c_2}}}, \, c_6 \cdot \frac{c_1 + c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}{c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}, \, c_6 \cdot \frac{c_1 + c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}{c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}, \, c_6 \cdot \frac{c_1 + c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}{c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}, \, c_6 \cdot \frac{c_1 + c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}{c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}, \, c_6 \cdot \frac{c_1 + c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}{c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}, \, c_6 \cdot \frac{c_1 + c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}{c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}, \, c_6 \cdot \frac{c_1 + c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}{c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}{c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}, \, c_6 \cdot \frac{c_1 + c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}{c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}{c_2 + \frac{1}{1c_2}}{c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}}{c_2 + \frac{1}{1c_2 + \frac{1}{1c_2}}{c_2 + \frac{1}{1c_2}}{c_2 + \frac{1}{1c_2}}$$

10.824NVALID-ORDER-824 $Z(s) =$	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.825NVALID-ORDER-825 $Z(s) =$	$\begin{pmatrix} s_1 + k_1 + L_1 s & -4s + C_4 s \end{pmatrix}$
10.826NVALID-ORDER-826 $Z(s) =$	$\left(\frac{1}{C_{1}s+\frac{1}{R_{1}}+\frac{1}{L_{1}s}}, \infty, \infty, \frac{R_{4}\left(L_{4}s+\frac{1}{C_{4}s}\right)}{L_{4}s+R_{4}+\frac{1}{C_{4}s}}, \infty, R_{L}+\frac{1}{C_{L}s}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.82TNVALID-ORDER-827 $Z(s) =$	$\left(\frac{1}{C_{1}s + \frac{1}{R_{1}} + \frac{1}{L_{1}s}}, \infty, \infty, \frac{R_{4}\left(L_{4}s + \frac{1}{C_{4}s}\right)}{L_{4}s + R_{4} + \frac{1}{C_{4}s}}, \infty, L_{L}s + \frac{1}{C_{L}s}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.82\NVALID-ORDER-828 $Z(s) =$	$\left(\frac{1}{C_{1}s + \frac{1}{L_{1}s}}, \infty, \infty, \frac{R_{4}\left(L_{4}s + \frac{1}{C_{4}s}\right)}{L_{4}s + R_{4} + \frac{1}{C_{4}s}}, \infty, \frac{L_{L}s}{C_{L}L_{L}s^{2} + 1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.82 9 NVALID-ORDER-829 $Z(s) =$	$\left(\frac{1}{C_{1}s+\frac{1}{R_{1}}+\frac{1}{L_{1}s}}, \infty, \infty, \frac{R_{4}\left(L_{4}s+\frac{1}{C_{4}s}\right)}{L_{4}s+R_{4}+\frac{1}{C_{4}s}}, \infty, L_{L}s+R_{L}+\frac{1}{C_{L}s}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.83 ONVALID-ORDER-830 $Z(s) =$	$\begin{pmatrix} 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 $
10.83INVALID-ORDER-831 $Z(s) =$	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.832NVALID-ORDER-832 $Z(s) =$	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.83 B NVALID-ORDER-833 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \infty, \infty, R_4, \infty, \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.834NVALID-ORDER-834 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \ \infty, \ \infty, \ R_4, \ \infty, \ \frac{R_L}{C_LR_Ls+1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.83 Invalid-order-835 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \infty, \ \infty, \ R_4, \ \infty, \ R_L + \frac{1}{C_Ls}\right) \ \dots \ $
10.83 CNVALID-ORDER-836 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, R_4, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.83TNVALID-ORDER-837 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \infty, \ \infty, \ R_4, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1}\right)$
10.83\NVALID-ORDER-838 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, R_4, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.83 9 NVALID-ORDER-839 $Z(s) =$	$\left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}+R_{1}, \infty, \infty, R_{4}, \infty, \frac{1}{C_{L}s+\frac{1}{R_{L}}+\frac{1}{L_{L}s}}\right) \dots \dots$
10.84 ONVALID-ORDER-840 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \infty, \ \infty, \ R_4, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right) \ \dots \ $
10.84INVALID-ORDER-841 $Z(s) =$	$\left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}+R_{1}, \infty, \infty, R_{4}, \infty, \frac{R_{L}\left(L_{L}s+\frac{1}{C_{L}s}\right)}{L_{L}s+R_{L}+\frac{1}{C_{L}s}}\right) \dots \dots$
10.84 2 NVALID-ORDER-842 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1,\ \infty,\ \infty,\ \frac{1}{C_4s},\ \infty,\ R_L\right) \dots \qquad \qquad$
10.84 Invalid-order-843 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \infty, \ \infty, \ \frac{1}{C_4s}, \ \infty, \ \frac{1}{C_Ls}\right) \ \dots \ $

10.844NVALID-ORDER-844 $Z(s)=\langle$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \infty, \ \infty, \ \frac{1}{C_4s}, \ \infty, \ \frac{R_L}{C_LR_Ls+1}\right) \ \dots \ $
10.845NVALID-ORDER-845 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \infty, \ \infty, \ \frac{1}{C_4s}, \ \infty, \ R_L + \frac{1}{C_Ls}\right)$
10.846NVALID-ORDER-846 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, \frac{1}{C_4s}, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.84 T NVALID-ORDER-847 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \infty, \ \infty, \ \frac{1}{C_4s}, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1}\right)$
10.84&NVALID-ORDER-848 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \infty, \infty, \frac{1}{C_4s}, \infty, L_Ls+R_L+\frac{1}{C_Ls}\right)$
10.84¶NVALID-ORDER-849 $Z(s) = 0$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s}, \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 $
10.85 0 NVALID-ORDER-850 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$
10.85INVALID-ORDER-851 $Z(s) = 1$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.852NVALID-ORDER-852 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, \frac{R_4}{C_4R_4s+1}, \infty, R_L\right) \dots \dots$
10.85 B NVALID-ORDER-853 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \infty, \ \infty, \ \frac{R_4}{C_4R_4s+1}, \ \infty, \ \frac{1}{C_Ls}\right)$
10.854NVALID-ORDER-854 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \infty, \ \infty, \ \frac{R_4}{C_4R_4s+1}, \ \infty, \ \frac{R_L}{C_LR_Ls+1}\right)$
10.85 NVALID-ORDER-855 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \infty, \infty, \frac{R_4}{C_4R_4s+1}, \infty, R_L+\frac{1}{C_Ls}\right)$
10.856NVALID-ORDER-856 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \infty, \infty, \frac{R_4}{C_4R_4s+1}, \infty, L_Ls+\frac{1}{C_Ls}\right)$
10.85 T NVALID-ORDER-857 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, \frac{R_4}{C_4R_4s+1}, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.85&NVALID-ORDER-858 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, \frac{R_4}{C_4R_4s+1}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.85 9 NVALID-ORDER-859 $Z(s) = 1$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.86 0 NVALID-ORDER-860 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, \frac{R_4}{C_4R_4s+1}, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right) \dots \dots$
10.86 INVALID-ORDER-86 1 $Z(s)=\langle$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.86 2 NVALID-ORDER-862 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, R_L\right)$
10.86 B NVALID-ORDER-863 $Z(s)=($	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls}\right)$
10.864NVALID-ORDER-864 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{\dot{R}_L}{C_LR_Ls+1}\right)$
10.86 INVALID-ORDER-865 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, R_L + \frac{1}{C_Ls}\right)$

$10.86 \text{\texttt{C}} \text{NVALID-ORDER-866} \ Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \infty, \infty, R_4+\frac{1}{C_4s}, \infty, L_Ls+\frac{1}{C_Ls}\right)$
10.86 T NVALID-ORDER-867 $Z(s) = 0$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$
10.86\nbelownermal{8}NVALID-ORDER-868 $Z(s)=0$	$\left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}+R_{1}, \infty, \infty, R_{4}+\frac{1}{C_{4}s}, \infty, L_{L}s+R_{L}+\frac{1}{C_{L}s}\right)$
10.86 9 NVALID-ORDER-869 $Z(s) = 1$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.870NVALID-ORDER-870 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$
10.87 INVALID-ORDER-87 1 $\boldsymbol{Z}(s) = 1$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.872NVALID-ORDER-872 $Z(s) = 0$	$\left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}+R_{1}, \infty, \infty, L_{4}s+\frac{1}{C_{4}s}, \infty, R_{L}\right)$
10.87 B NVALID-ORDER-873 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \infty, \infty, L_4s+\frac{1}{C_4s}, \infty, \frac{1}{C_Ls}\right)$
10.874NVALID-ORDER-874 $Z(s)=\langle$	$\left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}+R_{1}, \infty, \infty, L_{4}s+\frac{1}{C_{4}s}, \infty, \frac{R_{L}}{C_{L}R_{L}s+1}\right)$
10.875NVALID-ORDER-875 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, R_L + \frac{1}{C_Ls}\right)$
10.876NVALID-ORDER-876 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.87¶NVALID-ORDER-877 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$
10.87&NVALID-ORDER-878 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.87 9 NVALID-ORDER-879 $Z(s) = 1$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.88©NVALID-ORDER-880 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right) \dots \dots$
10.88INVALID-ORDER-881 $Z(s) = 1$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.882NVALID-ORDER-882 $Z(s) = 0$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L\right)$
10.88 B NVALID-ORDER-883 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, \frac{1}{C_Ls}\right)$
10.884NVALID-ORDER-884 $Z(s) = 0$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, \frac{R_L}{C_LR_Ls+1}\right)$
10.88 INVALID-ORDER-885 $Z(s) = 0$	$\left\langle \frac{L_{1}s}{C_{1}L_{1}s^{2}+1} + R_{1}, \infty, \infty, \frac{L_{4}s}{C_{4}L_{4}s^{2}+1}, \infty, R_{L} + \frac{1}{C_{L}s} \right\rangle$
10.886NVALID-ORDER-886 $Z(s) = 0$	$\left\langle \frac{L_{1}s}{C_{1}L_{1}s^{2}+1} + R_{1}, \infty, \infty, \frac{L_{4}s}{C_{4}L_{4}s^{2}+1}, \infty, L_{L}s + \frac{1}{C_{L}s} \right\rangle$
10.88¶NVALID-ORDER-887 $Z(s) = 0$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$\begin{aligned} & 10.88 \text{NVALID-ORDER-888} \ Z(s) = \left(\frac{L_{1,1}}{C_{1,1}} + R_1, \infty, \infty, \frac{L_{1,2}}{C_{1,1}} + R_1, \cdots, L_{1,8} + R_1, + \frac{1}{C_{1,8}} \right) & 266 \\ & 10.88 \text{NVALID-ORDER-889} \ Z(s) = \left(\frac{L_{1,1}}{C_{1,1}} + R_1, \infty, \infty, \frac{L_{2,1}}{C_{2,1}} + R_1, \cdots, \frac{L_{2,1}}{C_{2,1}} \right) & 267 \\ & 10.89 \text{INVALID-ORDER-890} \ Z(s) = \left(\frac{L_{1,2}}{C_{1,1}} + R_1, \infty, \infty, \frac{L_{2,2}}{C_{1,2,2}} + R_1, \infty, \frac{L_{2,2}}{C_{1,2,2}} + R_1, \infty \right) & 267 \\ & 10.89 \text{INVALID-ORDER-891} \ Z(s) = \left(\frac{L_{1,2}}{C_{1,2,2}} + R_1, \infty, \infty, \frac{L_{2,2}}{C_{1,2,2}} + R_2, \dots, \frac{L_{2,1}}{C_{1,2,2}} + R_2, \dots, \frac{L_{2,1}}{C_{2,1,2}} \right) & 267 \\ & 10.89 \text{INVALID-ORDER-892} \ Z(s) = \left(\frac{L_{1,2}}{C_{1,2,2}} + R_1, \infty, \infty, \frac{L_{2,2}}{C_{1,2,2}} + R_2, \dots, \frac{L_{2,2}}{C_{2,2,2}} \right) & 267 \\ & 10.89 \text{INVALID-ORDER-892} \ Z(s) = \left(\frac{L_{1,2}}{C_{1,2,2}} + R_1, \infty, \infty, L_{2,2} + R_{4} + \frac{1}{C_{4,2}}, \infty, \frac{1}{C_{4,2}} \right) & 267 \\ & 10.89 \text{INVALID-ORDER-892} \ Z(s) = \left(\frac{L_{1,2}}{C_{1,2,2}} + R_1, \infty, \infty, L_{2,2} + R_{4} + \frac{1}{C_{4,3}}, \infty, \frac{R_{1,2}}{C_{2,3}} \right) & 268 \\ & 10.89 \text{INVALID-ORDER-892} \ Z(s) = \left(\frac{L_{1,2}}{C_{1,2,2}} + R_1, \infty, \infty, L_{2,2} + R_{4} + \frac{1}{C_{4,3}}, \infty, \frac{R_{1,2}}{C_{4,3}} \right) & 268 \\ & 10.89 \text{INVALID-ORDER-892} \ Z(s) = \left(\frac{L_{1,2}}{C_{1,1,2}} + R_1, \infty, \infty, L_{2,2} + R_{4} + \frac{1}{C_{4,3}}, \infty, L_{2,3} + \frac{1}{C_{2,3}} \right) & 268 \\ & 10.89 \text{INVALID-ORDER-892} \ Z(s) = \left(\frac{L_{1,2}}{C_{1,1,2}} + R_1, \infty, \infty, L_{2,3} + R_{4} + \frac{1}{C_{4,3}}, \infty, L_{2,3} + \frac{1}{C_{2,3}} \right) & 268 \\ & 10.89 \text{INVALID-ORDER-892} \ Z(s) = \left(\frac{L_{1,2}}{C_{1,1,2}} + R_1, \infty, \infty, L_{4,3} + R_{4} + \frac{1}{C_{4,3}}, \infty, L_{2,3} + \frac{1}{C_{2,3}} \right) & 269 \\ & 10.89 \text{INVALID-ORDER-892} \ Z(s) = \left(\frac{L_{1,2}}{C_{1,1,2}} + R_1, \infty, \infty, L_{4,3} + R_{4} + \frac{1}{C_{4,3}}, \infty, L_{2,3} + \frac{1}{C_{4,3}} \right) & 269 \\ & 10.90 \text{INVALID-ORDER-892} \ Z(s) = \left(\frac{L_{1,2}}{C_{1,1,2}} + R_1, \infty, \infty, L_{4,3} + R_{4} + \frac{1}{C_{4,3}}, \infty, L_{2,3} + \frac{1}{C_{4,3}} \right) & 269 \\ & 10.90 \text{INVALID-ORDER-902} \ Z(s) = \left(\frac{L_{1,2}}{C_{1,1,2}} + R_1, \infty, \infty, \frac{1}{C_{4,1,2}} + \frac{1}{C_{4,1}}} + \frac{1}{C_{4,2}}, \infty, \frac{R_{4}}{C_{4$$

10.90&NVALID-ORDER-908 $Z(s) = ($	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1,\right.$	∞ , ∞ ,	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty,$	$L_L s + R_L +$	$-\frac{1}{C_L s}$	 	 270
10.90 9 NVALID-ORDER-909 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1,\right.$	∞ , ∞ ,	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L}}$	$\frac{1}{s}$ \cdots	 	 271
10.91 © NVALID-ORDER-910 $Z(s) = $	$\left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}+R_{1},\right.$	∞ , ∞ ,	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$ +	R_L	 	 271
10.91INVALID-ORDER-911 $Z(s) = ($	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1,\right.$	∞ , ∞ ,	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty,$	$\frac{R_L \left(L_L s + \frac{1}{C_L s} $	$\left(\frac{\overline{s}}{\overline{s}}\right)$	 	 271
10.91 2 NVALID-ORDER-912 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1,\right)$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4$, o	o, R_L)		 	 271
10.91 3 NVALID-ORDER-913 $Z(s) = ($	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1,\right)$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4$, o	$\circ, \frac{1}{C_L s}$)		 	 271
10.914NVALID-ORDER-914 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1,\right.$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4$, o	$O, \frac{R_L}{C_L R_L s + 1}$		 	 272
10.915NVALID-ORDER-915 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1,\right.$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4$, o	o, $R_L + \frac{1}{C_L s}$)	 	 272
10.91 6 NVALID-ORDER-916 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1,\right)$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4$, o	o, $L_L s + \frac{1}{C_L s}$	$\left(\frac{1}{s}\right)$	 	 272
10.91 T NVALID-ORDER-917 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1,\right.$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4$, o	$O, \frac{L_L s}{C_L L_L s^2 + 1}$)	 	 272
10.91\(\text{NVALID-ORDER-918} \) $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1,\right)$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4$, o	o, $L_L s + R_L$	$+\frac{1}{C_L s}$	 	 272
10.91 9 NVALID-ORDER-919 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1,\right.$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4$, or	$\infty, \ \frac{1}{C_L s + \frac{1}{R_L} +}$	$\frac{1}{L_L s}$	 	 273
10.92 0 NVALID-ORDER-920 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1,\right)$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4$, o	$0, \ \frac{L_L s}{C_L L_L s^2 + 1}$	$+R_L$) .	 	 273
10.92INVALID-ORDER-921 $Z(s) = 1$	$\left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}+R_{1},\right.$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R_4$, or	$ xigma, \frac{R_L \left(L_L s + \overline{c}\right)}{L_L s + R_L + \overline{c}} $	$\left(\frac{\frac{1}{C_L s}}{\frac{1}{C_L s}}\right)$	 	 273
10.92\mathbb{2}NVALID-ORDER-922 $Z(s) = 0$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1,\right.$	∞ , ∞ ,	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty$	$, R_L$)		 	 273
10.92\textbf{8}\text{NVALID-ORDER-923} $Z(s) = 0$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1,\right.$	∞ , ∞ ,	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty$	$\left(\frac{1}{C_L s}\right)$		 	 273
10.92#NVALID-ORDER-924 $Z(s) = ($	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1,\right.$	∞ , ∞ ,	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty$	$\left(\frac{R_L}{C_L R_L s + 1}\right)$		 	 274
10.925NVALID-ORDER-925 $Z(s) = ($	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1,\right.$	∞ , ∞ ,	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty$	$R_L + \frac{1}{C_L s}$		 	 274
10.92 6 NVALID-ORDER-926 $Z(s) = ($	$\left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}+R_{1},\right.$	∞ , ∞ ,	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty$	$L_L s + \frac{1}{C_L s}$)	 	 274

