Filter Summary Report: TIA simple Z1 Z2 ZL

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10.58INVALID-ORDER-58 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$	82
10.59INVALID-ORDER-59 $Z(s) = ($	$\left(L_1s+R_1+\frac{1}{C_1s},\ \infty,\ \infty,\ \infty,\ \infty,\ R_L+\frac{1}{C_Ls}\right)$	82
10.60INVALID-ORDER-60 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$	82
10.61INVALID-ORDER-61 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$	83
10.62INVALID-ORDER-62 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$	83
10.63INVALID-ORDER-63 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right) \ \dots $	83

10.64 INVALID-ORDER-64 $Z(s) = ($	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$	83
10.65INVALID-ORDER-65 $Z(s) = 1$	$\left(L_1s + R_1 + \frac{1}{C_1s}, \infty, \infty, \infty, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right) \dots $	83
10.66INVALID-ORDER-66 $Z(s) = ($	$\left(\frac{1}{C_1s+\frac{1}{R_1}+\frac{1}{L_1s}}, \infty, \infty, \infty, \infty, \infty, R_L\right)$	84
10.67INVALID-ORDER-67 $Z(s) = ($	$\left(\frac{1}{C_1s+\frac{1}{R_1}+\frac{1}{L_1s}}, \infty, \infty, \infty, \infty, \infty, L_Ls+\frac{1}{C_Ls}\right) \dots $	84
10.68INVALID-ORDER-68 $Z(s) = ($	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right) \dots $	84
10.69INVALID-ORDER-69 $Z(s) = ($	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right) \dots \dots$	84
10.70INVALID-ORDER-70 $Z(s) = ($	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	84
10.71INVALID-ORDER-71 $Z(s) = \langle$	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	85
10.72INVALID-ORDER-72 $Z(s) = ($	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \dots $	85
10.73INVALID-ORDER-73 $Z(s)=\left(\right.$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \infty, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$	85
10.74 INVALID-ORDER-74 $Z(s)=\left(\right.$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \infty, \infty, \infty, \infty, L_Ls+\frac{1}{C_Ls}\right)$	85
10.75INVALID-ORDER-75 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$	85
10.76INVALID-ORDER-76 $Z(s) = ($	$\left\langle \frac{L_{1}s}{C_{1}L_{1}s^{2}+1}+R_{1}, \infty, \infty, \infty, \infty, \infty, L_{L}s+R_{L}+\frac{1}{C_{L}s} \right\rangle$	86
10.77INVALID-ORDER-77 $Z(s) = 1$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$	86
10.78 INVALID-ORDER-78 $Z(s)=\left(\right.$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}+R_L\right)$	86
10.79INVALID-ORDER-79 $Z(s) = ($	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls+\frac{1}{C_Ls}\right)}{L_Ls+R_L+\frac{1}{C_Ls}}\right)$	86
10.80INVALID-ORDER-80 $Z(s) = 1$	$\left(rac{R_1\left(L_1s+rac{1}{C_1s} ight)}{L_1s+R_1+rac{1}{C_1s}},\;\infty,\;\infty,\;\infty,\;\infty,\;rac{1}{C_Ls} ight)$	86
	$\left(rac{R_1\left(L_1s+rac{1}{C_1s} ight)}{L_1s+R_1+rac{1}{C_1s}},\;\infty,\;\infty,\;\infty,\;\infty,\;rac{R_L}{C_LR_Ls+1} ight)$	87
10.82INVALID-ORDER-82 $Z(s) = 1$	$\left(\frac{R_1\left(L_1s+\frac{1}{C_1s}\right)}{L_1s+R_1+\frac{1}{C_1s}}, \infty, \infty, \infty, \infty, R_L+\frac{1}{C_Ls}\right)$	87

10.83INVALID-ORDER-83 $Z(s) =$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $	87
10.84INVALID-ORDER-84 $Z(s) =$	$\left(P \left(I_{n+1} \right) \right)$	87
10.85INVALID-ORDER-85 $Z(s) =$	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right) \dots $	87
10.86INVALID-ORDER-86 $Z(s) =$	$\begin{pmatrix} -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 $	88
	$\left(\begin{array}{cccc} L_1 s + \kappa_1 + \overline{C_1 s} & & & & \\ C_L L_L s & + 1 & & & \end{array}\right)$	88
10.88INVALID-ORDER-88 $Z(s) =$	$\left(\frac{R_1\left(L_1s+\frac{1}{C_1s}\right)}{L_1s+R_1+\frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \infty, \frac{R_L\left(L_Ls+\frac{1}{C_Ls}\right)}{L_Ls+R_L+\frac{1}{C_Ls}}\right) \dots $	88
10.89INVALID-ORDER-89 $Z(s) =$	$\left(\infty, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$	88
10.90INVALID-ORDER-90 $Z(s) =$	$(\infty, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s})$	88
10.91INVALID-ORDER-91 $Z(s) =$	$(\infty, R_2, \infty, \infty, \infty, \frac{L_{LS}}{C_L L_L s^2 + 1})$	89
10.92INVALID-ORDER-92 $Z(s) =$	$(\infty, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s})$	89
10.93INVALID-ORDER-93 $Z(s) =$	$\left(\infty, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	89
10.94INVALID-ORDER-94 $Z(s) =$	$\left(\infty, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	89
10.95INVALID-ORDER-95 $Z(s) =$	$\left(\infty, R_2, \infty, \infty, \infty, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \dots \dots$	89
10.96INVALID-ORDER-96 $Z(s) =$	$\left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, R_L\right)$	90
10.97INVALID-ORDER-97 $Z(s) =$	$(\infty, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls})$	90
10.98INVALID-ORDER-98 $Z(s) =$	$\left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$	90
10.99INVALID-ORDER-99 $Z(s) =$	$(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s})$	90
		90
10.10 I NVALID-ORDER-101 $Z(s) =$	· · · · · · · · · · · · · · · · · · ·	90
	$= \left(\infty, \ \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s} \right) \dots $	91

10.10 B NVALID-ORDER-103 $Z(s) =$	$\left(\infty,\right.$	$\frac{1}{C_2s}$, ∞ ,	∞ , ∞	$\overline{C_L s}$	$\frac{1}{\frac{1}{R_L} + \frac{1}{L_L s}}$)		 	 	 	 	 	91
10.10 4 NVALID-ORDER-104 $Z(s) =$	•					,		 	 	 	 	 	91
10.10 \mathbf{NVALID} -ORDER-105 $Z(s) =$	$\left(\infty,\right.$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞	$, \frac{R_L(}{L_L s}$	$\frac{\left(L_L s + \frac{1}{C_L s}\right)}{s + R_L + \frac{1}{C_L s}}$)		 	 	 	 	 	91
10.10 CNVALID-ORDER- $106~Z(s)=$	$(\infty,$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty,$	R_L)			 	 	 	 	 	91
10.10 T NVALID-ORDER-107 $Z(s) =$	$(\infty,$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty,$	$\frac{1}{C_L s}$)			 	 	 	 	 	92
10.10 NVALID-ORDER-108 $Z(s) =$	$(\infty,$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty,$	$\frac{R_L}{C_L R_L s + 1}$			 	 	 	 	 	92
10.10 9 NVALID-ORDER-109 $Z(s) =$	$(\infty,$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty,$	$R_L + \frac{1}{C_L s}$	$\left(\cdot \right) \cdot \cdot$		 	 	 	 	 	92
10.11 0 NVALID-ORDER-110 $Z(s) =$	$(\infty,$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty,$	$L_L s + \frac{1}{C_L}$	$\left(\frac{1}{s}\right)$.		 	 	 	 	 	92
10.11 I NVALID-ORDER-111 $Z(s) =$	$(\infty,$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$)		 	 	 	 	 	92
10.11 2 NVALID-ORDER-112 $Z(s) =$	$(\infty,$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty,$	$L_L s + R_L$	$L + \frac{1}{C_L s}$)	 	 	 	 	 	92
10.11 B NVALID-ORDER-113 $Z(s) =$	$\left(\infty,\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	∞	$\frac{1}{C_L s + \frac{1}{R_L} +}$	$\overline{\frac{1}{L_L s}}$		 	 	 	 	 	93
10.114NVALID-ORDER-114 $Z(s) =$	$(\infty,$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$	$+ \stackrel{\frown}{R_L}$		 	 	 	 	 	93
10.11 INVALID-ORDER-115 $Z(s) =$	$(\infty,$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	∞ , ∞ ,	$\frac{R_L \left(L_L s + \frac{1}{6}\right)}{L_L s + R_L + \frac{1}{6}}$	$\left(\frac{1}{C_L s}\right)$		 	 	 	 	 	93
10.116NVALID-ORDER-116 $Z(s) =$								 	 	 	 	 	93
10.11 T NVALID-ORDER-117 $Z(s) =$	$(\infty,$	$R_2 + \frac{1}{C_2 s},$	$, \infty, \infty$	∞ , ∞ ,	$, \frac{1}{C_L s}$.			 	 	 	 	 	93
10.118NVALID-ORDER-118 $Z(s) =$	$(\infty,$	$R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$	∞ , ∞ ,	$, \frac{R_L}{C_L R_L s + 1}$	\cdot		 	 	 	 	 	94
10.11 9 NVALID-ORDER-119 $Z(s) =$	$(\infty,$	$R_2 + \frac{1}{C_2 s},$	$, \infty, \infty$	∞ , ∞ ,	$R_L + \frac{1}{C_L}$	$\left(\frac{1}{s}\right)$		 	 	 	 	 	94
10.12 0 NVALID-ORDER-120 $Z(s) =$	$(\infty,$	$R_2 + \frac{1}{C_2 s},$	$, \infty, \infty$	∞ , ∞ ,	$L_L s + \frac{1}{C}$	$\left(\frac{1}{L^s}\right)$.		 	 	 	 	 	94
10.12 I NVALID-ORDER-121 $Z(s) =$	$(\infty,$	$R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$	∞ , ∞ ,	$, \frac{L_L s}{C_L L_L s^2 + 1}$	$_{\overline{1}})$.		 	 	 	 	 	94
10.12 2 NVALID-ORDER-122 $Z(s) =$	$(\infty,$	$R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$	∞ , ∞ ,	$L_L s + R$	$L + \frac{1}{C_L}$	$\frac{1}{s}$.	 	 	 	 	 	94
10.12 B NVALID-ORDER-123 $Z(s) =$	$(\infty,$	$R_2 + \frac{1}{C_2 s}$, ∞, ∘	ο, ∞	$, \frac{1}{C_L s + \frac{1}{R_L}}$	$\frac{1}{+\frac{1}{L_L s}}$		 	 	 	 	 	95
10.12#NVALID-ORDER-124 $Z(s) =$	$(\infty,$	$R_2 + \frac{1}{C_2 s}$	$, \infty, \infty$	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$	$\frac{1}{1} + R_L$)	 	 	 	 	 	95

10.12 Invalid-order-125 $Z(s) = 1$	$\left(\infty,\right.$	$R_2 + \frac{1}{C_2 s},$	$\infty, \ \infty, \ \infty,$	$\frac{R_L \left(L_L s + \frac{L_L s}{L_L s} + \frac{L_L s}{L_L s} + \frac{L_L s}{L_L s} + \frac{L_L s}{L_L s} \right)}{L_L s}$	$\frac{L^{s+\frac{1}{C_L^s}}}{R_L+\frac{1}{C_L^s}}$			 	 	 	 	95
10.12 6 NVALID-ORDER-126 $Z(s) = ($	$(\infty,$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ , ∞ ,	R_L				 	 	 	 	95
10.12 T NVALID-ORDER-127 $Z(s) = 0$	$(\infty,$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ , ∞ ,	$\frac{1}{C_L s}$				 	 	 	 	95
10.12\nstantantantantantantantantantantantantant	$(\infty,$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ , ∞ ,	$\frac{R_{I}}{C_{L}R_{L}}$	$\left(\frac{L}{s+1}\right)$			 	 	 	 	96
10.12 9 NVALID-ORDER-129 $Z(s) = ($	$(\infty,$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ , ∞ ,	R_L +	$-\frac{1}{C_L s}$)			 	 	 	 	96
10.13 0 NVALID-ORDER-130 $Z(s) = ($	$\left(\infty,\right.$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ , ∞ ,	$L_L s$	$+\frac{1}{C_L s}$) .			 	 	 	 	96
10.13INVALID-ORDER-131 $Z(s) = ($	$\left(\infty, \right.$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ , ∞ ,	$\frac{L_I}{C_L L_L}$	$\left(\frac{s}{s^2+1}\right) \cdot \cdot$			 	 	 	 	96
10.132NVALID-ORDER-132 $Z(s) = ($	$\left(\infty,\right)$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ , ∞ ,	$L_L s$ -	$+R_L + \frac{1}{C_L}$	$\left(\overline{s} \right)$.		 	 	 	 	96
10.13\(\textbf{B}\)NVALID-ORDER-133 $Z(s) = 1$	$\left(\infty, \right.$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ , ∞	$\overline{C_L s}$	$\left(\frac{1}{R_L} + \frac{1}{L_L s}\right)$			 	 	 	 	97
10.134NVALID-ORDER-134 $Z(s) = 0$	$(\infty,$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ , ∞ ,	$\frac{L_I}{C_L L_L}$	$\frac{cs}{s^2+1} + R_L$,		 	 	 	 	97
10.13 INVALID-ORDER-135 $Z(s) = 1$	$\left(\infty,\right.$	$L_2s + \frac{1}{C_2s},$	∞ , ∞ , ∞	$, \frac{R_L(I)}{L_L s}$	$\left(\frac{C_L s + \frac{1}{C_L s}}{R_L + \frac{1}{C_L s}}\right)$			 	 	 	 	97
10.136NVALID-ORDER-136 $Z(s) = ($	$(\infty,$	$L_2s + R_2 +$	$\frac{1}{C_2s}$, ∞ , ∞	∞ , ∞ ,	R_L)			 	 	 	 	97
10.13 T NVALID-ORDER-137 $Z(s) = ($	$(\infty,$	$L_2s + R_2 +$	$\frac{1}{C_2s}$, ∞ , ∞	∞ , ∞ ,	$\frac{1}{C_L s}$)			 	 	 	 	97
10.13\(\text{NVALID-ORDER-138} \) $Z(s) = ($	$\left(\infty,\right.$	$L_2s + R_2 +$	$\frac{1}{C_2s}$, ∞ , ∞	∞ , ∞ ,	$R_L + \frac{1}{C_L s}$) .		 	 	 	 	98
10.139NVALID-ORDER-139 $Z(s) = ($	$\left(\infty,\right.$	$L_2s + R_2 +$	$\frac{1}{C_2 s}$, ∞ , ∞	∞ , ∞ ,	$L_L s + \frac{1}{C_L}$	$\left(\frac{1}{s}\right)$.		 	 	 	 	98
10.14 0 NVALID-ORDER-140 $Z(s) = ($	$\left(\infty,\right.$	$L_2s + R_2 +$	$\frac{1}{C_2s}$, ∞ , ∞	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$)		 	 	 	 	98
10.14INVALID-ORDER-141 $Z(s) = ($	$\left(\infty, \right.$	$L_2s + R_2 +$	$\frac{1}{C_2s}$, ∞ , ∞	∞ , ∞ ,	$L_L s + R_L$	$+\frac{1}{C_L s}$	$\left(\cdot \right) \cdot \cdot$	 	 	 	 	98
10.14 2 NVALID-ORDER-142 $Z(s) = 1$	$\left(\infty,\right.$	$L_2s + R_2 +$	$-\frac{1}{C_2s}$, ∞ , o	$\infty, \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} +}$	$\frac{1}{L_L s}$		 	 	 	 	98
10.14BNVALID-ORDER- 143 $Z(s) = ($	$(\infty,$	$L_2s + R_2 +$	$\frac{1}{C_2s}$, ∞ , ∞	∞ , ∞ ,	$\tfrac{L_L s}{C_L L_L s^2 + 1}$	$+R_{L}$)	 	 	 	 	98
10.14#NVALID-ORDER-144 $Z(s) = 1$	$\left(\infty,\right.$	$L_2s + R_2 +$	$-\frac{1}{C_2s}$, ∞ , o	$\infty, \infty,$	$\frac{R_L \left(L_L s + \frac{1}{6}\right)}{L_L s + R_L + \frac{1}{6}}$	$\left(\frac{\frac{1}{C_L s}}{\frac{1}{C_L s}}\right)$		 	 	 	 	99
10.145NVALID-ORDER-145 $Z(s) = 0$								 	 	 	 	99
10.146NVALID-ORDER-146 $Z(s) = ($	$(\infty,$	$\frac{L_2 s}{C_2 L_2 s^2 + 1} +$	R_2, ∞, ∞	$, \infty, \Delta$	$R_L + \frac{1}{C_L s}$			 	 	 	 	99

10.14 T NVALID-ORDER-147 $Z(s) = 0$	$\left(\infty, \frac{L_2s}{C_2L_2s^2+1}+R_2, \infty, \infty, \infty, L_Ls+\frac{1}{C_Ls}\right) \dots \dots$	99
10.14\(\) NVALID-ORDER-148 $Z(s) = 0$	$\left(\infty, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$	99
10.14 9 NVALID-ORDER-149 $Z(s) = 0$	$\left(\infty, \frac{L_2s}{C_2L_2s^2+1}+R_2, \infty, \infty, \infty, L_Ls+R_L+\frac{1}{C_Ls}\right) \dots \dots$	99
10.15 0 NVALID-ORDER-150 $Z(s) =$	$\left(\infty, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$	100
10.15 I NVALID-ORDER-151 $Z(s) = 0$	$\left(\infty, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right) \dots \dots$	100
10.152NVALID-ORDER-152 $Z(s) =$	$L_{C_1 + C_1 + C_2}$	100
10.15 B NVALID-ORDER-153 $Z(s) =$	$\left(\infty, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \frac{1}{C_Ls}\right) \dots \dots$	100
	$\left(\infty, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right) \dots \dots$	100
10.15 NVALID-ORDER-155 $Z(s) = 1$	$\left(\infty, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right) \dots \dots$	101
10.156NVALID-ORDER-156 $Z(s) = 1$	$\left(\infty, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right) \dots \dots$	101
10.15 T NVALID-ORDER-157 $Z(s) = 1$	$\left(\infty, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right) \dots \dots$	101
10.15 NVALID-ORDER-158 $Z(s) = 1$	$\left(\infty, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right) \dots \dots$	101
10.15 9 NVALID-ORDER-159 $Z(s) = 1$	$\left(-R_{2}\left(L_{2}S+\frac{1}{2}\right) \right)$	101
10.16 ONVALID-ORDER- $160 Z(s) = 10.16$	$\left(\infty, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right) \dots \dots$	102
10.16INVALID-ORDER-161 $Z(s) = 0$	$(\infty, \infty, R_3, \infty, \infty, \frac{1}{C_L s})$	102
10.16 2 NVALID-ORDER-162 $Z(s) = 0$	$\left(\infty, \infty, R_3, \infty, \infty, rac{\dot{R}_L}{C_L R_L s + 1} ight)$	102
10.16 Invalid-order-163 $Z(s) = 0$	$\left(\infty, \infty, R_3, \infty, \infty, R_L + \frac{1}{C_L s}\right)$	102
10.164NVALID-ORDER- $164 Z(s) = 10.164$	$\left(\infty, \infty, R_3, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$	102
10.165NVALID-ORDER- $165 Z(s) = 0$	$\left(\infty, \infty, R_3, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$	102
10.16 6 NVALID-ORDER-166 $Z(s) = 1$	$\left(\infty, \infty, R_3, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$	103

| 10.16TNVALID-ORDER- $167 Z(s) =$ | $\left(\infty, \infty, \right.$ | $R_3, \infty,$ | ∞ , | $\overline{C_L s + c}$ | $\frac{1}{\frac{1}{R_{T}} + \frac{1}{L_{T} s}}$ |) . | |
 | 103 |
|--|---------------------------------|------------------------------|-----------------------------|--|--|----------------------------------|-------------------|------|------|------|------|------|------|------|-----|
| 10.16\(\mathbb{R}\) NVALID-ORDER-168 $Z(s) = 0$ | > | | | | | ` \ | |
 | 103 |
| 10.16 9 NVALID-ORDER-169 $Z(s) =$ | $(\infty, \infty,$ | $R_3, \infty,$ | ∞ , | $\frac{R_L \left(L_L s + \frac{1}{2}\right)}{L_L s + \frac{1}{2}}$ | $\frac{Ls + \frac{1}{CL^s}}{R_L + \frac{1}{CL^s}}$ |) . | |
 | 103 |
| 10.17 0 NVALID-ORDER-170 $Z(s) =$ | $(\infty, \infty,$ | $\frac{1}{C_3s}$, ∞ | $, \infty,$ | R_L) | | ,
 | |
 | 103 |
| 10.17INVALID-ORDER-171 $Z(s) =$ | $(\infty, \infty,$ | $\frac{1}{C_3 s}$, ∞ | $, \infty,$ | $\frac{1}{C_L s}$ | | | |
 | 104 |
| 10.17 2 NVALID-ORDER-172 $Z(s) =$ | $(\infty, \infty,$ | $\frac{1}{C_3s}$, ∞ | $, \infty,$ | $\frac{R_{I}}{C_{L}R_{L}}$ | $\left(\frac{L}{s+1}\right)$. | | |
 | 104 |
| 10.17 3 NVALID-ORDER-173 $Z(s) = 1$ | $(\infty, \infty,$ | $\frac{1}{C_3s}$, ∞ | $, \infty,$ | R_L + | $-\frac{1}{C_L s}$ | | |
 | 104 |
| 10.17#NVALID-ORDER-174 $Z(s) =$ | $(\infty, \infty,$ | $\frac{1}{C_3s}$, ∞ | $, \infty,$ | $L_L s$ - | $+\frac{1}{C_L s}$ | | |
 | 104 |
| 10.17 5 NVALID-ORDER-175 $Z(s) = 1$ | $(\infty, \infty,$ | $\frac{1}{C_3s}$, ∞ | $, \infty,$ | $\frac{L_I}{C_L L_L}$ | $\left(\frac{s}{s^2+1}\right)'$ | | |
 | 104 |
| 10.176NVALID-ORDER-176 $Z(s) =$ | $(\infty, \infty,$ | $\frac{1}{C_3s}$, ∞ | $, \infty,$ | $L_L s$ - | $+R_{L}+R_{L}$ | $\frac{1}{C_L s}$ | • |
 | 104 |
| 10.17 INVALID-ORDER-177 $Z(s) =$ | $(\infty, \infty,$ | $, \frac{1}{C_3 s}, \propto$ | ∞ , ∞ , | $\overline{C_L s}$ | $\frac{1}{R_L + \frac{1}{L_L s}}$ | $\left(\cdot \right) $. | |
 | 105 |
| 10.17\nabla NVALID-ORDER-178 $Z(s) = 1$ | $(\infty, \infty,$ | $\frac{1}{C_3 s}$, ∞ | $, \infty,$ | $\frac{L_I}{C_L L_L}$ | $\frac{c_s}{s^2+1} + I$ | \hat{R}_L | |
 | 105 |
| 10.17 9 NVALID-ORDER-179 $Z(s) =$ | $(\infty, \infty,$ | $, \frac{1}{C_3 s}, \propto$ | ∞ , ∞ , | $\frac{R_L(I)}{L_L s}$ | $\frac{L_L s + \frac{1}{C_L s}}{+R_L + \frac{1}{C_L s}}$ | $\left(\frac{1}{2}\right)^{2}$. | |
 | 105 |
| 10.18 0 NVALID-ORDER-180 $Z(s) =$ | $(\infty, \infty,$ | $\frac{R_3}{C_3R_3s+1}$ | ₋ , ∞ | $, \infty, 1$ | R_L) . | | |
 | 105 |
| 10.18INVALID-ORDER-181 $Z(s) =$ | $(\infty, \infty,$ | $\frac{R_3}{C_3R_3s+1}$ | \bar{b} , ∞ | $, \infty, $ | $\frac{1}{C_L s}$) . | | |
 | 105 |
| 10.18 2 NVALID-ORDER-182 $Z(s) =$ | $(\infty, \infty,$ | $\frac{R_3}{C_3R_3s+1}$ | $\bar{\epsilon}$, ∞ | $, \infty, $ | $\frac{\overset{'}{R_L}}{C_L R_L s + 1}$ |) . | |
 | 106 |
| 10.18 3 NVALID-ORDER-183 $Z(s) =$ | $(\infty, \infty,$ | $\frac{R_3}{C_3R_3s+1}$ | $\bar{\epsilon}$, ∞ | $, \infty, \infty$ | $R_L + \frac{1}{C_L}$ | $\left(\frac{1}{s}\right)$. | |
 | 106 |
| 10.18#NVALID-ORDER-184 $Z(s) =$ | $(\infty, \infty,$ | $\frac{R_3}{C_3R_3s+1}$ | $\frac{1}{2}$, ∞ | $, \infty, \perp$ | $L_L s + \frac{1}{C}$ | $\frac{1}{Ls}$ | |
 | 106 |
| 10.18 INVALID-ORDER-185 $Z(s) = 1$ | $(\infty, \infty,$ | $\frac{R_3}{C_3R_3s+1}$ | $\bar{\epsilon}$, ∞ | $, \infty, \gamma$ | $\frac{L_L s}{C_L L_L s^2 + 1}$ | $_{\overline{1}})^{'}$. | |
 | 106 |
| 10.186NVALID-ORDER-186 $Z(s) =$ | $(\infty, \infty,$ | $\frac{R_3}{C_3R_3s+1}$ | $\frac{1}{2}$, ∞ | $, \infty, \perp$ | $L_L s + R$ | $_{L}^{'}+\frac{1}{6}$ | $\frac{1}{C_L s}$ |
 | 106 |
| 10.18 T NVALID-ORDER-187 $Z(s) =$ | > | | | | | | \ ′ |
 | 107 |
| 10.18\bigselentrian VALID-ORDER-188 $Z(s) = 0$ | $(\infty, \infty,$ | $\frac{R_3}{C_3R_3s+1}$ | $\frac{1}{2}$, ∞ | $, \infty, $ | $\frac{L_L s}{C_L L_L s^2 + 1}$ | $\frac{1}{1} + I$ | R_L |
 | 107 |

10.18 9 NVALID-ORDER-189 $Z(s)=\langle$	$\left(\infty, \ \infty, \right.$	$\frac{R_3}{C_3R_3s+1}, \ \ $	∞ , ∞ ,	$\frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$	$\left(\frac{1}{2}\right)$. 107
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10.19INVALID-ORDER-191 $Z(s) = ($	$(\infty, \infty,$	$R_3 + \frac{1}{C_3 s},$	∞ , ∞ ,	$\frac{1}{C_L s}$)		 	 	 	 . 107
10.19 2 NVALID-ORDER-192 $Z(s) = ($	$(\infty, \infty,$	$R_3 + \frac{1}{C_3 s},$	∞ , ∞ ,	$\frac{R_L}{C_L R_L s + 1}$. 108
10.19 B NVALID-ORDER-193 $Z(s)=\left(\right. \label{eq:2.1}$	$(\infty, \infty,$	$R_3 + \frac{1}{C_3 s},$	∞ , ∞ ,	$R_L + \frac{1}{C_L s}$. 108
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10.196NVALID-ORDER-196 $Z(s) = 0$	$\left(\infty, \infty, \right.$	$R_3 + \frac{1}{C_3 s},$	∞ , ∞ ,	$L_L s + R_L +$	$\left(\frac{1}{C_L s}\right)$. 108
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10.19\%NVALID-ORDER-198 $Z(s)=\langle$	$(\infty, \infty,$	$R_3 + \frac{1}{C_3 s},$	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} +$	(R_L) .	 	 	 	 . 109
10.19 9 NVALID-ORDER-199 $Z(s) = 1$	$\left(\infty, \ \infty, \right.$	$R_3 + \frac{1}{C_3 s},$	∞ , ∞ ,	$\frac{R_L \left(L_L s + \frac{1}{C_L s} $	$\left(\frac{\overline{s}}{\overline{s}}\right)$. 109
10.20 0 NVALID-ORDER-200 $Z(s) = ($	>				,	 	 	 	 . 109
10.20INVALID-ORDER-201 $Z(s) = ($	$(\infty, \infty,$	$L_3s + \frac{1}{C_3s},$	∞ , ∞	$, \frac{1}{C_L s}$ $\cdot \cdot \cdot$. 109
10.20 2 NVALID-ORDER-202 $Z(s)=\langle$	$(\infty, \infty,$	$L_3s + \frac{1}{C_3s},$	∞ , ∞	$, \frac{R_L}{C_L R_L s + 1}$. 110
10.20 B NVALID-ORDER-203 $Z(s)=($	$(\infty, \infty,$	$L_3s + \frac{1}{C_3s},$	∞ , ∞	$R_L + \frac{1}{C_L s}$. 110
10.204NVALID-ORDER-204 $Z(s)=\langle$	$\left(\infty, \ \infty, \right.$	$L_3s + \frac{1}{C_3s},$	∞ , ∞	$L_L s + \frac{1}{C_L s}$)	 	 	 	 . 110
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10.206NVALID-ORDER-206 $Z(s)=\langle$	$\left(\infty, \ \infty, \right.$	$L_3s + \frac{1}{C_3s},$	∞ , ∞	$L_L s + R_L +$	$+\frac{1}{C_L s}$. 110
10.20 T NVALID-ORDER-207 $Z(s) = 1$	$\left(\infty, \ \infty, \right.$	$L_3s + \frac{1}{C_3s},$	$, \infty, \infty$	$, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L}}$	$\frac{1}{L^s}$. 111
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10.20 9 NVALID-ORDER-209 $Z(s) = 1$	$\left(\infty, \ \infty, \right.$	$L_3s + \frac{1}{C_3s},$	$, \infty, \infty$	$, \frac{R_L \left(L_L s + \frac{1}{C_L} $	$\left(\frac{\overline{L^s}}{L^s}\right)$.	 	 	 	 . 111
10.210NVALID-ORDER-210 $Z(s) = ($. 111

10.21 I NVALID-ORDER-211 $Z(s) =$	$\left(\infty, \infty, \right.$	$\frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \infty,$	$L_L s + \frac{1}{C_L s}$			 	 111
10.21 2 NVALID-ORDER-212 $Z(s) =$	$(\infty, \infty,$	$\frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$			 	 112
10.21 SNVALID-ORDER-213 $Z(s) =$	$\left(\infty, \infty, \right.$	$\frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \infty,$	$L_L s + R_L +$	$\frac{1}{C_L s}$)		 	 112
10.21#NVALID-ORDER-214 $Z(s) =$	$\left(\infty, \infty, \right.$	$\frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$	$\left(\frac{1}{2}\right)$		 	 112
10.215NVALID-ORDER-215 $Z(s) =$	$(\infty, \infty,$	$\frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} + 1$	(R_L)		 	 112
10.21 CONVALID-ORDER-216 $Z(s) =$	$\left(\infty, \infty, \right.$	$\frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \infty,$	$\frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$	$\frac{1}{\overline{s}}$ \cdots		 	 112
10.21TNVALID-ORDER- $217 Z(s) =$	$(\infty, \infty,$	$L_3s + R_3 + \frac{1}{C_3s}$, c	$\infty, \ \infty, \ \frac{1}{C_L s}$			 	 113
10.21 NVALID-ORDER-218 $Z(s) =$	$(\infty, \infty,$	$L_3s + R_3 + \frac{1}{C_3s}$, o	∞ , ∞ , $R_L + \frac{1}{2}$	$\frac{1}{C_L s}$)		 	 113
10.21 9 NVALID-ORDER-219 $Z(s) =$	$(\infty, \infty,$	$L_3s + R_3 + \frac{1}{C_3s}$, o	∞ , ∞ , $L_L s +$	$\left(\frac{1}{C_L s}\right)$		 	 113
10.22 ONVALID-ORDER-220 $Z(s) =$	$(\infty, \infty,$	$L_3s + R_3 + \frac{1}{C_3s}$, o	∞ , ∞ , $\frac{L_L s}{C_L L_L s}$	$\left(\frac{8}{2+1}\right)$		 	 113
10.22 I NVALID-ORDER-221 $Z(s) =$	$(\infty, \infty,$	$L_3s + R_3 + \frac{1}{C_3s}$, o	∞ , ∞ , $L_L s +$	$R_L + \frac{1}{C_L s}$)	 	 113
10.22 2 NVALID-ORDER-222 $Z(s) =$	$\left(\infty, \infty, \right.$	$L_3s + R_3 + \frac{1}{C_3s}$,	$\infty, \ \infty, \ {C_L s + {I}}$	$\left(\frac{1}{R_L} + \frac{1}{L_L s}\right)$		 	 113
10.22 B NVALID-ORDER-223 $Z(s) =$	$(\infty, \infty,$	$L_3s + R_3 + \frac{1}{C_3s}$, o	∞ , ∞ , $\frac{L_L s}{C_L L_L s}$	$\left(\frac{8}{2}+1+R_L\right)$		 	 114
10.22 4 NVALID-ORDER-224 $Z(s) =$	$\left(\infty, \ \infty, \right.$	$L_3s + R_3 + \frac{1}{C_3s}$,	∞ , ∞ , $\frac{R_L(L_L)}{L_L s + R}$	$\frac{Ls + \frac{1}{C_L s}}{R_L + \frac{1}{C_L s}}$		 	 114
10.22 NVALID-ORDER-225 $Z(s) =$	$\left(\infty, \infty, \right.$	$\frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \ \infty,$	∞ , $R_L + \frac{1}{C_L s}$	$\left(\frac{1}{2}\right)$		 	 114
10.22 6 NVALID-ORDER-226 $Z(s) =$	$\left(\infty, \infty, \right.$	$\frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \ \infty,$	∞ , $L_L s + \frac{1}{C_L}$	$\left(\frac{1}{\sqrt{s}}\right)$		 	 114
10.22TNVALID-ORDER- $227 Z(s) =$	$\left(\infty, \infty, \right.$	$\frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \ \infty,$	∞ , $\frac{L_L s}{C_L L_L s^2 + 1}$			 	 114
10.22\NVALID-ORDER-228 $Z(s) =$	$\left(\infty, \infty, \right.$	$\frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \ \infty,$	∞ , $L_L s + R_I$	$L + \frac{1}{C_L s}$		 	 115
10.22¶NVALID-ORDER-229 $Z(s) =$	$\left(\infty, \infty, \right.$	$\frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \ \infty,$	$\infty, \frac{1}{C_L s + \frac{1}{R_L} + \dots + \frac{1}{R_L}}$	$\overline{\frac{1}{L_L s}}$		 	 115
10.23 0 NVALID-ORDER-230 $Z(s) =$	$\left(\infty, \infty, \right.$	$\frac{1}{C_3s + \frac{1}{R_3} + \frac{1}{L_3s}}, \ \infty,$	∞ , $\frac{L_L s}{C_L L_L s^2 + 1}$	$\left(1 + R_L\right)$.		 	 115

10.23INVALID-ORDER-231	$Z(s) = \left(e^{-s} \right)$	$\infty, \ \infty,$	$\frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \ \dots $
10.23 2 NVALID-ORDER-232 2	$Z(s) = \hat{c}$	$\infty, \infty,$	$\frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \infty, \ \frac{1}{C_Ls}$
10.23 \$ NVALID-ORDER-233 2	$Z(s) = \hat{c}$	∞ , ∞ ,	$\frac{L_3s}{C_3L_3s^2+1} + R_3$, ∞ , ∞ , $\frac{R_L}{C_LR_Ls+1}$
10.23 4 NVALID-ORDER-234 2	$Z(s) = \left(c\right)$	∞ , ∞ ,	$\frac{L_3s}{C_3L_3s^2+1} + R_3$, ∞ , ∞ , $R_L + \frac{1}{C_Ls}$)
10.235NVALID-ORDER-235 2	$Z(s) = \left(c\right)$	∞ , ∞ ,	$\frac{L_3s}{C_3L_3s^2+1} + R_3$, ∞ , ∞ , $L_Ls + \frac{1}{C_Ls}$)
10.23 6 NVALID-ORDER-236 2	$Z(s) = \left(c\right)$	∞ , ∞ ,	$\frac{L_3s}{C_3L_3s^2+1} + R_3$, ∞ , ∞ , $\frac{L_Ls}{C_LL_Ls^2+1}$
10.23 T NVALID-ORDER-237 2	$Z(s) = \left(c\right)$	∞ , ∞ ,	$\frac{L_3s}{C_3L_3s^2+1} + R_3$, ∞ , ∞ , $L_Ls + R_L + \frac{1}{C_Ls}$)
10.23 & NVALID-ORDER-238 2	$Z(s) = \left(e^{-s} \right)$	∞ , ∞ ,	$\frac{L_{3}s}{C_{3}L_{3}s^{2}+1}+R_{3}, \ \infty, \ \infty, \ \frac{1}{C_{L}s+\frac{1}{R_{L}}+\frac{1}{L_{L}s}}$
10.23 9 NVALID-ORDER-239 2	$Z(s) = \left(c\right)$	∞ , ∞ ,	$\frac{L_3s}{C_3L_3s^2+1} + R_3$, ∞ , ∞ , $\frac{L_Ls}{C_LL_Ls^2+1} + R_L$)
10.24 0 NVALID-ORDER-240 2	$Z(s) = \left(e^{-s} \right)$	$\infty, \ \infty,$	$\frac{L_{3s}}{C_3L_3s^2+1} + R_3, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right) \ \dots \ $
10.24INVALID-ORDER-241 2	$Z(s) = \left(\begin{array}{c} 1 \\ 1 \end{array} \right)$	$\infty, \ \infty,$	$\frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \ \infty, \ \infty, \ R_L$
	($\frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \ \infty, \ \infty, \ \frac{1}{C_Ls}$
10.24 B NVALID-ORDER-243 2	$Z(s) = \left(e^{-s} \right)$	$\infty, \ \infty,$	$\frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right) $
10.24 4 NVALID-ORDER-244 2	$Z(s) = \left(e^{-s} \right)$	$\infty, \ \infty,$	$\frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \ \infty, \ \infty, \ R_L + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
	($\frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \ \infty, \ \infty, \ L_Ls + \frac{1}{C_Ls}\right)$
10.24 6 NVALID-ORDER-246 2	$Z(s) = \left(\begin{array}{c} 1 \\ 1 \end{array} \right)$	$\infty, \ \infty,$	$\frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1}$
			$\frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \ \infty, \ \infty, \ L_Ls + R_L + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.24 & NVALID-ORDER-248 2	$Z(s) = \left(\begin{array}{c} 1 \\ 1 \end{array} \right)$	$\infty, \ \infty,$	$\frac{R_3\left(L_3 s + \frac{1}{C_3 s}\right)}{L_3 s + R_3 + \frac{1}{C_3 s}}, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $
10.24 9 NVALID-ORDER-249 2	$Z(s) = \left(\begin{array}{c} 1 \\ 1 \end{array} \right)$	$\infty, \ \infty,$	$\frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right) \ \dots $

	/	R_{c}	$_{2}(L_{2}s+\frac{1}{s})$	_)	$R_{T}(L_{T})$	$s+\frac{1}{s}$)	\				
10.25 0 NVALID-ORDER-250 $Z($	$s) = (\infty,$	$, \infty, \frac{10}{L}$	$\frac{S(L_3s+C_3)}{3s+R_3+\overline{C}}$	$\frac{s}{\frac{1}{3}s}$, ∞ , ∞	$C, \frac{RL(BL)}{L_L s + R}$	$\frac{C_L s}{R_L + \frac{1}{C_L s}}$)	 	 	 	11
$10.25 \mathbf{I} \text{NVALID-ORDER-} 251 \ Z($	' '/			,							
10.25 2 NVALID-ORDER-252 $Z($	$s) = (\infty,$	∞ , ∞	R_4, \propto	$\left(\frac{1}{C_L s} \right)$				 	 	 	11
10.25 & NVALID-ORDER-253 $Z($	$s) = \Big(\infty,$	∞ , ∞	R_4, \propto	$, \frac{R_L}{C_L R_L s +}$	$\overline{1}$			 	 	 	11
10.25 4 NVALID-ORDER-254 $Z($	$s) = \left(\infty,\right.$	∞ , ∞	R_4, \propto	$R_L + \overline{C}$	$\left(\frac{1}{Ls}\right)$			 	 	 	12
10.25 NVALID-ORDER-255 $Z($	$s) = \Big(\infty,$	∞ , ∞	R_4, \propto	$L_L s + \overline{c}$	$\left(\frac{1}{C_L s}\right)$.			 	 	 	12
10.25 6 NVALID-ORDER-256 $Z($	$s) = \Big(\infty,$	∞ , ∞	R_4, \propto	$, \frac{L_L s}{C_L L_L s^2}$	$\overline{+1}$)			 	 	 	12
10.25 T NVALID-ORDER-257 $Z($	$s) = \left(\infty, \right)$	∞ , ∞	R_4, \propto	$, L_L s + I$	$R_L + \frac{1}{C_L s}$)		 	 	 	12
10.25 & NVALID-ORDER-258 Z($s) = \left(\infty,\right.$	$, \infty, \infty$	R_4, \propto	$C_L s + \frac{1}{R_L}$	$\left(\frac{1}{L} + \frac{1}{L_L s}\right)$			 	 	 	12
10.25 9 NVALID-ORDER-259 $Z($	$s) = (\infty,$	∞ , ∞	R_4, \propto	$\frac{L_L s}{C_L L_L s^2}$	$\frac{1}{1} + R_L$			 	 	 	12
10.26 0 NVALID-ORDER-260 $Z($	$s) = \left(\infty,\right.$	$, \infty, \infty$	R_4, \propto	$\sum_{L_L s + R_L} \frac{R_L \left(L_L s + R_L \right)}{L_L s + R_L s}$	$\left(\frac{+\frac{1}{C_L s}}{L+\frac{1}{C_L s}}\right)$			 	 	 	12
10.26INVALID-ORDER-261 $Z($	$s) = (\infty,$	∞ , ∞	$, \frac{1}{C_4 s}, c$	o, R_L				 	 	 	12
10.26 2 NVALID-ORDER-262 $Z($	$s) = \Big(\infty,$	∞ , ∞	$, \frac{1}{C_4 s}, c$	$C, \frac{1}{C_L s}$				 	 	 	12
10.26 B NVALID-ORDER-263 $Z($	$s) = \left(\infty,\right.$	∞ , ∞	$, \frac{1}{C_4 s}, c$	$O, \frac{R_L}{C_L R_L s}$	$\frac{1}{1}$			 	 	 	12
10.26 4 NVALID-ORDER-264 $Z($	$s) = \Big(\infty,$	∞ , ∞	$, \frac{1}{C_4 s}, c$	$o, R_L + \overline{o}$	$\left(\frac{1}{C_L s}\right)$.			 	 	 	12
10.26 NVALID-ORDER-265 $Z($	$s) = (\infty,$	∞ , ∞	$, \frac{1}{C_4 s}, c$	o, $L_L s +$	$\frac{1}{C_L s}$) .			 	 	 	12
10.26 CNVALID-ORDER-266 $Z($	$s) = (\infty,$	∞ , ∞	$, \frac{1}{C_4 s}, c$	O, $\frac{L_L s}{C_L L_L s^2}$	$\left(\frac{1}{1+1}\right)$			 	 	 	12
10.26TNVALID-ORDER- 267 $Z($	$s) = (\infty,$	∞ , ∞	$, \frac{1}{C_4 s}, c$	o, $L_L s +$	$R_L + \frac{1}{C_L s}$	$\left(\frac{1}{8}\right)$		 	 	 	12
10.26 % NVALID-ORDER-268 Z($s) = \left(\infty, \right)$	$, \infty, \infty$	$\frac{1}{C_4s}$, $\frac{1}{C_4s}$	$\infty, \ \frac{1}{C_L s + \frac{1}{R}}$	$\left(\frac{1}{L} + \frac{1}{L_L s}\right)$			 	 	 	12
10.26 9 NVALID-ORDER-269 Z($s) = (\infty,$	∞ , ∞	$, \frac{1}{C_4 s}, c$	O, $\frac{L_L s}{C_L L_L s^2}$	$\frac{1}{R+1} + R_L$)		 	 	 	12
10.27 0 NVALID-ORDER-270 $Z($	$s) = \left(\infty,\right.$	$, \infty, \infty$	$\frac{1}{C_4 s}$, (∞ , $\frac{R_L(L_L)}{L_L s + R}$	$\frac{s + \frac{1}{C_L s}}{R_L + \frac{1}{C_L s}}$			 	 	 	12
10.27INVALID-ORDER-271 $Z($	/				\			 	 	 	12

10.27 2 NVALID-ORDER-272 $Z(s) = 0$	$\Big(\infty, \ \infty, \ \infty,$	$\frac{R_4}{C_4R_4s+1}$, ∞ ,	$\frac{1}{C_L s}$)		 	 	 123
10.278NVALID-ORDER-273 $Z(s) = 1$	$(\infty, \infty, \infty,$	$\frac{R_4}{C_4R_4s+1}$, ∞ ,	$\frac{R_L}{C_L R_L s + 1}$		 	 	 123
10.27INVALID-ORDER-274 $Z(s) = 1$	$(\infty, \infty, \infty, \infty,$	$\frac{R_4}{C_4R_4s+1}$, ∞ ,	$R_L + \frac{1}{C_L s}$		 	 	 124
10.275NVALID-ORDER- $275 Z(s) = 10.27$ 5NVALID-ORDER	$(\infty, \infty, \infty,$	$\frac{R_4}{C_4R_4s+1}$, ∞ ,	$L_L s + \frac{1}{C_L s}$		 	 	 124
10.27 6 NVALID-ORDER-276 $Z(s) = 0$	$(\infty, \infty, \infty,$	$\frac{R_4}{C_4R_4s+1}$, ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 	 124
10.27 T NVALID-ORDER-277 $Z(s) = 0$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{R_4}{C_4R_4s+1}, \infty,$	$L_L s + R_L +$	$\frac{1}{C_L s}$)	 	 	 124
10.27\NVALID-ORDER-278 $Z(s) =$	$\bigg(\infty,\;\infty,\;\infty,$	$\frac{R_4}{C_4R_4s+1}$, ∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L}}$	$\left(\frac{1}{s}\right)$	 	 	 124
10.279NVALID-ORDER-279 $Z(s) = 0$	$(\infty, \infty, \infty,$	$\frac{R_4}{C_4R_4s+1}, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} +$	R_L)	 	 	 125
10.28 ONVALID-ORDER-280 $Z(s) = 10.28$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{R_4}{C_4R_4s+1}$, ∞ ,	$\frac{R_L \left(L_L s + \frac{1}{C_L s} $	$\left(\frac{1}{s}\right)$	 	 	 125
10.28INVALID-ORDER-281 $Z(s) = 1$,		`		 	 	 125
10.28 2 NVALID-ORDER-282 $Z(s) = 0$	$(\infty, \infty, \infty,$	$R_4 + \frac{1}{C_4 s}, \ \infty,$	$\frac{1}{C_L s}$)		 	 	 125
10.28 Invalid-order-283 $Z(s) = 0$	$\left(\infty, \ \infty, \ \infty, \right.$	$R_4 + \frac{1}{C_4 s}, \ \infty,$	$R_L + \frac{1}{C_L s}$		 	 	 125
10.28 INVALID-ORDER-284 $Z(s) = 0$	$\Big(\infty, \ \infty, \ \infty,$	$R_4 + \frac{1}{C_4 s}, \ \infty,$	$L_L s + \frac{1}{C_L s}$		 	 	 125
10.28INVALID-ORDER- $285 Z(s) = 0$	$\Big(\infty, \ \infty, \ \infty,$	$R_4 + \frac{1}{C_4 s}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 	 126
10.28 CNVALID-ORDER-286 $Z(s) = 0$	$\left(\infty, \ \infty, \ \infty, \right.$	$R_4 + \frac{1}{C_4 s}, \ \infty,$	$L_L s + R_L +$	$-\frac{1}{C_L s}$	 	 	 126
10.28 T NVALID-ORDER-287 $Z(s) =$	$\bigg(\infty,\;\infty,\;\infty,$	$R_4 + \frac{1}{C_4 s}, \ \infty$	$C_L s + \frac{1}{R_L} + \frac{1}{R_L}$	$\left(\frac{1}{L^s}\right)$	 	 	 126
10.28\NVALID-ORDER-288 $Z(s) = 0$	$(\infty, \infty, \infty,$	$R_4 + \frac{1}{C_4 s}, \ \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} +$	$-R_L$)	 	 	 126
10.28 9 NVALID-ORDER-289 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$R_4 + \frac{1}{C_4 s}, \infty$	$\frac{R_L \left(L_L s + \frac{1}{C_L}\right)}{L_L s + R_L + \frac{1}{C_L}}$	$\frac{\overline{s}}{\frac{1}{L^s}}$	 	 	 126
10.29 0 NVALID-ORDER-290 $Z(s) = 0$	$(\infty, \infty, \infty,$	$L_4s + \frac{1}{C_4s}, \ \infty$	$\left(\frac{1}{C_L s} \right)$		 	 	 127
10.29INVALID-ORDER-291 $Z(s) = 0$	$(\infty, \infty, \infty,$	$L_4s + \frac{1}{C_4s}, \ \infty$	$\left(\frac{R_L}{C_L R_L s + 1}\right)$		 	 	 127
10.29 2 NVALID-ORDER-292 $Z(s) = 0$	$\left(\infty, \ \infty, \ \infty, \right.$	$L_4s + \frac{1}{C_4s}, \ \infty$	$R_L + \frac{1}{C_L s}$		 	 	 127
10.29 B NVALID-ORDER-293 $Z(s) = 0$	$(\infty, \infty, \infty,$	$L_4s + \frac{1}{C_4s}, \infty$	$L_L s + \frac{1}{C_L s}$)	 	 	 127

10.294NVALID-ORDER-294 $Z(s)=0$	$=\left(\infty,\;\infty,\;\infty,\;L_4s+rac{1}{C_4s},\;\infty,\;rac{L_Ls}{C_L\overline{L}_Ls^2+1} ight)\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots$	127
10.29 INVALID-ORDER-295 $Z(s) = 0$	$=\left(\infty,\ \infty,\ \infty,\ L_4s+rac{1}{C_4s},\ \infty,\ L_Ls+R_L+rac{1}{C_Ls} ight)$	127
10.29 6 NVALID-ORDER-296 $Z(s) =$	$=\left(\infty,\ \infty,\ \infty,\ L_4s+rac{1}{C_4s},\ \infty,\ rac{1}{C_Ls+rac{1}{R_L}+rac{1}{L_Ls}} ight)$	128
10.29¶NVALID-ORDER-297 $Z(s) = 0$	$=\left(\infty, \ \infty, \ \infty, \ L_4s+rac{1}{C_4s}, \ \infty, \ rac{L_Ls}{C_LL_Ls^2+1}+R_L ight)$	128
10.29 NVALID-ORDER-298 $Z(s) =$	$= \left(\infty, \ \infty, \ \infty, \ L_4 s + \frac{1}{C_4 s}, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $	128
10.29 9 NVALID-ORDER-299 $Z(s) = 0$	$=\left(\infty,\;\infty,\;\infty,\;rac{L_4s}{C_4L_4s^2+1},\;\infty,\;rac{1}{C_Ls} ight)\;\ldots\;\ldots\;\ldots\;\ldots\;$	128
10.30 0 NVALID-ORDER-300 $Z(s) = 0$	$=\left(\infty,\;\infty,\;\infty,\;rac{L_{4}s}{C_{4}L_{4}s^{2}+1},\;\infty,\;rac{R_{L}}{C_{L}R_{L}s+1} ight)\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots$	128
10.30 I NVALID-ORDER-301 $Z(s) = 0$	$=\left(\infty,\ \infty,\ \infty,\ rac{L_4s}{C_4L_4s^2+1},\ \infty,\ R_L+rac{1}{C_Ls} ight)$	129
10.30 2 NVALID-ORDER-302 $Z(s) = 0$	$=\left(\infty,\ \infty,\ \infty,\ rac{L_4s}{C_4L_4s^2+1},\ \infty,\ L_Ls+rac{1}{C_Ls} ight)$	129
10.30\$NVALID-ORDER-303 $Z(s) = 0$	$=\left(\infty,\;\infty,\;\infty,\;rac{L_{4}s}{C_{4}L_{4}s^{2}+1},\;\infty,\;rac{L_{L}s}{C_{L}L_{L}s^{2}+1} ight)$	129
10.304NVALID-ORDER-304 $Z(s) = 0$	$=\left(\infty,\ \infty,\ \infty,\ \frac{L_4s}{C_4L_4s^2+1},\ \infty,\ L_Ls+R_L+\frac{1}{C_Ls} ight)$	129
10.30 \mathbf{I} NVALID-ORDER-305 $Z(s) = 1$	$=\left(\infty,\;\infty,\;\infty,\;rac{L_{4}s}{C_{4}L_{4}s^{2}+1},\;\infty,\;rac{1}{C_{L}s+rac{1}{R_{L}}+rac{1}{L_{L}s}} ight)\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots$	129
10.30 6 NVALID-ORDER-306 $Z(s) = 0$	$=\left(\infty,\ \infty,\ \infty,\ \frac{L_{4}s}{C_4L_4s^2+1},\ \infty,\ \frac{L_{L}s}{C_LL_Ls^2+1}+R_L\right)$	129
10.30 TNVALID-ORDER-307 $Z(s) = 1$	$=\left(\infty,\;\infty,\;\infty,\;rac{L_{4}s}{C_{4}L_{4}s^{2}+1},\;\infty,\;rac{R_{L}\left(L_{L}s+rac{1}{C_{L}s} ight)}{L_{L}s+R_{L}+rac{1}{C_{L}s}} ight)\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots$	130
10.30\newline NVALID-ORDER-308 $Z(s) = 1$	$=\left(\infty,\;\infty,\;\infty,\;L_4s+R_4+rac{1}{C_4s},\;\infty,\;rac{1}{C_Ls} ight)$	130
10.30 9 NVALID-ORDER-309 $Z(s) = 0$	$=\left(\infty,\;\infty,\;\infty,\;L_4s+R_4+rac{1}{C_4s},\;\infty,\;rac{\stackrel{\circ}{R_L}}{C_LR_Ls+1} ight)\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots$	130
10.31 0 NVALID-ORDER-310 $Z(s) = 0$	$=\left(\infty,\;\infty,\;\infty,\;L_4s+R_4+rac{1}{C_4s},\;\infty,\;R_L+rac{1}{C_Ls} ight)$	130
10.31 I NVALID-ORDER-311 $Z(s) = 0$	$=\left(\infty,\;\infty,\;\infty,\;L_4s+R_4+rac{1}{C_4s},\;\infty,\;L_Ls+rac{1}{C_Ls} ight)\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots\;\;\ldots$	130
10.31 2 NVALID-ORDER-312 $Z(s) = 0$	$=\left(\infty, \infty, \infty, L_4s + R_4 + \frac{1}{C_4s}, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)'$	130
	$=\left(\infty,\;\infty,\;\infty,\;L_4s+R_4+rac{1}{C_4s},\;\infty,\;L_Ls+R_L+rac{1}{C_Ls} ight)\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;\ldots\;$	131
10.31 INVALID-ORDER-314 $Z(s) = 1$	$= \left(\infty, \ \infty, \ \infty, \ L_4 s + R_4 + \frac{1}{C_4 s}, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right) \ \ \ldots \ \ldots \ \ \ \ldots \$	131
10.315NVALID-ORDER-315 $Z(s) = 0$	$=\left(\infty, \ \infty, \ \infty, \ L_4s+R_4+rac{1}{C_4s}, \ \infty, \ rac{L_Ls}{C_LL_Ls^2+1}+R_L ight)$	131

10.31 6 NVALID-ORDER-316 $Z(s) =$	$= \left(\infty, \ \infty, \ \infty, \ L_4 s + R_4 + \frac{1}{C_4 s}, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right) \dots $	131
10.31 T NVALID-ORDER-317 $Z(s) =$	$=\left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L\right) \ldots \ldots$	131
10.31 NVALID-ORDER-318 $Z(s) =$	$= \left(\infty, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ \frac{1}{C_L s} \right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $	132
10.31 9 NVALID-ORDER-319 $Z(s) =$	$= \left(\infty, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ \frac{R_L}{C_L R_L s + 1} \right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $	132
10.32 0 NVALID-ORDER-320 $Z(s) =$	$=\left(\infty, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ R_L + \frac{1}{C_L s}\right)$	132
10.32INVALID-ORDER-321 $Z(s) =$	$=\left(\infty, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$	132
10.32 2 NVALID-ORDER-322 $Z(s) =$	$= \left(\infty, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} \right) \dots $	132
10.32 B NVALID-ORDER-323 $Z(s) =$	$=\left(\infty, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$	133
10.32 INVALID-ORDER-324 $Z(s) =$	$= \left(\infty, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right) \ \dots $	133
	$C_{4s} + \frac{1}{R_4} + \frac{1}{L_4s}$	133
	$= \left(\infty, \ \infty, \ \infty, \ \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s} \right)}{L_L s + R_L + \frac{1}{C_L s}} \right) \ \dots $	133
10.32¶NVALID-ORDER-327 $Z(s) =$	$=\left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}+R_4, \infty, R_L\right)$	133
10.32\NVALID-ORDER-328 $Z(s) =$	$=\left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, \frac{1}{C_Ls}\right)$	134
10.32 9 NVALID-ORDER-329 $Z(s) =$	$=\left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, \frac{R_L}{C_LR_Ls+1}\right) \dots \dots$	134
10.33 0 NVALID-ORDER-330 $Z(s) =$	$=\left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}+R_4, \infty, R_L+\frac{1}{C_Ls}\right)$	134
10.33INVALID-ORDER-331 $Z(s) =$	$=\left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, L_Ls + \frac{1}{C_Ls}\right) \ldots \ldots$	134
	$=\left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)'$	134
10.33\(\text{NVALID-ORDER-333} \) $Z(s) = 1$	$=\left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$	134
10.334NVALID-ORDER-334 $Z(s) =$	$= \left(\infty, \ \infty, \ \infty, \ \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right) $	135
10.33 5 NVALID-ORDER-335 $Z(s) =$	$=\left(\infty, \ \infty, \ \infty, \ \frac{L_{4}s}{C_{4}L_{4}s^{2}+1} + R_{4}, \ \infty, \ \frac{L_{L}s}{C_{L}L_{L}s^{2}+1} + R_{L}\right)$	135

10.336NVALID-ORDER-336 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{L_4s}{C_4L_4s^2+1} + F_6$	$R_4, \infty,$	$\frac{R_L \left(L_L s + \frac{1}{C}\right)}{L_L s + R_L + \frac{1}{C}}$	$\left(\frac{1}{C_L s}\right) \over \frac{1}{C_L s}$	 	 	 	135
10.33 T NVALID-ORDER-337 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}$, ∞, .	R_L)		 	 	 	135
10.33\%NVALID-ORDER-338 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}$	$, \infty,$	$\frac{1}{C_L s}$		 	 	 	135
10.33 9 NVALID-ORDER-339 $Z(s) =$	\	040		/		 	 	 	136
10.34©NVALID-ORDER-340 $Z(s) =$	(043		/		 	 	 	136
10.34INVALID-ORDER-341 $Z(s) =$	\	040		,		 	 	 	136
10.342NVALID-ORDER-342 $Z(s) =$	\	-		,		 	 	 	136
10.34\(\mathbb{B}\) NVALID-ORDER-343 $Z(s) =$	\	-4-			/	 	 	 	136
10.34\(\bar{A}\)NVALID-ORDER-344 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}$	$, \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_I}}$	$\left(\frac{1}{\sqrt{s}}\right) \cdot \cdot$	 	 	 	137
10.345NVALID-ORDER-345 $Z(s) =$	(043			/	 	 	 	137
10.346NVALID-ORDER-346 $Z(s) =$	\	-4-		~ 1	, ,				
10.34TNVALID-ORDER- 347 $Z(s) = 0$	$(\infty, \infty, \infty, \infty, \infty)$	∞ , R_4 , R_L)				 	 	 	137
10.34\NVALID-ORDER-348 $Z(s) =$	$(\infty, \infty, \infty, \infty,$	∞ , R_4 , $\frac{1}{C_L s}$				 	 	 	137
10.349NVALID-ORDER- 349 $Z(s) = 1$	$(\infty, \infty, \infty, \infty,$	∞ , R_4 , $\frac{R_2}{C_L R_I}$	$\left(\frac{L}{s+1}\right)$			 	 	 	138
10.35 0 NVALID-ORDER-350 $Z(s) =$	$(\infty, \infty, \infty, \infty,$	∞ , R_4 , R_L +	$-\frac{1}{C_L s}$			 	 	 	138
10.35INVALID-ORDER-351 $Z(s) =$	$(\infty, \infty, \infty, \infty,$	∞ , R_4 , $L_L s$	$+\frac{1}{C_L s}$)		 	 	 	138
10.35 2 NVALID-ORDER-352 $Z(s) =$	$(\infty, \infty, \infty, \infty,$	∞ , R_4 , $\frac{L_1}{C_1L_2}$	$\left(\frac{Ls}{s^2+1}\right)$			 	 	 	138
10.35 k NVALID-ORDER-353 $Z(s) =$		2 2	,	\		 	 	 	138
10.35 INVALID-ORDER-354 $Z(s) =$	$\left(\infty, \ \infty, \ \infty, \right.$	∞ , R_4 , $C_L s + C_L s + $	$\frac{1}{R_L + 1}$	$\left(\frac{1}{L_{L_s}}\right)$		 	 	 	139
10.35 Invalid-order-355 $Z(s) =$	$(\infty, \infty, \infty,$	∞ , R_4 , $\frac{L_1}{C_L L_L}$	$\frac{Ls}{s^2+1}$ -	$+R_L$)		 	 	 	139

	,					\ \							
10.356NVALID-ORDER-356 $Z(s) =$	$\bigg(\infty,\ { m c}$	$\infty, \infty,$	∞ ,	$R_4, \frac{R_L}{L_L}$	$\frac{L_L s + \frac{1}{C_L s}}{s + R_L + \frac{1}{C_L s}}$	$\left(\frac{1}{2}\right)$.		 	 	 	 	 	139
10.35TNVALID-ORDER- 357 $Z(s) = 1$	(∞, \circ)	o, ∞,	∞ ,	$\frac{1}{C_4 s}$, $\frac{1}{C_L}$	$\left(\frac{1}{s}\right)$			 	 	 	 	 	139
10.35 NVALID-ORDER-358 $Z(s) = 1$	$(\infty, \circ$	o, ∞,	∞ ,	$\frac{1}{C_4 s}, \overline{C_L}$	$\frac{R_L}{R_L s+1}$			 	 	 	 	 	139
10.35 9 NVALID-ORDER-359 $Z(s) = 0$	$(\infty, \circ$	$0, \infty,$	∞ ,	$\frac{1}{C_4 s}$, R_L	$+\frac{1}{C_L s}$			 	 	 	 	 	140
10.36 ONVALID-ORDER- 360 $Z(s) = 0$	$\Big(\infty, \circ$	∞ , ∞ ,	∞ ,	$\frac{1}{C_4 s}$, L_L	$s + \frac{1}{C_L s}$			 	 	 	 	 	140
10.36INVALID-ORDER- 361 $Z(s) = 1$	$(\infty, \circ$	∞ , ∞ ,	∞ ,	$\frac{1}{C_4 s}$, $\overline{C_L}$	$\frac{L_L s}{L_L s^2 + 1}$			 	 	 	 	 	140
10.36 2 NVALID-ORDER- 362 $Z(s) = 1$	$\left(\infty, \circ\right)$	$0, \infty,$	∞ ,	$\frac{1}{C_4 s}$, L_L	$s + R_L +$	$\left(\frac{1}{C_L s}\right)$		 	 	 	 	 	140
10.36 INVALID-ORDER-363 $Z(s) =$	$\Big(\infty,\ c$	$\infty, \infty,$	∞ ,	$\frac{1}{C_4 s}, \ \overline{C_L}$	$\frac{1}{s + \frac{1}{R_L} + \frac{1}{L_L}}$	$\frac{-}{s}$.		 	 	 	 	 	140
10.364NVALID-ORDER-364 $Z(s) = 1$	$(\infty, \circ$	∞ , ∞ ,	∞ ,	$\frac{1}{C_4 s}$, $\frac{1}{C_L}$	$\frac{L_L s}{L_L s^2 + 1} +$	(R_L)		 	 	 	 	 	141
10.36 NVALID-ORDER-365 $Z(s) = 1$	$\left(\infty, c\right)$	$\infty, \infty,$	∞ ,	$\frac{1}{C_4 s}, \frac{R_L}{L_L}$	$\frac{\left(L_L s + \frac{1}{C_L s}\right)}{c_L s + R_L + \frac{1}{C_L s}}$	$\left(\frac{\overline{s}}{\overline{s}}\right)$.		 	 	 	 	 	141
10.36 CNVALID-ORDER-366 $Z(s) = 1$	(∞, \circ)	o, ∞,	∞ ,	$\frac{R_4}{C_4R_4s+1}$	$, R_L$	·		 	 	 	 	 	141
10.36TNVALID-ORDER- 367 $Z(s) = 1$	(∞, \circ)	$0, \infty,$	∞ ,	$\frac{R_4}{C_4 R_4 s + 1}$	$, \frac{1}{C_L s}$			 	 	 	 	 	141
10.36\newline NVALID-ORDER-368 $Z(s) = 0$	$(\infty, \circ$	$0, \infty,$	∞ ,	$\frac{R_4}{C_4 R_4 s + 1}$	$, \frac{R_L}{C_L R_L s +}$	$\overline{1}$.		 	 	 	 	 	141
10.36 9 NVALID-ORDER-369 $Z(s) = 0$	$(\infty, \circ$	∞ , ∞ ,	∞ ,	$\frac{R_4}{C_4R_4s+1}$	$R_L + \overline{C}$	$\left(\frac{1}{Ls}\right)$.		 	 	 	 	 	142
10.37 0 NVALID-ORDER-370 $Z(s) = 0$	$\Big(\infty, \circ$	∞ , ∞ ,	∞ ,	$\frac{R_4}{C_4R_4s+1}$	$, L_L s + \frac{1}{6}$	$\frac{1}{C_L s}$		 	 	 	 	 	142
10.37 I NVALID-ORDER-371 $Z(s) = 0$	$\Big(\infty, \circ$	∞ , ∞ ,	∞ ,	$\frac{R_4}{C_4R_4s+1}$	$, \frac{L_L s}{C_L L_L s^2}$	$\overline{+1}$) .		 	 	 	 	 	142
10.37 2 NVALID-ORDER-372 $Z(s) = 0$	$\left(\infty, \circ\right)$	$0, \infty,$	∞ ,	$\frac{R_4}{C_4R_4s+1}$	$L_L s + L_L s$	$R_L + \frac{1}{2}$	$\left(\frac{1}{C_L s}\right)$	 	 	 	 	 	142
10.37 B NVALID-ORDER-373 $Z(s) =$	$\bigg(\infty,\ c$	$\infty, \infty,$	∞ ,	$\frac{R_4}{C_4R_4s+1}$	$, \frac{1}{C_L s + \frac{1}{R_I}}$	$\frac{1}{L} + \frac{1}{L_L s}$	\cdot) .	 	 	 	 	 	142
10.37#NVALID-ORDER-374 $Z(s) = 0$	`				,		,	 	 	 	 	 	143
10.375NVALID-ORDER-375 $Z(s) =$	$\bigg(\infty,\ c$	∞ , ∞ ,	∞ ,	$\frac{R_4}{C_4R_4s+1}$	$, \frac{R_L \left(L_L s + L_L s + R_L \right)}{L_L s + R_L s}$	$\left(\frac{1}{C_L s}\right)$ $L + \frac{1}{C_L s}$	$\left(\frac{1}{2}\right)$.	 	 	 	 	 	143
10.376NVALID-ORDER-376 $Z(s) = 1$	/				\		·	 	 	 	 	 	143
10.37 TNVALID-ORDER-377 $Z(s) = 1$	$(\infty, \circ$	∞ , ∞ ,	∞ , 1	$R_4 + \frac{1}{C_4}$	$\left(\frac{1}{C_L s}\right)$			 	 	 	 	 	143