10.92 T NVALID-ORDER-927 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.92\NVALID-ORDER-928 $Z(s) = 1$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.92 9 NVALID-ORDER-929 $Z(s) = ($	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.93©NVALID-ORDER-930 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.93INVALID-ORDER-931 $Z(s) = 1$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.932NVALID-ORDER-932 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, R_4, \infty, \frac{1}{C_Ls}\right)$
10.93\(\textbf{S}\) NVALID-ORDER-933 $Z(s) = ($	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$
10.934NVALID-ORDER-934 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4, \infty, R_L + \frac{1}{C_Ls}\right)$
10.93 5 NVALID-ORDER-935 $Z(s) = ($	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, R_4, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.936NVALID-ORDER-936 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, R_4, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$
10.93 T NVALID-ORDER-937 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, R_4, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.93\NVALID-ORDER-938 $Z(s) = 0$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, R_4, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$
10.93 9 NVALID-ORDER-939 $Z(s) = ($	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, R_4, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$
10.940NVALID-ORDER-940 $Z(s) = ($	$ \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, R_4, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right) \dots \dots$
10.94INVALID-ORDER-941 $Z(s) = ($	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \frac{1}{C_4s}, \infty, R_L\right)$
	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s}, \infty, \frac{1}{C_Ls}\right)$
10.94\(\textbf{S}\) NVALID-ORDER-943 $Z(s) = ($	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s}, \infty, \frac{R_L}{C_LR_Ls + 1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $

$$\begin{array}{lll} & 10.94 \text{ENVALID-ORDER-944} \ Z(s) = \left(\frac{R_1(L_1 s_1 + \frac{1}{C_1 s})}{L_1 s_1 R_1 s_1 + \frac{1}{C_1 s}}\right), & \infty, & \infty, \frac{1}{C_4 s}, & \infty, \ R_L + \frac{1}{C_L s}\right) \\ & 10.94 \text{ENVALID-ORDER-945} \ Z(s) = \left(\frac{R_1(L_1 s_1 + \frac{1}{C_1 s})}{L_1 s_1 R_1 s_1 + \frac{1}{C_1 s}}\right), & \infty, & \infty, \frac{1}{C_4 s}, & \infty, \ L_L s + \frac{1}{C_L s}\right) \\ & 10.94 \text{ENVALID-ORDER-946} \ Z(s) = \left(\frac{R_1(L_1 s_1 + \frac{1}{C_1 s})}{L_1 s_1 R_1 s_1 + \frac{1}{C_1 s}}\right), & \infty, & \infty, \frac{1}{C_4 s}, & \infty, \frac{L_L s}{C_L L_2 s^2 + 1}\right) \\ & 10.94 \text{ENVALID-ORDER-947} \ Z(s) = \left(\frac{R_1(L_1 s_1 + \frac{1}{C_1 s})}{L_1 s_1 R_1 s_1 + \frac{1}{C_1 s}}\right), & \infty, & \infty, \frac{1}{C_4 s}, & \infty, \ L_L s + R_L + \frac{1}{C_1 s}\right) \\ & 10.94 \text{ENVALID-ORDER-948} \ Z(s) = \left(\frac{R_1(L_1 s_1 + \frac{1}{C_1 s})}{L_1 s_1 R_1 s_1 + \frac{1}{C_1 s}}\right), & \infty, & \infty, \frac{1}{C_4 s}, & \infty, \frac{L_L s}{L_1 s_1 s_1 s_1 s_1}\right) \\ & 10.94 \text{ENVALID-ORDER-949} \ Z(s) = \left(\frac{R_1(L_1 s_1 + \frac{1}{C_1 s})}{L_1 s_1 R_1 s_1 c_1 s_1}\right), & \infty, & \frac{1}{C_4 s}, & \frac{1}{C_4 s}, & \frac{1}{C_4 s}\right) \\ & 10.94 \text{ENVALID-ORDER-949} \ Z(s) = \left(\frac{R_1(L_1 s_1 s_1 s_1)}{L_1 s_1 R_1 s_1 s_1 s_1}\right), & \infty, & \frac{1}{C_4 s}, & \frac{1}{C_4 s}, & \frac{1}{C_4 s}\right) \\ & 10.95 \text{ENVALID-ORDER-950} \ Z(s) = \left(\frac{R_1(L_1 s_1 s_1 s_1)}{L_1 s_1 R_1 s_1 s_1 s_1}\right), & \infty, & \frac{R_L(L_1 s_1 s_1 s_1)}{L_2 s_1 R_1 s_1 s_1 s_1}\right) \\ & 10.95 \text{ENVALID-ORDER-952} \ Z(s) = \left(\frac{R_1(L_1 s_1 s_1 s_1)}{L_1 s_1 s_1 r_1 s_1 s_1 s_1}\right), & \infty, & \frac{R_L(L_1 s_1 s_1 s_1)}{L_2 s_1 R_1 s_1 s_1 s_1}\right) \\ & 10.95 \text{ENVALID-ORDER-953} \ Z(s) = \left(\frac{R_1(L_1 s_1 s_1 s_1)}{L_1 s_1 s_1 r_1 s_1 s_1 s_1}\right), & \infty, & \frac{R_L}{R_1 s_1 s_1}\right) \\ & 10.95 \text{ENVALID-ORDER-954} \ Z(s) = \left(\frac{R_1(L_1 s_1 s_1 s_1)}{L_1 s_1 s_1 r_1 s_1 s_1 s_1}\right), & \infty, & \frac{R_L}{R_1 s_1 s_1}\right) \\ & 10.95 \text{ENVALID-ORDER-955} \ Z(s) = \left(\frac{R_1(L_1 s_1 s_1 s_1)}{L_1 s_1 s_1 r_1 s_1 s_1 s_1}\right), & \infty, & \frac{R_L}{R_1 s_1 s_1}\right) \\ & 10.95 \text{ENVALID-ORDER-957} \ Z(s) = \left(\frac{R_1(L_1 s_1 s_1 s_1)}{L_1 s_1 s_1 r_1 s_1 s_1 s_1}\right), & \infty, & \frac{R_L}{R_1 s_1 s_1}\right) \\ & 10.95 \text{ENVALID-ORDER-958} \ Z(s) = \left(\frac{R_1(L_1 s_1 s_1 s_1)}{L_1 s_1 s_1 r_1 s_1 s_1}\right), & \infty, & \frac{R_L}{R_1 s_1 s_1}\right$$

10.96INVALID-ORDER-961 $Z(s) =$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, R_L\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls}\right) \dots $
10.96\(\mathbb{B}\) NVALID-ORDER-963 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{R_L}{C_LR_Ls + 1}\right) \dots $
10.964NVALID-ORDER-964 $Z(s) =$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, R_L + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.96 NVALID-ORDER-965 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, L_Ls + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.96 NVALID-ORDER-966 $Z(s) = 10.96$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.96 INVALID-ORDER-967 $Z(s) =$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.96\NVALID-ORDER-968 $Z(s) =$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.96 9 NVALID-ORDER-969 $Z(s) =$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.97 0 NVALID-ORDER-970 $Z(s) =$	$ \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, 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) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.97INVALID-ORDER-971 $Z(s) =$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, R_L\right) \dots $
10.972NVALID-ORDER-972 $Z(s) =$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.97\(\textbf{8}\) NVALID-ORDER-973 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{R_L}{C_LR_Ls + 1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.974NVALID-ORDER-974 $Z(s) =$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, R_L + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.97 NVALID-ORDER-975 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, L_Ls + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.976NVALID-ORDER-976 $Z(s) =$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.97 INVALID-ORDER-977 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $

$$\begin{array}{lll} 10.978 \text{NVALID-ORDER-978} \ Z(s) & \left(\frac{R_b \left(L_1 + \frac{1}{2} \frac{1}{1} \right)}{L_1 + R_1 + \frac{1}{2} \frac{1}{1}} \right)}{L_1 + R_1 + R_1$$

$$\begin{array}{lll} 10.99 \text{RNVALID-ORDER-995} \ Z(s) & \left(\frac{R_1(l_1s_1+c_{11}^{-1})}{L_1s_1R_1R_1+c_{11}^{-1}}, \right) & \infty, \ \infty, \ L_4s + R_4 + \frac{1}{C_4s}, \ \infty, \ L_2s + \frac{1}{C_4s^2} \right) \\ 10.99 \text{RNVALID-ORDER-996} \ Z(s) & \left(\frac{R_1(L_1s_1+c_{11}^{-1})}{L_1s_1R_1R_1+c_{11}^{-1}}, \right) & \infty, \ \infty, \ L_4s + R_4 + \frac{1}{C_4s}, \ \infty, \ \frac{L_4s}{C_4L_5s^2+1} \right) \\ 10.99 \text{RNVALID-ORDER-997} \ Z(s) & \left(\frac{R_1(L_1s_1+c_{11}^{-1})}{L_1s_1R_1R_1+c_{11}^{-1}}, \right) & \infty, \ \infty, \ L_4s + R_4 + \frac{1}{C_4s}, \ \infty, \ L_4s + R_4 + \frac{1}{C_4s} \right) \\ 10.99 \text{RNVALID-ORDER-998} \ Z(s) & \left(\frac{R_1(L_1s_1+c_{11}^{-1})}{L_1s_1R_1+c_{11}^{-1}}, \right) & \infty, \ \infty, \ L_4s + R_4 + \frac{1}{C_4s}, \ \infty, \ \frac{1}{C_4s^2+R_1^2+L_4^2} \right) \\ 10.99 \text{RNVALID-ORDER-999} \ Z(s) & \left(\frac{R_1(L_1s_1+c_{11}^{-1})}{L_1s_1R_1+c_{11}^{-1}}, \right) & \infty, \ \infty, \ L_4s + R_4 + \frac{1}{C_4s}, \ \infty, \ \frac{1}{C_4s^2+R_1^2+L_4^2} \right) \\ 10.10 \text{RNVALID-ORDER-1000} \ Z(s) & \left(\frac{R_1(L_1s_1+c_{11}^{-1})}{L_1s_1R_1+c_{11}^{-1}}, \right) & \infty, \ \infty, \ L_4s + R_4 + \frac{1}{C_4s}, \ \infty, \ \frac{L_4s}{L_4s^2+R_1^2+L_4^2}, \ \infty, \frac{L_4s}{L_4s^2+R_1^2+L_4^2} \right) \\ 10.10 \text{RNVALID-ORDER-1000} \ Z(s) & \left(\frac{R_1(L_1s_1+c_{11}^{-1})}{L_1s_1R_1+c_{11}^{-1}}, \infty, \infty, \ \infty, \frac{1}{C_4s^2+R_1^2+L_4^2}, \infty, \frac{R_4(L_4s+c_{11}^{-1})}{L_1s_1R_1+c_{11}^{-1}}, \infty, \frac{1}{L_4s^2+R_1^2+L_4^2}, \infty, \frac{R_4}{L_4s^2} \right) \\ 10.10 \text{RNVALID-ORDER-1001} \ Z(s) & \left(\frac{R_1(L_1s_1+c_{11}^{-1})}{L_1s_1R_1+c_{11}^{-1}}, \infty, \infty, \frac{1}{C_4s^2+R_1^2+L_4^2}, \infty, \frac{R_4}{C_4s^2+R_1^2+L_4^2}, \infty, \frac{R_5}{C_4s^2+R_1^2+L_4^2}, \infty, \frac{R_5}{C_4s^2+R_1^2$$

$$\begin{array}{lll} & 10.101 \text{INVALID-ORDER-1012} \ Z(s) = \left(\frac{R_1 \left(L_1 + v + v_1 + v_1 \right)}{L_1 + R_1 + v_1 + v_1} \right), & \infty, & \infty, \frac{L_2 s}{L_1 L_2 s + 1} + R_4, & \infty, \frac{1}{C_L s} \right) \\ & 10.101 \text{INVALID-ORDER-1013} \ Z(s) = \left(\frac{R_1 \left(L_1 + v + v_1 \right)}{L_1 + R_1 + v_1 + v_1} \right), & \infty, & \infty, \frac{L_2 s}{C_2 L_4 s^2 + 1} + R_4, & \infty, \frac{R_L}{C_L R_L s + 1} \right) \\ & 10.101 \text{INVALID-ORDER-1014} \ Z(s) = \left(\frac{R_1 \left(L_1 + v + v_1 \right)}{L_1 L_2 + R_1 + v_1 + v_1} \right), & \infty, & \frac{L_2 s}{C_2 L_4 s^2 + 1} + R_4, & \infty, R_L + \frac{1}{C_L s} \right) \\ & 10.101 \text{INVALID-ORDER-1015} \ Z(s) = \left(\frac{R_1 \left(L_1 + v + v_1 \right)}{L_1 L_2 + R_1 + v_1 + v_1} \right), & \infty, & \infty, \frac{L_2 s}{C_2 L_4 s^2 + 1} + R_4, & \infty, L_L s + \frac{1}{C_L s} \right) \\ & 10.101 \text{INVALID-ORDER-1016} \ Z(s) = \left(\frac{R_1 \left(L_1 + v + v_1 \right)}{L_1 L_2 + R_1 + v_1 + v_1} \right), & \infty, & \infty, \frac{L_2 s}{C_2 L_4 s^2 + 1} + R_4, & \infty, L_L s + R_L + \frac{1}{C_L s} \right) \\ & 10.101 \text{INVALID-ORDER-1017} \ Z(s) = \left(\frac{R_1 \left(L_1 + v + v_1 \right)}{L_1 L_2 + R_1 + v_1 + v_1} \right), & \infty, & \infty, \frac{L_2 s}{C_2 L_4 s^2 + 1} + R_4, & \infty, L_L s + R_L + \frac{1}{C_L s} \right) \\ & 10.101 \text{INVALID-ORDER-1018} \ Z(s) = \left(\frac{R_1 \left(L_1 + v + v_1 \right)}{L_1 L_2 + R_1 + v_1 + v_1} \right), & \infty, & \frac{L_2 s}{C_2 L_4 s^2 + 1} + R_4, & \infty, L_L s + R_L + \frac{1}{C_L s} \right) \\ & 10.101 \text{INVALID-ORDER-1018} \ Z(s) = \left(\frac{R_1 \left(L_1 + v + v_1 \right)}{L_1 L_2 + R_1 + v_1 + v_1} \right), & \infty, & \frac{L_2 s}{C_2 L_4 s^2 + 1} + R_4, & \infty, \frac{L_L s}{L_2 s + \frac{1}{L_1 L_2 s}} \right) \\ & 10.101 \text{INVALID-ORDER-1019} \ Z(s) = \left(\frac{R_1 \left(L_1 + v + v_1 \right)}{L_1 L_2 + R_1 + v_1 + v_1} \right), & \infty, & \frac{L_2 s}{C_2 L_4 s^2 + 1} + R_4, & \infty, \frac{L_L s}{L_2 s + \frac{1}{L_1 L_2 s}} \right) \\ & 10.101 \text{INVALID-ORDER-1020} \ Z(s) = \left(\frac{R_1 \left(L_1 + v + v_1 \right)}{L_1 L_2 + R_1 + v_1 + v_1} \right), & \infty, & \frac{L_2 s}{C_2 L_4 s^2 + 1} + R_4, & \infty, \frac{L_L s}{L_2 s + \frac{1}{L_1 v_1 v_1}} \right) \\ & 10.101 \text{INVALID-ORDER-1022} \ Z(s) = \left(\frac{R_1 \left(L_1 + v + v_1 \right)}{L_1 + R_1 + v_1 v_1} \right), & \infty, & \frac{L_2 s}{C_2 L_4 s^2 + 1} + R_4, & \infty, \frac{L_L s}{L_2 s + R_1 + \frac{1}{C_L s}} \right) \\ & 10.101 \text{INVALID-ORDER-1022} \ Z(s) = \left(\frac{R_1 \left(L_1 + v + v_1 \right)}{R_1 \left(L_1$$

10.10 2N VALID-ORDER-1029 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \right)$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L$)
10.10 BN VALID-ORDER-1030 $Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \right)$	$\frac{R_4\left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \ \infty, \ \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	

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
$$Z(s) = \left(R_1, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

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

3.2 BP-2
$$Z(s) = \left(R_1, \infty, \infty, R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

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

3.3 BP-3
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

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

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

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

3.5 BP-5
$$Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

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

3.6 BP-6
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, R_L\right)$$

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

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

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

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
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_4L_LR_1R_Lg_ms}{(R_1q_m+1)\left(2C_4L_4L_LR_Ls^2+C_LL_4L_LR_Ls^2+L_4L_Ls+L_4R_L+2L_LR_L\right)}$$

Q:
$$R_L \sqrt{\frac{L_4 + 2L_L}{L_4L_L(2C_4 + C_L)}} (2C_4 + C_L)$$

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
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L\right)$$

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

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

3.10 BP-10
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s}\right)$$

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

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

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
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

$$Q: \frac{\sqrt{2}R_4R_L\sqrt{\frac{1}{L_4(2C_4+C_L)}}(2C_4+C_L)}{R_4+2R_L}$$
 wo: $\sqrt{2}\sqrt{\frac{1}{L_4(2C_4+C_L)}}$ bandwidth: $\frac{R_4+2R_L}{R_4R_L(2C_4+C_L)}$ K-LP: 0 K-HP: 0 K-BP: $\frac{R_1R_4R_Lg_m}{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L}$ Qz: 0 Wz: None

3.12 BP-12
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

Q:
$$\frac{R_4\sqrt{\frac{L_4+2L_L}{L_4L_L(2C_4+C_L)}}(2C_4+C_L)}{2}$$

wo:
$$\sqrt{\frac{L_4+2L_L}{L_4L_L(2C_4+C_L)}}$$

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

3.13 BP-13
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

3.14 BP-14
$$Z(s) = \left(L_1 s, \infty, \infty, R_4, \infty, \frac{1}{C_L s}\right)$$

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

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:
$$\sqrt{2}\sqrt{\frac{1}{C_LL_1R_4g_m}}$$
 bandwidth: $\frac{C_LR_4+2L_1g_m}{C_LL_1R_4g_m}$ 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
$$Z(s) = \left(L_1 s, \infty, \infty, R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

Parameters:

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

Wo: $\sqrt{\frac{R_4 + 2R_L}{C_L L_1 R_4 R_L g_m}}$ bandwidth: $\frac{C_L R_4 R_L + L_1 R_4 g_m + 2L_1 R_L g_m}{C_L L_1 R_4 R_L g_m}$

K-LP: 0 K-HP: 0

K-BP: $\frac{L_1R_4R_Lg_m}{C_LR_4R_L+L_1R_4g_m+2L_1R_Lg_m}$ Qz: 0

Wz: None

3.16 BP-16
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L\right)$$

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

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

bandwidth: $\frac{2C_4R_L+L_1g_m}{2C_4L_1R_Lg_m}$

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
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

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

K-HP: 0

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

Wz: None

3.18 BP-18
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L\right)$$

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

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

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

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
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s}\right)$$

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

Parameters:

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

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
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

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

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 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4, \infty, R_L\right)$

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

Parameters:

Q: $\frac{C_1\sqrt{\frac{1}{C_1L_1}}}{\frac{g_m}{Wo:}\sqrt{\frac{1}{C_1L_1}}}$

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

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
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4, \infty, R_L\right)$$

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

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
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{1}{C_L s}\right)$$

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

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

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

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

4.3 LP-3
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L\right)$$

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

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

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

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

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

4.5 LP-5
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L\right)$$

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

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

4.6 LP-6
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s}\right)$$

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

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
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

4.8 LP-8
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4, \infty, \frac{1}{C_L s}\right)$$

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

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
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

4.10 LP-10
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L\right)$$

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

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

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

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

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

4.12 LP-12
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L\right)$$

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

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
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s}\right)$$

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

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

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

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

$$C_1R_1R_4R_L\sqrt{\frac{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L}{C_1R_1R_4R_L(2C_4+C_L)}}}(2C_4+C_L)$$
 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
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_4 s}\right)$$

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

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
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

Q:
$$\frac{C_1R_1\sqrt{\frac{1}{C_1L_1}}}{R_1g_m+1}$$
 wo: $\sqrt{\frac{1}{C_1L_1}}$ bandwidth: $\frac{R_1g_m+1}{C_1R_1}$ K-LP: $\frac{L_1g_m}{2C_4+C_L}$ K-HP: 0 K-BP: 0 Qz: None Wz: None

5 BS

5.1 BS-1
$$Z(s) = \left(R_1, \infty, \infty, R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

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

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

5.2 BS-2
$$Z(s) = \left(R_1, \infty, \infty, R_4, \infty, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

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

5.3 BS-3
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L\right)$$

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

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

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

5.4 BS-4
$$Z(s) = \left(R_1, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, R_L\right)$$

$$H(s) = \frac{R_1R_4R_Lg_m\left(C_4L_4s^2 + 1\right)}{\left(R_1g_m + 1\right)\left(C_4L_4R_4s^2 + 2C_4L_4R_Ls^2 + 2C_4R_4R_Ls + R_4 + 2R_L\right)}$$

$$\begin{array}{l} \text{Q:} \ \frac{L_4\sqrt{\frac{1}{C_4L_4}}(R_4 + 2R_L)}{2R_4R_L} \\ \text{wo:} \ \sqrt{\frac{1}{C_4L_4}} \\ \text{bandwidth:} \ \frac{2R_4R_L}{L_4(R_4 + 2R_L)} \\ \text{K-LP:} \ \frac{R_1R_4R_Lg_m}{R_1R_4g_m + 2R_1R_Lg_m + R_4 + 2R_L} \\ \text{K-HP:} \ \frac{R_1R_4g_m + 2R_1R_Lg_m}{R_1R_4g_m + 2R_1R_Lg_m + R_4 + 2R_L} \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \sqrt{\frac{1}{C_4L_4}} \end{array}$$

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

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

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:
$$\frac{R_4R_L}{R_4+2R_L}$$

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

5.6 BS-6
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4, \infty, R_L\right)$$

$$H(s) = \frac{R_1R_4R_Lg_m\left(C_1L_1s^2 + 1\right)}{\left(R_4 + 2R_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

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

6 **GE**

6.1 GE-1
$$Z(s) = \left(R_1, \infty, \infty, R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

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

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

6.2 GE-2
$$Z(s) = \left(R_1, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

6.3 GE-3
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

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

Q:
$$\frac{L_4\sqrt{\frac{1}{C_4L_4}}}{R_4+2R_L}$$

wo: $\sqrt{\frac{1}{C_4L_4}}$
bandwidth: $\frac{R_4+2R_L}{L_4}$
K-LP: $\frac{R_1R_Lg_m}{R_1g_m+1}$
K-HP: $\frac{R_1R_Lg_m}{R_1g_m+1}$
K-BP: $\frac{R_1R_4R_Lg_m}{(R_4+2R_L)(R_1g_m+1)}$
Qz: $\frac{L_4\sqrt{\frac{1}{C_4L_4}}}{R_4}$
Wz: $\sqrt{\frac{1}{C_4L_4}}$

6.4 GE-4
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, R_L\right)$$

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

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: $\frac{R_1R_4g_m}{R_1R_4g_m + 2R_1R_Lg_m + R_4 + 2R_L}$
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
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, R_L\right)$$

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

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

Qz:
$$\frac{L_1\sqrt{\frac{1}{C_1L_1}}}{R_1}$$

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

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

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

Parameters:

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

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: $\frac{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L}{R_1R_4g_m+2R_1R_Lg_m+R_4+2R_L}$ K-BP: $\frac{R_4R_L}{R_4+2R_L}$ Qz: $C_1R_1\sqrt{\frac{1}{C_1L_1}}$

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

7 \mathbf{AP}

INVALID-NUMER

8.1 INVALID-NUMER-1 $Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L + \frac{1}{C_L s}\right)$

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

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

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

Wz: None

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

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

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 $Z(s) = \left(L_1 s, \infty, \infty, R_4, \infty, R_L + \frac{1}{C_L s}\right)$

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

Parameters:

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

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

K-LP: 0

K-L1: 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 $Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$