10.37 % NVALID-ORDER-3	78 Z(s) = ($(\infty, \ \infty)$	∞ , ∞ ,	∞ ,	$R_4 + \frac{1}{C_4 s},$	$\frac{R_L}{C_L R_L s}$	$\overline{s+1}$).			 	 	 	 	 	 	143
10.37 9 NVALID-ORDER-3	79 Z(s) = ((∞, ∞)	∞ , ∞ ,	∞ ,	$R_4 + \frac{1}{C_4 s},$	$R_L +$	$\frac{1}{C_L s}$			 	 	 	 	 	 	144
10.38 0 NVALID-ORDER-3	80 Z(s) = ((∞, ∞)	∞ , ∞ ,	∞ ,	$R_4 + \frac{1}{C_4 s},$	$L_L s +$	$\left(\frac{1}{C_L s}\right)$			 	 	 	 	 	 	144
10.38INVALID-ORDER-3	$81 \ Z(s) = ($	(∞, ∞)	∞ , ∞ ,	∞ ,	$R_4 + \frac{1}{C_4 s},$	$\frac{L_L s}{C_L L_L s}$	$\left(\frac{s}{s^2+1}\right)$			 	 	 	 	 	 	144
10.38 2 NVALID-ORDER-38	82 Z(s) = ((∞, ∞)	∞ , ∞ ,	∞ ,	$R_4 + \frac{1}{C_4 s},$	$L_L s +$	$R_L +$	$\frac{1}{C_L s}$		 	 	 	 	 	 	144
10.38 B NVALID-ORDER-38	83 Z(s) = ($\bigg(\infty,\ \circ$	$\infty, \infty,$	∞ ,	$R_4 + \frac{1}{C_4 s},$	$\overline{C_L s} + \frac{1}{2}$	$\frac{1}{\frac{1}{R_L} + \frac{1}{L_L}}$	$\frac{1}{\overline{s}}$.		 	 	 	 	 	 	144
10.38 4 NVALID-ORDER-38	84 Z(s) = ((∞, ∞)	∞ , ∞ ,	∞ ,	$R_4 + \frac{1}{C_4 s},$	$\frac{L_L s}{C_L L_L s}$	$\frac{8}{x^2+1}$ +	R_L		 	 	 	 	 	 	145
10.385NVALID-ORDER-3	$85 Z(s) = \left(\right.$	$\left(\infty, \circ\right)$	$\infty, \infty,$	∞ ,	$R_4 + \frac{1}{C_4 s},$	$\frac{R_L \left(L_L s + \frac{1}{2}\right)}{L_L s + \frac{1}{2}}$	$\frac{Ls + \frac{1}{C_Ls}}{R_L + \frac{1}{C_L}}$	$\left(\frac{s}{s}\right)$.		 	 	 	 	 	 	145
10.38 6 NVALID-ORDER-3	$86 \ Z(s) = ($	(∞, ∞)	∞ , ∞ ,	∞ ,	$L_4s + \frac{1}{C_4s}$	$, R_L$				 	 	 	 	 	 	145
10.38 7 NVALID-ORDER-3	87 Z(s) = ((∞, ∞)	∞ , ∞ ,	∞ ,	$L_4s + \frac{1}{C_4s}$	$, \frac{1}{C_L s}$				 	 	 	 	 	 	145
10.38 % NVALID-ORDER-3	88 $Z(s) = ($	(∞, ∞)	∞ , ∞ ,	∞ ,	$L_4s + \frac{1}{C_4s}$	$, \frac{R_I}{C_L R_L}$	$\left(\frac{s}{s+1}\right)$			 	 	 	 	 	 	145
10.38 9 NVALID-ORDER-38	89 Z(s) = ((∞, ∞)	∞ , ∞ ,	∞ ,	$L_4s + \frac{1}{C_4s}$	$R_L +$	$\left(\frac{1}{C_L s}\right)$			 	 	 	 	 	 	146
10.39 0 NVALID-ORDER-3	90 Z(s) = ((∞, ∞)	∞ , ∞ ,	∞ ,	$L_4s + \frac{1}{C_4s}$, $L_L s$	$+\frac{1}{C_L s}$			 	 	 	 	 	 	146
10.39 I NVALID-ORDER-3	$91 \ Z(s) = ($	$\left(\infty, \ \infty\right)$	∞ , ∞ ,	∞ ,	$L_4s + \frac{1}{C_4s}$	$, \frac{L_L}{C_L L_L}$	$\left(\frac{s}{s^2+1}\right)$			 	 	 	 	 	 	146
10.39 2 NVALID-ORDER-39	92 Z(s) = ($\left(\infty,\ \infty \right)$	∞ , ∞ ,	∞ ,	$L_4s + \frac{1}{C_4s}$	$, L_L s$	$+R_L +$	$-\frac{1}{C_L s}$) .	 	 	 	 	 	 	146
10.39 B NVALID-ORDER-3	93 Z(s) = ($\bigg(\infty,\ \circ$	$\infty, \infty,$	∞ ,	$L_4s + \frac{1}{C_4s}$	$, \overline{C_L s} +$	$\frac{1}{R_L + \frac{1}{L_R}}$	$\frac{1}{L^s}$		 	 	 	 	 	 	146
10.39 4 NVALID-ORDER-3	94 Z(s) = ((∞, ∞)	∞ , ∞ ,	∞ ,	$L_4s + \frac{1}{C_4s}$	$, \frac{L_L}{C_L L_L}$	$\frac{1}{s^2+1}$ +	$-R_L$		 	 	 	 	 	 	147
10.395NVALID-ORDER-3	95 Z(s) = ($\left(\infty, \circ\right)$	$\infty, \infty,$	∞ ,	$L_4s + \frac{1}{C_4s}$	$\frac{R_L(I)}{L_L s + 1}$	$\frac{C_L s + \frac{1}{C_L}}{R_L + \frac{1}{C_L}}$	$\left(\frac{\overline{s}}{\frac{1}{L^s}}\right)$		 	 	 	 	 	 	147
10.39 6 NVALID-ORDER-3										 	 	 	 	 	 	147
10.39 7 NVALID-ORDER-3	$97 \ Z(s) = ($	(∞, ∞)	∞ , ∞ ,	∞ ,	$\tfrac{L_4s}{C_4L_4s^2+1},$	$\frac{1}{C_L s}$				 	 	 	 	 	 	147
10.398NVALID-ORDER-3	$98 \ Z(s) = ($	$\left(\infty, \ \infty\right)$	∞ , ∞ ,	∞ ,	$\tfrac{L_4s}{C_4L_4s^2+1},$	$\frac{R_L}{C_L R_L s}$	$\overline{+1}$) .			 	 	 	 	 	 	147
10.39 9 NVALID-ORDER-3	99 Z(s) = ((∞, ∞)	∞ , ∞ ,	∞ ,	$\frac{L_4s}{C_4L_4s^2+1},$	$R_L +$	$\frac{1}{C_L s}$			 	 	 	 	 	 	148

10.40 0 NVALID-ORDER-400 $Z(s)=\left(\right.$	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$\frac{L_4s}{C_4L_4s^2+1},$	$L_L s + \frac{1}{C_L s}$			 	 	148
10.40 I NVALID-ORDER-401 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1},$	$\frac{L_L s}{C_L L_L s^2 + 1}$			 	 	148
10.40 2 NVALID-ORDER-402 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1},$	$L_L s + R_L + \overline{c}$	$\left(\frac{1}{C_L s}\right)$		 	 	148
10.40 B NVALID-ORDER-403 $Z(s) = 0$	$\bigg(\infty,\ \infty,\ \infty,\ \infty,$	$\frac{L_4s}{C_4L_4s^2+1},$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$)		 	 	148
10.40 4 NVALID-ORDER-404 $Z(s) = ($	$(\infty, \infty, \infty, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1},$	$\frac{L_L s}{C_L L_L s^2 + 1} + F$	R_L)		 	 	149
10.40 5 NVALID-ORDER-405 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$\frac{L_4s}{C_4L_4s^2+1},$	$\frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}$	-)		 	 	149
10.40 6 NVALID-ORDER-406 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$L_4s + R_4$	$+\frac{1}{C_4s}, R_L$			 	 	149
10.40 T NVALID-ORDER-407 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$L_4s + R_4$	$+\frac{1}{C_4s}, \frac{1}{C_Ls}$			 	 	149
10.40&NVALID-ORDER-408 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$L_4s + R_4$	$+\frac{1}{C_4s}, \frac{R_L}{C_LR_Ls}$	$\overline{+1}$)		 	 	149
10.40 9 NVALID-ORDER-409 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$L_4s + R_4$	$+\frac{1}{C_4s}$, $R_L + \overline{C}$	$\left(\frac{1}{C_L s}\right)$		 	 	150
10.41 0 NVALID-ORDER-410 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$L_4s + R_4$	$+\frac{1}{C_4s}, L_Ls+$	$\frac{1}{C_L s}$)		 	 	150
10.41 I NVALID-ORDER-411 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$L_4s + R_4$	$+\frac{1}{C_4s}, \frac{L_Ls}{C_LL_Ls^2}$	$\overline{+1}$)		 	 	150
10.41 2 NVALID-ORDER-412 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$L_4s + R_4$	$+\frac{1}{C_4s}, L_Ls+$	$R_L + \frac{1}{C_L s}$)	 	 	150
10.41 B NVALID-ORDER-413 $Z(s) = 0$	$\bigg(\infty,\ \infty,\ \infty,\ \infty,$	$L_4s + R_4$	$+\frac{1}{C_4s}, \frac{1}{C_Ls+\frac{1}{R}}$	$\left(\frac{1}{L} + \frac{1}{L_L s}\right)$		 	 	150
10.41 4 NVALID-ORDER-414 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$L_4s + R_4$	$+\frac{1}{C_4s}, \frac{L_Ls}{C_LL_Ls^2}$	$\frac{1}{k+1} + R_L$		 	 	151
10.41 5 NVALID-ORDER-415 $Z(s) = 0$	$\bigg(\infty,\ \infty,\ \infty,\ \infty,$	$L_4s + R_4$	$+\frac{1}{C_4s}, \frac{R_L(L_L)}{L_Ls+R}$	$\left(\frac{s + \frac{1}{C_L s}}{C_L s}\right)$ $\left(\frac{1}{C_L s} + \frac{1}{C_L s}\right)$		 	 	151
10.41 6 NVALID-ORDER-416 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{R_4}}$	$\frac{1}{24s}$, R_L)			 	 	151
10.41 T NVALID-ORDER-417 $Z(s) = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{I}}$	$\frac{1}{C_L s}$, $\frac{1}{C_L s}$			 	 	151
10.41&NVALID-ORDER-418 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{I}}$	$\frac{1}{C_L R_L s + 1}$, $\frac{R_L}{C_L R_L s + 1}$			 	 	151
10.41 9 NVALID-ORDER-419 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{I}}$	$\frac{1}{C_L s}$, $R_L + \frac{1}{C_L s}$)		 	 	152
10.42 0 NVALID-ORDER-420 $Z(s) = ($	$\left(\infty, \ \infty, \ \infty, \ \infty, \ \infty, \right.$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{R_4}}$	$\frac{1}{C_{L_s}}$, $L_{L_s} + \frac{1}{C_{L_s}}$	$\left(\frac{1}{s}\right)$		 	 	152

10.42INVALID-ORDER-421 $Z(s) = 1$	$\left(\infty, \ \infty, \right.$	$, \infty, \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},$	$\frac{L_L s}{C_L L_L s^2 + 1}$			 	 	 	152
10.42 2 NVALID-ORDER-422 $Z(s) = 1$	$\left(\infty, \ \infty, \right.$	$, \infty, \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},$	$L_L s + R_L$	$+\frac{1}{C_L s}$		 	 	 	152
10.42BNVALID-ORDER- 423 $Z(s) = 1$	$\left(\infty, \ \infty, \right.$	$, \infty, \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L}}$	$\frac{1}{L^s}$		 	 	 	152
10.42 1 NVALID-ORDER-424 $Z(s) = 1$	\		4 4		/		 	 	 	153
10.42 5 NVALID-ORDER-425 $Z(s) = 1$	$\left(\infty, \ \infty, \right.$	$, \infty, \infty,$	$\frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}},$	$\frac{R_L \left(L_L s + \frac{1}{C_L}\right)}{L_L s + R_L + \frac{1}{C_L}}$	$\left(\frac{\overline{L}s}{L^s}\right)$		 	 	 	153
10.426NVALID-ORDER-426 $Z(s) = 0$	$(\infty, \infty,$	$\infty, \ \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R$	$_4, R_L$)			 	 	 	153
10.42 T NVALID-ORDER-427 $Z(s) = ($	$(\infty, \infty,$	$\infty, \ \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R$	$4, \frac{1}{C_L s}$			 	 	 	153
10.42\nstructure NVALID-ORDER-428 $Z(s) = 0$	$\left(\infty, \ \infty, \right.$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R$	$4, \ \frac{R_L}{C_L R_L s + 1}$)		 	 	 	153
10.42¶NVALID-ORDER-429 $Z(s) = ($	$(\infty, \infty,$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R$	$_4, R_L + \frac{1}{C_L}$	$\left(\frac{1}{s}\right)$		 	 	 	154
10.43 0 NVALID-ORDER-430 $Z(s) = ($	$(\infty, \infty,$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R$	$_4, L_L s + \frac{1}{C_I}$	$\left(\frac{1}{Ls}\right)$		 	 	 	154
10.43 I NVALID-ORDER-431 $Z(s) = ($	$(\infty, \infty,$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R$	$4, \ \frac{L_L s}{C_L L_L s^2 + 1}$	$(\overline{1})$		 	 	 	154
10.432NVALID-ORDER-432 $Z(s) = ($	$(\infty, \infty,$	∞ , ∞ ,	$\frac{L_4s}{C_4L_4s^2+1} + R$	$L_L s + R_L$	$L + \frac{1}{C_L s}$)	 	 	 	154
10.43 B NVALID-ORDER-433 $Z(s) = 1$	$(\infty, \infty,$	$, \infty, \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R$	$C_4, \frac{1}{C_L s + \frac{1}{R_L}}$	$\frac{1}{L_L s}$		 	 	 	154
10.43 4 NVALID-ORDER-434 $Z(s) = ($	$(\infty, \infty,$	$\infty, \ \infty,$	$\frac{L_4s}{C_4L_4s^2+1} + R$	$4, \ \frac{L_L s}{C_L L_L s^2 + 1}$	$\left(1 + R_L \right)$		 	 	 	155
10.43 5 NVALID-ORDER-435 $Z(s) = ($					$\left(\frac{1}{C_L s}\right)$ $\left(\frac{1}{C_L s}\right)$		 	 	 	155
10.436NVALID-ORDER-436 $Z(s) = 1$							 	 	 	155
10.43 T NVALID-ORDER-437 $Z(s) = ($	$(\infty, \infty,$	$, \infty, \infty,$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}},$	$\frac{R_L}{C_L R_L s + 1}$			 	 	 	155
10.43\NVALID-ORDER-438 $Z(s) = 1$	$\left(\infty, \ \infty, \right.$	$, \infty, \infty,$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}},$	$R_L + \frac{1}{C_L s}$)		 	 	 	155
10.43 9 NVALID-ORDER-439 $Z(s) = ($	$\left(\infty, \ \infty, \right.$	$, \infty, \infty,$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}},$	$L_L s + \frac{1}{C_L s}$	<u> </u>		 	 	 	156

10.44 0 NVALID-ORDER-440 $Z(s) = \left(\right.$					 	156
10.44 INVALID-ORDER-44 1 $Z(s) = \Big($				\overline{as} \cdots	 	156
10.44 2 NVALID-ORDER-442 $Z(s) = \left(\begin{array}{c} \\ \end{array}\right)$	$(\infty, \infty, \infty$	$\frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \frac{1}{C_4s}$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}} \right)$		 	156
10.44 B NVALID-ORDER-443 $Z(s) = \left(\begin{array}{c} 1 & 1 \\ 1 & 1 \end{array}\right)$	\			/	 	156
10.44 4 NVALID-ORDER-444 $Z(s) = \Big($	\	- 4	. L . /		 	157
10.44 5 NVALID-ORDER-445 $Z(s) = ($	$R_1, R_2, \infty, \infty,$	∞ , R_L)			 	157
10.44 6 NVALID-ORDER-446 $Z(s) = ($	$R_1, R_2, \infty, \infty,$	$\infty, \frac{R_L}{C_L R_L s + 1}$			 	157
10.44 T NVALID-ORDER-447 $Z(s) = \left(\begin{array}{c} \\ \end{array}\right)$	$R_1, R_2, \infty, \infty,$	∞ , $R_L + \frac{1}{C_L s}$)		 	157
10.44\nabla NVALID-ORDER-448 $Z(s) = 0$	$R_1, R_2, \infty, \infty,$	∞ , $L_L s + \frac{1}{C_L s}$			 	157
10.449NVALID-ORDER-449 $Z(s) = 0$	$R_1, R_2, \infty, \infty,$	∞ , $\frac{L_L s}{C_L L_L s^2 + 1}$			 	157
10.45 0 NVALID-ORDER-450 $Z(s) = \left(\frac{1}{2} \right)$	$(R_1, R_2, \infty, \infty,$	∞ , $L_L s + R_L$	$+\frac{1}{C_L s}$)		 	158
10.45INVALID-ORDER-451 $Z(s) = \left(\frac{1}{2} \right)$	$R_1, R_2, \infty, \infty,$	∞ , $\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{R_L}}$	$\left(\frac{1}{L_L s}\right)$		 	158
10.45 2 NVALID-ORDER-452 $Z(s) = \left(\frac{1}{2} \right)$		L L .	/		 	158
10.45 & NVALID-ORDER-453 $Z(s) = \left(\begin{array}{c} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{array} \right)$	$(R_1, R_2, \infty, \infty,$	∞ , $\frac{R_L \left(L_L s + \overline{C}\right)}{L_L s + R_L + \overline{C}}$	$\left(\frac{1}{C_L s}\right) \over \frac{1}{C_L s}$		 	158
10.454NVALID-ORDER-454 $Z(s) = \left(\frac{1}{2}\right)$	$(R_1, \frac{1}{C_2 s}, \infty, \infty)$	$, \infty, R_L$)			 	158
10.45 NVALID-ORDER-455 $Z(s) = \left(\frac{1}{2}\right)^{1/2}$	$(R_1, \frac{1}{C_2 s}, \infty, \infty)$	$, \infty, \frac{1}{C_L s}$			 	159
10.456NVALID-ORDER-456 $Z(s) = \left(\frac{1}{2} \right)$	$(R_1, \frac{1}{C_2 s}, \infty, \infty)$	$, \infty, \frac{R_L}{C_L R_L s + 1}$			 	159
10.45 T NVALID-ORDER-457 $Z(s) = \left(\frac{1}{2}\right)$	$(R_1, \frac{1}{C_2 s}, \infty, \infty)$	$, \infty, R_L + \frac{1}{C_L s}$	(a)		 	159
10.45\(\text{NVALID-ORDER-458} \) $Z(s) = \left(\left(\left(\left(\left(\left(\left(s \right) \right) \right) \right) \right) \right) + \left($	$R_1, \frac{1}{C_2 s}, \infty, \infty$	$, \infty, L_L s + \frac{1}{C_L}$	$\left(\frac{\overline{s}}{s}\right)$		 	159
10.45 9 NVALID-ORDER-459 $Z(s) = \left(\frac{1}{2}\right)$	$R_1, \frac{1}{C_2 s}, \infty, \infty$	$, \infty, \frac{L_L s}{C_L L_L s^2 + 1}$)		 	159
10.46 0 NVALID-ORDER-460 $Z(s) = \left(\right.$	$R_1, \frac{1}{C_2 s}, \infty, \infty$	$, \infty, L_L s + R_L$	$\left(1 + \frac{1}{C_L s}\right)$		 	159

10.46INVALID-ORDER-461 $Z(s) = 1$	$\left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$
10.46 2 NVALID-ORDER-462 $Z(s) = 0$	$\left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) \dots \dots$
10.46 NVALID-ORDER-463 $Z(s) = 1$	$\left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.464NVALID-ORDER-464 $Z(s)=\langle$	$\left(R_1, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \infty, R_L\right)$
10.46 5 NVALID-ORDER-465 $Z(s) = 0$	$\left(R_1, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{1}{C_Ls}\right) \dots \dots$
$10.46 \text{ \it E} \text{NVALID-ORDER-466} \ Z(s) = ($	$\left(R_1, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$
10.46 T NVALID-ORDER-467 $Z(s) = 0$	$\left(R_1, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.46\ngreen NVALID-ORDER-468 $Z(s) = 0$	$\left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$
10.46 9 NVALID-ORDER-469 $Z(s) = 0$	$\left(R_1, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right) \dots \dots$
10.470NVALID-ORDER-470 $Z(s) = 0$	$\left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right) \dots \dots$
10.47INVALID-ORDER-471 $Z(s) = 1$	$\left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$
10.47 2 NVALID-ORDER-472 $Z(s) = 0$	$\left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
10.47\$NVALID-ORDER-473 $Z(s) = 1$	$\left(R_{1}, \frac{R_{2}}{C_{2}R_{2}s+1}, \infty, \infty, \infty, \frac{R_{L}\left(L_{L}s+\frac{1}{C_{L}s}\right)}{L_{L}s+R_{L}+\frac{1}{C_{L}s}}\right) \dots \dots$
10.474NVALID-ORDER-474 $Z(s)=\langle$	$\left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, R_L\right) \dots \dots$
10.475NVALID-ORDER-475 $Z(s) = 0$	$\left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$
10.476NVALID-ORDER-476 $Z(s) = 0$	$\left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$
10.47 TNVALID-ORDER-477 $Z(s) = 0$	$\left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$
10.47&NVALID-ORDER-478 $Z(s) = 0$	$(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s})$
10.47 9 NVALID-ORDER-479 $Z(s) = 0$	$\left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$
10.48 0 NVALID-ORDER-480 $Z(s) = 0$	$\left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$
10.48INVALID-ORDER-481 $Z(s) = 1$	$\left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$
10.482NVALID-ORDER-482 $Z(s)=($	$\left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) \dots \dots$

10.48 B NVALID-ORDER-483 $Z(s) = 1$	$\left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$
10.484NVALID-ORDER-484 $Z(s) = 0$	$(R_1, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, R_L)$
10.48 SNVALID-ORDER-485 $Z(s) = 0$	$(R_1, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls})$
10.486NVALID-ORDER-486 $Z(s) = 0$	$(R_1, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1})$
10.48 T NVALID-ORDER-487 $Z(s) = 0$	$\left(R_1, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$
10.48\NVALID-ORDER-488 $Z(s) = 0$	$\left(R_1, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.48 9 NVALID-ORDER-489 $Z(s) = 0$	$\left(R_1, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.49 0 NVALID-ORDER-490 $Z(s) = 0$	$\left(R_1, \ L_2s + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ L_Ls + R_L + \frac{1}{C_Ls}\right) \ \dots \ $
10.49INVALID-ORDER-491 $Z(s) = 1$	$\left(R_1, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$
10.49 2 NVALID-ORDER-492 $Z(s)=0$	$(R_1, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L)$
10.49 B NVALID-ORDER-493 $Z(s) = 1$	$\left(R_1, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$
10.494NVALID-ORDER-494 $Z(s)=\langle$	$\left(R_1, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, R_L\right)$
10.495NVALID-ORDER-495 $Z(s) = 0$	$\left(R_1, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right) \dots \dots$
10.49 6 NVALID-ORDER-496 $Z(s) = 0$	$\left(R_1, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right) \dots \dots$
10.49 T NVALID-ORDER-497 $Z(s) = 0$	$\left(R_1, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$
10.49&NVALID-ORDER-498 $Z(s) = 0$	$\left(R_1, \ L_2s + R_2 + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ L_Ls + \frac{1}{C_Ls}\right) \ \dots \ $
10.49 9 NVALID-ORDER-499 $Z(s) = 0$	$\left(R_1, \ L_2s + R_2 + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$
10.50 0 NVALID-ORDER-500 $Z(s) = 0$	$\left(R_1, \ L_2s + R_2 + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.50INVALID-ORDER-501 $Z(s) = 1$	$\left(R_1, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$
	$(R_1, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L)$
10.50\$NVALID-ORDER-503 $Z(s) = 1$	$\left(R_{1}, L_{2}s + R_{2} + \frac{1}{C_{2}s}, \infty, \infty, \infty, \frac{R_{L}\left(L_{L}s + \frac{1}{C_{L}s}\right)}{L_{L}s + R_{L} + \frac{1}{C_{L}s}}\right) \dots \dots$
10.504NVALID-ORDER-504 $Z(s)=\langle$	$\left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, R_L\right) \dots \dots$

10.50 NVALID-ORDER-505 $Z(s)$	$= (R_1,$	$\frac{L_2s}{C_2L_2s^2+1}+R_2, \ \infty, \ \infty,$	$\infty, \frac{1}{C_L s}$.		 	 168
10.50 © NVALID-ORDER-506 $Z(s)$	$= (R_1,$	$\frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty,$	$\infty, \frac{R_L}{C_L R_L s + 1}$)	 	 168
10.50 T NVALID-ORDER-507 $Z(s)$	$=(R_1,$	$\frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty,$	∞ , $R_L + \frac{1}{C_L s}$	· · · · · · · ·	 	 169
10.50 NVALID-ORDER-508 $Z(s)$	$=(R_1,$	$\frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty,$	∞ , $L_L s + \frac{1}{C_L}$	$\left(\frac{1}{s}\right)$	 	 169
10.50 9 NVALID-ORDER-509 $Z(s)$	$= (R_1,$	$\frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty,$	∞ , $\frac{L_L s}{C_L L_L s^2 + 1}$	$\left(\cdot \right) $	 	 169
10.51 © NVALID-ORDER-510 $Z(s)$	$= (R_1,$	$\frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty,$	∞ , $L_L s + R_L$	$\left(1 + \frac{1}{C_L s}\right)$.	 	 169
10.51INVALID-ORDER-511 $Z(s)$	$= \left(R_1,\right)$	$\frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty,$	∞ , $\frac{1}{C_L s + \frac{1}{R_L} + \dots + \frac{1}{R_L}}$	$\left(\frac{1}{L_L s}\right) \dots$	 	 169
10.51 2 NVALID-ORDER-512 $Z(s)$	$= (R_1,$	$\frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty,$	∞ , $\frac{L_L s}{C_L L_L s^2 + 1}$	$(+R_L)$	 	 170
10.51 B NVALID-ORDER-513 $Z(s)$	$= \left(R_1,\right.$	$\frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty,$	∞ , $\frac{R_L(L_L s + r_L)}{L_L s + R_L + r_L}$	$\left(\frac{\frac{1}{C_L s}}{-\frac{1}{C_L s}} \right)$	 	 170
10.51 4 NVALID-ORDER-514 $Z(s)$	$= \left(R_1,\right)$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty,$	$\infty, \frac{1}{C_L s}$)		 	 170
10.51 INVALID-ORDER-515 $Z(s)$					 	 170
10.51 6 NVALID-ORDER-516 $Z(s)$		2	,		 	 170
10.51 T NVALID-ORDER-517 $Z(s)$	\	- <u>4</u> ·		/	 	 171
10.51 % NVALID-ORDER-518 $Z(s)$	$= \left(R_1,\right.$	$\frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ $	$\infty, \ \frac{L_L s}{C_L L_L s^2 + 1}$		 	 171
10.51 9 NVALID-ORDER-519 $Z(s)$					 	 171
10.52 0 NVALID-ORDER-520 $Z(s)$					 	 171
10.52INVALID-ORDER-521 $Z(s)$	\	-		/	 	 171
10.52 2 NVALID-ORDER-522 $Z(s)$		- <u>2</u> -	$\infty, \frac{R_L \left(L_L s + \frac{1}{C_L} \frac{1}{C_L} + \frac$	$\left(\frac{\overline{L^s}}{L^s}\right)$	 	 172
10.52 B NVALID-ORDER-523 $Z(s)$	/	. \			 	 172
10.52 \pm NVALID-ORDER-524 $Z(s)$	$= (L_1 s,$	$R_2, \infty, \infty, \infty, \frac{1}{C_L s}$			 	 172