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

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

 $\begin{array}{l} \text{K-BP:} \ \frac{C_L L_1 R_L g_m}{2C_4 C_L R_L + 2C_4 L_1 g_m + C_L L_1 g_m} \\ \text{Qz:} \ 0 \end{array}$

Wz: None

INVALID-NUMER-5 $Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$

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

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{\frac{C_4L_1g_m\sqrt{\frac{1}{C_4L_1g_m(R_4+2R_L)}}}{C_4R_4+2C_4R_L+L_1g_m}}(R_4+2R_L)}{C_4R_4+2C_4R_L+L_1g_m} \\ & \text{wo:} \ \sqrt{\frac{1}{C_4L_1g_m(R_4+2R_L)}} \\ & \text{bandwidth:} \ \frac{C_4R_4+2C_4R_L+L_1g_m}{C_4L_1g_m(R_4+2R_L)} \\ & \text{K-LP:} \ 0 \\ & \text{K-HP:} \ \frac{R_4R_L}{R_4+2R_L} \\ & \text{K-BP:} \ \frac{L_1R_Lg_m}{C_4R_4+2C_4R_L+L_1g_m} \\ & \text{Qz:} \ C_4R_4\sqrt{\frac{1}{C_4L_1g_m(R_4+2R_L)}} \\ & \text{Wz:} \ \text{None} \end{aligned}$$

8.6 INVALID-NUMER-6
$$Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

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

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

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

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
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

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

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

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

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

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
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

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

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

8.11 INVALID-NUMER-11 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{1}{C_L s}\right)$

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

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
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

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

8.13 INVALID-NUMER-13 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L\right)$

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

Parameters:

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

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

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

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

8.15 INVALID-NUMER-15 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L\right)$

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

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
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s}\right)$$

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

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

8.17 INVALID-NUMER-17 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

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

Parameters:

9 INVALID-WZ

9.1 INVALID-WZ-1
$$Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

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

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

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

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

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

9.3 INVALID-WZ-3
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

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

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

10 INVALID-ORDER

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

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

10.2 INVALID-ORDER-2
$$Z(s) = \left(R_1, \infty, \infty, R_4, \infty, \frac{1}{C_L s}\right)$$

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

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

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

10.4 INVALID-ORDER-4
$$Z(s) = \left(R_1, \infty, \infty, R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.5 INVALID-ORDER-5
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L\right)$$

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

10.6 INVALID-ORDER-6
$$Z(s)=\left(R_1,\ \infty,\ \infty,\ \frac{1}{C_4s},\ \infty,\ \frac{1}{C_Ls}\right)$$

$$H(s)=\frac{R_1g_m}{s\left(2C_4+C_L\right)\left(R_1g_m+1\right)}$$

10.7 INVALID-ORDER-7
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.8 INVALID-ORDER-8
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.9 INVALID-ORDER-9
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

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

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

10.11 INVALID-ORDER-11
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.12 INVALID-ORDER-12
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.13 INVALID-ORDER-13
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.14 INVALID-ORDER-14
$$Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L\right)$$

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

10.15 INVALID-ORDER-15
$$Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s}\right)$$

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

10.16 INVALID-ORDER-16
$$Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4R_4s+1}, \infty, \frac{R_L}{C_LR_Ls+1}\right)$$

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

10.17 INVALID-ORDER-17
$$Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

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

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

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

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

10.20 INVALID-ORDER-20
$$Z(s) = \left(R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.21 INVALID-ORDER-21
$$Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

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

10.22 INVALID-ORDER-22
$$Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

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

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

10.24 INVALID-ORDER-24
$$Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.25 INVALID-ORDER-25
$$Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

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

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

10.27 INVALID-ORDER-27
$$Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

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

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

10.29 INVALID-ORDER-29
$$Z(s) = \left(R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.30 INVALID-ORDER-30
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

10.31 INVALID-ORDER-31
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.32 INVALID-ORDER-32
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.33 INVALID-ORDER-33
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.34 INVALID-ORDER-34
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.35 INVALID-ORDER-35
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.36 INVALID-ORDER-36
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.37 INVALID-ORDER-37
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.38 INVALID-ORDER-38
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.39 INVALID-ORDER-39
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s}\right)$$

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

10.40 INVALID-ORDER-40
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, R_L + \frac{1}{C_Ls}\right)$$

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

10.41 INVALID-ORDER-41
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.42 INVALID-ORDER-42
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

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

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

10.44 INVALID-ORDER-44
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{L_4R_1g_ms\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(R_1g_m + 1\right)\left(2C_4C_LL_4L_LR_Ls^4 + 2C_4L_4L_Ls^3 + 2C_4L_4R_Ls^2 + C_LL_4L_Ls^3 + 2C_LL_LR_Ls^2 + L_4s + 2L_Ls + 2R_L\right)}$$

10.45 INVALID-ORDER-45
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{L_4R_1R_Lg_ms\left(C_LL_Ls^2 + 1\right)}{(R_1g_m + 1)\left(2C_4C_LL_4L_LR_Ls^4 + 2C_4L_4R_Ls^2 + C_LL_4L_Ls^3 + C_LL_4R_Ls^2 + 2C_LL_LR_Ls^2 + L_4s + 2R_L\right)}$$

10.46 INVALID-ORDER-46
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

10.47 INVALID-ORDER-47
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.48 INVALID-ORDER-48
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.49 INVALID-ORDER-49
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.50 INVALID-ORDER-50
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

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

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

10.52 INVALID-ORDER-52
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.53 INVALID-ORDER-53
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.54 INVALID-ORDER-54
$$Z(s) = \left(R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.55 INVALID-ORDER-55
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.56 INVALID-ORDER-56
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.57 INVALID-ORDER-57
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

10.58 INVALID-ORDER-58
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.59 INVALID-ORDER-59
$$Z(s) = \left(R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.60 INVALID-ORDER-60
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, \frac{1}{C_Ls}\right)$$

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

10.61 INVALID-ORDER-61
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, \frac{R_L}{C_LR_Ls+1}\right)$$

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

10.62 INVALID-ORDER-62
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, R_L + \frac{1}{C_Ls}\right)$$

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

10.63 INVALID-ORDER-63
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

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

10.64 INVALID-ORDER-64
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

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

10.65 INVALID-ORDER-65
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

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

10.66 INVALID-ORDER-66
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.67 INVALID-ORDER-67
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

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

10.68 INVALID-ORDER-68
$$Z(s) = \left(R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

10.69 INVALID-ORDER-69
$$Z(s) = \left(R_1, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1R_4g_m\left(C_4L_4s^2 + 1\right)}{\left(R_1g_m + 1\right)\left(C_4C_LL_4R_4s^3 + 2C_4L_4s^2 + 2C_4R_4s + C_LR_4s + 2\right)}$$

10.70 INVALID-ORDER-70
$$Z(s) = \left(R_1, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.71 INVALID-ORDER-71
$$Z(s) = \left(R_1, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1R_4g_m\left(C_4L_4s^2 + 1\right)\left(C_LR_Ls + 1\right)}{\left(R_1g_m + 1\right)\left(C_4C_LL_4R_4s^3 + 2C_4C_LL_4R_Ls^3 + 2C_4C_LR_4R_Ls^2 + 2C_4L_4s^2 + 2C_4R_4s + C_LR_4s + 2C_LR_Ls + 2\right)}$$

10.72 INVALID-ORDER-72
$$Z(s) = \left(R_1, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1R_4g_m\left(C_4L_4s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)}{\left(R_1g_m + 1\right)\left(2C_4C_LL_4L_Ls^4 + C_4C_LL_4R_4s^3 + 2C_4C_LL_LR_4s^3 + 2C_4L_4s^2 + 2C_4R_4s + 2C_LL_Ls^2 + C_LR_4s + 2\right)}$$

10.73 INVALID-ORDER-73
$$Z(s) = \left(R_1, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_LR_1R_4g_ms\left(C_4L_4s^2 + 1\right)}{(R_1g_m + 1)\left(C_4C_LL_4L_LR_4s^4 + 2C_4L_4L_Ls^3 + C_4L_4R_4s^2 + 2C_4L_LR_4s^2 + C_LL_LR_4s^2 + 2L_Ls + R_4\right)}$$

$$\begin{aligned} \mathbf{10.74} \quad \mathbf{INVALID\text{-}ORDER\text{-}74} \ Z(s) &= \left(R_1, \ \infty, \ \infty, \ \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \ \infty, \ L_L s + R_L + \frac{1}{C_L s} \right) \\ H(s) &= \frac{R_1 R_4 g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{\left(R_1 g_m + 1 \right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_4 s + 2$$

10.75 INVALID-ORDER-75
$$Z(s) = \left(R_1, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_LR_1R_4R_Lg_ms\left(C_4L_4s^2 + 1\right)}{(R_1g_m + 1)\left(C_4C_LL_4L_LR_4R_Ls^4 + C_4L_4L_LR_4s^3 + 2C_4L_4L_LR_Ls^3 + C_4L_4R_4R_Ls^2 + 2C_4L_LR_4R_Ls^2 + C_LL_LR_4R_Ls^2 + L_LR_4s + 2L_LR_Ls + R_4R_L\right)}$$

10.77 INVALID-ORDER-77
$$Z(s) = \left(R_1, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

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

10.78 INVALID-ORDER-78 $Z(s) = (L_1 s, \infty, \infty, R_4, \infty, R_L)$

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

10.79 INVALID-ORDER-79 $Z(s) = \left(L_1 s, \infty, \infty, R_4, \infty, L_L s + \frac{1}{C_L s}\right)$

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

10.80 INVALID-ORDER-80 $Z(s) = \left(L_1 s, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

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

10.81 INVALID-ORDER-81 $Z(s) = \left(L_1 s, \infty, \infty, R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$

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

10.82 INVALID-ORDER-82
$$Z(s) = \left(L_1 s, \infty, \infty, R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.83 INVALID-ORDER-83
$$Z(s) = \left(L_1 s, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.84 INVALID-ORDER-84
$$Z(s) = \left(L_1 s, \infty, \infty, R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

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

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

10.86 INVALID-ORDER-86
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

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

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

10.88 INVALID-ORDER-88
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.89 INVALID-ORDER-89
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

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

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

10.91 INVALID-ORDER-91
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

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

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

10.93 INVALID-ORDER-93
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.94 INVALID-ORDER-94
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

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

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

10.96 INVALID-ORDER-96
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

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

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

10.98 INVALID-ORDER-98
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

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

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

10.100 INVALID-ORDER-100
$$Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.101 INVALID-ORDER-101
$$Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.102 INVALID-ORDER-102
$$Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.103 INVALID-ORDER-103
$$Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.104 INVALID-ORDER-104
$$Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.105 INVALID-ORDER-105
$$Z(s) = \left(L_1 s, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.106 INVALID-ORDER-106
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L\right)$$

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

10.107 INVALID-ORDER-107
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

10.108 INVALID-ORDER-108
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.109 INVALID-ORDER-109
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

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

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

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

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

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

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

10.113 INVALID-ORDER-113
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

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

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

10.115 INVALID-ORDER-115
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.116 INVALID-ORDER-116
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L\right)$$

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

10.117 INVALID-ORDER-117
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s}\right)$$

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

10.118 INVALID-ORDER-118
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.119 INVALID-ORDER-119
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

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

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

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

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

10.122 INVALID-ORDER-122
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.123 INVALID-ORDER-123
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.124 INVALID-ORDER-124
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.125 INVALID-ORDER-125
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.126 INVALID-ORDER-126
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

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

10.127 INVALID-ORDER-127
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

10.128 INVALID-ORDER-128
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.129 INVALID-ORDER-129
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.130 INVALID-ORDER-130
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.131 INVALID-ORDER-131
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.132 INVALID-ORDER-132
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.133 INVALID-ORDER-133
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.134 INVALID-ORDER-134
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.135 INVALID-ORDER-135
$$Z(s) = \left(L_1 s, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.136 INVALID-ORDER-136
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L\right)$$

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

10.137 INVALID-ORDER-137
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s}\right)$$

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

10.138 INVALID-ORDER-138
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.139 INVALID-ORDER-139
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.140 INVALID-ORDER-140
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.141 INVALID-ORDER-141
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

$$\begin{aligned} \textbf{10.142} \quad \textbf{INVALID-ORDER-142} \ Z(s) &= \left(L_1 s, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ L_L s + R_L + \frac{1}{C_L s} \right) \\ H(s) &= \frac{L_1 L_4 R_4 g_m s^2 \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{\left(L_1 g_m s + 1 \right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L L_4 R_4 s^2$$

10.143 INVALID-ORDER-143
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.144 INVALID-ORDER-144
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

10.145 INVALID-ORDER-145
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.146 INVALID-ORDER-146
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L\right)$$

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

10.147 INVALID-ORDER-147
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s}\right)$$

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

10.148 INVALID-ORDER-148
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.149 INVALID-ORDER-149
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.150 INVALID-ORDER-150
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.151 INVALID-ORDER-151
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.152 INVALID-ORDER-152
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.153 INVALID-ORDER-153
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.154 INVALID-ORDER-154
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.155 INVALID-ORDER-155
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.156 INVALID-ORDER-156
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L\right)$$

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

10.157 INVALID-ORDER-157
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s}\right)$$

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

10.158 INVALID-ORDER-158
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.159 INVALID-ORDER-159
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.160 INVALID-ORDER-160
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.161 INVALID-ORDER-161
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

$$\textbf{10.162} \quad \textbf{INVALID-ORDER-162} \ Z(s) = \left(L_1 s, \ \infty, \ \infty, \ \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \ \infty, \ L_L s + R_L + \frac{1}{C_L s} \right)$$

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

10.163 INVALID-ORDER-163
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.164 INVALID-ORDER-164
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.165 INVALID-ORDER-165
$$Z(s) = \left(L_1 s, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

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

10.167 INVALID-ORDER-167
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.168 INVALID-ORDER-168
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.169 INVALID-ORDER-169
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.170 INVALID-ORDER-170
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.171 INVALID-ORDER-171
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.172 INVALID-ORDER-172
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

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

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

10.174 INVALID-ORDER-174
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

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

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

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

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

10.177 INVALID-ORDER-177
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.178 INVALID-ORDER-178
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

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

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

10.180 INVALID-ORDER-180
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

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

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

10.182 INVALID-ORDER-182
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.183 INVALID-ORDER-183
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

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

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

10.185 INVALID-ORDER-185
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.186 INVALID-ORDER-186
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.187 INVALID-ORDER-187
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.188 INVALID-ORDER-188
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

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

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

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

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

10.191 INVALID-ORDER-191
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.192 INVALID-ORDER-192
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.193 INVALID-ORDER-193
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.194 INVALID-ORDER-194
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.195 INVALID-ORDER-195
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.196 INVALID-ORDER-196
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.197 INVALID-ORDER-197
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L\right)$$

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

10.198 INVALID-ORDER-198
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

10.199 INVALID-ORDER-199
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.200 INVALID-ORDER-200
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

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

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

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

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

10.203 INVALID-ORDER-203
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.204 INVALID-ORDER-204
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.205 INVALID-ORDER-205
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.206 INVALID-ORDER-206
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.207 INVALID-ORDER-207
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L\right)$$

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

10.208 INVALID-ORDER-208
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s}\right)$$

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

10.209 INVALID-ORDER-209
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.210 INVALID-ORDER-210
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

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

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

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

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

10.213 INVALID-ORDER-213
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.214 INVALID-ORDER-214
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.215 INVALID-ORDER-215
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.216 INVALID-ORDER-216
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.217 INVALID-ORDER-217
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

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

10.218 INVALID-ORDER-218
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

10.219 INVALID-ORDER-219
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.220 INVALID-ORDER-220
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.221 INVALID-ORDER-221
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.222 INVALID-ORDER-222
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.223 INVALID-ORDER-223
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.224 INVALID-ORDER-224
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.225 INVALID-ORDER-225
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.226 INVALID-ORDER-226
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.227 INVALID-ORDER-227
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s}{(C_1 s + g_m) (2C_4 L_4 R_4 R_1 s^2 + L_4 R_4 s + 2L_4 R_1 s + 2R_4 R_1)}$$

10.228 INVALID-ORDER-228
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s}\right)$$

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

10.229 INVALID-ORDER-229
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.230 INVALID-ORDER-230
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.231 INVALID-ORDER-231
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.232 INVALID-ORDER-232
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.233 INVALID-ORDER-233
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.234 INVALID-ORDER-234
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.235 INVALID-ORDER-235
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.236 INVALID-ORDER-236
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.237 INVALID-ORDER-237
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L\right)$$

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

10.238 INVALID-ORDER-238
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s}\right)$$

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

10.239 INVALID-ORDER-239
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.240 INVALID-ORDER-240
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.241 INVALID-ORDER-241
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.242 INVALID-ORDER-242
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.243 INVALID-ORDER-243
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.244 INVALID-ORDER-244
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.245 INVALID-ORDER-245
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.246 INVALID-ORDER-246
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.247 INVALID-ORDER-247
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L\right)$$

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

10.248 INVALID-ORDER-248
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s}\right)$$

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

10.249 INVALID-ORDER-249
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.250 INVALID-ORDER-250
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.251 INVALID-ORDER-251
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.252 INVALID-ORDER-252
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.254 INVALID-ORDER-254
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4\left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.255 INVALID-ORDER-255
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.256 INVALID-ORDER-256
$$Z(s) = \left(\frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.257 INVALID-ORDER-257
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4, \infty, R_L\right)$$

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

10.258 INVALID-ORDER-258
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.259 INVALID-ORDER-259
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.260 INVALID-ORDER-260
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.261 INVALID-ORDER-261
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.262 INVALID-ORDER-262
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.263 INVALID-ORDER-263
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.264 INVALID-ORDER-264
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

10.265 INVALID-ORDER-265
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.266 INVALID-ORDER-266
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.267 INVALID-ORDER-267
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.268 INVALID-ORDER-268
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.269 INVALID-ORDER-269
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.270 INVALID-ORDER-270
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 g_m \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.271 INVALID-ORDER-271
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_L L_L s^2 + 1 \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1 \right)}$$

10.272 INVALID-ORDER-272
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.273 INVALID-ORDER-273
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.274 INVALID-ORDER-274
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.275 INVALID-ORDER-275
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.276 INVALID-ORDER-276
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.277 INVALID-ORDER-277
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + 2 L_L s + R_4 + 2 R_L \right)}$$

10.278 INVALID-ORDER-278
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_1 R_4 R_L g_m \left(C_L L_L s^2 + 1 \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + C_L R_4 R_L s + R_4 + 2 R_L \right)}$$

10.279 INVALID-ORDER-279
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

10.280 INVALID-ORDER-280
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.281 INVALID-ORDER-281
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.282 INVALID-ORDER-282
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.283 INVALID-ORDER-283
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 g_m s \left(C_4 R_4 s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.284 INVALID-ORDER-284
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.285 INVALID-ORDER-285
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_1 R_L g_m s \left(C_4 R_4 s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_4 s^2 + 2 C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.286 INVALID-ORDER-286
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_L s^3 + 2C_4 L_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.287 INVALID-ORDER-287
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.288 INVALID-ORDER-288
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 L_4 s^2 + 2 C_4 R_L s + 1\right)}$$

10.289 INVALID-ORDER-289
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + 1\right)}{s \left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 + C_L\right)}$$

10.290 INVALID-ORDER-290
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L R_L s + 1\right)}$$

10.291 INVALID-ORDER-291
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{s \left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.292 INVALID-ORDER-292
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{s \left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 + C_L\right)}$$

10.293 INVALID-ORDER-293
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.294 INVALID-ORDER-294
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{s \left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + 2C_4 C_L R_L s + 2C_4 + C_L\right)}$$

10.295 INVALID-ORDER-295
$$Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_LR_1R_Lg_ms\left(C_4L_4s^2 + 1\right)}{\left(C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4L_LR_Ls^4 + C_4L_4L_Ls^3 + C_4L_4R_Ls^2 + 2C_4L_LR_Ls^2 + C_LL_LR_Ls^2 + L_Ls + R_L\right)}$$

10.296 INVALID-ORDER-296
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 s + R_1 q_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.297 INVALID-ORDER-297
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.298 INVALID-ORDER-298
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_1 R_L g_m s}{(C_1 R_1 s + R_1 g_m + 1) (2C_4 L_4 R_L s^2 + L_4 s + 2R_L)}$$

10.299 INVALID-ORDER-299
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 g_m s}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 L_4 s^2 + C_L L_4 s^2 + 2\right)}$$

10.300 INVALID-ORDER-300
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_1 R_L g_m s}{(C_1 R_1 s + R_1 g_m + 1) (2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + L_4 s + 2R_L)}$$

10.301 INVALID-ORDER-301
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 g_m s \left(C_L R_L s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L R_L s + 2\right)}$$

10.302 INVALID-ORDER-302
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2C_4 C_L L_4 L_L s^4 + 2C_4 L_4 s^2 + C_L L_4 s^2 + 2C_L L_L s^2 + 2\right)}$$

10.303 INVALID-ORDER-303
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L R_1 g_m s}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 L_4 L_L s^2 + C_L L_4 L_L s^2 + L_4 + 2 L_L\right)}$$

10.304 INVALID-ORDER-304
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2 C_L R_L s + 2\right)}$$

10.305 INVALID-ORDER-305
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_1 R_L g_m s}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 L_4 L_L R_L s^2 + C_L L_4 L_L R_L s^2 + L_4 L_L s + L_4 R_L + 2 L_L R_L\right)}$$