10.525NVALID-ORDER- 525 $Z(s)$	$)=\Big(L_{1}s,$	R_2, ∞, ∞	∞ , ∞ ,	$\frac{R_L}{C_L R_L s + 1}$. 172
10.52 6 NVALID-ORDER- 526 $Z(s)$	$) = (L_1 s,$	R_2, ∞, ∞	∞ , ∞ ,	$R_L + \frac{1}{C_L s}$)		 	 	 	 	. 172
10.52 T NVALID-ORDER-527 $Z(s)$	$) = (L_1 s,$	R_2, ∞, ∞	∞ , ∞ ,	$L_L s + \frac{1}{C_L s}$. 173
10.52 & NVALID-ORDER-528 Z(s)	$) = (L_1 s,$	R_2, ∞, ∞	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$. 173
10.52 9 NVALID-ORDER- 529 $Z(s)$	$) = (L_1 s,$	R_2, ∞, ∞	∞ , ∞ ,	$L_L s + R_L$	$+\frac{1}{C_L s}$)	 	 	 	 	. 173
10.53 0 NVALID-ORDER-530 $Z(s)$	$= \Big(L_1 s,$	$R_2, \infty,$	$\infty, \infty,$	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{R_L}}$	$\left(\frac{1}{L_L s}\right)$.		 	 	 	 	. 173
10.53 I NVALID-ORDER-531 $Z(s)$	$= (L_1 s,$	R_2, ∞, ∞	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} -$	$+R_L$. 173
10.53 2 NVALID-ORDER-532 $Z(s)$	$= \left(L_1 s,\right.$	$R_2, \infty,$	∞ , ∞ ,	$\frac{R_L \left(L_L s + \frac{1}{C}\right)}{L_L s + R_L + \frac{1}{C}}$	$\left(\frac{\frac{1}{L^s}}{\frac{1}{C_L s}}\right)$. 174
10.53 B NVALID-ORDER-533 $Z(s)$	$) = (L_1 s,$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞	R_L)			 	 	 	 	. 174
10.534NVALID-ORDER-534 $Z(s)$	$) = (L_1 s,$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞	$\frac{1}{C_L s}$)			 	 	 	 	. 174
10.53 5 NVALID-ORDER-535 $Z(s)$	$) = (L_1 s,$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞	$\frac{R_L}{C_L R_L s + 1}$)		 	 	 	 	. 174
10.53 6 NVALID-ORDER-536 $Z(s)$	$) = (L_1 s,$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞	$R_L + \frac{1}{C_L s}$)		 	 	 	 	. 174
10.53 T NVALID-ORDER-537 $Z(s)$	$) = (L_1 s,$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞	$L_L s + \frac{1}{C_L}$	$\left(\frac{1}{s}\right)$. 175
10.53 & NVALID-ORDER-538 $Z(s)$	$)=\Big(L_{1}s,$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞	$\frac{L_L s}{C_L L_L s^2 + 1}$)		 	 	 	 	. 175
10.53 9 NVALID-ORDER-539 $Z(s)$	$)=\Big(L_{1}s,$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞	$L_L s + R_L$	$_{L}+rac{1}{C_{L}s}$)	 	 	 	 	. 175
10.54 0 NVALID-ORDER- 540 $Z(s)$	$= \left(L_1 s,\right.$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞	$, \frac{1}{C_L s + \frac{1}{R_L} +}$	$\frac{1}{L_L^s}$. 175
10.54INVALID-ORDER-541 $Z(s)$	$) = (L_1 s,$	$\frac{1}{C_2s}$, ∞ ,	∞ , ∞	$\frac{L_L s}{C_L L_L s^2 + 1}$	$+R_L$. 175
10.54 2 NVALID-ORDER-542 Z(s)	$= \Big(L_1 s,$	$\frac{1}{C_2 s}$, ∞ ,	∞ , ∞	$, \frac{R_L \left(L_L s + \frac{1}{6}\right)}{L_L s + R_L + \frac{1}{6}}$	$\left(\frac{1}{C_L s}\right)$. 176
10.54 B NVALID-ORDER- 543 $Z(s)$	$) = (L_1 s,$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty, R_L$. 176
10.54 4 NVALID-ORDER-544 $Z(s)$	$= \left(L_1 s,\right.$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty, \frac{1}{C_L s}$. 176
10.54 5 NVALID-ORDER-545 $Z(s)$	$= (L_1 s,$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty, \frac{R_I}{C_L R_L}$	$\left(\frac{L}{s+1}\right)$. 176
10.54 6 NVALID-ORDER- 546 $Z(s)$	$)=\Big(L_{1}s,$	$\frac{R_2}{C_2R_2s+1},$	∞ , ∞	$, \infty, R_L +$	$-\frac{1}{C_L s}$. 176

10.54 T NVALID-ORDER-547	Z(s) = (L_1s ,	$\frac{R_2}{C_2R_2s+1},$	∞ ,	∞ , ∞ ,	L_L	$s + \frac{1}{C_L s}$) .		 	 	 	 	 	 177
10.54 % NVALID-ORDER-548	Z(s) = (L_1s ,	$\frac{R_2}{C_2R_2s+1},$	∞ ,	∞ , ∞ ,	$\overline{C_L I}$	$\frac{L_L s}{L_L s^2 + 1}$			 	 	 	 	 	 177
10.54 9 NVALID-ORDER-549	Z(s) = ($(L_1s,$	$\frac{R_2}{C_2R_2s+1},$	∞ ,	∞ , ∞ ,	L_L	$s + R_L$	$+\frac{1}{C_L s}$) .	 	 	 	 	 	 177
10.55 0 NVALID-ORDER-550	$Z(s) = \left(\begin{array}{c} \\ \end{array} \right)$	L_1s ,	$\frac{R_2}{C_2R_2s+1},$	∞ ,	∞ , ∞ ,	$, \overline{C_L}$	$\frac{1}{s + \frac{1}{R_L} + \frac{1}{L}}$	$\frac{1}{L^s}$		 	 	 	 	 	 177
10.55INVALID-ORDER-551	$Z(s) = \left(\frac{1}{s} \right)$	$(L_1s,$	$\frac{R_2}{C_2R_2s+1},$	∞ ,	∞ , ∞ ,	$\overline{C_L I}$	$\frac{L_L s}{L_L s^2 + 1} +$	$-\stackrel{\circ}{R_L}$		 	 	 	 	 	 177
10.55 2 NVALID-ORDER-552	$Z(s) = \left(\begin{array}{c} 2 & Z(s) \end{array} \right)$	L_1s ,	$\frac{R_2}{C_2R_2s+1},$	∞ ,	∞, ∞	$, \frac{R_L}{L_L}$	$\frac{\left(L_L s + \frac{1}{C_L}\right)}{s + R_L + \frac{1}{C_L}}$	$\left(\frac{\overline{s}}{L^s}\right)$		 	 	 	 	 	 178
10.55 3 NVALID-ORDER-553	Z(s) = (L_1s ,	$R_2 + \frac{1}{C_2 s},$	∞	∞ , ∞	R_I	$_{L}$)			 	 	 	 	 	 178
10.55 4 NVALID-ORDER-554	Z(s) = 0	L_1s ,	$R_2 + \frac{1}{C_2 s},$	∞ ,	∞ , ∞	$o, \frac{1}{C_L}$	$\left(\frac{1}{Ls}\right)$			 	 	 	 	 	 178
10.55 5 NVALID-ORDER-555	S(Z(s)) = 0	L_1s ,	$R_2 + \frac{1}{C_2 s},$	∞ ,	∞ , ∞	\overline{C} , \overline{C}_L	$\left(\frac{R_L}{LR_Ls+1}\right)$			 	 	 	 	 	 178
10.55 6 NVALID-ORDER-556	SZ(s) = (L_1s ,	$R_2 + \frac{1}{C_2 s},$	∞ ,	∞ , ∞	R_I	$L + \frac{1}{C_L s}$) .		 	 	 	 	 	 178
10.55 7 NVALID-ORDER-557	Z(s) = 0	L_1s ,	$R_2 + \frac{1}{C_2 s},$	∞	∞ , ∞	o, L_{I}	$Ls + \frac{1}{C_L s}$	$\left(\cdot \right)$		 	 	 	 	 	 179
10.55 % NVALID-ORDER-558	Z(s) = (L_1s ,	$R_2 + \frac{1}{C_2 s},$	∞ ,	∞ , ∞	$\overline{C_L}$	$\frac{L_L s}{L_L L_L s^2 + 1}$			 	 	 	 	 	 179
10.55 9 NVALID-ORDER-559	Z(s) = ($(L_1s,$	$R_2 + \frac{1}{C_2 s},$	∞ ,	∞ , ∞	L_I	$Ls + R_L$	$+\frac{1}{C_L}$	\overline{s} .	 	 	 	 	 	 179
10.56 0 NVALID-ORDER-560	$Z(s) = \left(\right.$	L_1s ,	$R_2 + \frac{1}{C_2 s}$	$, \infty$	$, \infty, \infty$	$\circ, \ \overline{C}_{I}$	$\frac{1}{L s + \frac{1}{R_L} + \frac{1}{2}}$	$\frac{1}{L_L s}$		 	 	 	 	 	 179
10.56INVALID-ORDER-561	Z(s) = (L_1s ,	$R_2 + \frac{1}{C_2 s},$	∞ ,	∞ , ∞	\overline{C} , \overline{C}	$\frac{L_L s}{L_L L_L s^2 + 1}$	$+R_{L}$) .	 	 	 	 	 	 179
10.56 2 NVALID-ORDER-562	$Z(s) = \left(\begin{array}{c} 2 & Z(s) \end{array} \right)$	L_1s ,	$R_2 + \frac{1}{C_2 s}$	$, \infty$	∞ , ∞	$\circ, \frac{R_1}{L}$	$\frac{L\left(L_L s + \frac{1}{C}\right)}{L_L s + R_L + \frac{1}{C}}$	$\left(\frac{1}{L^s}\right)$ C_L^s		 	 	 	 	 	 180
10.56 3 NVALID-ORDER-563	Z(s) = (L_1s ,	$L_2s + \frac{1}{C_2s}$, ∞	$, \infty, \infty$	∞ , R	R_L)			 	 	 	 	 	 180
10.56 4 NVALID-ORDER-564	Z(s) = (L_1s ,	$L_2s + \frac{1}{C_2s}$, ∞	$, \infty, \infty$	∞ , \overline{C}	$\left(\frac{1}{C_L s}\right)$.			 	 	 	 	 	 180
10.56 5 NVALID-ORDER-565	Z(s) = 0	L_1s ,	$L_2s + \frac{1}{C_2s}$, ∞	$, \infty, \circ$	∞ , \overline{C}	$\frac{R_L}{C_L R_L s + 1}$) .		 	 	 	 	 	 180
10.56 6 NVALID-ORDER-566	SZ(s) = (L_1s ,	$L_2s + \frac{1}{C_2s}$, ∞	$, \infty, \circ$	∞ , R	$R_L + \frac{1}{C_L s}$	$\left(\frac{1}{2} \right)$		 	 	 	 	 	 180
10.56 7 NVALID-ORDER-567	Z(s) = (L_1s ,	$L_2s + \frac{1}{C_2s}$, ∞	$, \infty, \infty$	∞ , L	$L_L s + \frac{1}{C_L}$	$\frac{1}{s}$		 	 	 	 	 	 181
10.56&NVALID-ORDER-568	Z(s) = (L_1s ,	$L_2s + \frac{1}{C_2s}$, ∞	$, \infty, \infty$	∞ , \overline{C}	$\frac{L_L s}{C_L L_L s^2 + 1}$) .		 	 	 	 	 	 181

10.56 9 NVALID-ORDER-569 $Z(s) = ($	$\left(L_1s, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$	81
10.570NVALID-ORDER-570 $Z(s) = 1$	$\left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right) \ \dots \ $	81
10.57INVALID-ORDER-571 $Z(s) = ($	$\left(L_1s, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$	81
10.57 2 NVALID-ORDER-572 $Z(s) = 1$	$\left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	82
10.57 B NVALID-ORDER-573 $Z(s) = ($	$\left(L_1s,\ L_2s+R_2+\frac{1}{C_2s},\ \infty,\ \infty,\ \infty,\ R_L\right)$	82
10.574NVALID-ORDER-574 $Z(s)=\left(\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$	82
10.575NVALID-ORDER-575 $Z(s) = ($	$\left(L_1s, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$	82
10.576NVALID-ORDER-576 $Z(s) = ($	$\left(L_1s, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$	82
10.57 T NVALID-ORDER-577 $Z(s) = ($	$\left(L_1s, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$	83
10.57\NVALID-ORDER-578 $Z(s) = ($	$(L_1s, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1})$	83
10.57 9 NVALID-ORDER-579 $Z(s) = ($	$(L_1s, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls})$	83
10.58©NVALID-ORDER-580 $Z(s) = 1$	$\left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	83
10.58 I NVALID-ORDER-581 $Z(s) = ($	$(L_1s, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L)$	83
10.582NVALID-ORDER-582 $Z(s) = 1$	$\left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	84
10.58 3 NVALID-ORDER-583 $Z(s) = ($	$\left(L_1s, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, R_L\right)$	84
10.584NVALID-ORDER-584 $Z(s) = ($	$\left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right) \dots \dots$	84
10.58 INVALID-ORDER-585 $Z(s) = ($	$\left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$	84
10.586NVALID-ORDER-586 $Z(s) = ($	$(L_1s, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_Ls})$	84
10.58 T NVALID-ORDER-587 $Z(s) = ($	$\left(L_1s, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right) \dots \dots$	85
10.58\(\text{NVALID-ORDER-588} \(Z(s) = ($\left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)'$	85
10.58 9 NVALID-ORDER-589 $Z(s) = ($	$\left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right) \dots \dots$	85
10.59©NVALID-ORDER-590 $Z(s) = 1$	$\left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	85

10.59INVALID-ORDER-591 $Z(s) =$	$(L_1s,$	$\frac{L_2s}{C_2L_2s^2+1}$ +	R_2, ∞	$, \infty, \infty$	$\frac{L}{C_L L_L}$	$\frac{Ls}{Ls^2+1}$ +	R_L	 	 	 	 	185
10.59 2 NVALID-ORDER-592 $Z(s) =$	$(L_1s,$	$\frac{L_2s}{C_2L_2s^2+1} +$	$-R_2, \propto$	∞ , ∞ , ∞	$0, \frac{R_L(1)}{L_L s}$	$L_L s + \frac{1}{C_L s} + \frac{1}{C_L s}$ $+ R_L + \frac{1}{C_L s}$	$\left(\frac{1}{s}\right)$.	 	 	 	 	186
10.59 & NVALID-ORDER-593 $Z(s) =$	$(L_1s,$	$\frac{R_2\left(L_2s + \frac{1}{C_2}\right)}{L_2s + R_2 + \frac{1}{C_2}}$	$\frac{\overline{s}}{2^{s}}$, ∞ ,	$\infty, \ \infty,$	$\frac{1}{C_L s}$			 	 	 	 	186
10.594NVALID-ORDER-594 $Z(s) =$	$(L_1s,$	$\frac{R_2\left(L_2s + \frac{1}{C_2}\right)}{L_2s + R_2 + \frac{1}{C_2}}$	$\frac{\overline{s}}{\overline{2s}}$, ∞ ,	∞ , ∞ ,	$\frac{R_L}{C_L R_L s}$	$\overline{s+1}$) .		 	 	 	 	186
10.595NVALID-ORDER-595 $Z(s) =$								 	 	 	 	186
10.596NVALID-ORDER-596 $Z(s) =$								 	 	 	 	186
10.59 T NVALID-ORDER-597 $Z(s) =$								 	 	 	 	187
10.59\newline NVALID-ORDER-598 $Z(s) =$								 	 	 	 	187
10.59 9 NVALID-ORDER-599 $Z(s) =$	$(L_1s,$	$\frac{R_2\left(L_2s + \frac{1}{C_2}\right)}{L_2s + R_2 + \frac{1}{C_2}}$	$\frac{\overline{s}}{\overline{2}s}$, ∞ ,	$\infty, \infty,$	$\overline{C_L s + \overline{I}}$	$\frac{1}{R_L} + \frac{1}{L_L s}$		 	 	 	 	187
10.60 ONVALID-ORDER-600 $Z(s) =$	$(L_1s,$	$\frac{R_2\left(L_2s + \frac{1}{C_2}\right)}{L_2s + R_2 + \frac{1}{C_2}}$	$\frac{\overline{s}}{2^{s}}$, ∞ ,	$\infty, \infty,$	$\frac{L_L s}{C_L L_L s}$	$\frac{s}{s^2+1} + F_0$	2L .	 	 	 	 	187
10.60 I NVALID-ORDER-601 $Z(s) =$	$(L_1s,$	$\frac{R_2\left(L_2s + \frac{1}{C_2}\right)}{L_2s + R_2 + \frac{1}{C_2}}$	$\frac{\overline{s}}{2s}$, ∞ ,	$\infty, \infty,$	$\frac{R_L \Big(L_L}{L_L s + 1}$	$\frac{\left(s + \frac{1}{C_L s}\right)}{R_L + \frac{1}{C_L s}}$)	 	 	 	 	187
10.60 2 NVALID-ORDER-602 $Z(s) =$	$\left(\frac{1}{C_1s},\right)$	R_2, ∞, ∞	$, \infty, R$	$_{L}$)				 	 	 	 	188
10.60 NVALID-ORDER-603 $Z(s) =$	$\left(\frac{1}{C_1 s},\right)$	R_2, ∞, ∞	$, \infty, \overline{C}$	$\frac{R_L}{LR_Ls+1}$)			 	 	 	 	188
10.60#NVALID-ORDER-604 $Z(s) =$	$\left(\frac{1}{C_1s},\right)$	R_2, ∞, ∞	$, \infty, R$	$L + \frac{1}{C_L s}$	·)			 	 	 	 	188
10.60 NVALID-ORDER-605 $Z(s) =$	$\left(\frac{1}{C_1 s},\right)$	R_2, ∞, ∞	$, \infty, L$	$Ls + \frac{1}{C_L}$	$\left(\frac{1}{s}\right)$.			 	 	 	 	188
10.60 GNVALID-ORDER-606 $Z(s) =$	$\left(\frac{1}{C_1s},\right)$	R_2, ∞, ∞	$, \infty, \overline{C}$	$\frac{L_L s}{L_L L_L s^2 + 1}$)			 	 	 	 	188
10.60TNVALID-ORDER- 607 $Z(s) =$	$\left(\frac{1}{C_1 s},\right)$	R_2, ∞, ∞	$, \infty, L$	$Ls + R_L$	$\frac{1}{C_L s}$	·)		 	 	 	 	188
10.60\nbelownvalid-order-608 $Z(s) =$	`,							 	 	 	 	189
10.60 9 NVALID-ORDER-609 $Z(s) =$	$\left(\frac{1}{C_1s},\right)$	R_2, ∞, ∞	$, \infty, \overline{C}$	$\frac{L_L s}{L_L L_L s^2 + 1}$	$+R_L$			 	 	 	 	189

10.61 0 NVALID-ORDER-610 $Z(s) = 1$	$\left(\begin{array}{c} 1 \end{array}\right)$	R. ~	~	~	$R_L(L)$	$\frac{Ls + \frac{1}{C_Ls}}{R_L + \frac{1}{C_Ls}}$										180
	>				`	_	/		• •	 	• •	 				
10.61INVALID-ORDER-611 $Z(s) = 0$	$\left(\frac{1}{C_1 s},\right.$	$\frac{1}{C_2s}$, \propto	∞ , ∞ ,	∞ ,	R_L					 		 	 	 	 	. 189
10.61 2 NVALID-ORDER-612 $Z(s)=0$	$\left(\frac{1}{C_1 s},\right.$	$\frac{1}{C_2 s}$, \propto	∞ , ∞ ,	∞ ,	$\frac{1}{C_L s}$. 189
10.61 B NVALID-ORDER-613 $Z(s)=(s)$	$\left(\frac{1}{C_1 s},\right.$	$\frac{1}{C_2 s}$, \propto	∞ , ∞ ,	∞ ,	$\frac{R_I}{C_L R_L}$	$\left(\frac{L}{s+1}\right)$. 190
10.614NVALID-ORDER-614 $Z(s)=\langle$	$\left(\frac{1}{C_1 s},\right)$	$\frac{1}{C_2 s}$, \propto	∞ , ∞ ,	∞ ,	R_L +	$-\frac{1}{C_L s}$. 190
10.61 SNVALID-ORDER-615 $Z(s) = 0$	$\left(\frac{1}{C_1 s},\right.$	$\frac{1}{C_2 s}$, \propto	∞ , ∞ ,	∞ ,	$L_L s$ -	$+\frac{1}{C_L s}$. 190
10.61 6 NVALID-ORDER-616 $Z(s) = 0$	$\left(\frac{1}{C_1 s},\right.$	$\frac{1}{C_2 s}$, \propto	∞ , ∞ ,	∞ ,	$\frac{L_I}{C_L L_L}$	$\left(\frac{s}{s^2+1}\right)$. 190
10.61 T NVALID-ORDER-617 $Z(s) = 0$	$\left(\frac{1}{C_1 s},\right.$	$\frac{1}{C_2s}$, \propto	∞ , ∞ ,	∞ ,	$L_L s$ -	$+R_L+$	$\frac{1}{C_L s}$)		 		 	 	 	 	. 190
10.61&NVALID-ORDER-618 $Z(s) = 1$	$\left(\frac{1}{C_1 s},\right.$	$\frac{1}{C_2s}$, o	∞ , ∞ ,	∞ ,	$\overline{C_L s} +$	$\frac{1}{R_L + \frac{1}{L_L s}}$	_)			 		 	 	 	 	. 190
10.61 9 NVALID-ORDER-619 $Z(s) = 0$	$\left(\frac{1}{C_1 s},\right.$	$\frac{1}{C_2s}$, \propto	∞ , ∞ ,	∞ ,	$\frac{L_I}{C_L L_L}$	$\frac{c_s}{s^2+1} + 1$	R_L			 		 	 	 	 	. 191
10.620NVALID-ORDER-620 $Z(s) = 1$	$\left(\frac{1}{C_1s},\right.$	$\frac{1}{C_2s}$, o	$\infty, \infty,$	∞ ,	$\frac{R_L\left(I\right)}{L_L s + 1}$	$\frac{C_L s + \frac{1}{C_L s}}{+R_L + \frac{1}{C_L s}}$	$\frac{1}{2}$. 191
10.62INVALID-ORDER-621 $Z(s)=\langle$	$\left(\frac{1}{C_1s},\right.$	$\frac{R_2}{C_2R_2s +}$	$\overline{1}$, ∞ ,	∞ ,	∞ , i	R_L) .				 		 	 	 	 	. 191
10.62 2 NVALID-ORDER-622 $Z(s) = 0$	$\left(\frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2 R_2 s +}$	$\overline{1}$, ∞ ,	∞ ,	∞ ,	$\left(\frac{1}{C_L s}\right)$. 191
10.62 B NVALID-ORDER-623 $Z(s) = 0$	$\left(\frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s +}$	$\frac{1}{1}$, ∞ ,	∞ ,	∞ ,	$\frac{R_L}{C_L R_L s + 1}$	$_{\bar{1}})$. 191
10.624NVALID-ORDER-624 $Z(s)=\langle$	$\left(\frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s +}$	$\overline{1}$, ∞ ,	∞ ,	∞ , I	$R_L + \frac{1}{C_L}$	$\left(\frac{1}{2s}\right)$. 191
10.62\$NVALID-ORDER-625 $Z(s) = 0$	$\left(\frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s +}$	$\overline{1}$, ∞ ,	∞ ,	∞ , I	$L_L s + \overline{c}$	$\left(\frac{1}{C_L s}\right)$. 192
10.626NVALID-ORDER-626 $Z(s)=\langle$	$\left(\frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s +}$	$\overline{1}$, ∞ ,	∞ ,	∞ ,	$\frac{L_L s}{C_L L_L s^2 +}$	$\overline{\cdot 1}$. 192
10.62¶NVALID-ORDER-627 $Z(s) = 0$	$\left(\frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s +}$	$\overline{1}$, ∞ ,	∞ ,	∞ , I	$L_L s + R$	$R_L +$	$\frac{1}{C_L s}$. 192
10.62&NVALID-ORDER-628 $Z(s) = 1$	$\left(\frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s} +$	$\frac{1}{1}$, ∞	$, \infty,$	∞ ,	$\frac{1}{C_L s + \frac{1}{R_L}}$	$+\frac{1}{L_L}$	$\left(-\frac{1}{2} \right)$.		 		 	 	 	 	. 192
10.62 9 NVALID-ORDER-629 $Z(s) = 0$	$\left(\frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s +}$	$\overline{1}$, ∞ ,	∞ ,	∞ ,	$\frac{L_L s}{C_L L_L s^2 +}$	+.	R_L		 		 	 	 	 	. 192
10.63 0 NVALID-ORDER-630 $Z(s) = 1$	($\frac{R_L \left(L_L s - L_L s + R_L\right)}{L_L s + R_L}$	\cup_L	· /		 						
10.63 INVALID-ORDER-631 $\boldsymbol{Z}(s) = ($	$\left(\frac{1}{C_1 s},\right.$	$R_2 + \overline{c}$	$\frac{1}{2s}$, ∞	∞	$, \infty,$	R_L)				 		 	 	 	 	. 193

10.632NVALID-ORDER-632 $Z(s) =$	$\frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty$	$(0, \infty, \frac{1}{C_L s})$		 	193
10.63 NVALID-ORDER-633 $Z(s) =$	$\frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty$	$(0, \infty, \frac{R_L}{C_L R_L s + 1})$)	 	193
10.634NVALID-ORDER-634 $Z(s) =$	$\frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty$	$R_L + \frac{1}{C_L s}$		 	193
10.63 INVALID-ORDER-635 $Z(s) =$	$\frac{1}{C_1 s}$, $R_2 + \frac{1}{C_2 s}$, ∞ , ∞	c , ∞ , $L_L s + \frac{1}{C_L}$	$\frac{1}{s}$ \cdots	 	194
10.63 6 NVALID-ORDER-636 $Z(s) =$	$\frac{1}{C_1 s}$, $R_2 + \frac{1}{C_2 s}$, ∞ , ∞	$, \infty, \frac{L_L s}{C_L L_L s^2 + 1}$)	 	194
10.63 NVALID-ORDER-637 $Z(s) =$	$\frac{1}{C_1 s}$, $R_2 + \frac{1}{C_2 s}$, ∞ , ∞	$, \infty, L_L s + R_L$	$\left(1 + \frac{1}{C_L s}\right) \dots$	 	194
10.63\NVALID-ORDER-638 $Z(s) =$	$\left(\frac{1}{C_1s}, R_2 + \frac{1}{C_2s}, \infty, \infty\right)$	$0, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{R_L}}$	$\left(\frac{1}{L_L s}\right)$	 	194
10.639NVALID-ORDER- 639 $Z(s) =$	$\frac{1}{C_1 s}$, $R_2 + \frac{1}{C_2 s}$, ∞ , ∞	$, \infty, \frac{L_L s}{C_L L_L s^2 + 1}$	$+R_L$)	 	194
10.64 ONVALID-ORDER-640 $Z(s) =$	$\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty$	$), \infty, \frac{R_L \left(L_L s + \frac{1}{2}\right)}{L_L s + R_L + \frac{1}{2}}$	$\left(\frac{\frac{1}{C_L s}}{\frac{1}{C_L s}}\right)$	 	195
10.64INVALID-ORDER-641 $Z(s) =$	$\frac{1}{C_{1}s}$, $L_{2}s + \frac{1}{C_{2}s}$, ∞ , o	\circ, ∞, R_L)		 	195
10.64 2 NVALID-ORDER-642 $Z(s) =$	$\frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ c$	$0, \infty, \frac{1}{C_L s}$		 	195
10.64BNVALID-ORDER- 643 $Z(s) =$	$\frac{1}{C_1s}$, $L_2s + \frac{1}{C_2s}$, ∞ , ∞	$0, \infty, \frac{R_L}{C_L R_L s + 1}$)	 	195
10.644NVALID-ORDER-644 $Z(s) =$	$\frac{1}{C_1s}$, $L_2s + \frac{1}{C_2s}$, ∞ , ∞	$0, \infty, R_L + \frac{1}{C_L}$	$\left(\frac{1}{s}\right)$	 	195
10.645NVALID-ORDER- 645 $Z(s) =$	$\frac{1}{C_1s}$, $L_2s + \frac{1}{C_2s}$, ∞ , ∞	$0, \infty, L_L s + \frac{1}{C_L}$	$\left(\frac{1}{L^{S}}\right)$	 	196
10.64 CNVALID-ORDER-646 $Z(s) =$	$\frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \alpha$	$o, \infty, \frac{L_L s}{C_L L_L s^2 + 1}$	$_{\overline{1}})$	 	196
10.64 T NVALID-ORDER-647 $Z(s) =$	$\frac{1}{C_1 s}$, $L_2 s + \frac{1}{C_2 s}$, ∞ , o	$o, \infty, L_L s + R$	$L + \frac{1}{C_L s}$	 	196
10.648NVALID-ORDER- 648 $Z(s) =$	$\frac{1}{C_{1}s}, \ L_{2}s + \frac{1}{C_{2}s}, \ \infty, \ \alpha$	$\infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L}}$	$\frac{1}{+\frac{1}{L_L s}}$	 	196
10.64 9 NVALID-ORDER-649 $Z(s) =$	$\frac{1}{C_1s}$, $L_2s + \frac{1}{C_2s}$, ∞ , ∞	$o, \infty, \frac{L_L s}{C_L L_L s^2 + 1}$	$_{\overline{1}}+R_L\Big)$	 	196
10.65 ONVALID-ORDER- 650 $Z(s) =$	$\left(\frac{1}{C_1s}, L_2s + \frac{1}{C_2s}, \infty, \infty\right)$	∞ , ∞ , $R_L(L_L s + L_L s + R_L $	$\left(-\frac{1}{C_L s}\right) + \frac{1}{C_L s}$	 	197
10.65INVALID-ORDER- 651 $Z(s) =$	$\frac{1}{C_1 s}$, $L_2 s + R_2 + \frac{1}{C_2 s}$,	∞ , ∞ , ∞ , R_L)	 	197
10.65 2 NVALID-ORDER-652 $Z(s) =$	$\frac{1}{C_1 s}$, $L_2 s + R_2 + \frac{1}{C_2 s}$,	∞ , ∞ , ∞ , $\frac{1}{C_{L}}$	$\left(\frac{1}{8}\right)$	 	197
10.65 B NVALID-ORDER-653 $Z(s) =$	$\frac{1}{C_1 s}$, $L_2 s + R_2 + \frac{1}{C_2 s}$,	∞ , ∞ , ∞ , $\frac{1}{C_L}$	$\frac{R_L}{R_L s+1}$)	 	197

$$\begin{array}{ll} 10.65 \text{INVALID-ORDER-} & 2 (s) = \left(\frac{1}{c_{12}}, \ L_2 s + R_2 + \frac{1}{c_{23}}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{c_{16}}\right) & 197 \\ 10.65 \text{INVALID-ORDER-} & 5 (s) = \left(\frac{1}{c_{12}}, \ L_2 s + R_2 + \frac{1}{c_{23}}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{c_{16}}\right) & 198 \\ 10.65 \text{INVALID-ORDER-} & 5 (s) = \left(\frac{1}{c_{12}}, \ L_2 s + R_2 + \frac{1}{c_{23}}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{c_{16}}\right) & 198 \\ 10.65 \text{INVALID-ORDER-} & 5 (s) = \left(\frac{1}{c_{17}}, \ L_2 s + R_2 + \frac{1}{c_{27}}, \ \infty, \ \infty, \ \infty, \ L_L s + L_L + \frac{1}{c_{1.5}}\right) & 198 \\ 10.65 \text{INVALID-ORDER-} & 5 (s) = \left(\frac{1}{c_{17}}, \ L_2 s + R_2 + \frac{1}{c_{17}}, \ \infty, \ \infty, \ \infty, \ L_L s + L_L + \frac{1}{c_{1.5}}\right) & 198 \\ 10.65 \text{INVALID-ORDER-} & 5 (s) = \left(\frac{1}{c_{17}}, \ L_2 s + R_2 + \frac{1}{c_{17}}, \ \infty, \ \infty, \ \infty, \ L_L s + L_L + \frac{1}{c_{1.5}}\right) & 198 \\ 10.65 \text{INVALID-ORDER-} & 5 (s) = \left(\frac{1}{c_{17}}, \ L_2 s + R_2 + \frac{1}{c_{17}}, \ \infty, \ \infty, \ \infty, \ \frac{1}{c_{12} + \frac{1}{c_{12} + \frac{1}{c_{12}}}} + R_L \right) & 198 \\ 10.66 \text{INVALID-ORDER-} & 6 (s) = \left(\frac{1}{c_{17}}, \ L_2 s + R_2 + \frac{1}{c_{17}}, \ \infty, \ \infty, \ \infty, \ \frac{1}{c_{12} + \frac{1}{c_{12} + \frac{1}{c_{12}}}} + R_L \right) & 199 \\ 10.66 \text{INVALID-ORDER-} & 6 (s) = \left(\frac{1}{c_{17}}, \ \frac{L_2 s}{c_{12} + \frac{1}{c_{12} + \frac{1}{c_{12}}}}, \ \infty, \ \infty, \ \infty, \ \frac{1}{c_{12} + \frac{1}{c_{12} + \frac{1}{c_{12}}}} + R_2 \right) & 199 \\ 10.66 \text{INVALID-ORDER-} & 6 (s) = \left(\frac{1}{c_{17}}, \ \frac{L_2 s}{c_{12} + \frac{1}{c_{12} + \frac{1}$$