10.306 INVALID-ORDER-306
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_4 R_1 g_m s \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 L_L s^3 + 2 C_4 L_4 L_L s^3 + 2 C_L L_4 L_L s^3 + 2 C_L L_4 L_L s^2 + L_4 s + 2 L_L s + 2 R_L\right)}$$

10.307 INVALID-ORDER-307
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_4 R_1 R_L g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2C_4 C_L L_4 L_L R_L s^4 + 2C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_4 R_L s^2 + 2C_L L_L R_L s^2 + L_4 s + 2R_L\right)}$$

10.308 INVALID-ORDER-308
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + 1 \right)}$$

10.309 INVALID-ORDER-309
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{s \left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right)}$$

10.310 INVALID-ORDER-310
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1 \right)}$$

10.311 INVALID-ORDER-311
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_L R_L s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{s \left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.312 INVALID-ORDER-312
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{s \left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L\right)}$$

10.313 INVALID-ORDER-313
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.314 INVALID-ORDER-314
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.315 INVALID-ORDER-315
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_1 R_L g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.316 INVALID-ORDER-316
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.317 INVALID-ORDER-317
$$Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_LL_Ls^2 + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)}{\left(C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4L_Ls^4 + C_4C_LL_4R_Ls^3 + C_4C_LL_LR_4s^3 + 2C_4C_LL_LR_4s^3 + C_4C_LR_4R_Ls^2 + C_4R_4s + 2C_4R_4s + 2C_4R_Ls + C_LL_Ls^2 + C_LR_Ls + 1\right)}$$

10.318 INVALID-ORDER-318
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_1 R_4 R_L g_m s}{(C_1 R_1 s + R_1 g_m + 1) (2C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2L_4 R_L s + 2R_4 R_L)}$$

10.319 INVALID-ORDER-319
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 g_m s}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 L_4 s + 2 R_4\right)}$$

10.320 INVALID-ORDER-320
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 R_L g_m s}{(C_1 R_1 s + R_1 g_m + 1) (2C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2L_4 R_L s + 2R_4 R_L)}$$

10.321 INVALID-ORDER-321
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 g_m s \left(C_L R_L s + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L R_4 R_L s + 2 L_4 s + 2 R_4\right)}$$

10.323 INVALID-ORDER-323
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L R_1 R_4 g_m s}{(C_1 R_1 s + R_1 g_m + 1) (2C_4 L_4 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2L_4 L_L s + L_4 R_4 + 2L_L R_4)}$$

$$\begin{aligned} \mathbf{10.324} \quad \mathbf{INVALID\text{-}ORDER\text{-}324} \ Z(s) &= \left(\frac{R_1}{C_1 R_1 s + 1}, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right) \\ H(s) &= \frac{L_4 R_1 R_4 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 R_1 s + R_1 q_m + 1\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 L_4 L_4 s^3 + C_L L_4 R_4 s^2 + 2 C_L L_4$$

10.325 INVALID-ORDER-325
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_1 R_4 R_L g_m s}{(C_1 R_1 s + R_1 g_m + 1) (2C_4 L_4 L_L R_4 R_L s^2 + C_L L_4 L_L R_4 R_L s^2 + L_4 L_L R_4 s + 2L_4 L_L R_4 R_L + 2L_L R_4 R_L)}$$

10.326 INVALID-ORDER-326
$$Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \frac{1}{C_4s+\frac{1}{R_4}+\frac{1}{L_4s}}, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$\frac{L_4R_1R_4g_ms\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(C_1R_1s + R_1g_m + 1\right)\left(2C_4C_LL_4L_LR_4s^4 + 2C_4L_4L_LR_4s^3 + 2C_4L_4R_4R_Ls^2 + C_LL_4L_LR_4s^3 + 2C_LL_4L_LR_4s^3 + 2C_LL_4L_Rs^2 + 2L_4L_Ls^2 + L_4R_4s + 2L_4R_4s + 2L_4R_4s + 2L_4R_4s + 2L_4R_4s^3 + 2C_4L_4L_4R_4s^3 + 2C_4L_4R_4s^3 + 2C_4L_4L_4R_4s^3 + 2C_4L_4L_4R_4s$$

10.327 INVALID-ORDER-327
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 R_L g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_4 R_L s^4 + 2 C_4 L_4 R_4 R_L s^2 + C_L L_4 L_L R_4 s^3 + 2 C_L L_4 L_L R_4 s^3 + C_L L_4 R_4 R_L s^2 + 2 C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L \right)}$$

10.328 INVALID-ORDER-328
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + L_4 s + R_4 + 2 R_L \right)}$$

10.329 INVALID-ORDER-329
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 \right)}$$

10.330 INVALID-ORDER-330
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + C_L R_4 R_L s + L_4 s + R_4 + 2 R_L \right)}$$

10.331 INVALID-ORDER-331
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_L R_L s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.332 INVALID-ORDER-332
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 R_1 s + R_1 q_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.333 INVALID-ORDER-333
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + C_L L_4 L_L s^3 + C_L L_L R_4 s^2 + L_4 s + 2 L_L s + R_4\right)}$$

10.334 INVALID-ORDER-334
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 g_m \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_L s + 2 \right)}$$

10.335 INVALID-ORDER-335
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_1 R_L g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 R_1 s + R_1 q_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_L s^3 + C_4 L_4 L_L R_L s^3 + C_L L_4 L_L R_4 s^3 + C_L L_4 L_L R_4 s^2 + L_4 L_L s^2 + L_4 L_L s^2 + L_4 R_L s + L_L R_4 s + 2 L_L R_4 s$$

10.336 INVALID-ORDER-336
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 g_m \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 R_1 s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L s^3 + C_4 L_4 L_4 s^2 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_4 L_L s^3 + C_L L_4 L_L s^2 + L_4 s + 2 L_L s + R_4 + 2 R_4 L_4 R_4 s^2 + 2 C_4 L_4 L_4 R_4 s^2 + 2 C_4 L_4 L_4 R_4 s^2 + 2 C_4 L_4 R_4 R_4 s^2 + 2 C_4 L_4 R_4 R_4 r^2 + 2 C_4 L_4 R_4 r^2 +$$

10.337 INVALID-ORDER-337
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$R_1 R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)$$

$$R_1 R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)$$

$$\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 L_L S^3 + C_L L_4 R_L s^2 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_4 s^2 + C_L L_4 R_4 s$$

10.338 INVALID-ORDER-338
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_4 R_L g_m \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + R_4 + 2R_L\right)}$$

10.339 INVALID-ORDER-339
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2\right)}$$

$$\textbf{10.340} \quad \textbf{INVALID-ORDER-340} \ Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \ \infty, \ \infty, \ \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_4 R_L g_m \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2 R_L\right) }$$

10.341 INVALID-ORDER-341
$$Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \frac{R_4\left(L_4s+\frac{1}{C_4s}\right)}{L_4s+R_4+\frac{1}{C_4s}}, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1R_4g_m\left(C_4L_4s^2+1\right)\left(C_LR_Ls+1\right)}{\left(C_1R_1s+R_1g_m+1\right)\left(C_4C_LL_4R_4s^3+2C_4C_LL_4R_Ls^3+2C_4C_LR_4R_Ls^2+2C_4L_4s^2+2C_4R_4s+C_LR_4s+2$$

10.342 INVALID-ORDER-342
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.343 INVALID-ORDER-343
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

$$\begin{aligned} \mathbf{10.345} \quad \mathbf{INVALID\text{-}ORDER\text{-}345} \ Z(s) &= \left(\frac{R_1}{C_1 R_1 s + 1}, \ \infty, \ \infty, \ \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right) \\ H(s) &= \frac{L_L R_1 R_4 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_4 s^3 + C_4 L_4 R_4 R_L s^2 + 2 C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2 L_L R_4 s + 2$$

10.347 INVALID-ORDER-347
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.348 INVALID-ORDER-348
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, R_L\right)$$

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

10.349 INVALID-ORDER-349
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.350 INVALID-ORDER-350
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.351 INVALID-ORDER-351
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.352 INVALID-ORDER-352
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.353 INVALID-ORDER-353
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.354 INVALID-ORDER-354
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.355 INVALID-ORDER-355
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

10.356 INVALID-ORDER-356
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.357 INVALID-ORDER-357
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.358 INVALID-ORDER-358
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.359 INVALID-ORDER-359
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.360 INVALID-ORDER-360
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.361 INVALID-ORDER-361
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.362 INVALID-ORDER-362
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 C_L L_L R_L s^3 + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.363 INVALID-ORDER-363
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.364 INVALID-ORDER-364
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.365 INVALID-ORDER-365
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.366 INVALID-ORDER-366
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.367 INVALID-ORDER-367
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.368 INVALID-ORDER-368
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + 2 L_L s + R_4 + 2 R_L\right)}$$

10.369 INVALID-ORDER-369
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.370 INVALID-ORDER-370
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

10.371 INVALID-ORDER-371
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.372 INVALID-ORDER-372
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.373 INVALID-ORDER-373
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.374 INVALID-ORDER-374
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 R_1 s + 1\right) \left(C_4 R_4 s + 1\right)}{\left(C_1 R_1 q_m s + C_1 s + q_m\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.375 INVALID-ORDER-375
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.376 INVALID-ORDER-376
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 R_1 s + 1\right) \left(C_4 R_4 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_4 s^2 + 2 C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.377 INVALID-ORDER-377
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1 \right) \left(C_4 R_4 s + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.378 INVALID-ORDER-378
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.379 INVALID-ORDER-379
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_4 L_4 s^2 + 2C_4 R_L s + 1\right) \left(C_1 R_1 g_m s + C_1 s + g_m\right)}$$

10.380 INVALID-ORDER-380
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m (C_1 R_1 s + 1) (C_4 L_4 s^2 + 1)}{s (C_1 R_1 g_m s + C_1 s + g_m) (C_4 C_L L_4 s^2 + 2C_4 + C_L)}$$

10.381 INVALID-ORDER-381
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L R_L s + 1\right)}$$

10.382 INVALID-ORDER-382
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1 \right) \left(C_4 L_4 s^2 + 1 \right) \left(C_L R_L s + 1 \right)}{s \left(C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.383 INVALID-ORDER-383
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{s \left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + 2C_4 + C_L\right)}$$

10.384 INVALID-ORDER-384
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.385 INVALID-ORDER-385
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{s \left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.386 INVALID-ORDER-386
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.387 INVALID-ORDER-387
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1 \right) \left(C_4 L_4 s^2 + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.388 INVALID-ORDER-388
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.389 INVALID-ORDER-389
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 R_L s^2 + L_4 s + 2 R_L\right)}$$

10.390 INVALID-ORDER-390
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s (C_1 R_1 s + 1)}{(2C_4 L_4 s^2 + C_L L_4 s^2 + 2) (C_1 R_1 g_m s + C_1 s + g_m)}$$

10.391 INVALID-ORDER-391
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + L_4 s + 2 R_L\right)}$$

10.392 INVALID-ORDER-392
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L R_L s + 2\right)}$$

10.393 INVALID-ORDER-393
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2\right)}$$

10.394 INVALID-ORDER-394
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 L_L s^2 + C_L L_4 L_L s^2 + L_4 + 2 L_L\right)}$$

10.395 INVALID-ORDER-395
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2 C_L R_L s + 2\right)}$$

10.396 INVALID-ORDER-396
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_L g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 L_4 L_L R_L s^2 + C_L L_4 L_L R_L s^2 + L_4 L_L s + L_4 R_L + 2L_L R_L\right)}$$

10.397 INVALID-ORDER-397
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 L_L s^3 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + 2 C_L L_4 L_L s^2 + L_4 s + 2 L_L s + 2 R_L\right)}$$

10.398 INVALID-ORDER-398
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_4 R_L s^2 + 2 C_L L_L R_L s^2 + L_4 s + 2 R_L\right)}$$

10.399 INVALID-ORDER-399
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 2C_4 R_L s + 1\right)}$$

10.400 INVALID-ORDER-400
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{s \left(C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right)}$$

10.401 INVALID-ORDER-401
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.402 INVALID-ORDER-402
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m (C_1 R_1 s + 1) (C_L R_L s + 1) (C_4 L_4 s^2 + C_4 R_4 s + 1)}{s (C_1 R_1 g_m s + C_1 s + g_m) (C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2C_4 C_L R_L s + 2C_4 + C_L)}$$

10.403 INVALID-ORDER-403
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1 \right) \left(C_L L_L s^2 + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{s \left(C_1 R_1 q_m s + C_1 s + q_m \right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 + C_L \right)}$$

10.404 INVALID-ORDER-404
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.405 INVALID-ORDER-405
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{s \left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 C_L R_L s + 2C_4 + C_L\right)}$$

10.406 INVALID-ORDER-406
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.407 INVALID-ORDER-407
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.408 INVALID-ORDER-408
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.409 INVALID-ORDER-409
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2L_4 R_L s + 2R_4 R_L\right)}$$

10.410 INVALID-ORDER-410
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 L_4 s + 2 R_4\right)}$$

10.411 INVALID-ORDER-411
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2L_4 R_L s + 2R_4 R_L\right)}$$

10.412 INVALID-ORDER-412
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 C_L L_4 R_4 R_L s^3 + 2C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2C_L L_4 R_L s^2 + 2C_L R_4 R_L s + 2L_4 s + 2R_4\right)}$$

10.413 INVALID-ORDER-413
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 q_m s + C_1 s + q_m\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L S^3 + C_L L_4 R_4 s^2 + 2 C_L L_L R_4 s^2 + 2 C_L L_4 R_4 s^2$$

10.415 INVALID-ORDER-415
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L L_4 R_4 s^2 + 2 C_L$$

10.416 INVALID-ORDER-416
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_4 R_L g_m s \left(C_1 R_1 s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 L_L R_4 R_L s^2 + C_L L_4 L_L R_4 R_L s^2 + L_4 L_L R_4 s + 2 L_4 L_L R_4 R_L s + L_4 R_4 R_L + 2 L_L R_4 R_L\right)}$$

10.417 INVALID-ORDER-417
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_4 R_L s^4 + 2 C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_4 s^3 + 2 C_L L_4 L_L R_4 s^3 + 2 C_L L_4 L_L R_4 s^2 + 2 L_4 L_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 L_4 R_4 s^2 + 2 L_$$

10.418 INVALID-ORDER-418
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_4 R_L s^4 + 2 C_4 L_4 R_4 R_L s^2 + C_L L_4 L_L R_4 s^3 + 2 C_L L_4 L_L R_4 s^3 + C_L L_4 R_4 R_L s^2 + 2 C_L L_L R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L \right)}$$

10.419 INVALID-ORDER-419
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + L_4 s + R_4 + 2R_L \right)}$$

10.420 INVALID-ORDER-420
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 R_1 q_m s + C_1 s + q_m\right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2\right)}$$

10.421 INVALID-ORDER-421
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + C_L R_4 R_L s + L_4 s + R_4 + 2R_L\right)}$$

10.422 INVALID-ORDER-422
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1 \right) \left(C_L R_L s + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 C_L R_L s + 2 \right)}$$

10.423 INVALID-ORDER-423
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 R_1 q_m s + C_1 s + q_m\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.424 INVALID-ORDER-424
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 R_1 s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + C_L L_4 L_L s^3 + C_L L_L R_4 s^2 + L_4 s + 2 L_L s + R_4\right)}$$

10.425 INVALID-ORDER-425
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 R_1 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 R_1 g_m s + C_1 s + g_m \right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_L s + 2 \right)}$$

10.428 INVALID-ORDER-428
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 L_L s^3 + C_L L_4 L_L s^3 + C_L L_4 R_L s^2 + 2 C_L L_L R_4 s^2 + 2 C_L L_L R_4 s^2 + C_L L_4 R_4 s^2$$

10.429 INVALID-ORDER-429
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + R_4 + 2R_L\right)}$$

10.430 INVALID-ORDER-430
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + 2C_4 R_4 s + C_L R_4 s + 2\right)}$$

10.431 INVALID-ORDER-431
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2R_L\right)}$$

10.432 INVALID-ORDER-432
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_1 L_4 R_4 s^3 + 2C_4 C_1 L_4 R_4 s^3 + 2C_4 C_4 R_4 R_4 s^2 + 2C_4 L_4 s^2 +$$

10.433 INVALID-ORDER-433
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 L$$

10.434 INVALID-ORDER-434
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_4 g_m s \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2L_L s + R_4\right)}$$

$$\begin{aligned} \textbf{10.435} \quad \textbf{INVALID-ORDER-435} \ Z(s) &= \left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \ \infty, \ L_L s + R_L + \frac{1}{C_L s} \right) \\ H(s) &= \frac{R_4 g_m \left(C_1 R_1 s + 1 \right) \left(C_4 L_4 s^2 + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{\left(C_1 R_1 g_m s + C_1 s + g_m \right) \left(2 C_4 C_L L_4 L_4 s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 s^2 + 2 C_4 L_4 s^2 + 2 C_4 L$$

10.436 INVALID-ORDER-436
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$L_L R_4 R_L g_m s \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)$$

$$H(s) = \frac{L_L R_4 R_L g_m s \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_4 s^3 + C_4 L_4 R_4 R_L s^2 + 2 C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2 L_L R_4 s + R_4 R_L\right)}$$

10.437 INVALID-ORDER-437
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.438 INVALID-ORDER-438
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 R_4 s^3 + 2 C_4 L_4 R_4 s^2 + 2 C_4 R_4 R_4 R_4 s^2 + 2 C_4 R_4 r_$$

10.439 INVALID-ORDER-439
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{1}{C_L s}\right)$$

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

10.440 INVALID-ORDER-440
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.441 INVALID-ORDER-441
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.442 INVALID-ORDER-442
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.443 INVALID-ORDER-443
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.444 INVALID-ORDER-444
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.445 INVALID-ORDER-445
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.446 INVALID-ORDER-446
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.447 INVALID-ORDER-447
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.448 INVALID-ORDER-448
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L\right)$$

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

10.449 INVALID-ORDER-449
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

10.450 INVALID-ORDER-450
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.451 INVALID-ORDER-451
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.452 INVALID-ORDER-452
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.453 INVALID-ORDER-453
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.454 INVALID-ORDER-454
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.455 INVALID-ORDER-455
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.456 INVALID-ORDER-456
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 q_m s^2 + C_1 s + q_m\right) \left(2C_4 C_L L_L R_L s^3 + 2C_4 L_L s^2 + 2C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.457 INVALID-ORDER-457
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 C_L L_L R_L s^3 + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.458 INVALID-ORDER-458
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 R_4 R_L s + R_4 + 2 R_L\right)}$$

10.459 INVALID-ORDER-459
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right)}{\left(2C_4 R_4 s + C_L R_4 s + 2\right) \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right)}$$

10.460 INVALID-ORDER-460
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2R_L\right)}$$

10.461 INVALID-ORDER-461
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.462 INVALID-ORDER-462
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.463 INVALID-ORDER-463
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_4 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2L_L s + R_4\right)}$$

10.464 INVALID-ORDER-464
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_4 s +$$

10.465 INVALID-ORDER-465
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2 L_L R_4 s + R_4 R_L\right)}$$

10.466 INVALID-ORDER-466
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 q_m s^2 + C_1 s + q_m\right) \left(2C_4 C_L L_L R_4 R_L s^3 + 2C_4 L_L R_4 s^2 + 2C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2C_L L_L R_4 s^2 + 2L_L s + R_4 + 2R_L\right)}$$

10.467 INVALID-ORDER-467
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 C_L L_L R_4 R_L s^3 + 2C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2C_L L_L R_4 s^2 + C_L R_4 R_L s + R_4 + 2R_L\right)}$$

10.468 INVALID-ORDER-468
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right)}{\left(C_4 R_4 s + 2 C_4 R_L s + 1\right) \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right)}$$

10.469 INVALID-ORDER-469
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 R_4 s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L R_4 s + 2C_4 + C_L \right)}$$

10.470 INVALID-ORDER-470
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L R_L s + 1\right)}$$

10.471 INVALID-ORDER-471
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right) \left(C_L R_L s + 1\right)}{s \left(C_1 L_1 q_m s^2 + C_1 s + q_m\right) \left(C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.472 INVALID-ORDER-472
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 + C_L\right)}$$

10.473 INVALID-ORDER-473
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.474 INVALID-ORDER-474
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.475 INVALID-ORDER-475
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_4 s^2 + 2C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.476 INVALID-ORDER-476
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_L s^3 + 2C_4 L_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.477 INVALID-ORDER-477
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.478 INVALID-ORDER-478
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_4 L_4 s^2 + 2 C_4 R_L s + 1\right) \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right)}$$

10.479 INVALID-ORDER-479
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 s^2 + 2C_4 + C_L\right)}$$

10.480 INVALID-ORDER-480
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L R_L s + 1\right)}$$

10.481 INVALID-ORDER-481
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.482 INVALID-ORDER-482
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + 2C_4 + C_L\right)}$$

10.483 INVALID-ORDER-483
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.484 INVALID-ORDER-484
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + 2C_4 C_L R_L s + 2C_4 + C_L\right)}$$