10.67 INVALID-ORDER-675 $Z(s) = 1$	$\left(\frac{1}{C_{1}s}, \frac{R_{2}\left(L_{2}s + \frac{1}{C_{2}s}\right)}{L_{2}s + R_{2} + \frac{1}{C_{2}s}}, \infty, \infty, \infty, \frac{L_{L}s}{C_{L}L_{L}s^{2} + 1}\right) \dots \dots$
10.676NVALID-ORDER-676 $Z(s) = 1$	$\left(\frac{1}{C_{1}s}, \frac{R_{2}\left(L_{2}s + \frac{1}{C_{2}s}\right)}{L_{2}s + R_{2} + \frac{1}{C_{2}s}}, \infty, \infty, \infty, L_{L}s + R_{L} + \frac{1}{C_{L}s}\right) \dots \dots$
10.67 INVALID-ORDER-677 $Z(s) = 1$	$\left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right) \dots \dots$
10.67&NVALID-ORDER-678 $Z(s) =$	$\left(\frac{1}{C_{1}s}, \frac{R_{2}\left(L_{2}s + \frac{1}{C_{2}s}\right)}{L_{2}s + R_{2} + \frac{1}{C_{2}s}}, \infty, \infty, \infty, \frac{L_{L}s}{C_{L}L_{L}s^{2} + 1} + R_{L}\right) \dots \dots$
10.67 9 NVALID-ORDER-679 $Z(s) =$	$\left(\frac{1}{C_{1}s}, \frac{R_{2}\left(L_{2}s + \frac{1}{C_{2}s}\right)}{L_{2}s + R_{2} + \frac{1}{C_{2}s}}, \infty, \infty, \infty, \frac{R_{L}\left(L_{L}s + \frac{1}{C_{L}s}\right)}{L_{L}s + R_{L} + \frac{1}{C_{L}s}}\right) \dots \dots$
10.68 ONVALID-ORDER- $680 Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \infty, \infty, R_L\right)$
10.68INVALID-ORDER- 681 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$
10.68 2 NVALID-ORDER-682 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$
10.683NVALID-ORDER-683 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$
10.68INVALID-ORDER- 684 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.685NVALID-ORDER-685 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)'$
10.68 CONVALID-ORDER-686 $Z(s) = 1$	$\left(\begin{array}{c} R_1 \\ \overline{C_1R_1s+1}, R_2, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls} \end{array}\right) \dots \dots$
10.68TNVALID-ORDER- 687 $Z(s) = 1$	
10.68\(\text{NVALID-ORDER-688} \(Z(s) = 1 \)	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$
10.68 9 NVALID-ORDER-689 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, R_2, \infty, \infty, \infty, \frac{R_L\left(L_Ls+\frac{1}{C_Ls}\right)}{L_Ls+R_L+\frac{1}{C_Ls}}\right)$
10.69 ONVALID-ORDER- $690 Z(s) = 10.69$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \infty, \infty, \infty, R_L\right)$
10.69INVALID-ORDER-691 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$
10.69 2 NVALID-ORDER-692 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right) \qquad \dots \qquad $
10.69 B NVALID-ORDER-693 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$
10.69 Invalid-order-694 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right) \qquad \dots \qquad $
10.69 INVALID-ORDER-695 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right) \dots \dots$

10.696NVALID-ORDER-696 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.69 T NVALID-ORDER-697 $Z(s) = \langle$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$
10.69&NVALID-ORDER-698 $Z(s)=\left(\rule{0mm}{2.5mm}\right.$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$
10.699NVALID-ORDER-699 $Z(s) = \langle$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L\left(L_Ls+\frac{1}{C_Ls}\right)}{L_Ls+R_L+\frac{1}{C_Ls}}\right)$
10.70 0 NVALID-ORDER-700 $Z(s)=\left(\right.$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \infty, R_L\right)$
10.70INVALID-ORDER-701 $Z(s)=\left(\right.$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$
10.70 2 NVALID-ORDER-702 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$
10.70 & NVALID-ORDER-703 $Z(s)=\left(\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$
10.704NVALID-ORDER-704 $Z(s)=\left(\right.$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.70 Б NVALID-ORDER-705 $Z(s)=\left(\right.$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$
10.70 6 NVALID-ORDER-706 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right) \dots \dots$
10.70 T NVALID-ORDER-707 $Z(s) = ($	$\left(\frac{R_1}{C_1 R_1 s+1}, \frac{R_2}{C_2 R_2 s+1}, \infty, \infty, \infty, \frac{1}{C_L s+\frac{1}{R_L}+\frac{1}{L_L s}}\right) \dots \dots$
10.70\ntext{8}NVALID-ORDER-708 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$
10.70 9 NVALID-ORDER-709 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \infty, \infty, \infty, \infty, \frac{R_L\left(L_Ls+\frac{1}{C_Ls}\right)}{L_Ls+R_L+\frac{1}{C_Ls}}\right) \dots \dots$
10.71©NVALID-ORDER-710 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, R_L\right) \dots \dots$
10.71INVALID-ORDER-711 $Z(s)=\left(\right.$	$\left(\frac{R_1}{C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$
10.71 2 NVALID-ORDER-712 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$
10.71 & NVALID-ORDER-713 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right) \dots \dots$
10.714NVALID-ORDER-714 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.71 5 NVALID-ORDER-715 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$
10.71 © NVALID-ORDER-716 $Z(s) = ($	$\left(\frac{R_1}{C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.71 INVALID-ORDER-717 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$

10.71&NVALID-ORDER-718 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right) \dots \dots$
10.71 9 NVALID-ORDER-719 $Z(s)=\langle$	$\left(\frac{R_1}{C_1 R_1 s + 1}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.72 0 NVALID-ORDER-720 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, R_L\right)$
10.72INVALID-ORDER-721 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$
10.72 2 NVALID-ORDER-722 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$
10.72\(\mathbb{B}\) NVALID-ORDER-723 $Z(s) = 0$	$\left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$
10.72\PVALID-ORDER-724 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.72 SNVALID-ORDER-725 $Z(s) = 0$	$\left(\frac{R_1}{C_1 R_1 s+1}, L_2 s+\frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2+1}\right)$
10.726NVALID-ORDER-726 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$
10.72 T NVALID-ORDER-727 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$
10.72\ndlandrame{8}\text{NVALID-ORDER-728} $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$
10.72 9 NVALID-ORDER-729 $Z(s) = 0$	$\left(\frac{R_1}{C_1 R_1 s+1}, \ L_2 s+\frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s+\frac{1}{C_L s}\right)}{L_L s+R_L +\frac{1}{C_L s}}\right) \ \dots $
10.73 0 NVALID-ORDER-730 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s+R_2+\frac{1}{C_2s}, \infty, \infty, \infty, \infty, R_L\right)$
10.73INVALID-ORDER-731 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s+R_2+\frac{1}{C_2s}, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$
10.732NVALID-ORDER-732 $Z(s) = 0$	$\left(\frac{R_1}{C_1 R_1 s+1}, L_2 s+R_2+\frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s+1}\right)$
10.73 B NVALID-ORDER-733 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$
10.734NVALID-ORDER-734 $Z(s) = 0$	$\left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right) \dots \dots$
10.73 NVALID-ORDER-735 $Z(s) = 0$	$\left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$
10.736NVALID-ORDER-736 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, L_2s+R_2+\frac{1}{C_2s}, \infty, \infty, \infty, \infty, L_Ls+R_L+\frac{1}{C_Ls}\right)$
10.73 INVALID-ORDER-737 $Z(s) = 1$	$\left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right) \dots \dots$
10.73&NVALID-ORDER-738 $Z(s) = 0$	$\left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
10.73 9 NVALID-ORDER-739 $Z(s) = 1$	$\left(\frac{R_1}{C_1 R_1 s + 1}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \ \dots \ $

10.74©NVALID-ORDER-740 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, R_L\right) \dots \dots$
10.74INVALID-ORDER-741 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$
10.742NVALID-ORDER-742 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$
10.74 B NVALID-ORDER-743 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$
10.74\PVALID-ORDER-744 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$
10.745NVALID-ORDER-745 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$
10.746NVALID-ORDER-746 $Z(s) = 0$	$\left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right) \dots \dots$
10.74¶NVALID-ORDER-747 $Z(s) =$	$\left(\begin{array}{cccccccccccccccccccccccccccccccccccc$
10.74\bigselentric NVALID-ORDER-748 $Z(s) = 0$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$
10.74 9 NVALID-ORDER-749 $Z(s) =$	$\left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.75 0 NVALID-ORDER-750 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2\left(L_2s+\frac{1}{C_2s}\right)}{L_2s+R_2+\frac{1}{C_2s}}, \infty, \infty, \infty, \frac{1}{C_Ls}\right) \dots \dots$
10.75INVALID-ORDER-751 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2\left(L_2s+\frac{1}{C_2s}\right)}{L_2s+R_2+\frac{1}{C_2s}}, \infty, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right) \dots \dots$
10.75 2 NVALID-ORDER-752 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2\left(L_2s+\frac{1}{C_2s}\right)}{L_2s+R_2+\frac{1}{C_2s}}, \infty, \infty, \infty, R_L+\frac{1}{C_Ls}\right) \dots $
10.75 NVALID-ORDER-753 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2\left(L_2s+\frac{1}{C_2s}\right)}{L_2s+R_2+\frac{1}{C_2s}}, \infty, \infty, \infty, \infty, L_Ls+\frac{1}{C_Ls}\right) \dots \dots$
10.754NVALID-ORDER-754 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2\left(L_2s+\frac{1}{C_2s}\right)}{L_2s+R_2+\frac{1}{C_2s}}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right) \dots \dots$
10.75 INVALID-ORDER-755 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2\left(L_2s+\frac{1}{C_2s}\right)}{L_2s+R_2+\frac{1}{C_2s}}, \infty, \infty, \infty, L_Ls+R_L+\frac{1}{C_Ls}\right) \dots \dots$
10.75©NVALID-ORDER-756 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2\left(L_2s+\frac{1}{C_2s}\right)}{L_2s+R_2+\frac{1}{C_2s}}, \infty, \infty, \infty, \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right) \dots \dots$
10.75 Invalid-order-757 $Z(s) = 1$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2\left(L_2s+\frac{1}{C_2s}\right)}{L_2s+R_2+\frac{1}{C_2s}}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right) \dots $
10.75\NVALID-ORDER-758 $Z(s) =$	$\left(\frac{R_1}{C_1R_1s+1}, \frac{R_2\left(L_2s+\frac{1}{C_2s}\right)}{L_2s+R_2+\frac{1}{C_2s}}, \infty, \infty, \infty, \infty, \frac{R_L\left(L_Ls+\frac{1}{C_Ls}\right)}{L_Ls+R_L+\frac{1}{C_Ls}}\right)\right) \dots \dots$
10.75 9 NVALID-ORDER-759 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L\right) \dots \dots$

10.76 0 NVALID-ORDER-760 $Z(s)=0$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$R_2, \infty,$	∞ , ∞ ,	$\frac{1}{C_L s}$)		 	 	 	 	218
10.76INVALID-ORDER-761 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s})$	$R_2, \infty,$	∞ , ∞ ,	$\frac{R_L}{C_L R_L s + 1}$		 	 	 	 	218
10.76 2 NVALID-ORDER-762 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s}),$	$R_2, \infty,$	∞ , ∞ ,	$R_L + \frac{1}{C_L s}$		 	 	 	 	219
10.76 B NVALID-ORDER-763 $Z(s)=0$	$\left(R_1 + \frac{1}{C_1 s},\right)$	$R_2, \infty,$	∞ , ∞ ,	$L_L s + \frac{1}{C_L s}$)	 	 	 	 	219
10.764NVALID-ORDER-764 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$R_2, \infty,$	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 	 	 	219
10.76 5 NVALID-ORDER-765 $Z(s)=0$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$R_2, \infty,$	∞ , ∞ ,	$L_L s + R_L +$	$+\frac{1}{C_L s}$	 	 	 	 	219
10.76©NVALID-ORDER-766 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$R_2, \infty,$	∞ , ∞ ,	$\frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L}}$	$\frac{1}{L^s}$	 	 	 	 	219
10.76 T NVALID-ORDER-767 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s},$	$R_2, \infty,$	∞ , ∞ ,	$\frac{L_L s}{C_L L_L s^2 + 1} +$	$-R_L$).	 	 	 	 	220
10.76\notativalID-ORDER-768 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$R_2, \infty,$	∞ , ∞ ,	$\frac{R_L \left(L_L s + \frac{1}{C_L} + $	$\left(\frac{\overline{s}}{L}\right)$. 220
10.76 9 NVALID-ORDER-769 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s},$	$\frac{1}{C_2s}$, ∞	$, \infty, \infty,$	R_L)		 	 	 	 	220
10.77 0 NVALID-ORDER-770 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s}),$	$\frac{1}{C_2s}$, ∞	$, \infty, \infty,$	$\frac{1}{C_L s}$)		 	 	 	 	220
10.77INVALID-ORDER-771 $\boldsymbol{Z}(s) = (s)$	$\left(R_1 + \frac{1}{C_1 s},\right)$	$\frac{1}{C_2s}$, ∞	$, \infty, \infty,$	$\frac{R_L}{C_L R_L s + 1}$		 	 	 	 	220
10.772NVALID-ORDER-772 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2 s}$, ∞	$, \infty, \infty,$	$R_L + \frac{1}{C_L s}$)	 	 	 	 	221
10.77\$NVALID-ORDER-773 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2s}$, ∞	$, \infty, \infty, \infty,$	$L_L s + \frac{1}{C_L s}$)	 	 	 	 	221
10.774NVALID-ORDER-774 $Z(s)=\langle$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2s}$, ∞	$, \infty, \infty, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1}$		 	 	 	 	221
10.77 INVALID-ORDER-775 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2 s}$, ∞	$, \infty, \infty, \infty,$	$L_L s + R_L$	$+\frac{1}{C_L s}$	 	 	 	 	221
10.776NVALID-ORDER-776 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2s}$, ∞	$, \infty, \infty$	$, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{R_L}}$	$\left(\frac{1}{L_L s}\right)$.	 	 	 	 	221
10.77 T NVALID-ORDER-777 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s})$	$\frac{1}{C_2s}$, ∞	$, \infty, \infty,$	$\frac{L_L s}{C_L L_L s^2 + 1} -$	$+R_L$	 	 	 	 	222
10.77&NVALID-ORDER-778 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{1}{C_2s}$, ∞	$, \infty, \infty$	$, \frac{R_L \left(L_L s + \frac{1}{C}\right)}{L_L s + R_L + \frac{1}{C}}$	$\left(\frac{\frac{1}{L^s}}{\frac{1}{C_{L^s}}}\right)$.	 	 	 	 	222
10.77 9 NVALID-ORDER-779 $Z(s) = 0$	/			\		 	 	 	 	222
10.78 0 NVALID-ORDER-780 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s+1}$	\cdot , ∞ , ∞	$, \infty, \frac{1}{C_L s}$		 	 	 	 	222
10.78INVALID-ORDER-781 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s},\right.$	$\frac{R_2}{C_2R_2s+1}$	∞ , ∞ , ∞	$, \infty, \frac{R_L}{C_L R_L s}$	$\left(\frac{1}{s+1}\right)$.	 	 	 	 	222

10.78 2 NVALID-ORDER-782 $Z(s)=0$	$\left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right) \dots \dots$
10.78 B NVALID-ORDER-783 $Z(s)=0$	$\left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$
10.784NVALID-ORDER-784 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1})$
10.78 INVALID-ORDER-785 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$
10.78©NVALID-ORDER-786 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$
10.78 T NVALID-ORDER-787 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right) \dots \dots$
10.78\NVALID-ORDER-788 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
	$\left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$
10.79 © NVALID-ORDER-790 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right) \ \dots \ $
10.79INVALID-ORDER-791 $Z(s)=\langle$	$\left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right) \dots \dots \dots \dots \dots \dots \dots \dots \dots $
10.79 2 NVALID-ORDER-792 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$
10.79 & NVALID-ORDER-793 $Z(s)=(s)$	$\left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right) \ \dots \ $
10.794NVALID-ORDER-794 $Z(s)=\langle$	$\left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$
10.79\$NVALID-ORDER-795 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$
10.796NVALID-ORDER-796 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$
10.79¶NVALID-ORDER-797 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$
10.79\(\mathbb{g}\) NVALID-ORDER-798 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \ \dots $
10.79 9 NVALID-ORDER-799 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, R_L)$
10.80 0 NVALID-ORDER-800 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s})$
10.80INVALID-ORDER-801 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1})$
10.80 2 NVALID-ORDER-802 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s})$
10.80 2 NVALID-ORDER-803 $Z(s)=($	$(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s})$

10.804NVALID-ORDER-804 $Z(s)=\left(\right.$	$\left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$	27
10.80 INVALID-ORDER-805 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$	27
10.80 6 NVALID-ORDER-806 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	27
10.80 T NVALID-ORDER-807 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L)$	28
10.80\nbeloeknvalid-order-808 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	28
	$(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L)$	28
10.81 0 NVALID-ORDER-810 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$	28
10.81 I NVALID-ORDER-811 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$	28
10.812NVALID-ORDER-812 $Z(s) = 0$	$\left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right) \dots \dots$	29
10.81\$NVALID-ORDER-813 $Z(s) = ($	$(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s})$	29
10.814NVALID-ORDER-814 $Z(s) = ($	$(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1})$	29
10.81 5 NVALID-ORDER-815 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s})$	29
10.81 6 NVALID-ORDER-816 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	29
10.81 T NVALID-ORDER-817 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	30
10.81\%NVALID-ORDER-818 $Z(s) = 1$	$\left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right) \right) \dots $	30
10.81 9 NVALID-ORDER-819 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L\right)$	30
10.82 0 NVALID-ORDER-820 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right) \dots \dots$	30
10.82 I NVALID-ORDER-821 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$	30
10.822NVALID-ORDER-822 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$	31
10.82\$NVALID-ORDER-823 $Z(s) = ($	$(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s})$	31
10.824NVALID-ORDER-824 $Z(s) = 0$	$(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1})$	31
10.825NVALID-ORDER-825 $Z(s)=\left(\right. \right.$	$(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s})$	31

10.826NVALID-ORDER-826 $Z(s) = \left(\right.$	$\binom{R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}$
10.82 T NVALID-ORDER-827 $Z(s) = ($	$(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L)$
10.82\NVALID-ORDER-828 $Z(s) = ($	$\left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$

1 Examined H(z) for TIA simple Z1 Z2 ZL: $\frac{Z_1Z_L(Z_2g_m+1)}{Z_1Z_2g_m+Z_1+Z_2+Z_L}$

$$H(z) = \frac{Z_1 Z_L (Z_2 g_m + 1)}{Z_1 Z_2 g_m + Z_1 + Z_2 + Z_L}$$

- 2 HP
- 3 BP

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

$$H(s) = \frac{L_L R_1 s \left(R_2 g_m + 1 \right)}{C_L L_L R_1 R_2 q_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_2 s^2 + L_L s + R_1 R_2 q_m + R_1 + R_2}$$

Parameters:

Q:
$$C_L \sqrt{\frac{1}{C_L L_L}} (R_1 R_2 g_m + R_1 + R_2)$$

wo: $\sqrt{\frac{1}{C_L L_L}}$
bandwidth: $\frac{1}{C_L (R_1 R_2 g_m + R_1 + R_2)}$
K-LP: 0
K-HP: 0
K-BP: $R_1 (R_2 g_m + 1)$
Qz: 0
Wz: None

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

$$\begin{aligned} &\text{Q:} \ \frac{C_L R_L \sqrt{\frac{1}{C_L L_L}}}{R_1 R_2 g_m + R_1 + R_2 + R_L} \\ &\text{wo:} \ \sqrt{\frac{1}{C_L L_L}} \\ &\text{bandwidth:} \ \frac{R_1 R_2 g_m + R_1 + R_2 + R_L}{C_L R_L (R_1 R_2 g_m + R_1 + R_2 + R_L)} \\ &\text{K-LP:} \ 0 \\ &\text{K-HP:} \ 0 \\ &\text{K-BP:} \ \frac{R_1 R_L (R_2 g_m + 1)}{R_1 R_2 g_m + R_1 + R_2 + R_L} \\ &\text{Qz:} \ 0 \\ &\text{Wz:} \ \text{None} \end{aligned}$$

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

$$H(s) = \frac{L_1 s \left(R_2 g_m + 1\right)}{C_L L_1 R_2 q_m s^2 + C_L L_1 s^2 + C_L R_2 s + 1}$$

Q:
$$\frac{L_1\sqrt{\frac{1}{C_LL_1(R_2g_m+1)}}(R_2g_m+1)}{R_2}$$
 wo:
$$\sqrt{\frac{1}{C_LL_1(R_2g_m+1)}}$$
 bandwidth:
$$\frac{R_2}{L_1(R_2g_m+1)}$$
 K-LP: 0 K-HP: 0 K-BP:
$$\frac{L_1(R_2g_m+1)}{C_LR_2}$$
 Qz: 0 Wz: None

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

$$H(s) = \frac{L_1 R_L s \left(R_2 g_m + 1\right)}{C_L L_1 R_2 R_L g_m s^2 + C_L L_1 R_L s^2 + C_L R_2 R_L s + L_1 R_2 g_m s + L_1 s + R_2 + R_L}$$

$$\begin{array}{l} \text{Q:} \ \frac{C_L L_1 R_L \sqrt{\frac{R_2 + R_L}{C_L L_1 R_L (R_2 g_m + 1)}} (R_2 g_m + 1)}{C_L R_2 R_L + L_1 R_2 g_m + L_1} \\ \text{wo:} \ \sqrt{\frac{R_2 + R_L}{C_L L_1 R_L (R_2 g_m + 1)}} \\ \text{bandwidth:} \ \frac{C_L R_2 R_L + L_1 R_2 g_m + L_1}{C_L L_1 R_L (R_2 g_m + 1)} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{L_1 R_L (R_2 g_m + 1)}{C_L R_2 R_L + L_1 R_2 g_m + L_1} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

3.5 BP-5
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, R_L\right)$$

$$H(s) = \frac{L_1R_Ls\left(R_2g_m + 1\right)}{C_1L_1R_2s^2 + C_1L_1R_Ls^2 + L_1R_2g_ms + L_1s + R_2 + R_L}$$

Q:
$$\frac{C_1\sqrt{\frac{1}{C_1L_1}}(R_2+R_L)}{R_2g_m+1}$$
 wo: $\sqrt{\frac{1}{C_1L_1}}$ bandwidth: $\frac{R_2g_m+1}{C_1(R_2+R_L)}$ K-LP: 0 K-HP: 0 K-BP: R_L Qz: 0 Wz: None

3.6 BP-6
$$Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L s \left(R_2 g_m + 1\right)}{C_1 L_1 R_1 R_2 s^2 + C_1 L_1 R_1 R_L s^2 + L_1 R_1 R_2 g_m s + L_1 R_1 s + L_1 R_2 s + L_1 R_L s + R_1 R_2 + R_1 R_L}$$

$$\begin{array}{l} \text{Q:} \ \frac{C_1R_1\sqrt{\frac{1}{C_1L_1}}(R_2+R_L)}{R_1R_2g_m+R_1+R_2+R_L} \\ \text{wo:} \ \sqrt{\frac{1}{C_1L_1}} \\ \text{bandwidth:} \ \frac{R_1R_2g_m+R_1+R_2+R_L}{C_1R_1(R_2+R_L)} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{R_1R_L(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_L} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

4 LP

4.1 LP-1
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L \left(R_2 g_m + 1\right)}{C_1 C_L R_2 R_L s^2 + C_1 R_2 s + C_1 R_L s + C_L R_2 R_L g_m s + C_L R_L s + R_2 g_m + 1}$$

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

4.2 LP-2
$$Z(s) = \left(\infty, \ \infty, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \infty, \ \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1\left(R_2g_m+1\right)}{C_1C_LR_1R_2s^2 + C_1R_1s + C_LR_1R_2g_ms + C_LR_1s + C_LR_2s + 1}$$

$$\begin{array}{l} \text{Q:} \ \frac{C_1C_LR_1R_2\sqrt{\frac{1}{C_1C_LR_1R_2}}}{C_1R_1+C_LR_1R_2g_m+C_LR_1+C_LR_2} \\ \text{wo:} \ \sqrt{\frac{1}{C_1C_LR_1R_2}} \\ \text{bandwidth:} \ \frac{C_1R_1+C_LR_1R_2g_m+C_LR_1+C_LR_2}{C_1C_LR_1R_2} \\ \text{K-LP:} \ R_1 \left(R_2g_m+1\right) \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \text{None} \end{array}$$

4.3 LP-3
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_3 s^2 + 1}, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

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

Parameters:

Q:
$$\frac{C_1C_LR_1R_2R_L\sqrt{\frac{R_1R_2g_m+R_1+R_2+R_L}{C_1C_LR_1R_2R_L}}}{C_1R_1R_2+C_1R_1R_L+C_LR_1R_2R_Lg_m+C_LR_1R_L+C_LR_2R_L}}$$
 wo:
$$\sqrt{\frac{R_1R_2g_m+R_1+R_2+R_L}{C_1C_LR_1R_2R_L}}$$
 bandwidth:
$$\frac{C_1R_1R_2+C_1R_1R_L+C_LR_1R_2R_Lg_m+C_LR_1R_L+C_LR_2R_L}{C_1C_LR_1R_2R_L}}$$
 K-LP:
$$\frac{R_1R_L(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_L}$$
 K-HP: 0 K-BP: 0 Qz: None Wz: None

5 BS

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

$$H(s) = \frac{R_1 (R_2 g_m + 1) (C_L L_L s^2 + 1)}{C_L L_L s^2 + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + 1}$$

$$\begin{array}{l} \text{Q: } \frac{L_L \sqrt{\frac{1}{C_L L_L}}}{R_1 R_2 g_m + R_1 + R_2} \\ \text{wo: } \sqrt{\frac{1}{C_L L_L}} \\ \text{bandwidth: } \frac{R_1 R_2 g_m + R_1 + R_2}{L_L} \\ \text{K-LP: } R_1 \left(R_2 g_m + 1 \right) \\ \text{K-HP: } R_1 \left(R_2 g_m + 1 \right) \\ \text{K-BP: } 0 \\ \text{Qz: None} \\ \text{Wz: } \sqrt{\frac{1}{C_L L_L}} \end{array}$$

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

$$H(s) = \frac{R_1 R_L \left(R_2 g_m + 1\right) \left(C_L L_L s^2 + 1\right)}{C_L L_L R_1 g^2 + C_L L_L R_1 s^2 + C_L L_L R_2 s^2 + C_L L_L R_1 s^2 + C_L R_1 R_2 R_L g_m s + C_L R_1 R_L s + C_L R_2 R_L s + R_1 R_2 g_m + R_1 + R_2 + R_L R_2 g_m s + C_L R_1 R_2 g_m s +$$

$$\begin{aligned} &\text{Q: } \frac{L_L \sqrt{\frac{1}{C_L L_L}} (R_1 R_2 g_m + R_1 + R_2 + R_L)}{R_L (R_1 R_2 g_m + R_1 + R_2)} \\ &\text{wo: } \sqrt{\frac{1}{C_L L_L}} \\ &\text{bandwidth: } \frac{R_L (R_1 R_2 g_m + R_1 + R_2)}{L_L (R_1 R_2 g_m + R_1 + R_2 + R_L)} \\ &\text{K-LP: } \frac{R_1 R_L (R_2 g_m + 1)}{R_1 R_2 g_m + R_1 + R_2 + R_L} \\ &\text{K-HP: } \frac{R_1 R_L (R_2 g_m + 1)}{R_1 R_2 g_m + R_1 + R_2 + R_L} \\ &\text{K-BP: } 0 \\ &\text{Qz: None} \\ &\text{Wz: } \sqrt{\frac{1}{C_L L_L}} \end{aligned}$$

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

$$H(s) = \frac{R_L (R_2 g_m + 1) (C_1 L_1 s^2 + 1)}{C_1 L_1 R_2 g_m s^2 + C_1 L_1 s^2 + C_1 R_2 s + C_1 R_L s + R_2 g_m + 1}$$

$$\begin{array}{l} \text{Q:} \ \frac{L_1\sqrt{\frac{1}{C_1}L_1}(R_2g_m+1)}{R_2+R_L} \\ \text{wo:} \ \sqrt{\frac{1}{C_1L_1}} \\ \text{bandwidth:} \ \frac{R_2+R_L}{L_1(R_2g_m+1)} \\ \text{K-LP:} \ R_L \\ \text{K-HP:} \ R_L \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \sqrt{\frac{1}{C_1L_1}} \end{array}$$

$$\mathbf{5.4} \quad \mathbf{BS-4} \ Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \ \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$H(s) = \frac{R_1 R_L \left(R_2 g_m + 1\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 L_1 R_1 R_2 g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_2 s^2 + C_1 L_1 R_2 s^2 + C_1 R_1 R_2 s + C_1 R_1 R_2 s + R_1 R_2 g_m + R_1 + R_2 + R_L}$$

$$\begin{aligned} & \text{Q:} \ \frac{L_1\sqrt{\frac{1}{C_1L_1}}(R_1R_2g_m + R_1 + R_2 + R_L)}{R_1(R_2 + R_L)} \\ & \text{wo:} \ \sqrt{\frac{1}{C_1L_1}} \\ & \text{bandwidth:} \ \frac{R_1(R_2 + R_L)}{L_1(R_1R_2g_m + R_1 + R_2 + R_L)} \\ & \text{K-LP:} \ \frac{R_1R_L(R_2g_m + 1)}{R_1R_2g_m + R_1 + R_2 + R_L} \\ & \text{K-HP:} \ \frac{R_1R_L(R_2g_m + 1)}{R_1R_2g_m + R_1 + R_2 + R_L} \\ & \text{K-BP:} \ 0 \\ & \text{Qz:} \ \text{None} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_1L_1}} \end{aligned}$$

6 **GE**

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

$$H(s) = \frac{R_1 (R_2 g_m + 1) (C_L L_L s^2 + C_L R_L s + 1)}{C_L L_L s^2 + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + C_L R_L s + 1}$$

Parameters:

$$\begin{aligned} &\text{Q: } \frac{L_L \sqrt{\frac{1}{C_L L_L}}}{R_1 R_2 g_m + R_1 + R_2 + R_L} \\ &\text{wo: } \sqrt{\frac{1}{C_L L_L}} \\ &\text{bandwidth: } \frac{R_1 R_2 g_m + R_1 + R_2 + R_L}{L_L} \\ &\text{K-LP: } R_1 \left(R_2 g_m + 1 \right) \\ &\text{K-HP: } R_1 \left(R_2 g_m + 1 \right) \\ &\text{K-BP: } \frac{R_1 R_L \left(R_2 g_m + 1 \right)}{R_1 R_2 g_m + R_1 + R_2 + R_L} \\ &\text{Qz: } \frac{L_L \sqrt{\frac{1}{C_L L_L}}}{R_L} \\ &\text{Wz: } \sqrt{\frac{1}{C_L L_L}} \end{aligned}$$

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

Q:
$$C_L \sqrt{\frac{1}{C_L L_L}} \left(R_1 R_2 g_m + R_1 + R_2 + R_L \right)$$
 wo: $\sqrt{\frac{1}{C_L L_L}}$ bandwidth: $\frac{1}{C_L (R_1 R_2 g_m + R_1 + R_2 + R_L)}$ K-LP: $\frac{R_1 R_L (R_2 g_m + 1)}{R_1 R_2 g_m + R_1 + R_2 + R_L}$ K-HP: $\frac{R_1 R_L (R_2 g_m + 1)}{R_1 R_2 g_m + R_1 + R_2 + R_L}$ K-BP: $R_1 \left(R_2 g_m + 1 \right)$

Qz:
$$C_L R_L \sqrt{\frac{1}{C_L L_L}}$$

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

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

$$H(s) = \frac{R_1 R_L \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_2 L_2 R_1 g_m s^2 + C_2 L_2 s^2 + C_2 R_1 s + C_2 R_L s + R_1 g_m + 1}$$

$$\begin{aligned} &\text{Q: } \frac{L_2\sqrt{\frac{1}{C_2L_2}}(R_1g_m+1)}{R_1+R_L} \\ &\text{wo: } \sqrt{\frac{1}{C_2L_2}} \\ &\text{bandwidth: } \frac{R_1+R_L}{L_2(R_1g_m+1)} \\ &\text{K-LP: } \frac{R_1R_Lg_m}{R_1g_m+1} \\ &\text{K-HP: } \frac{R_1R_Lg_m}{R_1g_m+1} \\ &\text{K-BP: } \frac{R_1R_L}{R_1+R_L} \\ &\text{Qz: } L_2g_m\sqrt{\frac{1}{C_2L_2}} \\ &\text{Wz: } \sqrt{\frac{1}{C_2L_2}} \end{aligned}$$

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

$$H(s) = \frac{R_1 R_L \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 L_2 R_1 g_m s^2 + C_2 L_2 s^2 + C_2 R_1 R_2 g_m s + C_2 R_1 s + C_2 R_2 s + C_2 R_L s + R_1 g_m + 1}$$

$$\begin{aligned} &\text{Q: } \frac{L_2\sqrt{\frac{1}{C_2L_2}}(R_1g_m+1)}{R_1R_2g_m+R_1+R_2+R_L} \\ &\text{wo: } \sqrt{\frac{1}{C_2L_2}} \\ &\text{bandwidth: } \frac{R_1R_2g_m+R_1+R_2+R_L}{L_2(R_1g_m+1)} \\ &\text{K-LP: } \frac{R_1R_Lg_m}{R_1g_m+1} \end{aligned}$$

K-HP:
$$\frac{R_1R_Lg_m}{R_1g_m+1}$$

K-BP: $\frac{R_1R_L(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_L}$
Qz: $\frac{L_2g_m\sqrt{\frac{1}{C_2L_2}}}{R_2g_m+1}$
Wz: $\sqrt{\frac{1}{C_2L_2}}$

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

$$H(s) = \frac{R_1 R_L \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_2 L_2 R_1 R_2 g_m s^2 + C_2 L_2 R_1 s^2 + C_2 L_2 R_2 s^2 + C_2 L_2 R_L s^2 + L_2 R_1 g_m s + L_2 s + R_1 R_2 g_m + R_1 + R_2 + R_L R_2 g_m + R_1 + R_2 + R_2 R_2 g_m + R_1 + R_2 + R_2 R_2 g_m + R_1 R_2 g_m + R_1 R_2 g_m + R_2 g_m + R_2 R_2 g_m + R_2$$

$$\begin{aligned} & \text{Q:} \ \frac{C_2\sqrt{\frac{1}{C_2L_2}}(R_1R_2g_m + R_1 + R_2 + R_L)}{R_1g_m + 1} \\ & \text{wo:} \ \sqrt{\frac{1}{C_2L_2}} \\ & \text{bandwidth:} \ \frac{R_1g_m + 1}{C_2(R_1R_2g_m + R_1 + R_2 + R_L)} \\ & \text{K-LP:} \ \frac{R_1R_L(R_2g_m + 1)}{R_1R_2g_m + R_1 + R_2 + R_L} \\ & \text{K-HP:} \ \frac{R_1R_L(R_2g_m + 1)}{R_1R_2g_m + R_1 + R_2 + R_L} \\ & \text{K-BP:} \ \frac{R_1R_2g_m}{R_1g_m} + 1 \\ & \text{Qz:} \ \frac{C_2\sqrt{\frac{1}{C_2L_2}}(R_2g_m + 1)}{g_m} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_2L_2}} \end{aligned}$$

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

$$H(s) = \frac{R_1 R_L \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1 \right)}{C_2 L_2 R_1 R_2 g_m s^2 + C_2 L_2 R_1 s^2 + C_2 L_2 R_2 s^2 + C_2 L_2 R_L s^2 + C_2 R_1 R_2 s + C_2 R_2 R_L s + R_1 R_2 g_m + R_1 + R_2 + R_L R_2 g_m + R_1 R_2 g_m + R_$$

Q:
$$\frac{L_2\sqrt{\frac{1}{C_2L_2}}(R_1R_2g_m + R_1 + R_2 + R_L)}{R_2(R_1 + R_L)}$$

wo:
$$\sqrt{\frac{1}{C_2L_2}}$$
 bandwidth: $\frac{R_2(R_1+R_L)}{L_2(R_1R_2g_m+R_1+R_2+R_L)}$ K-LP: $\frac{R_1R_L(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_L}$ K-HP: $\frac{R_1R_L(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_L}$ K-BP: $\frac{R_1R_L}{R_1+R_L}$ Qz: $\frac{L_2\sqrt{\frac{1}{C_2L_2}}(R_2g_m+1)}{R_2}$ Wz: $\sqrt{\frac{1}{C_2L_2}}$

6.7 GE-7
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L\left(R_2g_m + 1\right)\left(C_1L_1s^2 + C_1R_1s + 1\right)}{C_1L_1R_2q_ms^2 + C_1L_1s^2 + C_1R_1R_2q_ms + C_1R_1s + C_1R_2s + C_1R_Ls + R_2q_m + 1}$$

$$\begin{aligned} & \text{Q: } \frac{L_1\sqrt{\frac{1}{C_1L_1}}(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_L} \\ & \text{wo: } \sqrt{\frac{1}{C_1L_1}} \\ & \text{bandwidth: } \frac{R_1R_2g_m+R_1+R_2+R_L}{L_1(R_2g_m+1)} \\ & \text{K-LP: } R_L \\ & \text{K-HP: } R_L \\ & \text{K-BP: } \frac{R_1R_L(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_L} \\ & \text{Qz: } \frac{L_1\sqrt{\frac{1}{C_1L_1}}}{R_1} \\ & \text{Wz: } \sqrt{\frac{1}{C_1L_1}} \end{aligned}$$

6.8 GE-8
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L\left(R_2 g_m + 1\right)\left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1 L_1 R_1 R_2 g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_2 s^2 + C_1 L_1 R_2 s^2 + L_1 R_2 g_m s + L_1 s + R_1 R_2 g_m + R_1 + R_2 + R_L}$$

Q:
$$\frac{C_1\sqrt{\frac{1}{C_1L_1}}(R_1R_2g_m+R_1+R_2+R_L)}{R_2g_m+1}$$
 wo:
$$\sqrt{\frac{1}{C_1L_1}}$$
 bandwidth:
$$\frac{R_2g_m+1}{C_1(R_1R_2g_m+R_1+R_2+R_L)}$$
 K-LP:
$$\frac{R_1R_L(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_L}$$
 K-HP:
$$\frac{R_1R_L(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_L}$$
 K-BP:
$$R_L$$
 Qz:
$$C_1R_1\sqrt{\frac{1}{C_1L_1}}$$
 Wz:
$$\sqrt{\frac{1}{C_1L_1}}$$

7 AP

8 INVALID-NUMER

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

$$H(s) = \frac{R_1 R_L \left(C_2 s + g_m \right)}{C_2 C_L R_1 R_L s^2 + C_2 R_1 s + C_2 R_L s + C_L R_1 R_L g_m s + C_L R_L s + R_1 g_m + 1}$$

$$\begin{aligned} &\text{Q: } \frac{C_2C_LR_1R_L\sqrt{\frac{R_1g_m+1}{C_2C_LR_1R_L}}}{C_2R_1+C_2R_L+C_LR_1R_Lg_m+C_LR_L} \\ &\text{wo: } \sqrt{\frac{R_1g_m+1}{C_2C_LR_1R_L}} \\ &\text{bandwidth: } \frac{C_2R_1+C_2R_L+C_LR_1R_Lg_m+C_LR_L}{C_2C_LR_1R_L} \\ &\text{K-LP: } \frac{R_1R_Lg_m}{R_1g_m+1} \\ &\text{K-HP: } 0 \\ &\text{K-BP: } \frac{C_2R_1R_L}{C_2R_1+C_2R_L+C_LR_1R_Lg_m+C_LR_L} \\ &\text{Qz: } 0 \end{aligned}$$

Wz: None

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

$$H(s) = \frac{R_1 \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_2 C_L R_1 R_2 s^2 + C_2 R_2 s + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + 1}$$

Parameters:

Q:
$$\frac{C_2C_LR_1R_2\sqrt{\frac{1}{C_2C_LR_1R_2}}}{C_2R_2+C_LR_1R_2g_m+C_LR_1+C_LR_2}$$
 wo:
$$\sqrt{\frac{1}{C_2C_LR_1R_2}}$$
 bandwidth:
$$\frac{C_2R_2+C_LR_1R_2g_m+C_LR_1+C_LR_2}{C_2C_LR_1R_2}$$
 K-LP:
$$R_1\left(R_2g_m+1\right)$$
 K-HP:
$$0$$
 K-BP:
$$\frac{C_2R_1R_2}{C_2R_2+C_LR_1R_2g_m+C_LR_1+C_LR_2}$$
 Qz:
$$0$$
 Wz: None

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

$$\begin{array}{c} \text{Q:} \frac{C_2C_LR_1R_2R_L\sqrt{\frac{R_1R_2g_m+R_1+R_2+R_L}{C_2C_LR_1R_2R_L}}}{C_2R_1R_2+C_LR_1R_2R_L+C_LR_1R_2R_Lg_m+C_LR_1R_L+C_LR_2R_L}}\\ \text{wo:} \sqrt{\frac{R_1R_2g_m+R_1+R_2+R_L}{C_2C_LR_1R_2R_L}}\\ \text{bandwidth:} \frac{C_2R_1R_2+C_2R_2R_L+C_LR_1R_2R_Lg_m+C_LR_1R_L+C_LR_2R_L}{C_2C_LR_1R_2R_L}}\\ \text{K-LP:} \frac{R_1R_L(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_L}\\ \text{K-HP:} 0\\ \text{K-BP:} \frac{C_2R_1R_2+C_2R_2R_L+C_LR_1R_2R_L}{C_2R_1R_2R_L}\\ \text{Qz:} 0\\ \text{Wz:} \text{None} \end{array}$$

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

$$H(s) = \frac{R_1 R_L \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{C_2 C_L R_1 R_2 R_L g_m s^2 + C_2 C_L R_1 R_L s^2 + C_2 C_L R_2 R_L s^2 + C_2 R_1 R_2 g_m s + C_2 R_1 s + C_2 R_2 s + C_2 R_L s + C_L R_1 R_L g_m s + C_L R_L s + R_1 g_m + 1}$$

$$\begin{array}{l} \text{Q:} \ \frac{C_2C_LR_L\sqrt{\frac{R_1g_m+1}{C_2C_LR_L(R_1R_2g_m+R_1+R_2)}}(R_1R_2g_m+R_1+R_2)}{C_2R_1R_2g_m+C_2R_1+C_2R_2+C_2R_L+C_LR_1R_Lg_m+C_LR_L} \\ \text{wo:} \ \sqrt{\frac{R_1g_m+1}{C_2C_LR_L(R_1R_2g_m+R_1+R_2)}} \\ \text{bandwidth:} \ \frac{C_2R_1R_2g_m+C_2R_1+C_2R_2+C_2R_L+C_LR_1R_Lg_m+C_LR_L}{C_2C_LR_L(R_1R_2g_m+R_1+R_2)} \\ \text{K-LP:} \ \frac{R_1R_Lg_m}{R_1g_m+1} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_1R_2g_m+C_2R_1+C_2R_2+C_2R_L+C_LR_1R_Lg_m+C_LR_L}{C_2R_1R_2g_m+C_2R_1+C_2R_2+C_2R_L+C_LR_1R_Lg_m+C_LR_L} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

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

$$H(s) = \frac{L_1 s (R_2 g_m + 1) (C_L R_L s + 1)}{C_L L_1 R_2 g_m s^2 + C_L L_1 s^2 + C_L R_2 s + C_L R_L s + 1}$$

$$\begin{array}{l} \text{Q:} \ \frac{L_1\sqrt{\frac{1}{C_LL_1(R_2g_m+1)}}(R_2g_m+1)}{R_2+R_L} \\ \text{wo:} \ \sqrt{\frac{1}{C_LL_1(R_2g_m+1)}} \\ \text{bandwidth:} \ \frac{R_2+R_L}{L_1(R_2g_m+1)} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ R_L \\ \text{K-BP:} \ \frac{L_1(R_2g_m+1)}{C_L(R_2+R_L)} \\ \text{Qz:} \ C_LR_L\sqrt{\frac{1}{C_LL_1(R_2g_m+1)}} \\ \text{Wz:} \ \text{None} \end{array}$$

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

$$H(s) = \frac{L_1 R_L s (C_2 s + g_m)}{C_2 L_1 s^2 + C_2 R_L s + L_1 g_m s + 1}$$

Q:
$$\frac{C_2L_1\sqrt{\frac{1}{C_2L_1}}}{C_2R_L+L_1g_m}$$

wo: $\sqrt{\frac{1}{C_2L_1}}$
bandwidth: $\frac{C_2R_L+L_1g_m}{C_2L_1}$

K-LP: 0

Qz: $\frac{C_2\sqrt{\frac{1}{C_2L_1}}}{\text{Wz: None}}$

8.7 INVALID-NUMER-7 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \infty, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 (C_2 s + g_m)}{C_2 C_L L_1 s^2 + C_2 + C_L L_1 g_m s + C_L}$$

Parameters:

Q:
$$\frac{C_2\sqrt{\frac{C_2+C_L}{C_2C_LL_1}}}{g_m}$$
wo:
$$\sqrt{\frac{C_2+C_L}{C_2C_LL_1}}$$
bandwidth:
$$\frac{g_m}{C_2}$$
K-LP:
$$\frac{L_1g_m}{C_2+C_L}$$
K-HP: 0

K-BP: $\frac{C_2}{C_L g_m}$ Qz: 0

Wz: None

8.8 INVALID-NUMER-8
$$Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_L s \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_2 L_1 R_2 s^2 + C_2 R_2 R_L s + L_1 R_2 g_m s + L_1 s + R_2 + R_L}$$

$$\begin{aligned} &\text{Q: } \frac{C_2L_1R_2\sqrt{\frac{R_2+R_L}{C_2L_1R_2}}}{C_2R_2R_L+L_1R_2g_m+L_1} \\ &\text{wo: } \sqrt{\frac{R_2+R_L}{C_2L_1R_2}} \\ &\text{bandwidth: } \frac{C_2R_2R_L+L_1R_2g_m+L_1}{C_2L_1R_2} \\ &\text{K-LP: } 0 \\ &\text{K-HP: } R_L \\ &\text{K-BP: } \frac{L_1R_L(R_2g_m+1)}{C_2R_2R_L+L_1R_2g_m+L_1} \\ &\text{Qz: } \frac{C_2R_2\sqrt{\frac{R_2+R_L}{C_2L_1R_2}}}{R_2g_m+1} \\ &\text{Wz: None} \end{aligned}$$

8.9 INVALID-NUMER-9 $Z(s) = (\infty, R_2, \infty, \infty, \infty, R_L)$

$$H(s) = \frac{L_1 R_L s \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 L_1 R_2 g_m s^2 + C_2 L_1 s^2 + C_2 R_2 s + C_2 R_L s + L_1 g_m s + 1}$$

$$\begin{aligned} &\text{Q:} \ \frac{C_2L_1\sqrt{\frac{1}{C_2L_1(R_2g_m+1)}}(R_2g_m+1)}{C_2R_2+C_2R_L+L_1g_m} \\ &\text{wo:} \ \sqrt{\frac{1}{C_2L_1(R_2g_m+1)}} \\ &\text{bandwidth:} \ \frac{C_2R_2+C_2R_L+L_1g_m}{C_2L_1(R_2g_m+1)} \\ &\text{K-LP:} \ 0 \\ &\text{K-HP:} \ R_L \\ &\text{K-BP:} \ \frac{L_1R_Lg_m}{C_2R_2+C_2R_L+L_1g_m} \\ &\text{Qz:} \ \frac{C_2\sqrt{\frac{1}{C_2L_1(R_2g_m+1)}(R_2g_m+1)}}{g_m} \\ &\text{Wz:} \ \text{None} \end{aligned}$$

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

$$H(s) = \frac{L_1 \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 C_L L_1 R_2 g_m s^2 + C_2 C_L L_1 s^2 + C_2 C_L R_2 s + C_2 + C_L L_1 g_m s + C_L}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_2L_1\sqrt{\frac{C_2+C_L}{C_2C_LL_1(R_2g_m+1)}}(R_2g_m+1)}{C_2R_2+L_1g_m} \\ & \text{wo:} \ \sqrt{\frac{C_2+C_L}{C_2C_LL_1(R_2g_m+1)}} \\ & \text{bandwidth:} \ \frac{C_2R_2+L_1g_m}{C_2L_1(R_2g_m+1)} \\ & \text{K-LP:} \ \frac{L_1g_m}{C_2+C_L} \\ & \text{K-HP:} \ 0 \\ & \text{K-BP:} \ \frac{C_2L_1(R_2g_m+1)}{C_L(C_2R_2+L_1g_m)} \\ & \text{Qz:} \ 0 \end{aligned}$$

8.11 INVALID-NUMER-11 $Z(s) = \left(\infty, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{R_L (C_2 s + g_m)}{C_1 C_2 R_L s^2 + C_1 s + C_2 s + g_m}$$

Parameters:

Wz: None

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

8.12 INVALID-NUMER-12
$$Z(s) = \left(\infty, \ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L \left(C_2 s + g_m \right)}{C_1 C_2 R_L s^2 + C_1 C_L R_L s^2 + C_1 s + C_2 C_L R_L s^2 + C_2 s + C_L R_L g_m s + g_m}$$

$$\begin{array}{l} \text{Q:} \ \frac{R_L \sqrt{\frac{g_m}{R_L (C_1 C_2 + C_1 C_L + C_2 C_L)}} (C_1 C_2 + C_1 C_L + C_2 C_L)}{C_1 + C_2 + C_L R_L g_m} \\ \text{wo:} \ \sqrt{\frac{g_m}{R_L (C_1 C_2 + C_1 C_L + C_2 C_L)}} \\ \text{bandwidth:} \ \frac{C_1 + C_2 + C_L R_L g_m}{R_L (C_1 C_2 + C_1 C_L + C_2 C_L)} \\ \text{K-LP:} \ R_L \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2 R_L}{C_1 + C_2 + C_L R_L g_m} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

8.13 INVALID-NUMER-13
$$Z(s) = \left(\infty, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L\left(C_2R_2s + R_2g_m + 1\right)}{C_1C_2R_2R_Ls^2 + C_1R_2s + C_1R_Ls + C_2R_2s + R_2g_m + 1}$$

$$\begin{array}{l} \text{Q:} \ \frac{C_1C_2R_2R_L\sqrt{\frac{R_2g_m+1}{C_1C_2R_2R_L}}}{C_1R_2+C_1R_L+C_2R_2} \\ \text{wo:} \ \sqrt{\frac{R_2g_m+1}{C_1C_2R_2R_L}} \\ \text{bandwidth:} \ \frac{C_1R_2+C_1R_L+C_2R_2}{C_1C_2R_2R_L} \\ \text{K-LP:} \ R_L \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_2R_L}{C_1R_2+C_1R_L+C_2R_2} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

8.14 INVALID-NUMER-14
$$Z(s) = \left(\infty, \ \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_1 C_2 R_2 R_L s^2 + C_1 C_L R_2 R_L s^2 + C_1 R_2 s + C_1 R_L s + C_2 C_L R_2 R_L s^2 + C_2 R_2 s + C_L R_2 R_L g_m s + C_L R_L s + R_2 g_m + 1}$$

$$Q: \frac{R_2R_L\sqrt{\frac{R_2g_m+1}{R_2R_L(C_1C_2+C_1C_L+C_2C_L)}}}{C_1R_2+C_1R_L+C_2R_2+C_LR_2R_Lg_m+C_LR_L}} (C_1C_2+C_1C_L+C_2C_L)}{\frac{C_1R_2+C_1R_L+C_2R_2+C_L}{R_2R_L+C_2R_2+C_LR_2R_Lg_m+C_LR_L}}}$$
 wo:
$$\sqrt{\frac{R_2g_m+1}{R_2R_L(C_1C_2+C_1C_L+C_2C_L)}}}$$
 bandwidth:
$$\frac{C_1R_2+C_1R_L+C_2R_2+C_LR_2R_Lg_m+C_LR_L}{R_2R_L(C_1C_2+C_1C_L+C_2C_L)}}$$
 K-LP:
$$R_L$$
 K-HP:
$$0$$
 K-BP:
$$\frac{C_2R_2R_L}{C_1R_2+C_1R_L+C_2R_2+C_LR_2R_Lg_m+C_LR_L}}$$
 Qz:
$$0$$
 Wz: None

8.15 INVALID-NUMER-15 $Z(s) = (\infty, \infty, R_3, \infty, \infty, R_L)$

$$H(s) = \frac{R_L \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 R_2 s^2 + C_1 C_2 R_L s^2 + C_1 s + C_2 R_2 g_m s + C_2 s + g_m}$$

$$\begin{aligned} &\text{Q:} \ \frac{C_1C_2\sqrt{\frac{g_m}{C_1C_2(R_2+R_L)}}(R_2+R_L)}{C_1+C_2R_2g_m+C_2} \\ &\text{wo:} \ \sqrt{\frac{g_m}{C_1C_2(R_2+R_L)}} \\ &\text{bandwidth:} \ \frac{C_1+C_2R_2g_m+C_2}{C_1C_2(R_2+R_L)} \\ &\text{K-LP:} \ R_L \\ &\text{K-HP:} \ 0 \\ &\text{K-BP:} \ \frac{C_2R_L(R_2g_m+1)}{C_1+C_2R_2g_m+C_2} \\ &\text{Qz:} \ 0 \\ &\text{Wz:} \ \text{None} \end{aligned}$$

8.16 INVALID-NUMER-16
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1 \left(R_2 g_m + 1 \right) \left(C_L R_L s + 1 \right)}{C_1 C_L R_1 R_2 s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + C_L R_L s + 1}$$

Q:
$$\frac{C_1C_LR_1\sqrt{\frac{1}{C_1C_LR_1(R_2+R_L)}}(R_2+R_L)}{C_1R_1+C_LR_1R_2g_m+C_LR_1+C_LR_2+C_LR_L}$$
 wo:
$$\sqrt{\frac{1}{C_1C_LR_1(R_2+R_L)}}$$
 bandwidth:
$$\frac{C_1R_1+C_LR_1R_2g_m+C_LR_1+C_LR_2+C_LR_L}{C_1C_LR_1(R_2+R_L)}$$
 K-LP:
$$R_1\left(R_2g_m+1\right)$$
 K-HP:
$$0$$
 K-BP:
$$\frac{C_LR_1R_L(R_2g_m+1)}{C_1R_1+C_LR_1R_2g_m+C_LR_1+C_LR_2+C_LR_L}$$
 Qz:
$$0$$
 Wz: None

8.17 INVALID-NUMER-17 $Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, R_L\right)$

$$H(s) = \frac{R_1 R_L (C_2 s + g_m)}{C_1 C_2 R_1 R_L s^2 + C_1 R_1 s + C_2 R_1 s + C_2 R_L s + R_1 g_m + 1}$$

$$\begin{array}{l} \text{Q:} \ \frac{C_1C_2R_1R_L\sqrt{\frac{R_1g_m+1}{C_1C_2R_1R_L}}}{C_1R_1+C_2R_1+C_2R_L} \\ \text{wo:} \ \sqrt{\frac{R_1g_m+1}{C_1C_2R_1R_L}} \\ \text{bandwidth:} \ \frac{C_1R_1+C_2R_1+C_2R_L}{C_1C_2R_1R_L} \\ \text{K-LP:} \ \frac{R_1R_Lg_m}{R_1g_m+1} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_1R_L}{C_1R_1+C_2R_1+C_2R_L} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

8.18 INVALID-NUMER-18
$$Z(s) = \left(\infty, \infty, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_L \left(C_2 s + g_m \right)}{C_1 C_2 R_1 R_L s^2 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_2 C_L R_1 R_L s^2 + C_2 R_1 s + C_2 R_L s + C_L R_1 R_L g_m s + C_L R_L s + R_1 g_m + 1}$$

$$Q\colon \frac{R_1R_L\sqrt{\frac{R_1g_m+1}{R_1R_L(C_1C_2+C_1C_L+C_2C_L)}}}{C_1R_1+C_2R_1+C_2R_L+C_LC_L}(C_1C_2+C_1C_L+C_2C_L)} \\ \times \frac{R_1g_m+1}{C_1R_1+C_2R_1+C_2R_L+C_LR_1R_Lg_m+C_LR_L} \\ \text{wo: } \sqrt{\frac{R_1g_m+1}{R_1R_L(C_1C_2+C_1C_L+C_2C_L)}} \\ \text{bandwidth: } \frac{C_1R_1+C_2R_1+C_2R_L+C_LR_1R_Lg_m+C_LR_L}{R_1R_L(C_1C_2+C_1C_L+C_2C_L)} \\ \text{K-LP: } \frac{R_1R_Lg_m}{R_1g_m+1} \\ \text{K-HP: 0} \\ \text{K-BP: } \frac{C_2R_1R_L}{C_1R_1+C_2R_1+C_2R_L+C_LR_1R_Lg_m+C_LR_L} \\ \text{Qz: 0} \\ \text{Wz: None} \\ \end{aligned}$$

8.19 INVALID-NUMER-19 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \infty, \infty, R_L\right)$

$$H(s) = \frac{R_1 R_L \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_1 C_2 R_1 R_2 R_L s^2 + C_1 R_1 R_2 s + C_1 R_1 R_L s + C_2 R_1 R_2 s + C_2 R_2 R_L s + R_1 R_2 g_m + R_1 + R_2 + R_L}$$

$$\begin{array}{l} \text{Q:} \ \frac{C_1C_2R_1R_2R_L\sqrt{\frac{R_1R_2g_m+R_1+R_2+R_L}{C_1C_2R_1R_2R_L}}}{C_1R_1R_2+C_1R_1R_L+C_2R_1R_2+C_2R_2R_L} \\ \text{wo:} \ \sqrt{\frac{R_1R_2g_m+R_1+R_2+R_L}{C_1C_2R_1R_2R_L}} \\ \text{bandwidth:} \ \frac{C_1R_1R_2+C_1R_1R_L+C_2R_1R_2+C_2R_2R_L}{C_1C_2R_1R_2R_L} \\ \text{K-LP:} \ \frac{R_1R_L(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_L} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_1R_2R_L}{C_1R_1R_2+C_1R_1R_L+C_2R_1R_2+C_2R_2R_L} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

8.20 INVALID-NUMER-20
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 R_1 R_2 s^2 + C_1 C_L R_1 R_2 s^2 + C_1 R_1 s + C_2 C_L R_1 R_2 s^2 + C_2 R_2 s + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + 1}$$

$$Q \colon \frac{R_1 R_2 \sqrt{\frac{1}{R_1 R_2 (C_1 C_2 + C_1 C_L + C_2 C_L)}} (C_1 C_2 + C_1 C_L + C_2 C_L)}{C_1 R_1 + C_2 R_2 + C_L R_1 R_2 g_m + C_L R_1 + C_L R_2}$$
 wo:
$$\sqrt{\frac{1}{R_1 R_2 (C_1 C_2 + C_1 C_L + C_2 C_L)}}$$
 bandwidth:
$$\frac{C_1 R_1 + C_2 R_2 + C_L R_1 R_2 g_m + C_L R_1 + C_L R_2}{R_1 R_2 (C_1 C_2 + C_1 C_L + C_2 C_L)}$$
 K-LP:
$$R_1 \left(R_2 g_m + 1 \right)$$
 K-HP:
$$0$$
 K-BP:
$$\frac{C_2 R_1 R_2}{C_1 R_1 + C_2 R_2 + C_L R_1 R_2 g_m + C_L R_1 + C_L R_2}$$
 Qz:
$$0$$
 Wz: None

8.21 INVALID-NUMER-21
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s + \frac{1}{R_3} + \frac{1}{L_3 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$\begin{array}{c} R_1R_2R_L\sqrt{\frac{R_1R_2g_m+R_1+R_2+R_L}{R_1R_2R_L(C_1C_2+C_1C_L+C_2C_L)}}}(C_1C_2+C_1C_L+C_2C_L)\\ Q\colon \frac{1}{C_1R_1R_2+C_1R_1R_L+C_2R_1R_2+C_2R_2R_L+C_LR_1R_2R_Lg_m+C_LR_1R_L+C_LR_2R_L}\\ \text{wo: }\sqrt{\frac{R_1R_2g_m+R_1+R_2+R_L}{R_1R_2R_L(C_1C_2+C_1C_L+C_2C_L)}}\\ \text{bandwidth: }\frac{C_1R_1R_2+C_1R_1R_2+C_2R_1R_2+C_2R_2R_L+C_LR_1R_2R_Lg_m+C_LR_1R_L+C_LR_2R_L}{R_1R_2R_L(C_1C_2+C_1C_L+C_2C_L)}\\ \text{K-LP: }\frac{R_1R_L(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_L}\\ \text{K-HP: }0\\ \text{K-BP: }\frac{C_2R_1R_2R_L}{C_1R_1R_2+C_1R_1R_L+C_2R_1R_2+C_2R_2R_L+C_LR_1R_2R_Lg_m+C_LR_1R_L+C_LR_2R_L}\\ \text{Qz: }0\\ \text{Wz: None} \end{array}$$

8.22 INVALID-NUMER-22 $Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, \infty, R_L\right)$

$$H(s) = \frac{R_1 R_L \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 R_1 R_2 s^2 + C_1 C_2 R_1 R_L s^2 + C_1 R_1 s + C_2 R_1 R_2 g_m s + C_2 R_1 s + C_2 R_2 s + C_2 R_L s + R_1 g_m + 1}$$

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_1C_2R_1\sqrt{\frac{R_1g_m+1}{C_1C_2R_1(R_2+R_L)}}(R_2+R_L)}{C_1R_1+C_2R_1R_2g_m+C_2R_1+C_2R_2+C_2R_L} \\ \text{wo:} \ \sqrt{\frac{R_1g_m+1}{C_1C_2R_1(R_2+R_L)}} \\ \text{bandwidth:} \ \frac{C_1R_1+C_2R_1R_2g_m+C_2R_1+C_2R_2+C_2R_L}{C_1C_2R_1(R_2+R_L)} \\ \text{K-LP:} \ \frac{R_1R_Lg_m}{R_1g_m+1} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_1R_L(R_2g_m+1)}{C_1R_1+C_2R_1R_2g_m+C_2R_1+C_2R_2+C_2R_L} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

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

$$H(s) = \frac{R_L \left(R_2 g_m + 1 \right) \left(C_1 R_1 s + 1 \right)}{C_1 C_L R_1 R_2 R_L g_m s^2 + C_1 C_L R_1 R_L s^2 + C_1 C_L R_2 R_L s^2 + C_1 R_1 R_2 g_m s + C_1 R_1 s + C_1 R_2 s + C_1 R_L s + C_L R_2 R_L g_m s + C_L R_L s + R_2 g_m + 1}$$

$$\begin{array}{l} \text{Q:} \ \frac{C_1C_LR_L\sqrt{\frac{R_2g_m+1}{C_1C_LR_L(R_1R_2g_m+R_1+R_2)}}(R_1R_2g_m+R_1+R_2)}{C_1R_1R_2g_m+C_1R_1+C_1R_2+C_1R_L+C_LR_2R_Lg_m+C_LR_L} \\ \text{wo:} \ \sqrt{\frac{R_2g_m+1}{C_1C_LR_L(R_1R_2g_m+R_1+R_2)}} \\ \text{bandwidth:} \ \frac{C_1R_1R_2g_m+C_1R_1+C_1R_2+C_1R_L+C_LR_2R_Lg_m+C_LR_L}{C_1C_LR_L(R_1R_2g_m+R_1+R_2)} \\ \text{K-LP:} \ R_L \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_1R_1R_2g_m+C_1R_1+C_1R_2+C_1R_L+C_LR_2R_Lg_m+C_LR_L}{C_1R_1R_2g_m+C_1R_1+C_1R_2+C_1R_L+C_LR_2R_Lg_m+C_LR_L} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

8.24 INVALID-NUMER-24 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 (C_2 s + g_m)}{C_1 C_2 L_1 s^2 + C_1 C_L L_1 s^2 + C_2 C_L L_1 s^2 + C_2 + C_L L_1 g_m s + C_L}$$

Parameters:

$$Q \colon \frac{\sqrt{\frac{C_2 + C_L}{L_1(C_1C_2 + C_1C_L + C_2C_L)}}(C_1C_2 + C_1C_L + C_2C_L)}{C_Lg_m}}{\sqrt{\frac{C_2 + C_L}{L_1(C_1C_2 + C_1C_L + C_2C_L)}}}$$
 wo:
$$\sqrt{\frac{C_2 + C_L}{L_1(C_1C_2 + C_1C_L + C_2C_L)}}$$
 bandwidth:
$$\frac{C_Lg_m}{C_1C_2 + C_1C_L + C_2C_L}$$
 K-LP:
$$\frac{L_1g_m}{C_2 + C_L}$$
 K-HP:
$$0$$
 K-BP:
$$\frac{C_2}{C_Lg_m}$$
 Qz:
$$0$$
 Wz: None

8.25 INVALID-NUMER-25 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 \left(C_2 s + g_m \right)}{C_1 C_2 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_2 C_L L_1 R_1 s^2 + C_2 L_1 s + C_2 R_1 + C_L L_1 R_1 g_m s + C_L L_1 s + C_L R_1}$$

$$\begin{array}{l} \text{Q:} \ \frac{R_1\sqrt{\frac{C_2+C_L}{L_1(C_1C_2+C_1C_L+C_2C_L)}}}{C_2+C_LR_1g_m+C_L} \\ \text{Wo:} \ \frac{C_2+C_LR_1g_m+C_L}{L_1(C_1C_2+C_1C_L+C_2C_L)} \\ \text{bandwidth:} \ \frac{C_2+C_L}{R_1(C_1C_2+C_1C_L+C_2C_L)} \\ \text{K-LP:} \ \frac{L_1g_m}{C_2+C_L} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_1}{C_2+C_LR_1g_m+C_L} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