10.485 INVALID-ORDER-485
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.486 INVALID-ORDER-486
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 q_m s^2 + C_1 s + q_m\right) \left(C_4 C_L L_4 L_L s^4 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 L_L s^2 + 2C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.487 INVALID-ORDER-487
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.488 INVALID-ORDER-488
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 L_4 R_L s^2 + L_4 s + 2 R_L\right)}$$

10.489 INVALID-ORDER-489
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(2C_4 L_4 s^2 + C_L L_4 s^2 + 2\right) \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right)}$$

10.490 INVALID-ORDER-490
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + L_4 s + 2R_L\right)}$$

10.491 INVALID-ORDER-491
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L R_L s + 2\right)}$$

10.492 INVALID-ORDER-492
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2\right)}$$

10.493 INVALID-ORDER-493
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 L_4 L_L s^2 + C_L L_4 L_L s^2 + L_4 + 2L_L\right)}$$

10.494 INVALID-ORDER-494
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2 C_L R_L s + 2\right)}$$

10.495 INVALID-ORDER-495
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 L_4 L_L R_L s^2 + C_L L_4 L_L R_L s^2 + L_4 L_L s + L_4 R_L + 2 L_L R_L\right)}$$

10.496 INVALID-ORDER-496
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 L_L s^3 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + 2 C_L L_L R_L s^2 + L_4 s + 2 L_L s + 2 R_L\right)}$$

10.497 INVALID-ORDER-497
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 C_L L_4 L_L R_L s^4 + 2C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_4 R_L s^2 + 2C_L L_L R_L s^2 + L_4 s + 2R_L\right)}$$

10.498 INVALID-ORDER-498
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 2C_4 R_L s + 1\right)}$$

10.499 INVALID-ORDER-499
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right)}$$

10.500 INVALID-ORDER-500
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.501 INVALID-ORDER-501
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_L R_L s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.502 INVALID-ORDER-502
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right)}$$

10.503 INVALID-ORDER-503
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.504 INVALID-ORDER-504
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 C_L R_L s + 2C_4 C_L R$$

10.505 INVALID-ORDER-505
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2C_4 L_L R_4 s^2 + 2C_4 L_L R_4 s^2 + C_4 R_4 R_L s + C_L L_L R_4 s^2 + L_L s + R_L\right)}$$

10.506 INVALID-ORDER-506
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.507 INVALID-ORDER-507
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_L R_L s^3 + C_4 C_L L_4 R_L s^2 + C_4 L_4 s^$$

10.508 INVALID-ORDER-508
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 q_m s^2 + C_1 s + q_m\right) \left(2 C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right)}$$

10.509 INVALID-ORDER-509
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 q_m s^2 + C_1 s + q_m\right) \left(2C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2L_4 s + 2R_4\right)}$$

10.510 INVALID-ORDER-510
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2L_4 R_L s + 2R_4 R_L\right)}$$

10.511 INVALID-ORDER-511
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 C_L L_4 R_4 R_L s^3 + 2C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2C_L L_4 R_L s^2 + 2C_L R_4 R_L s + 2L_4 s + 2R_4\right)}$$

10.512 INVALID-ORDER-512
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 C_1 L_4 L_4 R_4 s^4 + 2C_4 L_4 R_4 s^2 + 2C_4 L_4 L_4 s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_4 s^2 + 2C_4$$

10.513 INVALID-ORDER-513
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L R_4 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 L_4 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2L_4 L_L s + L_4 R_4 + 2L_L R_4\right)}$$

$$\begin{aligned} \mathbf{10.514} \quad \mathbf{INVALID\text{-}ORDER\text{-}514} \ \ Z(s) &= \left(L_1 s + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ L_L s + R_L + \frac{1}{C_L s} \right) \\ H(s) &= \frac{L_4 R_4 g_m s \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L L_4 R_L s^2 + 2 C_L L_4 R_4 s^2 + 2$$

10.515 INVALID-ORDER-515
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 L_4 L_L R_4 R_L s^2 + C_L L_4 L_L R_4 R_L s^2 + L_4 L_L R_4 s + 2L_4 L_L R_4 R_L + 2L_L R_4 R_L\right)}$$

10.517 INVALID-ORDER-517
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{L_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_4 R_L s^4 + 2 C_4 L_4 R_4 R_L s^2 + C_L L_4 L_L R_4 s^3 + 2 C_L L_4 L_L R_4 s^3 + C_L L_4 R_4 R_L s^2 + 2 C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_4 s + 2 R_4 R_L s^2 + 2 R_4$$

10.518 INVALID-ORDER-518
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + L_4 s + R_4 + 2R_L\right)}$$

10.519 INVALID-ORDER-519
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 q_m s^2 + C_1 s + q_m \right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 \right)}$$

10.520 INVALID-ORDER-520
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + C_L R_4 R_L s + L_4 s + R_4 + 2R_L\right)}$$

10.521 INVALID-ORDER-521
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 C_L L_4 R_L s^3 + 2C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2C_L R_L s + 2\right)}$$

10.522 INVALID-ORDER-522
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 q_m s^2 + C_1 s + q_m\right) \left(2C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + C_L L_4 s^2 + 2C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.523 INVALID-ORDER-523
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + C_L L_4 L_L s^3 + C_L L_L R_4 s^2 + L_4 s + 2L_L s + R_4\right)}$$

10.526 INVALID-ORDER-526
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + L_4 s + 2 L_L s + R_4 + 2 C_4 L_4 R_4 s^2 + 2 C_4$$

10.527 INVALID-ORDER-527
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_4 s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^3 + C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_L R_4 s^2 + 2 C_L L_L R_4 s^2 + C_L L_4 R_4$$

10.528 INVALID-ORDER-528
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + R_4 + 2R_L\right)}$$

10.529 INVALID-ORDER-529
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + 2C_4 R_4 s + C_L R_4 s + 2\right)}$$

10.530 INVALID-ORDER-530
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.531 INVALID-ORDER-531
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_4$$

10.532 INVALID-ORDER-532
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 C_1 L_4 L_4 s^4 + C_4 C_1 L_4 R_4 s^3 + 2C_4 C_1 L_4 R_4 s^3 + 2C_4 L_4 s^2 + 2C_4$$

10.533 INVALID-ORDER-533
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2L_L s + R_4\right)}$$

10.534 INVALID-ORDER-534
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)$$

$$\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(2C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_4 R_4 s^3 + 2C_4 C_L R_4 R_L s^2 + 2C_4 L_4 s^2 + 2C_4 L_4$$

$$\begin{aligned} \mathbf{10.535} \quad \mathbf{INVALID\text{-}ORDER\text{-}535} \ Z(s) &= \left(L_1 s + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \frac{R_4 \left(L_4 s + \frac{1}{C_4 s} \right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right) \\ H(s) &= \frac{L_L R_4 R_L g_m s \left(C_1 L_1 s^2 + 1 \right) \left(C_4 L_4 s^2 + 1 \right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m \right) \left(C_4 C_L L_4 L_L R_4 R_L s^4 + C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_L s^3 + C_4 L_4 R_4 R_L s^2 + 2 C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2 L_L R_4 s + R_4 R_L \right)} \end{aligned}$$

10.536 INVALID-ORDER-536
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)$$

$$\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2C_4 C_L L_4 L_L R_4 s^4 + 2C_4 C_L L_L R_4 R_L s^3 + 2C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 L_4 R_4 s$$

10.537 INVALID-ORDER-537
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 R_4 R_L s^2 +$$

10.538 INVALID-ORDER-538
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4, \infty, \frac{1}{C_L s}\right)$$

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

10.539 INVALID-ORDER-539
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.540 INVALID-ORDER-540
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.541 INVALID-ORDER-541
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.542 INVALID-ORDER-542
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.543 INVALID-ORDER-543
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.544 INVALID-ORDER-544
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.545 INVALID-ORDER-545
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.546 INVALID-ORDER-546
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.547 INVALID-ORDER-547
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L\right)$$

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

10.548 INVALID-ORDER-548
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.549 INVALID-ORDER-549
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.550 INVALID-ORDER-550
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.551 INVALID-ORDER-551
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.552 INVALID-ORDER-552
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.553 INVALID-ORDER-553
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.554 INVALID-ORDER-554
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.555 INVALID-ORDER-555
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.556 INVALID-ORDER-556
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_4 R_L g_m s}{(C_1 L_1 s^2 + L_1 g_m s + 1) (2C_4 R_4 R_L s + R_4 + 2R_L)}$$

10.557 INVALID-ORDER-557
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_4 g_m s}{(C_1 L_1 s^2 + L_1 g_m s + 1)(2C_4 R_4 s + C_L R_4 s + 2)}$$

10.558 INVALID-ORDER-558
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_4 R_L g_m s}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.559 INVALID-ORDER-559
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.560 INVALID-ORDER-560
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.561 INVALID-ORDER-561
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_4 g_m s^2}{(C_1 L_1 s^2 + L_1 g_m s + 1) (2C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2L_L s + R_4)}$$

10.562 INVALID-ORDER-562
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.563 INVALID-ORDER-563
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_4 R_L g_m s^2}{(C_1 L_1 s^2 + L_1 g_m s + 1) (2C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2L_L R_L s + R_4 R_L)}$$

10.564 INVALID-ORDER-564
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + 2 L_L s + R_4 + 2 R_L\right)}$$

10.565 INVALID-ORDER-565
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_4 R_L g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.566 INVALID-ORDER-566
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 R_4 s + 2 C_4 R_L s + 1\right)}$$

10.567 INVALID-ORDER-567
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 R_4 s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L R_4 s + 2 C_4 + C_L \right)}$$

10.568 INVALID-ORDER-568
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.569 INVALID-ORDER-569
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 R_4 s + 1 \right) \left(C_L R_L s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.570 INVALID-ORDER-570
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 R_4 s + 1 \right) \left(C_L L_L s^2 + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right)}$$

10.571 INVALID-ORDER-571
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L g_m s^2 \left(C_4 R_4 s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1 \right)}$$

10.572 INVALID-ORDER-572
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 R_4 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.573 INVALID-ORDER-573
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_L g_m s^2 \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_4 s^2 + 2 C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.574 INVALID-ORDER-574
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.575 INVALID-ORDER-575
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.576 INVALID-ORDER-576
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 L_4 s^2 + 2 C_4 R_L s + 1\right)}$$

10.577 INVALID-ORDER-577
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 s^2 + 2C_4 + C_L\right)}$$

10.578 INVALID-ORDER-578
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.579 INVALID-ORDER-579
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_L R_L s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.580 INVALID-ORDER-580
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 + C_L \right)}$$

10.581 INVALID-ORDER-581
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L g_m s^2 \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.582 INVALID-ORDER-582
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.583 INVALID-ORDER-583
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_L g_m s^2 \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.584 INVALID-ORDER-584
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L s^4 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 L_L s^2 + 2C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.585 INVALID-ORDER-585
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.586 INVALID-ORDER-586
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L\right)$$

$$H(s) = \frac{L_1 L_4 R_L g_m s^2}{(C_1 L_1 s^2 + L_1 g_m s + 1) (2C_4 L_4 R_L s^2 + L_4 s + 2R_L)}$$

10.587 INVALID-ORDER-587
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 g_m s^2}{(C_1 L_1 s^2 + L_1 g_m s + 1)(2C_4 L_4 s^2 + C_L L_4 s^2 + 2)}$$

10.588 INVALID-ORDER-588
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 L_4 R_L g_m s^2}{(C_1 L_1 s^2 + L_1 g_m s + 1) \left(2 C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + L_4 s + 2 R_L\right)}$$

10.589 INVALID-ORDER-589
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 g_m s^2 \left(C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L R_L s + 2\right)}$$

10.590 INVALID-ORDER-590
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 g_m s^2 \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2\right)}$$

10.591 INVALID-ORDER-591
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_4 L_L g_m s^2}{(C_1 L_1 s^2 + L_1 g_m s + 1) (2C_4 L_4 L_L s^2 + C_L L_4 L_L s^2 + L_4 + 2L_L)}$$

10.592 INVALID-ORDER-592
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 g_m s^2 \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2 C_L R_L s + 2\right)}$$

10.593 INVALID-ORDER-593
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_4 L_L R_L g_m s^2}{(C_1 L_1 s^2 + L_1 g_m s + 1) (2C_4 L_4 L_L R_L s^2 + C_L L_4 L_L R_L s^2 + L_4 L_L s + L_4 R_L + 2L_L R_L)}$$

10.594 INVALID-ORDER-594
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 L_4 g_m s^2 \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 L_L s^3 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + 2 C_L L_L R_L s^2 + L_4 s + 2 L_L s + 2 R_L\right)}$$

10.595 INVALID-ORDER-595
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 L_4 R_L g_m s^2 \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_4 R_L s^2 + 2 C_L L_L R_L s^2 + L_4 s + 2 R_L\right)}$$

10.596 INVALID-ORDER-596
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + 1\right)}$$

10.597 INVALID-ORDER-597
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right)}$$

10.598 INVALID-ORDER-598
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.599 INVALID-ORDER-599
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_L R_L s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.600 INVALID-ORDER-600
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_L L_L s^2 + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right)}$$

10.601 INVALID-ORDER-601
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L g_m s^2 \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.602 INVALID-ORDER-602
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 L_L L_4 s^2 + 2C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 C_L R_L s + 2C_4 + C_L \right)}$$

10.603 INVALID-ORDER-603
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_L g_m s^2 \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_4 s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.604 INVALID-ORDER-604
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.605 INVALID-ORDER-605
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_L R_L s^3 + C_4 C_L L_4 R_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.606 INVALID-ORDER-606
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{L_1 L_4 R_4 R_L g_m s^2}{(C_1 L_1 s^2 + L_1 g_m s + 1) (2C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2L_4 R_L s + 2R_4 R_L)}$$

10.607 INVALID-ORDER-607
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_4 g_m s^2}{(C_1 L_1 s^2 + L_1 g_m s + 1) (2C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2L_4 s + 2R_4)}$$

10.608 INVALID-ORDER-608
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 L_4 R_4 R_L g_m s^2}{(C_1 L_1 s^2 + L_1 g_m s + 1) (2C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2L_4 R_L s + 2R_4 R_L)}$$

10.609 INVALID-ORDER-609
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_4 g_m s^2 \left(C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2C_4 C_L L_4 R_4 R_L s^3 + 2C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2C_L L_4 R_L s^2 + 2C_L R_4 R_L s + 2L_4 s + 2R_4\right)}$$

10.610 INVALID-ORDER-610
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_4 g_m s^2 \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_4 R_4 s^2 + 2C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2C_L L_4 R_4 s^$$

10.611 INVALID-ORDER-611
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_4 L_L R_4 g_m s^2}{(C_1 L_1 s^2 + L_1 g_m s + 1) (2C_4 L_4 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2L_4 L_L s + L_4 R_4 + 2L_L R_4)}$$

$$\begin{aligned} \mathbf{10.612} \quad \mathbf{INVALID\text{-}ORDER\text{-}612} \ \ Z(s) &= \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right) \\ H(s) &= \frac{L_1 L_4 R_4 g_m s^2 \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_4 R_2 s^3 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 R_4 s^2 +$$

10.614 INVALID-ORDER-614
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

$$H(s) = \frac{L_1L_4R_4g_ms^2\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(C_1L_1s^2 + L_1g_ms + 1\right)\left(2C_4C_LL_4L_LR_4s^4 + 2C_4L_4L_LR_4s^3 + 2C_4L_4R_4R_Ls^2 + C_LL_4L_LR_4s^3 + 2C_LL_4L_LR_4s^3 + 2C_LL_4L_4L_4L_4s^3 + 2C_LL_4L_4L_4L_4s^3 + 2C_LL_4L_4L_4s^3 + 2C_LL_4L_4L_4s$$

10.615 INVALID-ORDER-615
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.616 INVALID-ORDER-616
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + L_4 s + R_4 + 2R_L\right)}$$

10.617 INVALID-ORDER-617
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2\right)}$$

10.618 INVALID-ORDER-618
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + C_L R_4 R_L s + L_4 s + R_4 + 2 R_L\right)}$$

10.619 INVALID-ORDER-619
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_L R_L s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.620 INVALID-ORDER-620
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.621 INVALID-ORDER-621
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L g_m s^2 \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1 \right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + C_L L_4 L_L s^3 + C_L L_L R_4 s^2 + L_4 s + 2 L_L s + R_4 \right)}$$

10.622 INVALID-ORDER-622
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.623 INVALID-ORDER-623
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.624 INVALID-ORDER-624
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.625 INVALID-ORDER-625
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_L g_m s \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_4 R_L s^2 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_4 s^2 + C_L L_4 R_4$$

10.626 INVALID-ORDER-626
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_4 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + R_4 + 2R_L\right)}$$

10.627 INVALID-ORDER-627
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 q_m s + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + 2C_4 R_4 s + C_L R_4 s + 2\right)}$$

10.628 INVALID-ORDER-628
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_4 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.629 INVALID-ORDER-629
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.630 INVALID-ORDER-630
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_1 s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + 2 C_L L_4 s^2 + C_4 R_4 s + 2 C_4 L_4 s^2 + C_4 R_4 s + C_4 R_4 s^2 +$$

10.631 INVALID-ORDER-631
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_4 g_m s^2 \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2L_L s + R_4\right)}$$

$$\begin{aligned} \mathbf{10.632} \quad \mathbf{INVALID\text{-}ORDER\text{-}632} \ \ Z(s) &= \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ \infty, \ \infty, \ \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \ \infty, \ \ L_L s + R_L + \frac{1}{C_L s}\right) \\ H(s) &= \frac{L_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(2 C_4 C_L L_4 L_4 s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4$$

$$\begin{aligned} \mathbf{10.633} \quad \mathbf{INVALID\text{-}ORDER\text{-}633} \ Z(s) &= \left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}, \ \infty, \ \infty, \ \frac{R_{4}\left(L_{4}s+\frac{1}{C_{4}s}\right)}{L_{4}s+R_{4}+\frac{1}{C_{4}s}}, \ \infty, \ \frac{1}{C_{L}s+\frac{1}{R_{L}}+\frac{1}{L_{L}s}}\right) \\ H(s) &= \frac{L_{1}L_{L}R_{4}R_{L}g_{m}s^{2}\left(C_{4}L_{4}s^{2}+1\right)}{\left(C_{1}L_{1}s^{2}+L_{1}g_{m}s+1\right)\left(C_{4}C_{L}L_{4}L_{L}R_{4}R_{L}s^{4}+C_{4}L_{4}L_{L}R_{4}s^{3}+2C_{4}L_{4}L_{L}R_{L}s^{3}+C_{4}L_{4}R_{4}R_{L}s^{2}+2C_{4}L_{L}R_{4}R_{L}s^{2}+C_{L}L_{L}R_{4}R_{L}s^{2}+L_{L}R_{4}s+2L_{L}R_{4}s+R_{4}R_{L}s^{2}}\right) \end{aligned}$$

10.634 INVALID-ORDER-634
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$L_1 R_4 q_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)$$

$$H(s) = \frac{L_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_$$

10.635 INVALID-ORDER-635
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_4 R_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 s^2 + L_1 g_m s + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_L s^4 + C_4 C_L L_4 R_L s^3 + 2 C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_$$

10.636 INVALID-ORDER-636
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{1}{C_L s}\right)$$

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

10.637 INVALID-ORDER-637
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.638 INVALID-ORDER-638
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.639 INVALID-ORDER-639
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.640 INVALID-ORDER-640
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.641 INVALID-ORDER-641
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.642 INVALID-ORDER-642
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.643 INVALID-ORDER-643
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.644 INVALID-ORDER-644
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.645 INVALID-ORDER-645
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{\left(2C_4 R_L s + 1 \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.646 INVALID-ORDER-646
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{s \left(2C_4 + C_L \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.647 INVALID-ORDER-647
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{\left(2C_4 R_L s + C_L R_L s + 1 \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.648 INVALID-ORDER-648
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L R_L s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{s \left(2 C_4 C_L R_L s + 2 C_4 + C_L \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.649 INVALID-ORDER-649
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{s \left(2C_4 C_L L_L s^2 + 2C_4 + C_L\right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$$

10.650 INVALID-ORDER-650
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(2C_4 L_L s^2 + C_L L_L s^2 + 1\right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$$

10.651 INVALID-ORDER-651
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.652 INVALID-ORDER-652
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.653 INVALID-ORDER-653
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 C_1 L_L R_L s^3 + 2C_4 L_L s^2 + 2C_4 R_L s + C_1 L_L s^2 + 1\right)}$$

10.654 INVALID-ORDER-654
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.655 INVALID-ORDER-655
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{\left(2 C_4 R_4 R_L s + R_4 + 2 R_L \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.656 INVALID-ORDER-656
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{\left(2 C_4 R_4 s + C_L R_4 s + 2 \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.657 INVALID-ORDER-657
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(2 C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2 R_L \right)}$$

10.658 INVALID-ORDER-658
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_L R_L s + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.659 INVALID-ORDER-659
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.660 INVALID-ORDER-660
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_4 g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2L_L s + R_4\right)}$$