9 INVALID-WZ

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

$$H(s) = \frac{R_1 \left(C_L R_L s + 1 \right) \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_2 C_L R_1 R_2 s^2 + C_2 C_L R_2 R_L s^2 + C_2 R_2 s + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + C_L R_L s + 1}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_2C_LR_2\sqrt{\frac{1}{C_2C_LR_2(R_1+R_L)}}(R_1+R_L)}{C_2R_2+C_LR_1R_2g_m+C_LR_1+C_LR_2+C_LR_L} \\ & \text{wo:} \ \sqrt{\frac{1}{C_2C_LR_2(R_1+R_L)}} \\ & \text{bandwidth:} \ \frac{C_2R_2+C_LR_1R_2g_m+C_LR_1+C_LR_2+C_LR_L}{C_2C_LR_2(R_1+R_L)} \\ & \text{K-LP:} \ R_1\left(R_2g_m+1\right) \\ & \text{K-HP:} \ \frac{R_1R_L}{R_1+R_L} \\ & \text{K-BP:} \ \frac{R_1(C_2R_2+C_LR_2R_Lg_m+C_LR_L)}{C_2R_2+C_LR_1R_2g_m+C_LR_1+C_LR_2+C_LR_L} \\ & \text{Qz:} \ \frac{C_2C_LR_2R_L\sqrt{\frac{1}{C_2C_LR_2}R_Lg_m+C_LR_L}}{C_2R_2+C_LR_2R_Lg_m+C_LR_L} \\ & \text{Wz:} \ \sqrt{\frac{R_2g_m+1}{C_2C_LR_2R_L}} \end{aligned}$$

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

$$H(s) = \frac{L_1 (C_2 s + g_m) (C_L R_L s + 1)}{C_2 C_L L_1 s^2 + C_2 C_L R_L s + C_2 + C_L L_1 g_m s + C_L}$$

$$\begin{aligned} &\text{Q: } \frac{C_2L_1\sqrt{\frac{C_2+C_L}{C_2C_LL_1}}}{C_2R_L+L_1g_m} \\ &\text{wo: } \sqrt{\frac{C_2+C_L}{C_2C_LL_1}} \\ &\text{bandwidth: } \frac{C_2R_L+L_1g_m}{C_2L_1} \\ &\text{K-LP: } \frac{L_1g_m}{C_2+C_L} \\ &\text{K-HP: } R_L \\ &\text{K-BP: } \frac{L_1(C_2+C_LR_Lg_m)}{C_L(C_2R_L+L_1g_m)} \end{aligned}$$

Qz:
$$\frac{C_2 C_L R_L \sqrt{\frac{C_2 + C_L}{C_2 C_L L_1}}}{C_2 + C_L R_L g_m}$$

Wz: $\sqrt{\frac{g_m}{C_2 C_L R_L}}$

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

$$H(s) = \frac{L_1 \left(C_L R_L s + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 C_L L_1 R_2 g_m s^2 + C_2 C_L L_1 s^2 + C_2 C_L R_2 s + C_2 C_L R_L s + C_2 + C_L L_1 g_m s + C_L}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_2L_1\sqrt{\frac{C_2+C_L}{C_2C_LL_1(R_2g_m+1)}}(R_2g_m+1)}{C_2R_2+C_2R_L+L_1g_m} \\ & \text{wo:} \ \sqrt{\frac{C_2+C_L}{C_2C_LL_1(R_2g_m+1)}} \\ & \text{bandwidth:} \ \frac{C_2R_2+C_2R_L+L_1g_m}{C_2L_1(R_2g_m+1)} \\ & \text{K-LP:} \ \frac{L_1g_m}{C_2+C_L} \\ & \text{K-HP:} \ R_L \\ & \text{K-BP:} \ \frac{L_1(C_2R_2g_m+C_2+C_LR_Lg_m)}{C_L(C_2R_2+C_2R_L+L_1g_m)} \\ & \text{Qz:} \ \frac{C_2C_LR_L\sqrt{\frac{C_2+C_L}{C_2C_LL_1(R_2g_m+1)}}(R_2g_m+1)}{C_2R_2g_m+C_2+C_LR_Lg_m} \\ & \text{Wz:} \ \sqrt{\frac{g_m}{C_2C_LR_L(R_2g_m+1)}} \end{aligned}$$

9.4 INVALID-WZ-4 $Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L\right)$

$$H(s) = \frac{R_L \left(C_2 s + g_m \right) \left(C_1 R_1 s + 1 \right)}{C_1 C_2 R_1 s^2 + C_1 C_2 R_L s^2 + C_1 R_1 g_m s + C_1 s + C_2 s + g_m}$$

$$\begin{aligned} &\text{Q:} \ \frac{\frac{C_1C_2\sqrt{\frac{g_m}{C_1C_2(R_1+R_L)}}}{C_1R_1g_m+C_1+C_2}}{R_1R_m} (R_1+R_L) \\ &\text{wo:} \ \sqrt{\frac{g_m}{C_1C_2(R_1+R_L)}} \\ &\text{bandwidth:} \ \frac{C_1R_1g_m+C_1+C_2}{C_1C_2(R_1+R_L)} \\ &\text{K-LP:} \ R_L \end{aligned}$$

$$\begin{aligned} & \text{K-HP: } \frac{R_1 R_L}{R_1 + R_L} \\ & \text{K-BP: } \frac{R_L (C_1 R_1 g_m + C_2)}{C_1 R_1 g_m + C_1 + C_2} \\ & \text{Qz: } \frac{C_1 C_2 R_1 \sqrt{\frac{g_m}{C_1 C_2 (R_1 + R_L)}}}{C_1 R_1 g_m + C_2} \\ & \text{Wz: } \sqrt{\frac{g_m}{C_1 C_2 R_1}} \end{aligned}$$

9.5 INVALID-WZ-5 $Z(s) = \left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, R_L\right)$

$$H(s) = \frac{R_L \left(C_1 R_1 s + 1 \right) \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_1 C_2 R_1 R_2 s^2 + C_1 C_2 R_2 R_L s^2 + C_1 R_1 R_2 g_m s + C_1 R_1 s + C_1 R_2 s + C_1 R_L s + C_2 R_2 s + R_2 g_m + 1}$$

Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_1C_2R_2\sqrt{\frac{R_2g_m+1}{C_1C_2R_2(R_1+R_L)}}(R_1+R_L)}{C_1R_1R_2g_m+C_1R_1+C_1R_2+C_1R_L+C_2R_2} \\ & \text{wo:} \ \sqrt{\frac{R_2g_m+1}{C_1C_2R_2(R_1+R_L)}} \\ & \text{bandwidth:} \ \frac{C_1R_1R_2g_m+C_1R_1+C_1R_2+C_1R_L+C_2R_2}{C_1C_2R_2(R_1+R_L)} \\ & \text{K-LP:} \ R_L \\ & \text{K-HP:} \ \frac{R_1R_L}{R_1+R_L} \\ & \text{K-BP:} \ \frac{R_L(C_1R_1R_2g_m+C_1R_1+C_2R_2)}{C_1R_2g_m+C_1R_1+C_1R_2+C_1R_L+C_2R_2} \\ & \text{Qz:} \ \frac{C_1C_2R_1R_2\sqrt{\frac{R_2g_m+1}{C_1C_2R_2(R_1+R_L)}}}{C_1R_1R_2g_m+C_1R_1+C_2R_2} \\ & \text{Wz:} \ \sqrt{\frac{R_2g_m+1}{C_1C_2R_1R_2}} \end{aligned}$$

9.6 INVALID-WZ-6
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 R_1 s + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 R_1 R_2 g_m s^2 + C_1 C_2 R_1 s^2 + C_1 C_2 R_2 s^2 + C_1 C_2 R_L s^2 + C_1 R_1 g_m s + C_1 s + C_2 R_2 g_m s + C_2 s + g_m R_1 R_2 g_m s^2 + C_1 R_2 R_2 g_m s + C_2 R_2 R_2 r_2 + C_1 R_2 r_2 + C_$$

Q:
$$\frac{C_1C_2\sqrt{\frac{g_m}{C_1C_2(R_1R_2g_m+R_1+R_2+R_L)}}(R_1R_2g_m+R_1+R_2+R_L)}{C_1R_1g_m+C_1+C_2R_2g_m+C_2}$$

$$\text{wo: } \sqrt{\frac{g_m}{C_1C_2(R_1R_2g_m+R_1+R_2+R_L)}} \\ \text{bandwidth: } \frac{C_1R_1g_m+C_1+C_2R_2g_m+C_2}{C_1C_2(R_1R_2g_m+R_1+R_2+R_L)} \\ \text{K-LP: } R_L \\ \text{K-HP: } \frac{R_1R_L(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_L} \\ \text{K-BP: } \frac{R_L(C_1R_1g_m+C_2R_2g_m+C_2)}{C_1R_1g_m+C_1+C_2R_2g_m+C_2} \\ \text{Qz: } \frac{C_1C_2R_1\sqrt{\frac{g_m}{C_1C_2(R_1R_2g_m+R_1+R_2+R_L)}}(R_2g_m+1)}{C_1R_1g_m+C_2R_2g_m+C_2} \\ \text{Wz: } \sqrt{\frac{g_m}{C_1C_2R_1(R_2g_m+1)}}$$

10 INVALID-ORDER

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

$$H(s) = \frac{R_1 R_L (R_2 g_m + 1)}{R_1 R_2 g_m + R_1 + R_2 + R_L}$$

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

$$H(s) = \frac{R_1 (R_2 g_m + 1)}{C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + 1}$$

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

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

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

$$H(s) = \frac{R_1 (R_2 g_m + 1) (C_L R_L s + 1)}{C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + C_L R_L s + 1}$$

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

$$H(s) = \frac{R_1 R_L (C_2 s + g_m)}{C_2 R_1 s + C_2 R_L s + R_1 g_m + 1}$$

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

$$H(s) = \frac{R_1 (C_2 s + g_m)}{s (C_2 C_L R_1 s + C_2 + C_L R_1 g_m + C_L)}$$

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

$$H(s) = \frac{R_1 (C_2 s + g_m) (C_L R_L s + 1)}{s (C_2 C_L R_1 s + C_2 C_L R_L s + C_2 + C_L R_1 g_m + C_L)}$$

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

$$H(s) = \frac{R_1 (C_2 s + g_m) (C_L L_L s^2 + 1)}{s (C_2 C_L L_L s^2 + C_2 C_L R_1 s + C_2 + C_L R_1 g_m + C_L)}$$

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

$$H(s) = \frac{L_L R_1 s \left(C_2 s + g_m\right)}{C_2 C_L L_L R_1 s^3 + C_2 L_L s^2 + C_2 R_1 s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

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

$$R_1 \left(C_2 s + g_m\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)$$

$$H(s) = \frac{R_1 (C_2 s + g_m) (C_L L_L s^2 + C_L R_L s + 1)}{s (C_2 C_L L_L s^2 + C_2 C_L R_1 s + C_2 C_L R_L s + C_2 + C_L R_1 g_m + C_L)}$$

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

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

$$H(s) = \frac{R_1 (C_2 s + g_m) (C_L L_L R_L s^2 + L_L s + R_L)}{C_2 C_L L_L R_1 s^3 + C_2 C_L L_L R_L s^3 + C_2 L_L s^2 + C_2 R_1 s + C_2 R_L s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

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

$$H(s) = \frac{R_1 R_L \left(C_2 s + g_m\right) \left(C_L L_L s^2 + 1\right)}{C_2 C_L L_L R_1 s^3 + C_2 C_L L_L R_L s^3 + C_2 C_L R_1 R_L s^2 + C_2 R_1 s + C_2 R_L s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_L R_1 R_L g_m s + C_L R_L s + R_1 g_m + 1}$$

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

$$H(s) = \frac{R_1 R_L \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_2 R_1 R_2 s + C_2 R_2 R_L s + R_1 R_2 g_m + R_1 + R_2 + R_L}$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_2 C_L L_L R_2 s^3 + C_2 C_L R_1 R_2 s^2 + C_2 R_2 s + C_L L_L s^2 + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + 1}$$

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

$$H(s) = \frac{L_L R_1 s \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_2 C_L L_L R_1 R_2 s^3 + C_2 L_L R_2 s^2 + C_2 R_1 R_2 s + C_L L_L R_1 R_2 g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_2 s^2 + L_L s + R_1 R_2 g_m + R_1 + R_2 r^2}$$

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

$$H(s) = \frac{R_1 \left(C_2 R_2 s + R_2 g_m + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{C_2 C_L L_L R_2 s^3 + C_2 C_L R_1 R_2 s^2 + C_2 C_L R_2 R_L s^2 + C_L R_2 s + C_L L_L s^2 + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + C_L R_L s + 1}$$

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

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

$$H(s) = \frac{R_1 \left(C_2 R_2 s + R_2 g_m + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{C_2 C_L L_L R_1 R_2 s^3 + C_2 C_L L_L R_2 s^2 + C_2 R_1 R_2 s + C_2 R_2 R_L s + C_L L_L R_1 R_2 g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_2 s^2 + C_L L_L R_2 s^2 + L_L s + R_1 R_2 g_m + R_1 + R_2 + R_L R_2 g_m + R_1 + R_2 R_2 g_m + R_1 R_2 g_m +$$

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

$$H(s) = \frac{R_1 R_L \left(C_L L_L s^2 + 1 \right) \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_2 C_L L_L R_1 R_2 s^3 + C_2 C_L L_L R_2 R_L s^3 + C_2 C_L R_1 R_2 R_L s^2 + C_2 R_1 R_2 s + C_2 R_2 R_L s + C_L L_L R_1 R_2 g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_2 s^2 + C_L L_L R_2 s^2 + C_L L_L R_2 R_L s^3 + C_L R_1 R_2 R_L g_m s + C_L R_1 R_2 R_L g_m s^2 + C_L R_1 R_2 R_L g_m s^$$

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

$$H(s) = \frac{R_1 R_L \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 R_1 R_2 g_m s + C_2 R_1 s + C_2 R_2 s + C_2 R_L s + R_1 g_m + 1}$$

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

$$H(s) = \frac{R_1 \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_2 C_L R_1 R_2 g_m s + C_2 C_L R_1 s + C_2 C_L R_2 s + C_2 + C_L R_1 g_m + C_L \right)}$$

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

$$H(s) = \frac{R_1 \left(C_L R_L s + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_2 C_L R_1 R_2 g_m s + C_2 C_L R_1 s + C_2 C_L R_2 s + C_2 C_L R_L s + C_2 + C_L R_1 g_m + C_L \right)}$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_2 C_L L_L s^2 + C_2 C_L R_1 R_2 g_m s + C_2 C_L R_1 s + C_2 C_L R_2 s + C_2 + C_L R_1 g_m + C_L \right)}$$

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

$$H(s) = \frac{L_L R_1 s \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{C_2 C_L L_L R_1 g^3 + C_2 C_L L_L R_1 s^3 + C_2 C_L L_L R_2 s^3 + C_2 L_L s^2 + C_2 R_1 R_2 g_m s + C_2 R_1 s + C_2 R_2 s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_2 C_L L_L s^2 + C_2 C_L R_1 R_2 g_m s + C_2 C_L R_1 s + C_2 C_L R_2 s + C_2 C_L R_L s + C_2 + C_L R_1 g_m + C_L \right)}$$

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

10.28 INVALID-ORDER-28
$$Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{R_1 \left(C_2 R_2 g_m s + C_2 s + g_m \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{C_2 C_L L_L R_1 g_m s^3 + C_2 C_L L_L R_1 s^3 + C_2 C_L L_L R_2 s^3 + C_2 C_L L_L R_2 s^3 + C_2 L_L s^2 + C_2 R_1 R_2 g_m s + C_2 R_1 s + C_2 R_2 s + C_2 R_L s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

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

$$H(s) = \frac{R_1 R_L \left(C_L L_L s^2 + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 C_L L_L R_1 s^3 + C_2 C_L L_L R_2 s^3 + C_2 C_L L_L R_2 s^3 + C_2 C_L R_1 R_2 R_L g_m s^2 + C_2 C_L R_1 R_L s^2 + C_2 C_L R_1 R_2 s^2 + C_2 R_1 R_2 g_m s + C_2 R_2 R_$$

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

$$H(s) = \frac{R_1 \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{s \left(C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_2 s^2 + C_2 C_L R_1 s + C_2 + C_L R_1 g_m + C_L \right)}$$

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

$$H(s) = \frac{R_1 R_L \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_2 C_L L_2 R_1 R_L g_m s^3 + C_2 C_L L_2 R_L s^3 + C_2 C_L R_1 R_L s^2 + C_2 L_2 R_1 g_m s^2 + C_2 L_2 s^2 + C_2 R_1 s + C_2 R_L s + C_L R_1 R_L g_m s + C_L R_L s + R_1 g_m + 1}$$

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

$$H(s) = \frac{R_1 \left(C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{s \left(C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_2 s^2 + C_2 C_L R_1 s + C_2 C_L R_L s + C_2 + C_L R_1 g_m + C_L \right)}$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{s \left(C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_2 s^2 + C_2 C_L L_L s^2 + C_2 C_L R_1 s + C_2 + C_L R_1 g_m + C_L \right)}$$

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

$$H(s) = \frac{L_L R_1 s \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{C_2 C_L L_2 L_L R_1 g_m s^4 + C_2 C_L L_L L_1 s^4 + C_2 C_L L_L R_1 s^3 + C_2 L_2 R_1 g_m s^2 + C_2 L_2 s^2 + C_2 L_L s^2 + C_2 L_L s^2 + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{s \left(C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_2 s^2 + C_2 C_L L_L s^2 + C_2 C_L R_1 s + C_2 C_L R_L s + C_2 + C_L R_1 g_m + C_L \right)}$$

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

$$H(s) = \frac{L_L R_1 R_L s \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{C_2 C_L L_2 L_L R_1 R_L g^4 + C_2 C_L L_L R_1 R_L s^3 + C_2 L_2 L_L R_1 g_m s^3 + C_2 L_2 L_L s^3 + C_2 L_2 R_1 R_L g^2 + C_2 L_2 R_L s^2 + C_2 L_L R_1 s^2 + C_2 L_L R_1 s^2 + C_2 R_1 R_L s + C_2 R_1 R_L s + C_2 R_1 R_L s^2 + C_2 R_1 R_L s +$$

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

$$H(s) = \frac{R_1 \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{C_2 C_L L_2 L_L R_1 g_m s^4 + C_2 C_L L_L R_1 s^3 + C_2 C_L L_L R_1 s^3 + C_2 L_2 R_1 g_m s^2 + C_2 L_2 s^2 + C_2 L_L s^2 + C_2 R_1 s + C_2 R_L s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

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

$$H(s) = \frac{R_1 R_L \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_2 C_L L_2 L_L R_1 g_m s^4 + C_2 C_L L_2 R_1 R_L g_m s^3 + C_2 C_L L_2 R_L s^3 + C_2 C_L L_L R_1 s^3 + C_2 C_L L_L R_L s^3 + C_2 C_L L_R R_1 s^2 + C_2 L_2 R_1 g_m s^2 + C_2 L_2 s^2 + C_2 R_1 s + C_2 R_L s + C_2 R_1 R_L s^3 + C_2 R_1 R_L s^$$

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

$$H(s) = \frac{R_1 \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_2 s^2 + C_2 C_L R_1 R_2 g_m s + C_2 C_L R_1 s + C_2 C_L R_2 s + C_2 + C_L R_1 g_m + C_L \right)}$$

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

$$H(s) = \frac{R_1 R_L \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 C_L L_2 R_1 R_2 g_m s^3 + C_2 C_L L_2 R_1 S^3 + C_2 C_L R_1 R_2 R_L g_m s^2 + C_2 C_L R_1 R_L s^2 + C_2 C_L R_2 R_L s^2 + C_2 L_2 R_1 g_m s^2 + C_2 L_2 S^2 + C_2 R_1 R_2 g_m s + C_2 R_1 S + C_2 R_2 S + C_2 R_1 R_2 S + C_2 R_2 S + C_2 R_1 R_2 S + C_2 R_2$$

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

$$H(s) = \frac{R_1 \left(C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_2 s^2 + C_2 C_L R_1 R_2 g_m s + C_2 C_L R_1 s + C_2 C_L R_2 s + C_2 C_L R_1 s + C_2 + C_L R_1 g_m + C_L \right)}$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_2 s^2 + C_2 C_L L_L s^2 + C_2 C_L R_1 R_2 g_m s + C_2 C_L R_1 s + C_2 C_L R_2 s + C_2 + C_L R_1 g_m + C_L \right)}$$

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

$$H(s) = \frac{L_L R_1 s \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m\right)}{C_2 C_L L_2 L_L R_1 g_m s^4 + C_2 C_L L_L R_1 R_2 g_m s^3 + C_2 C_L L_L R_1 s^3 + C_2 C_L L_L R_2 s^3 + C_2 L_2 R_1 g_m s^2 + C_2 L_2 s^2 + C_2 L_L s^2 + C_2 R_1 R_2 g_m s + C_2 R_1 s + C_2 R_2 s + C_L L_L R_2 s^3 + C_2 R_2 s^2 + C_2 R_2$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_L s^2 + C_2 C_L L_L s^2 + C_2 C_L R_1 R_2 g_m s + C_2 C_L R_1 s + C_2 C_L R_2 s + C_2 C_L R_1 s + C_2 C_L R_2 s$$

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

$$H(s) = \frac{L_L R_1 R_L s \left(C_2 L_2 g_m s^2 + C_2 C_L L_2 L_L R_1 R_L s^4 + C_2 C_L L_L R_1 R_2 R_L g_m s^3 + C_2 C_L L_L R_1 R_L s^3 + C_2 C_L L_L R_2 R_L s^3 + C_2 L_2 L_L R_1 g_m s^3 + C_2 L_2 L_L s^3 + C_2 L_2 L_L R_1 R_L g_m s^2 + C_2 L_2 R_L g_m s^2 + C_2 L_2 R_L g_m s^3 + C_2 R_L g$$

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

$$H(s) = \frac{R_1 \left(C_L L_L R_L s^2 + L_L s + R_L \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 C_L L_2 L_L R_1 g_m s^4 + C_2 C_L L_L R_1 R_2 g_m s^3 + C_2 C_L L_L R_1 s^3 + C_2 C_L L_L R_2 s^3 + C_2 L_L R_1 s^3 + C_2 L_L R_2 s^3 + C_$$

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

$$H(s) = \frac{R_1 R_L \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 C_L L_L R_1 g_m s^4 + C_2 C_L L_L R_1 R_2 g_m s^3 + C_2 C_L L_L R_1 s^3 + C_2 C_L L_L R_2 s^3 + C_2 C_L L_L R_$$

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

$$H(s) = \frac{R_1 \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_2 C_L L_2 R_1 R_2 g_m s^3 + C_2 C_L L_2 R_1 s^3 + C_2 C_L L_2 R_2 s^3 + C_2 L_2 s^2 + C_L L_2 R_1 g_m s^2 + C_L L_2 s^2 + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + 1}$$

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

$$H(s) = \frac{R_1 R_L \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_2 C_L L_2 R_1 R_2 g_m s^3 + C_2 C_L L_2 R_1 R_L s^3 + C_2 L_2 R_1 R_2 g_m s^2 + C_2 L_2 R_1 s^2 + C_2 L_2 R_2 s^2 + C_2 L_2 R_1 R_2 g_m s^2 + C_L L_2 R_1 R_L g_m s^2 + C_L L_2 R_L g_m s^2 + C_L L_2 R_L g_m s^2 + C_L$$

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

$$H(s) = \frac{R_1 \left(C_L R_L s + 1 \right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_2 C_L L_2 R_1 R_2 g_m s^3 + C_2 C_L L_2 R_1 s^3 + C_2 C_L L_2 R_L s^3 + C_2 L_2 R_2 s^3$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_2 C_L L_2 L_L s^4 + C_2 C_L L_2 R_1 R_2 g_m s^3 + C_2 C_L L_2 R_1 s^3 + C_2 C_L L_2 R_2 s^3 + C_2 L_2 s^2 + C_L L_2 R_1 g_m s^2 + C_L L_2 s^2 + C_L$$

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

$$H(s) = \frac{L_L R_1 s \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1\right)}{C_2 C_L L_2 L_L R_1 s^4 + C_2 C_L L_2 L_L R_2 s^4 + C_2 L_2 L_L s^3 + C_2 L_2 R_1 R_2 g_m s^2 + C_2 L_2 R_1 s^2 + C_2 L_2 R_2 s^2 + C_L L_2 L_L R_1 g_m s^3 + C_L L_2 L_L s^3 + C_L L_L R_1 R_2 g_m s^2}$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_2 C_L L_2 L_L s^4 + C_2 C_L L_2 R_1 R_2 g_m s^3 + C_2 C_L L_2 R_1 s^3 + C_2 C_L L_2 R_L s^3 + C_2 L_2 R_2 s^3 + C_2 L_2 R_1 g_m s^2 + C_L L_2 s^2 + C_$$

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

$$H(s) = \frac{1}{C_2 C_L L_2 L_L R_1 R_2 R_L g_m s^4 + C_2 C_L L_2 L_L R_1 R_L s^4 + C_2 C_L L_2 L_L R_2 R_L s^4 + C_2 L_2 L_L R_1 R_2 g_m s^3 + C_2 L_2 L_L R_1 s^3 + C_2 L_2 L_L R_2 s^3 + C_2 L_2 L_2 R_2 s^3 + C_2 L_2 L_2$$

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

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

$$H(s) = \frac{1}{C_2C_LL_2L_LR_1R_2g_ms^4 + C_2C_LL_2L_LR_1s^4 + C_2C_LL_2L_LR_2s^4 + C_2C_LL_2L_LR_1s^4 + C_2C_LL_2R_1R_2R_2g_ms^3 + C_2C_LL_2R_1R_Ls^3 + C_2C_LL_2R_1R_2g_ms^2 + C_2L_2R_1R_2g_ms^2 + C_2L_2R_2R_2g_ms^2 + C_2L_2R_2g_ms^2 + C_2L_2R_2g_ms^2 + C_2L_2R_2g_ms^2 + C_2L_2R_2g_ms^2 + C_2L_2R_2g_ms^2 + C_2L_2R_2g_ms^2$$

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

$$H(s) = \frac{R_1 \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1 \right)}{C_2 C_L L_2 R_1 R_2 g_m s^3 + C_2 C_L L_2 R_1 s^3 + C_2 C_L L_2 R_2 s^3 + C_2 C_L R_1 R_2 s^2 + C_2 L_2 s^2 + C_2 R_2 s + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + 1}$$

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

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

$$H(s) = \frac{R_1 \left(C_L R_L s + 1 \right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1 \right)}{C_2 C_L L_2 R_1 R_2 g_m s^3 + C_2 C_L L_2 R_1 s^3 + C_2 C_L L_2 R_2 s^3 + C_2 C_L R_1 R_2 s^2 + C_2 C_L R_2 R_L s^2 + C_2 L_2 s^2 + C_2 R_2 s + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + C_L R_1 R_2 s + C_L R_1 R_2 g_m s + C_L R_2 s + C_L$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1 \right)}{C_2 C_L L_2 L_L s^4 + C_2 C_L L_2 R_1 R_2 g_m s^3 + C_2 C_L L_2 R_2 s^3 + C_2 C_L L_L R_2 s^3 + C_2 C_L L_1 R_2 s^2 + C_2 L_2 s^2 + C_2$$

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

$$H(s) = \frac{L_L R_1 s \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1\right)}{C_2 C_L L_2 L_L R_1 R_2 g_m s^4 + C_2 C_L L_2 L_L R_1 s^4 + C_2 C_L L_L R_1 R_2 s^4 + C_2 L_L L_R s^3 + C_2 L_2 L_L s^3 + C_2 L_2 R_1 R_2 g_m s^2 + C_2 L_2 R_1 s^2 + C_2 L_2 R_2 s^2 + C_2 L_L R_2 s^2 + C_2 R_1 R_2 s + C_L L_L R_1 R_2 s^3 + C_2 L_2 R_1 R_2 g_m s^2 + C_2 L_2 R_1 R_2 s^2 + C_2 L_2 R_2 s^2 + C_2 R_2 s^2 + C_2$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1 \right)}{C_2 C_L L_2 L_L s^4 + C_2 C_L L_2 R_1 R_2 g_m s^3 + C_2 C_L L_2 R_2 s^3 + C_2 C_L L_2 R_L s^3 + C_2 C_L L_L R_2 s^3 + C_2 C_L L_R R_2 s^2 + C_2 C_L R_2 R_L s^2 + C_2 L_2 s^2 + C_2 R_2 s + C_L L_L s^2 + C_L L_L s^2 + C_L L_L s^2 + C_L L_L s^3 + C_L L_$$

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

$$H(s) = \frac{1}{C_2 C_L L_2 L_L R_1 R_2 R_L g_m s^4 + C_2 C_L L_2 L_L R_1 R_L s^4 + C_2 C_L L_2 L_L R_2 R_L s^4 + C_2 C_L L_L R_1 R_2 R_L s^3 + C_2 L_2 L_L R_1 R_2 g_m s^3 + C_2 L_2 L_L R_1 s^3 + C_2 L_2 L_L R_2 s^3 + C_2$$

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

$$H(s) = \frac{R_1 \left(C_L L_L R_L s^2 + L_L s + R_L \right) \left(C_2 L_2 R_2 g_m s^2 + L_L s + L_L s + R_L \right) \left(C_2 L_2 R_2 g_m s^2 + L_L s + R_L \right) \left(C_2 L_2 R_2 g_m s^2 + L_L s + R_L \right) \left(C_2 L_2 R_2 g_m s^2 + L_L s + R_L \right) \left(C_2 L_2 R_2 g_m s^2 + L_L s + R_L \right) \left(C_2 L_2 R_2 g_m s^2 + L_L s + R_L \right) \left(C_2 L_2 R_2 g_m s^2 + L_L s + R_L \right) \left(C_2 L_2 R_2 g_m s^2 + L_L s + R_L \right) \left(C_2 L_2 R_2 g_m s^2 + L_L s + R_L \right) \left(C_2 L_2 R_2 g_m s^2 + L_L s + R_L \right) \left(C_2 L_2 R_2 g_m s^2 + L_L s + R_L \right) \left(C_2 L_2 R_2 g_m s^2 + L_L s + R_L \right) \left(C_2 L_2 R_2 g_m s^2 + L_$$

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

$$H(s) = \frac{1}{C_2 C_L L_2 L_L R_1 R_2 g_m s^4 + C_2 C_L L_2 L_L R_1 s^4 + C_2 C_L L_2 L_L R_2 s^4 + C_2 C_L L_2 L_L R_1 s^4 + C_2 C_L L_2 R_1 R_2 R_1$$

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

$$H(s) = \frac{L_1 R_L s \left(R_2 g_m + 1\right)}{L_1 R_2 g_m s + L_1 s + R_2 + R_L}$$

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

$$H(s) = \frac{L_1 s \left(R_2 g_m + 1\right) \left(C_L L_L s^2 + 1\right)}{C_L L_1 R_2 g_m s^2 + C_L L_1 s^2 + C_L L_L s^2 + C_L R_2 s + 1}$$

10.68 INVALID-ORDER-68
$$Z(s) = \left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L s^2 \left(R_2 g_m + 1\right)}{C_L L_1 L_L R_2 g_m s^3 + C_L L_1 L_L s^3 + C_L L_L R_2 s^2 + L_1 R_2 g_m s + L_1 s + L_L s + R_2}$$

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

$$H(s) = \frac{L_1 s \left(R_2 g_m + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_L L_1 R_2 g_m s^2 + C_L L_1 s^2 + C_L L_L s^2 + C_L R_2 s + C_L R_L s + 1}$$

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

$$H(s) = \frac{L_1 L_L R_L s^2 \left(R_2 g_m + 1\right)}{C_L L_1 L_L R_2 R_L g_m s^3 + C_L L_1 L_L R_2 s^3 + C_L L_L R_2 R_L s^2 + L_1 L_L R_2 g_m s^2 + L_1 L_L s^2 + L_1 R_2 R_L g_m s + L_1 R_L s + L_L R_2 s + L_L R_L s + R_2 R_L g_m s^2 + L_1 R_2 R_L g_m s^2 + L_1 R_2 R_L g_m s + L_1$$

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

$$H(s) = \frac{L_1 s \left(R_2 g_m + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_L L_1 L_L R_2 g_m s^3 + C_L L_1 L_L s^3 + C_L L_L R_2 s^2 + C_L L_L R_L s^2 + L_1 R_2 g_m s + L_1 s + L_L s + R_2 + R_L}$$

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

$$H(s) = \frac{L_1 R_L s \left(R_2 g_m + 1\right) \left(C_L L_L s^2 + 1\right)}{C_L L_1 L_L R_2 g_m s^3 + C_L L_1 L_L s^3 + C_L L_1 R_2 g_m s^2 + C_L L_1 R_L s^2 + C_L L_L R_2 s^2 + C_L L_L R_L s^2 + C_L L_L R_L$$