10.661 INVALID-ORDER-661
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.662 INVALID-ORDER-662
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$L_L R_4 R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)$$

$$H(s) = \frac{L_L R_4 R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2 L_L R_4 s + R_4 R_L\right)}$$

10.663 INVALID-ORDER-663
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_4 s^2 + 2 L_L s + R_4 + 2 R_L\right)}$$

10.664 INVALID-ORDER-664
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_4 s^2 + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.665 INVALID-ORDER-665
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 R_4 s + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_4 R_4 s + 2 C_4 R_L s + 1\right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$$

10.666 INVALID-ORDER-666
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{s \left(C_4 C_L R_4 s + 2 C_4 + C_L \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.667 INVALID-ORDER-667
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 R_4 s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1 \right)}$$

10.668 INVALID-ORDER-668
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1 \right) \left(C_L R_L s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{s \left(C_1 L_1 q_m s^2 + C_1 R_1 q_m s + C_1 s + q_m \right) \left(C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.669 INVALID-ORDER-669
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 + C_L\right)}$$

10.670 INVALID-ORDER-670
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_4 R_4 s + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.671 INVALID-ORDER-671
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.672 INVALID-ORDER-672
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_4 R_4 s + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 q_m s^2 + C_1 R_1 q_m s + C_1 s + q_m\right) \left(C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_4 s^2 + 2C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.673 INVALID-ORDER-673
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.674 INVALID-ORDER-674
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + C_L R_4 s + 1\right)}$$

10.675 INVALID-ORDER-675
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{\left(C_4 L_4 s^2 + 2 C_4 R_L s + 1 \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.676 INVALID-ORDER-676
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{s \left(C_4 C_L L_4 s^2 + 2C_4 + C_L \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.677 INVALID-ORDER-677
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2 C_4 R_L s + C_L R_L s + 1 \right)}$$

10.678 INVALID-ORDER-678
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_L R_L s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{s \left(C_1 L_1 q_m s^2 + C_1 R_1 q_m s + C_1 s + q_m \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.679 INVALID-ORDER-679
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{s \left(C_1 L_1 q_m s^2 + C_1 R_1 q_m s + C_1 s + q_m\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + 2C_4 + C_L\right)}$$

10.680 INVALID-ORDER-680
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.681 INVALID-ORDER-681
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.682 INVALID-ORDER-682
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_4 R_4 s^4 + C_4 L_4 L_4 s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_4 s^2 + C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}$$

10.683 INVALID-ORDER-683
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.684 INVALID-ORDER-684
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L L_4 s^2 + C_L R_4 s + 1\right)}$$

10.685 INVALID-ORDER-685
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(2 C_4 L_4 R_L s^2 + L_4 s + 2 R_L\right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$$

10.686 INVALID-ORDER-686
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(2C_4 L_4 s^2 + C_L L_4 s^2 + 2\right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$$

10.687 INVALID-ORDER-687
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + L_4 s + 2 R_L\right)}$$

10.688 INVALID-ORDER-688
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_L R_L s + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L R_L s + 2\right)}$$

10.689 INVALID-ORDER-689
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2\right)}$$

10.690 INVALID-ORDER-690
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 q_m s^2 + C_1 R_1 q_m s + C_1 s + q_m\right) \left(2 C_4 L_4 L_L s^2 + C_L L_4 L_L s^2 + L_4 + 2 L_L\right)}$$

10.691 INVALID-ORDER-691
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 C_L L_4 L_L s^4 + 2C_4 C_L L_4 R_L s^3 + 2C_4 L_4 s^2 + C_L L_4 s^2 + 2C_L L_L s^2 + 2C_L R_L s + 2\right)}$$

10.692 INVALID-ORDER-692
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 L_4 L_L R_L s^2 + C_L L_4 L_L R_L s^2 + L_4 L_L s + L_4 R_L + 2 L_L R_L\right)}$$

10.693 INVALID-ORDER-693
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 L_L s^3 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + 2 C_L L_4 R_L s^2 + L_4 s + 2 L_L s + 2 R_L\right)}$$

10.694 INVALID-ORDER-694
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_4 R_L s^2 + 2 C_L L_L R_L s^2 + L_4 s + 2 R_L\right)}$$

10.695 INVALID-ORDER-695
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{\left(C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + 1 \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$$

10.696 INVALID-ORDER-696
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right)}$$

10.697 INVALID-ORDER-697
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.698 INVALID-ORDER-698
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L R_L s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.699 INVALID-ORDER-699
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 + C_L\right)}$$

10.700 INVALID-ORDER-700
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.701 INVALID-ORDER-701
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right)}$$

10.702 INVALID-ORDER-702
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 L_L L_L R_L s^4 + C_4 L_L L_L R_4 R_L s^3 + C_4 L_4 L_L s^3 + C_4 L_4 L_L R_4 s^2 + 2 C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.703 INVALID-ORDER-703
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.704 INVALID-ORDER-704
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_4 s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2C_4 R_4 s + 2C_4 R_4 s + C_L L_L s^2 + C_L R_L s^2}$$

10.705 INVALID-ORDER-705
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2L_4 R_L s + 2R_4 R_L\right)}$$

10.706 INVALID-ORDER-706
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2L_4 s + 2R_4\right)}$$

10.707 INVALID-ORDER-707
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2L_4 R_L s + 2R_4 R_L\right)}$$

10.708 INVALID-ORDER-708
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_L R_L s + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 C_L L_4 R_4 R_L s^3 + 2C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2C_L L_4 R_L s^2 + 2C_L R_4 R_L s + 2L_4 s + 2R_4\right)}$$

10.710 INVALID-ORDER-710
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L R_4 g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 L_4 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2L_4 L_L s + L_4 R_4 + 2L_L R_4\right)}$$

10.711 INVALID-ORDER-711
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_4$$

10.712 INVALID-ORDER-712
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_4 R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2C_4 L_4 L_L R_4 R_L s^2 + C_L L_4 L_L R_4 R_L s^2 + L_4 L_L R_4 s + 2L_4 L_L R_4 R_L + 2L_L R_4 R_L\right)}$$

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

10.715 INVALID-ORDER-715
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + L_4 s + R_4 + 2R_L\right)}$$

10.716 INVALID-ORDER-716
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 \right)}$$

10.717 INVALID-ORDER-717
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 L_L R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + C_L R_4 R_L s + L_4 s + R_4 + 2R_L\right)}$$

10.718 INVALID-ORDER-718
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L R_L s + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 C_L R_L s + 2 \right)}$$

10.719 INVALID-ORDER-719
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.720 INVALID-ORDER-720
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + C_L L_4 L_L s^3 + C_L L_L R_4 s^2 + L_4 s + 2L_L s + R_4\right)}$$

10.721 INVALID-ORDER-721
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_4 s^2 + C_L R_4 s + 2 C_L R_4$$

10.723 INVALID-ORDER-723
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_4 L_L R_4 s^4 + 2C_4 L_4 L_L R_3 s^2 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + C_L L_4 L_L R_3 s^2 + 2C_L L_4 L_L R_4 s^2 + 2C_4 L_4 R_4 s^2 + 2C_4 L_4$$

10.725 INVALID-ORDER-725
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + R_4 + 2R_L\right)}$$

10.726 INVALID-ORDER-726
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + 2C_4 R_4 s + C_L R_4 s + 2\right)}$$

10.727 INVALID-ORDER-727
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2R_L\right)}$$

10.728 INVALID-ORDER-728
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.729 INVALID-ORDER-729
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_4 s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 L_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 L_4 s^2 + 2 C_4 L_4 s^2 + C_4 L_4 s^2$$

10.730 INVALID-ORDER-730
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2L_L s + R_4\right)}$$

10.731 INVALID-ORDER-731
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^$$

10.732 INVALID-ORDER-732
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_4 R_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 R_L s^4 + C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 L_L R_4 s^3 + 2 C_4 L_4 R_4 R_L s^2 + 2 C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2 L_$$

10.733 INVALID-ORDER-733
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_4 s^2 + 2 C_4 R_4 R_L s + C_4 R_4 R_4 s^2 + C_4 R_4 R_4 r^2 + C_$$

10.734 INVALID-ORDER-734
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$R_4 R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)$$

$$\left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_4 R_L s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2\right)$$

10.735 INVALID-ORDER-735
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4, \infty, \frac{1}{C_L s}\right)$$

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

10.736 INVALID-ORDER-736
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.737 INVALID-ORDER-737
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.738 INVALID-ORDER-738
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.739 INVALID-ORDER-739
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.740 INVALID-ORDER-740
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.741 INVALID-ORDER-741
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.742 INVALID-ORDER-742
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.743 INVALID-ORDER-743
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.744 INVALID-ORDER-744
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s}{(2C_4 R_L s + 1) (C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1)}$$

10.745 INVALID-ORDER-745
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s}{(2C_4 R_L s + C_L R_L s + 1) (C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1)}$$

10.746 INVALID-ORDER-746
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_L R_L s + 1\right)}{\left(2C_4 C_L R_L s + 2C_4 + C_L\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.747 INVALID-ORDER-747
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_L L_L s^2 + 1\right)}{\left(2C_4 C_L L_L s^2 + 2C_4 + C_L\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.748 INVALID-ORDER-748
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_1 g_m s^2}{\left(2C_4 L_L s^2 + C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.749 INVALID-ORDER-749
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.750 INVALID-ORDER-750
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.751 INVALID-ORDER-751
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.752 INVALID-ORDER-752
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.753 INVALID-ORDER-753
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_4 R_L g_m s}{\left(2C_4 R_4 R_L s + R_4 + 2R_L\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.754 INVALID-ORDER-754
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s}{(2C_4 R_4 s + C_L R_4 s + 2) (C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1)}$$

10.755 INVALID-ORDER-755
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 R_L g_m s}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) (2C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2R_L)}$$

10.756 INVALID-ORDER-756
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.757 INVALID-ORDER-757
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.758 INVALID-ORDER-758
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_1 R_4 g_m s^2}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) (2C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2L_L s + R_4)}$$

10.759 INVALID-ORDER-759
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_4 s +$$

10.760 INVALID-ORDER-760
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_1 R_4 R_L g_m s^2}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) (2C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2L_L R_L s + R_4 R_L)}$$

10.761 INVALID-ORDER-761
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2C_4 C_L L_L R_4 R_L s^3 + 2C_4 L_L R_4 s^2 + 2C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2C_L L_L R_4 s^2 + 2L_L s + R_4 + 2R_L\right)}$$

10.762 INVALID-ORDER-762
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 R_L g_m s \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_4 s^2 + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.763 INVALID-ORDER-763
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 R_4 s + 1\right)}{\left(C_4 R_4 s + 2 C_4 R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.764 INVALID-ORDER-764
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 R_4 s + 1\right)}{\left(C_4 C_L R_4 s + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.765 INVALID-ORDER-765
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L R_L s + 1\right)}$$

10.766 INVALID-ORDER-766
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 R_4 s + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L R_4 s + 2C_4 C_L R_L s + 2C_4 + C_L\right)}$$

10.767 INVALID-ORDER-767
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L\right)}$$

10.768 INVALID-ORDER-768
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_1 g_m s^2 \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.769 INVALID-ORDER-769
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2C_4 C_L R_L s + 2C_4 + C_L\right)}$$

10.770 INVALID-ORDER-770
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_1 R_L g_m s^2 \left(C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_4 s^2 + 2C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.771 INVALID-ORDER-771
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_L s^3 + 2C_4 L_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.772 INVALID-ORDER-772
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 R_4 s + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.773 INVALID-ORDER-773
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_4 L_4 s^2 + 2 C_4 R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.774 INVALID-ORDER-774
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 L_4 s^2 + 1\right)}{\left(C_4 C_L L_4 s^2 + 2 C_4 + C_L\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.775 INVALID-ORDER-775
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 q_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.776 INVALID-ORDER-776
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L R_L s + 2C_4 + C_L\right)}$$

10.777 INVALID-ORDER-777
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 s^2 + 2C_4 C_L L_L s^2 + 2C_4 + C_L\right)}$$

10.778 INVALID-ORDER-778
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_1 g_m s^2 \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.779 INVALID-ORDER-779
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.780 INVALID-ORDER-780
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_1 R_L g_m s^2 \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.781 INVALID-ORDER-781
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1\right)}$$

10.782 INVALID-ORDER-782
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 q_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_L R_L s^3 + C_4 L_4 s^2 + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.783 INVALID-ORDER-783
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_L g_m s^2}{(2C_4 L_4 R_L s^2 + L_4 s + 2R_L) (C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1)}$$

10.784 INVALID-ORDER-784
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 g_m s^2}{(2C_4 L_4 s^2 + C_L L_4 s^2 + 2) (C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1)}$$

10.785 INVALID-ORDER-785
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_L g_m s^2}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) (2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + L_4 s + 2R_L)}$$

10.786 INVALID-ORDER-786
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 g_m s^2 \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L R_L s + 2\right)}$$

10.787 INVALID-ORDER-787
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 g_m s^2 \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2\right)}$$

10.788 INVALID-ORDER-788
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_4 L_L R_1 g_m s^2}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) (2C_4 L_4 L_L s^2 + C_L L_4 L_L s^2 + L_4 + 2L_L)}$$

10.789 INVALID-ORDER-789
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 g_m s^2 \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2 C_L R_L s + 2\right)}$$

10.790 INVALID-ORDER-790
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_4 L_L R_1 R_L g_m s^2}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) (2C_4 L_4 L_L R_L s^2 + C_L L_4 L_L R_L s^2 + L_4 L_L s + L_4 R_L + 2L_L R_L)}$$

10.791 INVALID-ORDER-791
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 L_4 R_1 g_m s^2 \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2C_4 C_L L_4 L_L R_L s^4 + 2C_4 L_4 L_L s^3 + 2C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + 2C_L L_4 R_L s^2 + L_4 s + 2L_L s + 2R_L\right)}$$

10.792 INVALID-ORDER-792
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_L g_m s^2 \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_4 R_L s^2 + 2 C_L L_L R_L s^2 + L_4 s + 2 R_L\right)}$$

10.793 INVALID-ORDER-793
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_4 L_4 s^2 + C_4 R_4 s + 2C_4 R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$$

10.794 INVALID-ORDER-794
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2C_4 + C_L\right)}$$

10.795 INVALID-ORDER-795
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_L s^3 + C_4 C_L R_4 R_L s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2C_4 R_L s + C_L R_L s + 1\right)}$$

10.796 INVALID-ORDER-796
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_L R_L s + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L\right)}$$

10.797 INVALID-ORDER-797
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L\right)}$$

10.798 INVALID-ORDER-798
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_1 g_m s^2 \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.799 INVALID-ORDER-799
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 C_L R_L s + 2 C_4 C_L R_4 s + 2 C$$

10.800 INVALID-ORDER-800
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_1 R_L g_m s^2 \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2 C_4 L_L R_4 s^2 + 2 C_4 L_L R_4 s^2 + C_4 R_4 R_L s + C_L L_L R_4 s^2 + L_L s + R_L\right)}$$

10.801 INVALID-ORDER-801
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_4 s^4 + C_4 C_L L_4 R_4 s^3 + 2C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + 2C_4 L_4 s^2 + 2C_4 L_4 s^2 + 2C_4 L_4 s^2 + C_4 R_4 s + 2C_4 R_4 s + C_4 L_4 s^2 + C_4 + C_4 L_4 s^2$$

10.802 INVALID-ORDER-802
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + 2C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_4 s^2 + C_4 L_4 s^2 + C_4 L_4 s^2 + C_4 R_4 s + 2C_4 R_4 s + 2$$

10.803 INVALID-ORDER-803
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 R_L g_m s^2}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) (2C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2L_4 R_L s + 2R_4 R_L)}$$

10.804 INVALID-ORDER-804
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 g_m s^2}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) (2C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2L_4 s + 2R_4)}$$

10.805 INVALID-ORDER-805
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 R_L g_m s^2}{(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1) (2C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2L_4 R_L s + 2R_4 R_L)}$$

10.806 INVALID-ORDER-806
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 g_m s^2 \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L L_4 R_L s + 2 L_4 s + 2 R_4\right)}$$

10.807 INVALID-ORDER-807
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 L_4 R_1 R_4 g_m s^2 \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L R_4 R_4 s^2 + 2 C_L R$$

10.808 INVALID-ORDER-808
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_4 L_L R_1 R_4 g_m s^2}{(C_1 L_1 R_1 s^2 + L_1 R_1 q_m s + L_1 s + R_1) (2C_4 L_4 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2L_4 L_L s + L_4 R_4 + 2L_L R_4)}$$

10.811 INVALID-ORDER-811
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$L_1 L_4 R_1 R_4 g_m s^2 \left(C_L L_L R_L s^2 + L_L s + R_L\right)$$

$$H(s) = \frac{L_1L_4R_1R_4g_ms^2\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(C_1L_1R_1s^2 + L_1R_1g_ms + L_1s + R_1\right)\left(2C_4C_LL_4L_LR_4s^4 + 2C_4L_4L_LR_4s^3 + 2C_4L_4R_4R_Ls^2 + C_LL_4L_LR_4s^3 + 2C_LL_4L_LR_4s^3 + 2C_LL_4L_LR_4s^2 + 2L_4L_Ls^2 + L_4R_4s + 2C_4L_4R_4s^3 + 2C_4L_4R_4s$$

10.812 INVALID-ORDER-812
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1L_4R_1R_4R_Lg_ms^2\left(C_LL_Ls^2 + 1\right)}{\left(C_1L_1R_1s^2 + L_1R_1g_ms + L_1s + R_1\right)\left(2C_4C_LL_4L_LR_4S^4 + 2C_4L_4R_4R_Ls^2 + C_LL_4L_LR_4s^3 + 2C_LL_4L_LR_4s^3 + C_LL_4R_4R_Ls^2 + 2C_LL_4R_4R_Ls^2 + L_4R_4s + 2L_4R_4s +$$

10.813 INVALID-ORDER-813
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_4 s^2 + L_4 s + R_4 + 2R_4\right)}$$

10.814 INVALID-ORDER-814
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2\right)}$$

10.815 INVALID-ORDER-815
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + C_L R_4 R_L s + L_4 s + R_4 + 2R_L\right)}$$

10.816 INVALID-ORDER-816
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_L R_L s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.817 INVALID-ORDER-817
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_4 s^2 + C_L R_4 s + 2\right)}$$

10.819 INVALID-ORDER-819
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_4 s^2 + C_L R_4 s + 2 C_L$$

10.820 INVALID-ORDER-820
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1L_LR_1R_Lg_ms^2\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1L_1R_1s^2 + L_1R_1g_ms + L_1s + R_1\right)\left(C_4C_LL_4L_LR_4s^4 + C_4L_4L_LR_4s^3 + 2C_4L_4L_LR_2s^3 + C_4L_4R_4s^2 + C_LL_4L_LR_4s^3 + C_LL_LR_4R_Ls^2 + L_4L_Ls^2 + L_4R_Ls + L_LR_4s^2 + C_4L_4L_LR_4s^3 + C_4L_4R_4s^3 + C_4L_4R_4s^$$

10.821 INVALID-ORDER-821
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.822 INVALID-ORDER-822
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_1 R_L g_m s \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^3 + C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_4 s^2 + C_L L_4$$

10.823 INVALID-ORDER-823
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_4 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_4 L_4 R_1 s^2 + L_4 R_1 g_m s + L_4 s + R_1\right) \left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_4 s^2 + 2C_4 R_4 R_4 s + R_4 + 2R_4\right)}$$

10.824 INVALID-ORDER-824
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + 2C_4 R_4 s + C_L R_4 s + 2\right)}$$

10.825 INVALID-ORDER-825
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 R_L g_m s \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2R_L\right)}$$

10.826 INVALID-ORDER-826
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

$$\textbf{10.827} \quad \textbf{INVALID-ORDER-827} \ Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \ \infty, \ \infty, \ \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_L R_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right) }$$

10.828 INVALID-ORDER-828
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_1 R_4 g_m s^2 \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 s^2 + L_1 R_1 q_m s + L_1 s + R_1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2L_L s + R_4\right)}$$

10.831 INVALID-ORDER-831
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.832 INVALID-ORDER-832
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

10.833 INVALID-ORDER-833
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4, \infty, \frac{1}{C_L s}\right)$$

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

10.834 INVALID-ORDER-834
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

10.835 INVALID-ORDER-835
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.836 INVALID-ORDER-836
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.837 INVALID-ORDER-837
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

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

10.838 INVALID-ORDER-838
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.839 INVALID-ORDER-839
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

10.840 INVALID-ORDER-840
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.841 INVALID-ORDER-841
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$R_4 R_L g_{rr} \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)$$

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

10.842 INVALID-ORDER-842
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{\left(2 C_4 R_L s + 1 \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.843 INVALID-ORDER-843
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_4 s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(2C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.844 INVALID-ORDER-844
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{\left(2 C_4 R_L s + C_L R_L s + 1 \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.845 INVALID-ORDER-845
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L R_L s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(2 C_4 C_L R_L s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.846 INVALID-ORDER-846
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L L_L s^2 + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(2C_4 C_L L_L s^2 + 2C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.847 INVALID-ORDER-847
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2 C_4 L_L s^2 + C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.848 INVALID-ORDER-848
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(2C_4 C_L L_L s^2 + 2C_4 C_L R_L s + 2C_4 + C_L \right) \left(C_1 L_1 R_1 q_m s^2 + C_1 L_1 s^2 + L_1 q_m s + R_1 q_m + 1 \right)}$$

10.849 INVALID-ORDER-849
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2C_4 L_L R_L s^2 + C_L L_L R_L s^2 + L_L s + R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.850 INVALID-ORDER-850
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_L R_L s^3 + 2 C_4 L_L s^2 + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.851 INVALID-ORDER-851
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2C_4 C_L L_L R_L s^3 + 2C_4 R_L s + C_L L_L s^2 + C_L R_L s + 1\right)}$$

10.852 INVALID-ORDER-852
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{\left(2 C_4 R_4 R_L s + R_4 + 2 R_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.853 INVALID-ORDER-853
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{\left(2 C_4 R_4 s + C_L R_4 s + 2 \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.854 INVALID-ORDER-854
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{\left(2 C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2 R_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.855 INVALID-ORDER-855
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 q_m s^2 + C_1 L_1 s^2 + L_1 q_m s + R_1 q_m + 1\right) \left(2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.856 INVALID-ORDER-856
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2\right)}$$

10.857 INVALID-ORDER-857
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_4 g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2L_L s + R_4\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.858 INVALID-ORDER-858
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.859 INVALID-ORDER-859
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_4 R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2C_4 L_L R_4 R_L s^2 + C_L L_L R_4 R_L s^2 + L_L R_4 s + 2L_L R_4 s + R_4 R_L\right)}$$

10.860 INVALID-ORDER-860
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_4 g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 L_L R_4 s^2 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_L s^2 + 2 L_L s + R_4 + 2 R_L\right)}$$

10.861 INVALID-ORDER-861
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_L R_4 R_L s^3 + 2 C_4 R_4 R_L s + C_L L_L R_4 s^2 + 2 C_L L_L R_4 s^2 + C_L R_4 R_L s + R_4 + 2 R_L\right)}$$

10.862 INVALID-ORDER-862
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 R_4 s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_4 R_4 s + 2 C_4 R_L s + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.863 INVALID-ORDER-863
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(C_4 C_L R_4 s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.864 INVALID-ORDER-864
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 R_4 s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.865 INVALID-ORDER-865
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1 \right) \left(C_L R_L s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.866 INVALID-ORDER-866
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1 \right) \left(C_L L_L s^2 + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.867 INVALID-ORDER-867
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_4 R_4 s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 s^3 + 2 C_4 L_L s^2 + C_4 R_4 s + C_L L_L s^2 + 1\right)}$$

10.868 INVALID-ORDER-868
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 R_4 s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C_4 C_L R_L s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 q_m s^2 + C_1 L_1 s^2 + L_1 q_m s + R_1 q_m + 1 \right)}$$

10.869 INVALID-ORDER-869
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_4 R_4 s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_L R_4 R_L s^3 + C_4 L_L R_4 s^2 + 2C_4 L_L R_L s^2 + C_4 R_4 R_L s + C_L L_L R_L s^2 + L_L s + R_L\right)}$$

10.870 INVALID-ORDER-870
$$Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{g_m\left(C_4R_4s + 1\right)\left(C_1L_1R_1s^2 + L_1s + R_1\right)\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + L_1g_ms + R_1g_m + 1\right)\left(C_4C_LL_LR_4s^3 + 2C_4C_LL_LR_Ls^3 + 2C_4L_Ls^2 + C_4R_4s + 2C_4R_Ls + C_LL_Ls^2 + 1\right)}$$

$$(C_1L_1R_1g_ms^2 + C_1L_1s^2 + L_1g_ms + R_1g_m + 1) (C_4C_LL_LR_4s^3 + 2C_4C_LL_LR_Ls^3 + 2C_4L_Ls^2 + C_4R_4s + 2C_4R_Ls + C_LL_Ls^2 + C_4R_4s + 2C_4R_4s + 2C_4R_5s + 2C_4$$

10.871 INVALID-ORDER-871
$$Z(s) = \left(\frac{L_{1s}}{C_{1}L_{1}s^{2}+1} + R_{1}, \infty, \infty, R_{4} + \frac{1}{C_{4}s}, \infty, \frac{R_{L}\left(L_{L}s + \frac{1}{C_{L}s}\right)}{L_{L}s + R_{L} + \frac{1}{C_{L}s}}\right)$$

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

10.872 INVALID-ORDER-872
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_4 L_4 s^2 + 2 C_4 R_L s + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.873 INVALID-ORDER-873
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(C_4 C_L L_4 s^2 + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.874 INVALID-ORDER-874
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_L s^3 + C_4 L_4 s^2 + 2 C_4 R_L s + C_L R_L s + 1\right)}$$

10.875 INVALID-ORDER-875
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_L R_L s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(C_4 C_L L_4 s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 q_m s^2 + C_1 L_1 s^2 + L_1 q_m s + R_1 q_m + 1 \right)}$$

10.876 INVALID-ORDER-876
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.877 INVALID-ORDER-877
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 L_4 s^2 + 2C_4 L_L s^2 + C_L L_L s^2 + 1\right)}$$

10.878 INVALID-ORDER-878
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + 2 C_4 C_L R_L s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.879 INVALID-ORDER-879
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_L s^4 + C_4 L_4 L_L s^3 + C_4 L_4 R_L s^2 + 2C_4 L_L R_L s^2 + L_L s + R_L\right)}$$

10.880 INVALID-ORDER-880
$$Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_4L_4s^2 + 1\right) \left(C_1L_1R_1s^2 + L_1s + R_1\right) \left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + L_1g_ms + R_1g_m + 1\right) \left(C_4C_LL_4L_Ls^4 + 2C_4C_LL_LR_Ls^3 + C_4L_4s^2 + 2C_4L_Ls^2 + 2C_4R_Ls + C_LL_Ls^2 + 1\right)}$$

10.881 INVALID-ORDER-881
$$Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_Lg_m\left(C_4L_4s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)\left(C_1L_1R_1s^2 + L_1s + R_1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + L_1g_ms + R_1g_m + 1\right)\left(C_4C_LL_4L_Ls^4 + C_4C_LL_4R_Ls^3 + 2C_4C_LL_LR_Ls^3 + C_4L_4s^2 + 2C_4R_Ls + C_LL_Ls^2 + C_LR_Ls + 1\right)}$$

10.882 INVALID-ORDER-882
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2 C_4 L_4 R_L s^2 + L_4 s + 2 R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.883 INVALID-ORDER-883
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2C_4 L_4 s^2 + C_L L_4 s^2 + 2\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.884 INVALID-ORDER-884
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + L_4 s + 2R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.885 INVALID-ORDER-885
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L R_L s + 2\right)}$$

10.886 INVALID-ORDER-886
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2\right)}$$

10.887 INVALID-ORDER-887
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2C_4 L_4 L_L s^2 + C_L L_4 L_L s^2 + L_4 + 2L_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.888 INVALID-ORDER-888
$$Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + 2 C_L R_L s + 2\right)}$$

10.889 INVALID-ORDER-889
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2C_4 L_4 L_L R_L s^2 + C_L L_4 L_L R_L s^2 + L_4 L_L s + L_4 R_L + 2L_L R_L\right)}$$

10.890 INVALID-ORDER-890
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_4 g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 L_L s^3 + 2 C_4 L_4 R_L s^3 + 2 C_L L_4 L_L R_L s^2 + L_4 s + 2 L_L s + 2 R_L\right)}$$

10.891 INVALID-ORDER-891
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_4 R_L g_m s \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_L s^4 + 2 C_4 L_4 R_L s^2 + C_L L_4 L_L s^3 + C_L L_4 R_L s^2 + 2 C_L L_L R_L s^2 + L_4 s + 2 R_L\right)}$$

10.892 INVALID-ORDER-892
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{\left(C_4 L_4 s^2 + C_4 R_4 s + 2 C_4 R_L s + 1 \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.893 INVALID-ORDER-893
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{s \left(C_4 C_L L_4 s^2 + C_4 C_L R_4 s + 2 C_4 + C_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.894 INVALID-ORDER-894
$$Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{R_Lg_m\left(C_4L_4s^2 + C_4R_4s + 1\right)\left(C_1L_1R_1s^2 + L_1s + R_1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + L_1g_ms + R_1g_m + 1\right)\left(C_4C_LL_4R_Ls^3 + C_4C_LR_4R_Ls^2 + C_4L_4s^2 + C_4R_4s + 2C_4R_Ls + C_LR_Ls + 1\right)}$$

10.895 INVALID-ORDER-895
$$Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{g_m \left(C_LR_Ls + 1\right) \left(C_4L_4s^2 + C_4R_4s + 1\right) \left(C_1L_1R_1s^2 + L_1s + R_1\right)}{s \left(C_4C_LL_4s^2 + C_4C_LR_4s + 2C_4C_LR_Ls + 2C_4 + C_L\right) \left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + L_1g_ms + R_1g_m + 1\right)}$$

10.896 INVALID-ORDER-896
$$Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{g_m\left(C_LL_Ls^2 + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)\left(C_1L_1R_1s^2 + L_1s + R_1\right)}{s\left(C_4C_LL_4s^2 + 2C_4C_LL_Ls^2 + C_4C_LR_4s + 2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + L_1g_ms + R_1g_m + 1\right)}$$

10.897 INVALID-ORDER-897
$$Z(s) = \left(\frac{L_{1s}}{C_1L_1s^2+1} + R_1, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{L_Lg_ms\left(C_4L_4s^2 + C_4R_4s + 1\right)\left(C_1L_1R_1s^2 + L_1s + R_1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + L_1g_ms + R_1g_m + 1\right)\left(C_4C_LL_4L_Ls^4 + C_4C_LL_LR_4s^3 + C_4L_4s^2 + 2C_4L_Ls^2 + C_4R_4s + C_LL_Ls^2 + 1\right)}$$

10.898 INVALID-ORDER-898
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{s \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 s^2 + 2 C_4 C_L L_L s^2 + C_4 C_L R_4 s + 2 C$$

10.899 INVALID-ORDER-899
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.900 INVALID-ORDER-900
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{g_m \left(C_4 L_4 s^2 + C_4 R_4 s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_L R_4 s^3 + 2 C_4 C_L L_L R_2 s^3 + C_4 L_4 s^2 + 2 C_4 L_L s^2 + C_4 R_4 s + 2 C_4 R_L s + C_L L_L s^2 + 1 \right)}$$

10.901 INVALID-ORDER-901
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.902 INVALID-ORDER-902
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2 C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.903 INVALID-ORDER-903
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 L_4 s + 2 R_4\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.904 INVALID-ORDER-904
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right)}$$

10.905 INVALID-ORDER-905
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L R_4 R_L s + 2 L_4 s + 2 R_4\right)}$$

10.906 INVALID-ORDER-906
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L R_4 R_4$$

10.907 INVALID-ORDER-907
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L R_4 g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 L_4 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2 L_4 L_L s + L_4 R_4 + 2 L_L R_4\right)}$$

10.908 INVALID-ORDER-908
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_4 g_m s \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_4$$

$$\textbf{10.909} \quad \textbf{INVALID-ORDER-909} \ Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_4 L_L R_4 R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 L_4 L_L R_4 R_L s^2 + C_L L_4 L_L R_4 R_L s^2 + L_4 L_L R_4 s + 2 L_4 L_L R_4 R_L + 2 L_L R_4 R_L\right)}$$

10.910 INVALID-ORDER-910
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.911 INVALID-ORDER-911
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_4 R_4 R_L g_m s \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_4 R_L s^4 + 2 C_4 L_4 R_4 R_L s^2 + C_L L_4 L_L R_4 s^3 + 2 C_L L_4 L_L R_4 s^3 + C_L L_4 R_4 R_L s^2 + 2 C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_4 R_L s^2 + C_4 L_4 R_4 R_L s^2 +$$

10.912 INVALID-ORDER-912
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + L_4 s + R_4 + 2 R_L \right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right)}$$

10.913 INVALID-ORDER-913
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 \right)}$$

10.914 INVALID-ORDER-914
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + C_L L_4 R_L s^2 + C_L R_4 R_L s + L_4 s + R_4 + 2 R_L\right)}$$

10.915 INVALID-ORDER-915
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L R_L s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + C_L R_4 s + 2 C_L R_L s + 2 \right)}$$

10.916 INVALID-ORDER-916
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L L_L s^2 + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_L s^2 + C_L R_4 s + 2 \right)}$$

10.917 INVALID-ORDER-917
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + C_L L_4 L_L s^3 + C_L L_L R_4 s^2 + L_4 s + 2 L_L s + R_4\right)}$$

10.918 INVALID-ORDER-918
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{g_m \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_4 L_4 R_4 s^2 + L_4 s + R_4 \right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1 \right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 L_4 s^2 + C_L L_4 s^2 + 2 C_L L_4 s^2 + C_L R_4 s + 2 C_L$$

$$\begin{aligned} \mathbf{10.919} \quad \mathbf{INVALID\text{-}ORDER\text{-}919} \ Z(s) &= \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \infty, \ \infty, \ \frac{L_4s}{C_4L_4s^2+1} + R_4, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}} \right) \\ H(s) &= \frac{L_LR_Lg_ms \left(C_1L_1R_1s^2 + L_1s + R_1 \right) \left(C_4L_4R_4s^2 + L_4s + R_4 \right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + L_1g_ms + R_1g_m + 1 \right) \left(C_4C_LL_4L_LR_4s^4 + C_4L_4L_LR_4s^3 + 2C_4L_4L_LR_4s^3 + C_4L_4R_4R_2s^2 + C_LL_4L_LR_4s^3 + C_LL_LR_4R_Ls^2 + L_4L_Ls^2 + L_4R_Ls^2 + L_4L_Ls^2 + L_4R_Ls^2 + L_4L_Ls^2 + L_4R_Ls^2 + L_4R_$$

10.921 INVALID-ORDER-921
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.922 INVALID-ORDER-922
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + R_4 + 2R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$$

10.923 INVALID-ORDER-923
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2C_4 L_4 s^2 + 2C_4 R_4 s + C_L R_4 s + 2\right)}$$

10.924 INVALID-ORDER-924
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2C_4 L_4 R_L s^2 + 2C_4 R_4 R_L s + C_L R_4 R_L s + R_4 + 2R_L\right)}$$

10.925 INVALID-ORDER-925
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.926 INVALID-ORDER-926
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_L L_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4 L_4 s^$$

10.927 INVALID-ORDER-927
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_4 g_m s \left(C_4 L_4 s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2 L_L s + R_4\right)}$$

10.928 INVALID-ORDER-928
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_4 g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 R_4 s + 2 C_L L_L s^2 + C_4 R_4 s^2 + 2 C_4 R_$$

$$\begin{aligned} \mathbf{10.929} \quad \mathbf{INVALID\text{-}ORDER\text{-}929} \ Z(s) &= \left(\frac{L_{1s}}{C_{1}L_{1}s^{2}+1} + R_{1}, \ \infty, \ \infty, \ \frac{R_{4}\left(L_{4}s + \frac{1}{C_{4}s}\right)}{L_{4}s + R_{4} + \frac{1}{C_{4}s}}, \ \infty, \ \frac{1}{C_{L}s + \frac{1}{R_{L}} + \frac{1}{L_{L}s}} \right) \\ H(s) &= \frac{L_{L}R_{4}R_{L}g_{m}s\left(C_{4}L_{4}s^{2} + 1\right)\left(C_{1}L_{1}R_{1}s^{2} + L_{1}s + R_{1}\right)}{\left(C_{1}L_{1}R_{1}g_{m}s^{2} + C_{1}L_{1}s^{2} + L_{1}g_{m}s + R_{1}g_{m} + 1\right)\left(C_{4}C_{L}L_{4}L_{L}R_{4}R_{L}s^{4} + C_{4}L_{4}L_{L}R_{4}s^{3} + 2C_{4}L_{4}L_{L}R_{4}s^{3} + C_{4}L_{4}R_{4}R_{L}s^{2} + 2C_{4}L_{L}R_{4}R_{L}s^{2} + C_{L}L_{L}R_{4}R_{L}s^{2} + L_{L}R_{4}s + 2L_{L}R_{4}s + 2L_{L}R_{4}s^{2} + 2L_{L}R_{4}$$

10.931 INVALID-ORDER-931
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \frac{R_4 \left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$R_4 R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)$$

$$H(s) = \frac{R_4 R_L g_m \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 L_L R_4 s^4 + C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 C_L L_L R_4 R_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_4 R_L s^2 + 2 C_4 R_4 R_L s + C_4 C_L L_4 R_4 R_L s^3 + C_4 L_4 R_4 R_L s^4 + C_4 L_4 R_4 R_L s^4$$

10.932 INVALID-ORDER-932
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1R_4g_m\left(C_1L_1s^2 + 1\right)}{\left(C_LR_4s + 2\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.933 INVALID-ORDER-933
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{R_1R_4R_Lg_m\left(C_1L_1s^2 + 1\right)}{\left(C_LR_4R_Ls + R_4 + 2R_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.934 INVALID-ORDER-934
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, R_4, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1R_4g_m\left(C_1L_1s^2 + 1\right)\left(C_LR_Ls + 1\right)}{\left(C_LR_4s + 2C_LR_Ls + 2\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.935 INVALID-ORDER-935
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1R_4g_m\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)}{\left(2C_LL_Ls^2 + C_LR_4s + 2\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.936 INVALID-ORDER-936
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_LR_1R_4g_ms\left(C_1L_1s^2 + 1\right)}{\left(C_LL_LR_4s^2 + 2L_Ls + R_4\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.937 INVALID-ORDER-937
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1R_4g_m\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{\left(2C_LL_Ls^2 + C_LR_4s + 2C_LR_Ls + 2\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.938 INVALID-ORDER-938
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_LR_1R_4R_Lg_ms\left(C_1L_1s^2 + 1\right)}{\left(C_LL_LR_4R_Ls^2 + L_LR_4s + 2L_LR_Ls + R_4R_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.939 INVALID-ORDER-939
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1R_4g_m\left(C_1L_1s^2 + 1\right)\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(C_LL_LR_4s^2 + 2C_LL_LR_Ls^2 + 2L_Ls + R_4 + 2R_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.940 INVALID-ORDER-940
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_1R_4R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)}{\left(C_LL_LR_4s^2 + 2C_LL_LR_Ls^2 + C_LR_4R_Ls + R_4 + 2R_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.941 INVALID-ORDER-941
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s}, \infty, R_L\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_1L_1s^2 + 1\right)}{\left(2C_4R_Ls + 1\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.942 INVALID-ORDER-942
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s}, \infty, \frac{1}{C_4s}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)}{s\left(2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.943 INVALID-ORDER-943
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s}, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_1L_1s^2 + 1\right)}{\left(2C_4R_Ls + C_LR_Ls + 1\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.944 INVALID-ORDER-944
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s}, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_LR_Ls + 1\right)}{s\left(2C_4C_LR_Ls + 2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.945 INVALID-ORDER-945
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s}, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)}{s\left(2C_4C_LL_Ls^2 + 2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.946 INVALID-ORDER-946
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_LR_1g_ms\left(C_1L_1s^2 + 1\right)}{\left(2C_4L_Ls^2 + C_LL_Ls^2 + 1\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.947 INVALID-ORDER-947
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{s\left(2C_4C_LL_Ls^2 + 2C_4C_LR_Ls + 2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.948 INVALID-ORDER-948
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s}, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_LR_1R_Lg_ms\left(C_1L_1s^2 + 1\right)}{\left(2C_4L_LR_Ls^2 + C_LL_LR_Ls^2 + L_Ls + R_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.949 INVALID-ORDER-949
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(2C_4C_LL_LR_Ls^3 + 2C_4L_Ls^2 + 2C_4R_Ls + C_LL_Ls^2 + 1\right)}$$

10.950 INVALID-ORDER-950
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s}, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(2C_4C_LL_RL_s^3 + 2C_4R_Ls + C_LL_Ls^2 + C_LR_Ls + 1\right)}$$

10.951 INVALID-ORDER-951
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{R_4}{C_4R_4s + 1}, \infty, R_L\right)$$

$$H(s) = \frac{R_1R_4R_Lg_m\left(C_1L_1s^2 + 1\right)}{\left(2C_4R_4R_Ls + R_4 + 2R_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.952 INVALID-ORDER-952
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \frac{R_4}{C_4R_4s + 1}, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1R_4g_m\left(C_1L_1s^2 + 1\right)}{\left(2C_4R_4s + C_LR_4s + 2\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.953 INVALID-ORDER-953
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \frac{R_4}{C_4R_4s + 1}, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{R_1R_4R_Lg_m\left(C_1L_1s^2 + 1\right)}{\left(2C_4R_4R_Ls + C_LR_4R_Ls + R_4 + 2R_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.954 INVALID-ORDER-954
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{R_4}{C_4R_4s + 1}, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1R_4g_m\left(C_1L_1s^2 + 1\right)\left(C_LR_Ls + 1\right)}{\left(C_1L_1R_1q_ms^2 + C_1L_1s^2 + C_1R_1s + R_1q_m + 1\right)\left(2C_4C_LR_4R_Ls^2 + 2C_4R_4s + C_LR_4s + 2C_LR_Ls + 2\right)}$$

10.955 INVALID-ORDER-955
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{R_4}{C_4R_4s + 1}, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1R_4g_m\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(2C_4C_LL_R4s^3 + 2C_4R_4s + 2C_LL_Ls^2 + C_LR_4s + 2\right)}$$

10.956 INVALID-ORDER-956
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{R_4}{C_4R_4s + 1}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_LR_1R_4g_ms\left(C_1L_1s^2 + 1\right)}{\left(2C_4L_LR_4s^2 + C_LL_LR_4s^2 + 2L_Ls + R_4\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.957 INVALID-ORDER-957
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{R_4}{C_4R_4s + 1}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1R_4g_m\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(2C_4C_LL_LR_4s^3 + 2C_4C_LR_4R_Ls^2 + 2C_4R_4s + 2C_LL_Ls^2 + C_LR_4s + 2C_LL_Ls + 2\right)}$$

10.958 INVALID-ORDER-958
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{R_4}{C_4R_4s + 1}, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_LR_1R_4R_Lg_ms\left(C_1L_1s^2 + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(2C_4L_LR_4R_Ls^2 + C_LL_LR_4R_Ls^2 + L_LR_4s + 2L_LR_Ls + R_4R_L\right)}$$

$$\textbf{10.959} \quad \textbf{INVALID-ORDER-959} \ Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \ \infty, \ \infty, \ \frac{R_4}{C_4R_4s + 1}, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1R_4g_m\left(C_1L_1s^2 + 1\right)\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(2C_4C_LL_LR_4R_Ls^3 + 2C_4L_LR_4s^2 + 2C_4R_4R_Ls + C_LL_LR_4s^2 + 2C_LL_LR_4s^2 + 2L_Ls + R_4 + 2R_L\right)}$$

$$\textbf{10.960} \quad \textbf{INVALID-ORDER-960} \ \ Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \ \ \infty, \ \ \infty, \ \ \frac{R_4}{C_4R_4s + 1}, \ \ \infty, \ \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_1R_4R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(2C_4C_LL_1R_4R_Ls^3 + 2C_4R_4R_Ls + C_LL_1R_4s^2 + 2C_LL_1R_Ls^2 + C_LR_4R_Ls + R_4 + 2R_L\right) }$$

10.961 INVALID-ORDER-961
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, R_L\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_4R_4s + 1\right)}{\left(C_4R_4s + 2C_4R_Ls + 1\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.962 INVALID-ORDER-962
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_4R_4s + 1\right)}{s\left(C_4C_LR_4s + 2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.963 INVALID-ORDER-963
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_4R_4s + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LR_4R_Ls^2 + C_4R_4s + 2C_4R_Ls + C_LR_Ls + 1\right)}$$

10.964 INVALID-ORDER-964
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_4R_4s + 1\right)\left(C_LR_Ls + 1\right)}{s\left(C_4C_LR_4s + 2C_4C_LR_Ls + 2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.965 INVALID-ORDER-965
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_4R_4s + 1\right)\left(C_LL_Ls^2 + 1\right)}{s\left(2C_4C_LL_Ls^2 + C_4C_LR_4s + 2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.966 INVALID-ORDER-966
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_LR_1g_ms\left(C_1L_1s^2 + 1\right)\left(C_4R_4s + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_LR_4s^3 + 2C_4L_Ls^2 + C_4R_4s + C_LL_Ls^2 + 1\right)}$$

10.967 INVALID-ORDER-967
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_4R_4s + 1\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{s\left(2C_4C_LL_Ls^2 + C_4C_LR_4s + 2C_4C_LR_Ls + 2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.968 INVALID-ORDER-968
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_LR_1R_Lg_ms\left(C_1L_1s^2 + 1\right)\left(C_4R_4s + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_LR_4R_Ls^3 + C_4L_LR_4s^2 + 2C_4L_LR_Ls^2 + C_4R_4R_Ls + C_LL_LR_Ls^2 + L_Ls + R_L\right)}$$

10.969 INVALID-ORDER-969
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_4R_4s + 1\right)\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_LR_4s^3 + 2C_4C_LL_LR_Ls^3 + 2C_4L_Ls^2 + C_4R_4s + 2C_4R_Ls + C_LL_Ls^2 + 1\right)}$$

10.970 INVALID-ORDER-970
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, R_4 + \frac{1}{C_4s}, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_4R_4s + 1\right)\left(C_LL_Ls^2 + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_R_4s^3 + 2C_4C_LL_R_4s^3 + C_4C_LR_4R_Ls^2 + C_4R_4s + 2C_4R_4s + C_LL_Ls^2 + C_LR_4s + 1\right)}$$

10.971 INVALID-ORDER-971
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, R_L\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + 1\right)}{\left(C_4L_4s^2 + 2C_4R_Ls + 1\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.972 INVALID-ORDER-972
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + 1\right)}{s\left(C_4C_LL_4s^2 + 2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.973 INVALID-ORDER-973
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4R_Ls^3 + C_4L_4s^2 + 2C_4R_Ls + C_LR_Ls + 1\right)}$$

10.974 INVALID-ORDER-974
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + 1\right)\left(C_LR_Ls + 1\right)}{s\left(C_4C_LL_4s^2 + 2C_4C_LR_Ls + 2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.975 INVALID-ORDER-975
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)}{s\left(C_4C_LL_4s^2 + 2C_4C_LL_Ls^2 + 2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.976 INVALID-ORDER-976
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_LR_1g_ms\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4L_Ls^4 + C_4L_4s^2 + 2C_4L_Ls^2 + C_LL_Ls^2 + 1\right)}$$

10.977 INVALID-ORDER-977
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + 1\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{s\left(C_4C_LL_4s^2 + 2C_4C_LL_Ls^2 + 2C_4C_LR_Ls + 2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.978 INVALID-ORDER-978
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_LR_1R_Lg_ms\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4L_LR_Ls^4 + C_4L_4L_Ls^3 + C_4L_4R_Ls^2 + 2C_4L_LR_Ls^2 + C_LL_LR_Ls^2 + L_Ls + R_L\right)}$$

10.979 INVALID-ORDER-979
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + 1\right)\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4L_Ls^4 + 2C_4C_LL_LR_Ls^3 + C_4L_4s^2 + 2C_4L_Ls^2 + 2C_4R_Ls + C_LL_Ls^2 + 1\right)}$$

10.980 INVALID-ORDER-980
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, L_4s + \frac{1}{C_4s}, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)}{\left(C_1L_1R_1q_ms^2 + C_1L_1s^2 + C_1R_1s + R_1q_m + 1\right)\left(C_4C_LL_4L_1s^4 + C_4C_LL_4R_1s^3 + 2C_4C_LL_4R_1s^3 + C_4L_4s^2 + 2C_4R_1s + C_LL_1s^2 + C_LR_1s + 1\right)}$$

10.981 INVALID-ORDER-981
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1}, \infty, R_L\right)$$

$$H(s) = \frac{L_4R_1R_Lg_ms\left(C_1L_1s^2 + 1\right)}{\left(2C_4L_4R_Ls^2 + L_4s + 2R_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.982 INVALID-ORDER-982
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1}, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_4R_1g_ms\left(C_1L_1s^2 + 1\right)}{\left(2C_4L_4s^2 + C_LL_4s^2 + 2\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.983 INVALID-ORDER-983
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1}, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{L_4R_1R_Lg_ms\left(C_1L_1s^2 + 1\right)}{\left(2C_4L_4R_Ls^2 + C_LL_4R_Ls^2 + L_4s + 2R_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.984 INVALID-ORDER-984
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1}, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_4R_1g_ms\left(C_1L_1s^2 + 1\right)\left(C_LR_Ls + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(2C_4C_LL_4R_Ls^3 + 2C_4L_4s^2 + C_LL_4s^2 + 2C_LR_Ls + 2\right)}$$

10.985 INVALID-ORDER-985
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1}, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_4R_1g_ms\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)}{\left(C_1L_1R_1q_ms^2 + C_1L_1s^2 + C_1R_1s + R_1q_m + 1\right)\left(2C_4C_LL_4L_Ls^4 + 2C_4L_4s^2 + C_LL_4s^2 + 2C_LL_Ls^2 + 2\right)}$$

10.986 INVALID-ORDER-986
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1}, \infty, \frac{L_Ls}{C_LL_s^2 + 1}\right)$$

$$H(s) = \frac{L_4L_LR_1g_ms\left(C_1L_1s^2 + 1\right)}{\left(2C_4L_4L_Ls^2 + C_LL_4L_Ls^2 + L_4 + 2L_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.987 INVALID-ORDER-987
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_4R_1g_ms\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(2C_4C_LL_4L_Ls^4 + 2C_4C_LL_4R_Ls^3 + 2C_4L_4s^2 + C_LL_4s^2 + 2C_LL_Ls^2 + 2C_LR_Ls + 2\right)}$$

$$\textbf{10.988} \quad \textbf{INVALID-ORDER-988} \ Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \ \infty, \ \infty, \ \frac{L_4s}{C_4L_4s^2 + 1}, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_4L_LR_1R_Lg_ms\left(C_1L_1s^2 + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(2C_4L_4L_LR_Ls^2 + C_LL_4L_LR_Ls^2 + L_4L_Ls + L_4R_L + 2L_LR_L\right) }$$

$$\textbf{10.989} \quad \textbf{INVALID-ORDER-989} \ Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \ \infty, \ \infty, \ \frac{L_4s}{C_4L_4s^2 + 1}, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_4R_1g_ms\left(C_1L_1s^2 + 1\right)\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(2C_4C_LL_4L_LR_Ls^4 + 2C_4L_4L_Ls^3 + 2C_4L_4L_Ls^3 + 2C_LL_4L_Ls^3 + 2C_LL_LR_Ls^2 + L_4s + 2L_Ls + 2R_L\right) }$$

$$\textbf{10.990} \quad \textbf{INVALID-ORDER-990} \ Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \ \infty, \ \infty, \ \frac{L_4s}{C_4L_4s^2 + 1}, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{L_4R_1R_Lg_ms\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(2C_4C_LL_4L_LR_Ls^4 + 2C_4L_4R_Ls^2 + C_LL_4R_Ls^3 + C_LL_4R_Ls^2 + 2C_LL_LR_Ls^2 + L_4s + 2R_L\right) }$$

10.991 INVALID-ORDER-991
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, R_L\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)}{\left(C_4L_4s^2 + C_4R_4s + 2C_4R_Ls + 1\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.992 INVALID-ORDER-992
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)}{s\left(C_4C_LL_4s^2 + C_4C_LR_4s + 2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.993 INVALID-ORDER-993
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4R_Ls^3 + C_4C_LR_4R_Ls^2 + C_4L_4s^2 + C_4R_4s + 2C_4R_Ls + C_LR_Ls + 1\right)}$$

10.994 INVALID-ORDER-994
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_LR_Ls + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)}{s\left(C_4C_LL_4s^2 + C_4C_LR_4s + 2C_4C_LR_Ls + 2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.995 INVALID-ORDER-995
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)}{s\left(C_4C_LL_4s^2 + 2C_4C_LL_Ls^2 + C_4C_LR_4s + 2C_4 + C_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.996 INVALID-ORDER-996
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_LR_1g_ms\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4L_Ls^4 + C_4C_LL_LR_4s^3 + C_4L_4s^2 + 2C_4L_Ls^2 + C_4R_4s + C_LL_Ls^2 + 1\right)}$$

10.997 INVALID-ORDER-997
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{s\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4s^2 + 2C_4C_LL_Ls^2 + C_4C_LR_4s + 2C_4C_LR_Ls + 2C_4C_LR_Ls$$

$$\textbf{10.998} \quad \textbf{INVALID-ORDER-998} \ Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \ \infty, \ \infty, \ L_4s + R_4 + \frac{1}{C_4s}, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_LR_1R_Lg_ms\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + C_4R_4s + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4L_LR_Ls^4 + C_4C_LL_LR_4R_Ls^3 + C_4L_4L_Ls^3 + C_4L_4R_Ls^2 + C_4L_LR_4s^2 + C_4R_4R_Ls^2 + C_4R_4R_Ls^2$$

10.1000 INVALID-ORDER-1000
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right) \left(C_4 L_4 s^2 + C_4 R_4 s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_L s^3 + C_4 C_L L_L R_4 s^3 + 2C_4 C_L L_L R_4 s^3 + C_4 C_L R_4 R_L s^2 + C_4 R_4 s + 2C_4 R$$

10.1001 INVALID-ORDER-1001
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, R_L\right)$$

$$H(s) = \frac{L_4 R_1 R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(2C_4 L_4 R_4 R_L s^2 + L_4 R_4 s + 2L_4 R_L s + 2R_4 R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.1002 INVALID-ORDER-1002
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 L_4 s + 2 R_4\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$$

10.1003 INVALID-ORDER-1003
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 L_4 R_4 R_L s^2 + C_L L_4 R_4 R_L s^2 + L_4 R_4 s + 2 L_4 R_L s + 2 R_4 R_L\right)}$$

10.1004 INVALID-ORDER-1004
$$Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + C_L L_4 R_4 s^2 + 2 C_L L_4 R_L s^2 + 2 C_L R_4 R_L s + 2 L_4 s + 2 R_4\right)}$$

10.1005 INVALID-ORDER-1005
$$Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_4 S^3 + C_L L_4 R_4 s^2 + 2 C_$$

10.1006 INVALID-ORDER-1006
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_4 L_L R_1 R_4 g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 L_4 L_L R_4 s^2 + C_L L_4 L_L R_4 s^2 + 2 L_4 L_L s + L_4 R_4 + 2 L_L R_4\right)}$$

10.1007 INVALID-ORDER-1007
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_4 R_1 R_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 C_L L_4 R_4 R_L s^3 + 2 C_4 L_4 R_4 s^2 + 2 C_L L_4 L_L s^3 + C_L L_4 R_4 s^2 + 2 C_$$

10.1008 INVALID-ORDER-1008
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_4 L_L R_1 R_4 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 L_4 L_L R_4 R_L s^2 + C_L L_4 L_L R_4 R_L s^2 + L_4 L_L R_4 s + 2 L_4 L_L R_4 R_L + 2 L_L R_4 R_L\right)}$$

$$\begin{aligned} \mathbf{10.1009} \quad \mathbf{INVALID\text{-}ORDER\text{-}1009} \ \ Z(s) &= \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \ \infty, \ \infty, \ \frac{1}{C_4s + \frac{1}{R_4} + \frac{1}{L_4s}}, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right) \\ H(s) &= \frac{L_4R_1R_4g_ms\left(C_1L_1s^2 + 1\right)\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(2C_4C_LL_4L_LR_4R_Ls^4 + 2C_4L_4L_LR_4s^3 + 2C_4L_4R_4R_Ls^2 + C_LL_4L_LR_4s^3 + 2C_LL_4L_LR_4s^3 + 2C_LL_4L_4R_4s^3 + 2C_LL_4L_4R_4s^3 + 2C_LL_4R_4R_4s^3 + 2C_LL_4L_4R_4s^3 + 2C_LL_4R_4R_4s^3 + 2C_LL_4R_4s^3 + 2C_LL_4R_4R_4s^3 + 2C_LL_4R_4R_4s^3 + 2C_LL_4R_4R_4s^3 + 2C_LL_4R_4R_4s^3 + 2C_LL_4R_4R_4s^3 + 2C_LL_4R_4R_4s^3 + 2C$$

10.1011 INVALID-ORDER-1011
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1} + R_4, \infty, R_L\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_4L_4R_4s^2 + 2C_4L_4R_Ls^2 + L_4s + R_4 + 2R_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

$$\textbf{10.1012} \quad \textbf{INVALID-ORDER-1012} \ \ Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \ \infty, \ \infty, \ \frac{L_4s}{C_4L_4s^2 + 1} + R_4, \ \infty, \ \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4R_4s^3 + 2C_4L_4s^2 + C_LL_4s^2 + C_LR_4s + 2\right) }$$

10.1013 INVALID-ORDER-1013
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1} + R_4, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{R_1R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4R_4R_Ls^3 + C_4L_4R_4s^2 + 2C_4L_4R_Ls^2 + C_LL_4R_Ls^2 + C_LR_4R_Ls + L_4s + R_4 + 2R_L\right)}$$

$$\textbf{10.1014} \quad \textbf{INVALID-ORDER-1014} \ \ Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}\right), \ \ \infty, \ \ \infty, \ \ \frac{L_4s}{C_4L_4s^2 + 1} + R_4, \ \ \infty, \ \ R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_LR_Ls + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4R_4s^3 + 2C_4C_LL_4R_Ls^3 + 2C_4L_4s^2 + C_LL_4s^2 + C_LR_4s + 2C_LR_Ls + 2\right) }$$

10.1015 INVALID-ORDER-1015
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1} + R_4, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_LL_Ls^2 + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)}{\left(C_1L_1R_1q_ms^2 + C_1L_1s^2 + C_1R_1s + R_1q_m + 1\right)\left(2C_4C_LL_4L_Ls^4 + C_4C_LL_4R_4s^3 + 2C_4L_4s^2 + C_LL_4s^2 + 2C_LL_Ls^2 + C_LR_4s + 2\right)}$$

10.1018 INVALID-ORDER-1018
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1} + R_4, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$L_LR_1R_Lg_ms\left(C_1L_1s^2 + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)$$

$$\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4L_LR_4R_Ls^4 + C_4L_4L_LR_4s^3 + 2C_4L_4L_LR_4s^3 + C_4L_4R_4R_4s^2 + C_LL_4L_LR_4s^3 + C_LL_4R_4R_4s^2 + L_4L_4R_4R_4s^2 + C_4L_4L_4R_4R_4s^2 + C_4L_4R_4R_4s^2 + C_4L_4R_4R_4R_4s^2 + C_4L_4R_4R_4s^2 + C_4L_4R_4R_4s$$

10.1019 INVALID-ORDER-1019
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1} + R_4, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

$$R_1g_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4R_4s^2 + L_4s + R_4\right)\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)$$

$$(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1)\left(C_4C_LL_4L_LR_4s^4 + 2C_4C_LL_4L_LR_4s^4 + 2C_4L_4L_Ls^3 + C_4L_4R_4s^2 + 2C_4L_4R_Ls^3 + C_LL_4L_Ls^3 + C_LL_4L_Ls^3 + C_LL_4L_Ls^3 + C_LL_4L_Ls^3 + C_LL_4L_Ls^3 + C_LL_4L_4L_4s^3 + C_LL_4L_4L_4s^3 + C_LL_4L_4L_4s^3 + C_4L_4R_4s^2 + C_4L_4R$$

10.1020 INVALID-ORDER-1020
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2 + 1} + R_4, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

10.1021 INVALID-ORDER-1021
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, R_L\right)$$

$$H(s) = \frac{R_1R_4R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + 1\right)}{\left(C_4L_4R_4s^2 + 2C_4L_4R_Ls^2 + 2C_4R_4R_Ls + R_4 + 2R_L\right)\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)}$$

10.1022 INVALID-ORDER-1022
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1R_4g_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4R_4s^3 + 2C_4L_4s^2 + 2C_4R_4s + C_LR_4s + 2\right)}$$

10.1023 INVALID-ORDER-1023
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{R_1R_4R_Lg_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + 1\right)}{\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4R_4R_Ls^3 + C_4L_4R_4s^2 + 2C_4L_4R_Ls^2 + 2C_4R_4R_Ls + C_LR_4R_Ls + R_4 + 2R_L\right)}$$

10.1024 INVALID-ORDER-1024
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_L s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2 + 2 C_4 R_4 s + C_L R_4 s + 2 C_L R_L s + 2\right)}$$

10.1025 INVALID-ORDER-1025
$$Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \frac{R_4\left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 L_4 L_4 s^3 + 2 C_4 L_4 s^2 + 2 C_4$$

10.1026 INVALID-ORDER-1026
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 R_4 g_m s \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(C_4 C_L L_4 L_L R_4 s^4 + 2 C_4 L_4 L_L s^3 + C_4 L_4 R_4 s^2 + 2 C_4 L_L R_4 s^2 + C_L L_L R_4 s^2 + 2 L_L s + R_4\right)}$$

10.1027 INVALID-ORDER-1027
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1 R_4 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_4 L_4 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{\left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right) \left(2 C_4 C_L L_4 L_L s^4 + C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L L_4 R_4 s^3 + 2 C_4 C_L R_4 R_L s^2 + 2 C_4 L_4 s^2$$

10.1028 INVALID-ORDER-1028
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

10.1029 INVALID-ORDER-1029
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

$$R_1R_4g_m\left(C_1L_1s^2 + 1\right)\left(C_4L_4s^2 + 1\right)\left(C_LL_LR_Ls^2 + L_Ls + R_L\right)$$

$$\left(C_1L_1R_1g_ms^2 + C_1L_1s^2 + C_1R_1s + R_1g_m + 1\right)\left(C_4C_LL_4L_LR_4s^4 + 2C_4C_LL_4L_LR_4s^4 + 2C_4C_LL_4L_Rs^3 + 2C_4L_4L_Ls^3 + C_4L_4R_4s^2 + 2C_4L_4R_4s^2 + 2C_4L_4R_4s^2 + 2C_4L_4R_4s^3 + 2C$$

10.1030 INVALID-ORDER-1030
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$