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

$$H(s) = \frac{L_1 R_L s \left(C_2 s + g_m\right)}{C_2 C_L L_1 R_L s^3 + C_2 L_1 s^2 + C_2 R_L s + C_L L_1 R_L g_m s^2 + C_L R_L s + L_1 g_m s + 1}$$

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

$$H(s) = \frac{L_1 (C_2 s + g_m) \left(C_L L_L s^2 + 1\right)}{C_2 C_L L_1 s^2 + C_2 C_L L_L s^2 + C_2 + C_L L_1 g_m s + C_L}$$

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

$$H(s) = \frac{L_1 L_L s^2 \left(C_2 s + g_m\right)}{C_2 C_L L_1 L_L s^4 + C_2 L_1 s^2 + C_2 L_L s^2 + C_L L_1 L_L g_m s^3 + C_L L_L s^2 + L_1 g_m s + 1}$$

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

$$H(s) = \frac{L_1 (C_2 s + g_m) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_2 C_L L_1 s^2 + C_2 C_L L_L s^2 + C_2 C_L R_L s + C_2 + C_L L_1 g_m s + C_L}$$

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

$$H(s) = \frac{L_1 L_L R_L s^2 \left(C_2 s + g_m\right)}{C_2 C_L L_1 L_L R_L s^4 + C_2 L_1 L_L s^3 + C_2 L_1 R_L s^2 + C_2 L_L R_L s^2 + C_L L_1 L_L R_L g_m s^3 + C_L L_L R_L s^2 + L_1 L_L g_m s^2 + L_1 R_L g_m s + L_L s + R_L g_m s^3 + C_L L_L R_L s^2 + L_1 R_L g_m s^2 + L_1 R_L g_m$$

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

$$H(s) = \frac{L_1 s \left(C_2 s + g_m\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_2 C_L L_1 L_L s^4 + C_2 C_L L_L R_L s^3 + C_2 L_1 s^2 + C_2 L_L s^2 + C_2 R_L s + C_L L_1 L_L g_m s^3 + C_L L_L s^2 + L_1 g_m s + 1}$$

10.79 INVALID-ORDER-79
$$Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \infty, \infty, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{L_1R_Ls\left(C_2s + g_m\right)\left(C_LL_Ls^2 + 1\right)}{C_2C_LL_1L_Ls^4 + C_2C_LL_1R_Ls^3 + C_2C_LL_2R_Ls^3 + C_2L_1s^2 + C_2R_Ls + C_LL_1L_2g_ms^3 + C_LL_1R_Lg_ms^3 + C_LL_1s^2 + C_LR_Ls + L_1g_ms + 1}$$

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

$$H(s) = \frac{L_1s\left(C_2R_2s + R_2g_m + 1\right)}{C_2C_LL_1R_2s^3 + C_2R_2s + C_LL_1R_2g_ms^2 + C_LL_1s^2 + C_LR_2s + 1}$$

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

$$H(s) = \frac{L_1R_Ls\left(C_2R_2s + R_2g_m + 1\right)}{C_2C_LL_1R_2R_Ls^3 + C_2L_1R_2s^2 + C_2R_2R_Ls + C_LL_1R_2R_Lg_ms^2 + C_LL_1R_Ls^2 + C_LR_2R_Ls + L_1R_2g_ms + L_1s + R_2 + R_L}$$

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

$$H(s) = \frac{L_1 s \left(C_L R_L s + 1\right) \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_2 C_L L_1 R_2 s^3 + C_2 C_L R_2 R_L s^2 + C_2 R_2 s + C_L L_1 R_2 g_m s^2 + C_L L_1 s^2 + C_L R_2 s + C_L R_L s + 1}$$

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

$$H(s) = \frac{L_1s\left(C_LL_Ls^2 + 1\right)\left(C_2R_2s + R_2g_m + 1\right)}{C_2C_LL_1R_2s^3 + C_2C_LL_LR_2s^3 + C_2R_2s + C_LL_1R_2g_ms^2 + C_LL_1s^2 + C_LL_Ls^2 + C_LR_2s + 1}$$

10.84 INVALID-ORDER-84
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_1L_Ls^2\left(C_2R_2s + R_2g_m + 1\right)}{C_2C_LL_1L_LR_2s^4 + C_2L_1R_2s^2 + C_2L_LR_2s^2 + C_LL_1L_LR_2g_ms^3 + C_LL_1L_Ls^3 + C_LL_LR_2s^2 + L_1R_2g_ms + L_1s + L_Ls + R_2s^3 + C_LL_1L_LR_2g_ms^3 + C_LL_1L_LR_2g_ms^3 + C_LL_1L_LR_2g_ms^3 + C_LL_1L_LR_2g_ms^3 + C_LL_1L_1R_2g_ms^3 + C_LL_1L_1L_1R_2g_ms^3 + C_LL_1L_1R_2g_ms^3 + C_LL_1R_2g_ms^3 + C_LL_1L_1R_2g_ms^3 + C_LL_1R_2g_ms^3 + C_LL_1$$

10.85 INVALID-ORDER-85
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_1s\left(C_2R_2s + R_2g_m + 1\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{C_2C_LL_1R_2s^3 + C_2C_LL_1R_2s^3 + C_2C_LR_2R_Ls^2 + C_2R_2s + C_LL_1R_2g_ms^2 + C_LL_1s^2 + C_LL_1s^2 + C_LR_2s + C_L$$

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

$$H(s) = \frac{L_1 L_L R_L s^2 \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_2 C_L L_1 L_L R_2 R_L s^4 + C_2 L_1 L_L R_2 s^3 + C_2 L_1 R_2 R_L s^2 + C_L L_1 L_L R_2 R_L g_m s^3 + C_L L_1 L_L R_2 s^3 + C_L L_L R_2 R_L s^2 + L_1 L_L R_2 g_m s^2 + L_1 L_L s^2 + L_1 R_2 R_L g_m s + L_1 R_2 R_L g_m s^3 + C_2 R_2 R_L s^2 +$$

10.87 INVALID-ORDER-87
$$Z(s) = \left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \infty, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.88 INVALID-ORDER-88
$$Z(s) = \left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{L_1 R_L s \left(C_L L_L s^2 + 1\right) \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_2 C_L L_1 L_L R_2 s^4 + C_2 C_L L_1 R_2 R_L s^3 + C_2 L_1 R_2 s^2 + C_2 R_2 R_L s + C_L L_1 L_L R_2 g_m s^3 + C_L L_1 L_L s^3 + C_L L_1 R_2 R_L g_m s^2 + C_L L_1 R_L s^2 + C_L L_1 R_2 s^2 + C_$$

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

$$H(s) = \frac{L_1 R_L s \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{C_2 C_L L_1 R_2 R_L g_m s^3 + C_2 C_L L_1 R_L s^3 + C_2 C_L R_2 R_L s^2 + C_2 L_1 R_2 g_m s^2 + C_2 L_1 s^2 + C_2 R_2 s + C_2 R_L s + C_L L_1 R_L g_m s^2 + C_L R_L s + L_1 g_m s + 1}$$

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

$$H(s) = \frac{L_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 C_L L_1 R_2 g_m s^2 + C_2 C_L L_1 s^2 + C_2 C_L L_L s^2 + C_2 C_L R_2 s + C_2 + C_L L_1 g_m s + C_L R_2 g_m s^2 + C_2 C_L R_2 s +$$

10.91 INVALID-ORDER-91
$$Z(s) = \left(\infty, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L s^2 \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 C_L L_1 L_L R_2 g_m s^4 + C_2 C_L L_1 L_L s^4 + C_2 C_L L_L R_2 s^3 + C_2 L_1 R_2 g_m s^2 + C_2 L_1 s^2 + C_2 L_L s^2 + C_2 R_2 s + C_L L_1 L_L g_m s^3 + C_L L_L s^2 + L_1 g_m s + 1}$$

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

$$H(s) = \frac{L_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 C_L L_1 R_2 g_m s^2 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_2 C_L R_2 s + C_2 C_L R_L s + C_2 + C_L L_1 g_m s + C_L R_2 c_L R_$$

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

$$H(s) = \frac{L_1 L_L R_L s^2 \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{C_2 C_L L_1 L_L R_2 g_m s^4 + C_2 C_L L_1 L_L R_2 s^4 + C_2 C_L L_L R_2 R_L s^3 + C_2 L_1 L_L s^3 + C_2 L_1 L_L s^3 + C_2 L_1 R_2 s^2 + C_2 L_1 R_L s^2 + C_2 L_L R_2 s^$$

10.94 INVALID-ORDER-94
$$Z(s) = \left(\infty, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

$$H(s) = \frac{L_1 R_L s \left(C_L L_L s^2 + 1\right) \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{C_2 C_L L_1 L_L R_2 g_m s^4 + C_2 C_L L_1 R_2 R_L g_m s^3 + C_2 C_L L_1 R_L s^3 + C_2 C_L L_L R_2 s^3 + C_2 C_L L_L R_L s^3 + C_2 C_L R_2 R_L s^2 + C_2 L_1 R_2 g_m s^2 + C_2 L_1 s^2 + C_2 R_2 s + C_2 R_L s^2 + C_2 R_2 R_L s^2 + C_2 R_L s^2 + C_2 R_L s^2 + C_2 R_L s^2 + C_2 R_L s^$$

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

$$H(s) = \frac{L_1 R_L s \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_2 L_1 L_2 g_m s^3 + C_2 L_1 s^2 + C_2 L_2 s^2 + C_2 R_L s + L_1 g_m s + 1}$$

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

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

$$H(s) = \frac{L_1 R_L s \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{C_2 C_L L_1 L_2 R_L g_m s^4 + C_2 C_L L_1 R_L s^3 + C_2 L_1 L_2 g_m s^3 + C_2 L_1 s^2 + C_2 L_2 s^2 + C_2 R_L s + C_L L_1 R_L g_m s^2 + C_L R_L s + L_1 g_m s + 1}$$

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

$$H(s) = \frac{L_1 \left(C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_2 C_L L_1 L_2 g_m s^3 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_2 C_L R_L s + C_2 + C_L L_1 g_m s + C_L}$$

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

$$H(s) = \frac{L_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_2 C_L L_1 L_2 g_m s^3 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_2 C_L L_L s^2 + C_2 + C_L L_1 g_m s + C_L}$$

10.101 INVALID-ORDER-101 $Z(s) = \left(\infty, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_1 L_L s^2 \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_2 C_L L_1 L_2 L_2 g_m s^5 + C_2 C_L L_1 L_L s^4 + C_2 C_L L_2 L_L s^4 + C_2 L_1 L_2 g_m s^3 + C_2 L_1 s^2 + C_2 L_2 s^2 + C_2 L_L s^2 + C_L L_1 L_L g_m s^3 + C_L L_L s^2 + L_1 g_m s + 1}$$

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

$$H(s) = \frac{L_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_2 C_L L_1 L_2 g_m s^3 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_2 C_L L_L s^2 + C_2 C_L R_L s + C_2 + C_L L_1 g_m s + C_L R_L s + C_2 C_$$

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

$$H(s) = \frac{L_1 L_L R_L s^2 \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{C_2 C_L L_1 L_2 L_L R_L s^4 + C_2 C_L L_2 L_L R_L s^4 + C_2 L_1 L_2 L_L g_m s^4 + C_2 L_1 L_2 R_L g_m s^3 + C_2 L_1 L_L s^3 + C_2 L_1 R_L s^2 + C_2 L_2 L_L s^3 + C_2 L_2 R_L s^2 + C_2 R_L s^$$

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

$$H(s) = \frac{L_{1}s\left(C_{2}L_{2}g_{m}s^{2} + C_{2}s + g_{m}\right)\left(C_{L}L_{L}R_{L}s^{2} + L_{L}s + R_{L}\right)}{C_{2}C_{L}L_{1}L_{2}g_{m}s^{5} + C_{2}C_{L}L_{1}L_{L}s^{4} + C_{2}C_{L}L_{L}L_{S}^{4} + C_{2}C_{L}L_{L}R_{L}s^{3} + C_{2}L_{1}L_{2}g_{m}s^{3} + C_{2}L_{1}s^{2} + C_{2}L_{2}s^{2} + C_{2}L_{L}s^{2} + C_{2}L_{L}s^{2} + C_{L}L_{1}L_{L}g_{m}s^{3} + C_{L}L_{L}s^{2} + L_{1}g_{m}s + 1}}$$

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

$$H(s) = \frac{L_1 R_L s \left(C_L L_L s^2 + 1\right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{C_2 C_L L_1 L_2 L_2 g_m s^5 + C_2 C_L L_1 L_2 R_L g_m s^4 + C_2 C_L L_1 L_L s^4 + C_2 C_L L_1 R_L s^3 + C_2 C_L L_2 L_L s^4 + C_2 C_L L_2 R_L s^3 + C_2 C_L L_2 R_L s^3 + C_2 L_1 L_2 g_m s^3 + C_2 L_1 s^2 + C_2 L_2 s^2 + C_2 R_L s^3 + C_2 C_L L_2 R_L s^3$$

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

$$H(s) = \frac{L_1 R_L s \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m\right)}{C_2 L_1 L_2 g_m s^3 + C_2 L_1 R_2 g_m s^2 + C_2 L_1 s^2 + C_2 L_2 s^2 + C_2 R_2 s + C_2 R_L s + L_1 g_m s + 1}$$

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

$$H(s) = \frac{L_1 \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 C_L L_1 L_2 g_m s^3 + C_2 C_L L_1 R_2 g_m s^2 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_2 C_L R_2 s + C_2 + C_L L_1 g_m s + C_L R_2 s^2 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_$$

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

$$H(s) = \frac{L_1 R_L s \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m\right)}{C_2 C_L L_1 L_2 R_L g_m s^4 + C_2 C_L L_1 R_2 R_L g_m s^3 + C_2 C_L L_2 R_L s^3 + C_2 C_L R_2 R_L s^2 + C_2 L_1 L_2 g_m s^3 + C_2 L_1 R_2 g_m s^2 + C_2 L_1 s^2 + C_2 L_2 s^2 + C_2 R_2 s + C_2 R_L s + C_L L_1 R_2 R_L g_m s^3 + C_2 R_L g_m s^2 + C_$$

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

$$H(s) = \frac{L_1 \left(C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 C_L L_1 L_2 q_m s^3 + C_2 C_L L_1 R_2 q_m s^2 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_2 C_L R_2 s + C_2 C_L R_L s + C_2 + C_L L_1 q_m s + C_L R_2 q_m s^2 + C_2 C_L R_2 s + C_2 C_$$

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

$$H(s) = \frac{L_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 C_L L_1 L_2 g_m s^3 + C_2 C_L L_1 R_2 g_m s^2 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_2 C_L L_L s^2 + C_2 C_L L_2 s + C_2 + C_L L_1 g_m s + C_L L_1 g_m s^2 + C_2 C_L L_1 s^2 + C_2 C_L L_1$$

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

$$H(s) = \frac{L_1 L_L s^2 \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 C_L L_1 L_2 L_2 g_m s^5 + C_2 C_L L_1 L_L R_2 g_m s^4 + C_2 C_L L_1 L_L s^4 + C_2 C_L L_2 L_L s^4 + C_2 C_L L_L R_2 s^3 + C_2 L_1 L_2 g_m s^3 + C_2 L_1 R_2 g_m s^2 + C_2 L_1 s^2 + C_2 L_2 s^2 + C_2 L_2$$

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

$$H(s) = \frac{L_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_2 C_L L_1 L_2 g_m s^3 + C_2 C_L L_1 R_2 g_m s^2 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_$$

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

 $H(s) = \frac{L_1 L_L R_L s^2 \left(C_2 L_2 g_m s^2 + C_2 C_L L_1 L_L R_2 g_m s^3 + C_2 C_L L_1 L_L R_2 g_m s^4 + C_2 C_L L_2 L_L R_L s^4 + C_2 C_L L_2 L_L R_2 g_m s^3 + C_2 L_1 L_2 L_L g_m s^4 + C_2 L_1 L_2 R_L g_m s^3 + C_2 L_1 L_L R_2 g_m s^3 + C_2 L_1 L_2 R_2 g_m s^3 + C_2 R_2 g_m s^3 +$

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

$$H(s) = \frac{L_{1}s\left(C_{L}L_{L}R_{L}s^{2} + L_{L}s + R_{L}\right)\left(C_{2}L_{2}g_{m}s^{2} + C_{2}R_{2}g_{m}s + C_{2}s + g_{m}\right)}{C_{2}C_{L}L_{1}L_{2}L_{2}g_{m}s^{5} + C_{2}C_{L}L_{1}L_{L}s^{4} + C_{2}C_{L}L_{2}L_{2}s^{4} + C_{2}C_{L}L_{L}R_{2}s^{3} + C_{2}L_{1}L_{2}g_{m}s^{3} + C_{2}L_{1}R_{2}g_{m}s^{2} + C_{2}L_{1}s^{2} + C_{2}L_{2}s^{2} + C_$$

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

$$H(s) = \frac{L_1 R_L s \left(C_L L_L s^2 + 1\right) \left(C_2 L_2 g_m s^2 + C_2 C_L L_1 L_2 R_L g_m s^4 + C_2 C_L L_1 L_L R_2 g_m s^4 + C_2 C_L L_1 L_L S^4 + C_2 C_L L_1 R_2 R_L g_m s^3 + C_2 C_L L_1 R_L S^3 + C_2 C_L L_2 L_L S^4 + C_2 C_L L_2 R_L S^3 + C_2$$

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

$$H(s) = \frac{L_1 R_L s \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_2 L_1 L_2 R_2 q_m s^3 + C_2 L_1 L_2 s^3 + C_2 L_2 R_2 s^2 + C_2 L_2 R_L s^2 + L_1 L_2 q_m s^2 + L_1 R_2 q_m s + L_1 s + L_2 s + R_2 + R_L R_2 q_m s^2 + L_1 R_2 q_m s^2 + L_1$$

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

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

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

$$H(s) = \frac{L_1 R_L s \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1\right)}{C_2 C_L L_1 L_2 R_2 g_m s^4 + C_2 C_L L_1 L_2 R_L s^4 + C_2 C_L L_2 R_2 R_L s^3 + C_2 L_1 L_2 s^3 + C_2 L_1 L_2 s^3 + C_2 L_2 R_L s^2 + C_L L_1 L_2 R_L g_m s^3 + C_L L_1 R_2 R_L g_m s^2 + C_L L_1 R_2 R_L g_m s^3 + C_L$$

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

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

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

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

10.121 INVALID-ORDER-121 $Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_1 L_L s^2 \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1\right)}{C_2 C_L L_1 L_2 L_L R_2 g_m s^5 + C_2 C_L L_1 L_2 L_L R_2 s^4 + C_2 L_1 L_2 R_2 g_m s^3 + C_2 L_1 L_2 s^3 + C_2 L_2 L_L s^3 + C_2 L_2 R_2 s^2 + C_L L_1 L_2 L_L g_m s^4 + C_L L_1 L_L R_2 g_m s^3 + C_L L_1 L_L s^3 + C_L L_1 L_2 R_2 g_m s^4 + C_L L_1 L_2 R_2 g_m s^3 + C_L L_1 L_2 R_2 g_m s^3 + C_L L_1 L_2 R_2 g_m s^3 + C_L L_1 L_2 R_2 g_m s^4 + C_L L_1 L_2 R_2 g_m s^3 + C_L L_1 L_2 R_2 g_m s^4 + C_$$

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

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

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

$$H(s) = \frac{1}{C_2 C_L L_1 L_2 L_L R_2 R_L g_m s^5 + C_2 C_L L_1 L_2 L_L R_2 s^5 + C_2 C_L L_2 L_L R_2 R_L s^4 + C_2 L_1 L_2 L_L R_2 g_m s^4 + C_2 L_1 L_2 L_L s^4 + C_2 L_1 L_2 R_L g_m s^3 + C_2 L_1 L_2 R_L s^3 + C_2 L_2 L_L R_2 s^3 + C_2 L_2 L_2 R_2 s^3 + C_2 L_2$$

10.124 INVALID-ORDER-124
$$Z(s) = \left(\infty, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.125 INVALID-ORDER-125
$$Z(s) = \left(\infty, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

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

$$H(s) = \frac{L_1 R_L s \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1\right)}{C_2 L_1 L_2 R_2 g_m s^3 + C_2 L_1 L_2 s^3 + C_2 L_1 R_2 s^2 + C_2 L_2 R_2 s^2 + C_2 L_2 R_L s^2 + C_2 R_2 R_L s + L_1 R_2 g_m s + L_1 s + R_2 + R_L R_2 g_m s^2 + C_2 R_2 R_L s + L_1 R_2 g_m s + L_1 s + R_2 + R_L R_2 g_m s^2 + C_2 R_2 R_L s + L_1 R_2 g_m s + L_1 s + R_2 + R_L R_2 g_m s^2 + C_2 R_2 R_L s + L_1 R_2 g_m s + L_1 s + R_2 R_2 R_L s + L_1 R_2 g_m s$$

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

$$H(s) = \frac{L_1 s \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1\right)}{C_2 C_L L_1 L_2 R_2 g_m s^4 + C_2 C_L L_1 L_2 s^4 + C_2 C_L L_1 R_2 s^3 + C_2 C_L L_2 R_2 s^3 + C_2 L_2 s^2 + C_2 R_2 s + C_L L_1 R_2 g_m s^2 + C_L L_1 s^2 + C_L R_2 s + 1}$$

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

$$H(s) = \frac{L_1 R_L s \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1\right)}{C_2 C_L L_1 L_2 R_2 g_m s^4 + C_2 C_L L_1 R_2 R_L s^4 + C_2 C_L L_1 R_2 R_L s^3 + C_2 L_1 L_2 R_2 g_m s^3 + C_2 L_1 L_2 s^3 + C_2 L_1 R_2 s^2 + C_2 L_2 R_2 s^2 + C_2 L_2 R_L s^2 + C_2 R_2 R_L s + C_L L_2 R_2 R_L s^2 + C_2 R_L s^2 + C_$$

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

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

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

$$H(s) = \frac{L_1 s \left(C_L L_L s^2 + 1\right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1\right)}{C_2 C_L L_1 L_2 R_2 g_m s^4 + C_2 C_L L_1 R_2 s^3 + C_2 C_L L_2 L_2 s^4 + C_2 C_L L_2 R_2 s^3 + C_2 C_L L_2 R_2 s^3 + C_2 L_2 L_2 s^2 + C_2 R_2 s + C_L L_1 R_2 g_m s^2 + C_L L_1 s^2 + C_L L_2 s^2 + C_L R_2 s + 1}$$

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

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

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

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

$$H(s) = \frac{1}{C_2 C_L L_1 L_2 L_L R_2 R_L g_m s^5 + C_2 C_L L_1 L_2 L_L R_L s^5 + C_2 C_L L_1 L_L R_2 R_L s^4 + C_2 C_L L_2 L_L R_2 R_L s^4 + C_2 L_1 L_2 L_L R_2 g_m s^4 + C_2 L_1 L_2 L_L s^4 + C_2 L_1 L_2 R_L g_m s^3 + C_2 L_1 L_2 R_L s^3 + C_2 L_1 L_2 R_L g_m s^4 + C_2 L_2$$

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

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

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

$$H(s) = \frac{1}{C_2 C_L L_1 L_2 L_L R_2 g_m s^5 + C_2 C_L L_1 L_2 L_L s^5 + C_2 C_L L_1 L_2 R_2 g_m s^4 + C_2 C_L L_1 L_2 R_L s^4 + C_2 C_L L_1 L_L R_2 s^4 + C_2 C_L L_1 R_2 R_L s^3 + C_2 C_L L_2 L_L R_2 s^4 + C_2 C_L L_1 L_2 R_L s^4 + C_2 C_L L_1 L_2 R_2 s^4 + C_2 C_L L_1 L_2 R_$$

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

$$H(s) = \frac{R_L (R_2 g_m + 1)}{C_1 R_2 s + C_1 R_L s + R_2 g_m + 1}$$

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

$$H(s) = \frac{R_2 g_m + 1}{s \left(C_1 C_L R_2 s + C_1 + C_L R_2 g_m + C_L \right)}$$

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

$$H(s) = \frac{(R_2 g_m + 1) (C_L R_L s + 1)}{s (C_1 C_L R_2 s + C_1 C_L R_L s + C_1 + C_L R_2 g_m + C_L)}$$

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

$$H(s) = \frac{(R_2 g_m + 1) (C_L L_L s^2 + 1)}{s (C_1 C_L L_L s^2 + C_1 C_L R_2 s + C_1 + C_L R_2 g_m + C_L)}$$

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

$$H(s) = \frac{L_L s (R_2 g_m + 1)}{C_1 C_L L_L R_2 s^3 + C_1 L_L s^2 + C_1 R_2 s + C_L L_L R_2 g_m s^2 + C_L L_L s^2 + R_2 g_m + 1}$$

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

$$H(s) = \frac{(R_2 g_m + 1) (C_L L_L s^2 + C_L R_L s + 1)}{s (C_1 C_L L_L s^2 + C_1 C_L R_2 s + C_1 C_L R_L s + C_1 + C_L R_2 g_m + C_L)}$$

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

10.143 INVALID-ORDER-143
$$Z(s) = \left(\infty, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{\left(R_2 g_m + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{C_1 C_L L_L R_2 s^3 + C_1 C_L L_L R_2 s^3 + C_1 L_L s^2 + C_1 R_2 s + C_1 R_L s + C_L L_L R_2 g_m s^2 + C_L L_L s^2 + R_2 g_m + 1}$$

10.144 INVALID-ORDER-144
$$Z(s) = \left(\infty, \ L_2s + R_2 + \frac{1}{C_2s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_L\left(R_2g_m + 1\right)\left(C_LL_Ls^2 + 1\right)}{C_1C_LL_LR_2s^3 + C_1C_LL_LR_2s^3 + C_1C_LR_2R_Ls^2 + C_1R_2s + C_1R_Ls + C_LL_LR_2g_ms^2 + C_LL_Ls^2 + C_LR_2R_Lg_ms + C_LR_Ls + R_2g_m + 1}$$

10.145 INVALID-ORDER-145
$$Z(s) = \left(\infty, \ \frac{L_{2s}}{C_{2}L_{2}s^{2}+1} + R_{2}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_{Ls}}\right)$$

$$H(s) = \frac{C_2 s + g_m}{s (C_1 C_2 s + C_1 C_L s + C_2 C_L s + C_L g_m)}$$

10.146 INVALID-ORDER-146
$$Z(s) = \left(\infty, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{(C_2s + g_m)(C_LR_Ls + 1)}{s(C_1C_2C_LR_Ls^2 + C_1C_2s + C_1C_Ls + C_2C_Ls + C_Lg_m)}$$

10.147 INVALID-ORDER-147
$$Z(s) = \left(\infty, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{(C_2 s + g_m) (C_L L_L s^2 + 1)}{s (C_1 C_2 C_L L_L s^3 + C_1 C_2 s + C_1 C_L s + C_2 C_L s + C_L g_m)}$$

10.148 INVALID-ORDER-148
$$Z(s) = \left(\infty, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{L_L s \left(C_2 s + g_m\right)}{C_1 C_2 L_L s^3 + C_1 C_L L_L s^3 + C_1 s + C_2 C_L L_L s^3 + C_2 s + C_L L_L g_m s^2 + g_m}$$

10.149 INVALID-ORDER-149
$$Z(s) = \left(\infty, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{(C_2 s + g_m) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(C_1 C_2 C_L L_L s^3 + C_1 C_2 C_L R_L s^2 + C_1 C_2 s + C_1 C_L s + C_2 C_L s + C_L g_m \right)}$$

10.150 INVALID-ORDER-150
$$Z(s) = \left(\infty, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_LR_Ls\left(C_2s + g_m\right)}{C_1C_2L_LR_Ls^3 + C_1C_LL_LR_Ls^3 + C_1L_Ls^2 + C_1R_Ls + C_2C_LL_LR_Ls^3 + C_2L_Ls^2 + C_2R_Ls + C_LL_LR_Lg_ms^2 + L_Lg_ms + R_Lg_m}$$

10.151 INVALID-ORDER-151
$$Z(s) = \left(\infty, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

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

10.152 INVALID-ORDER-152
$$Z(s) = \left(\infty, \ \frac{L_{2s}}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_L\left(C_2s + g_m\right)\left(C_LL_Ls^2 + 1\right)}{C_1C_2C_LL_LR_Ls^4 + C_1C_2R_Ls^2 + C_1C_LL_Ls^3 + C_1C_LR_Ls^2 + C_1s + C_2C_LL_Ls^3 + C_2C_LR_Ls^2 + C_2s + C_LL_Lg_ms^2 + C_LR_Lg_ms + g_m}$$

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

$$H(s) = \frac{C_2R_2s + R_2g_m + 1}{s\left(C_1C_2R_2s + C_1C_LR_2s + C_1 + C_2C_LR_2s + C_LR_2g_m + C_L\right)}$$

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

$$H(s) = \frac{\left(C_LR_Ls + 1\right)\left(C_2R_2s + R_2g_m + 1\right)}{s\left(C_1C_2C_LR_2R_Ls^2 + C_1C_2R_2s + C_1C_LR_2s + C_1C_LR_Ls + C_1 + C_2C_LR_2s + C_LR_2g_m + C_L\right)}$$

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

$$H(s) = \frac{\left(C_LL_Ls^2 + 1\right)\left(C_2R_2s + R_2g_m + 1\right)}{s\left(C_1C_2C_LL_LR_2s^3 + C_1C_2R_2s + C_1C_LL_Ls^2 + C_1C_LR_2s + C_1 + C_2C_LR_2s + C_LR_2g_m + C_L\right)}$$

10.156 INVALID-ORDER-156
$$Z(s) = \left(\infty, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_Ls\left(C_2R_2s + R_2g_m + 1\right)}{C_1C_2L_LR_2s^3 + C_1C_LL_LR_2s^3 + C_1L_Ls^2 + C_1L_LR_2s^3 + C_2C_LL_LR_2s^3 + C_2R_2s + C_LL_LR_2g_ms^2 + C_LL_Ls^2 + R_2g_m + 1}$$

10.157 INVALID-ORDER-157
$$Z(s) = \left(\infty, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{\left(C_2R_2s + R_2g_m + 1\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{s\left(C_2C_LL_LR_2s^3 + C_1C_2C_LR_2R_Ls^2 + C_1C_LR_2s + C_$$

10.158 INVALID-ORDER-158
$$Z(s) = \left(\infty, \ \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_L R_L s \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 L_L R_2 R_L s^3 + C_1 L_L R_2 s^2 + C_1 L_L R_2 s^2 + C_1 R_2 R_L s + C_2 C_L L_L R_2 R_L s^3 + C_2 L_L R_2 s^2 + C_2 R_2 R_L s + C_L L_L R_2 R_L g_m s^2 + C_L L_L R_2 g_m s + C_L R_2 R_L s^2 + C_L R_2 R_L$$

10.159 INVALID-ORDER-159
$$Z(s) = \left(\infty, \ \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

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

10.160 INVALID-ORDER-160
$$Z(s) = \left(\infty, \ \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

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

$$H(s) = \frac{C_2 R_2 g_m s + C_2 s + g_m}{s \left(C_1 C_2 C_L R_2 s^2 + C_1 C_2 s + C_1 C_L s + C_2 C_L R_2 g_m s + C_2 C_L s + C_L g_m \right)}$$

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

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

$$H(s) = \frac{\left(C_L R_L s + 1\right) \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{s \left(C_1 C_2 C_L R_2 s^2 + C_1 C_2 C_L R_L s^2 + C_1 C_2 s + C_1 C_L s + C_2 C_L R_2 g_m s + C_2 C_L s + C_L g_m\right)}$$

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

$$H(s) = \frac{\left(C_L L_L s^2 + 1\right) \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{s \left(C_1 C_2 C_L L_L s^3 + C_1 C_2 C_L R_2 s^2 + C_1 C_2 s + C_1 C_L s + C_2 C_L R_2 g_m s + C_2 C_L s + C_L g_m\right)}$$

10.165 INVALID-ORDER-165 $Z(s) = \left(\infty, \infty, R_3, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

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

$$H(s) = \frac{\left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{s \left(C_1 C_2 C_L L_L s^3 + C_1 C_2 C_L R_2 s^2 + C_1 C_2 C_L R_L s^2 + C_1 C_2 s + C_1 C_L s + C_2 C_L R_2 g_m s + C_2 C_L s + C_L g_m\right)}$$

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

$$H(s) = \frac{L_L R_L s \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{C_1 C_2 C_L L_L R_2 s^4 + C_1 C_2 L_L R_2 s^3 + C_1 C_2 R_2 R_L s^2 + C_1 C_L L_L R_2 s^3 + C_1 L_L s^3 + C_1 L_L s^3 + C_1 L_L s^3 + C_1 L_L s^3 + C_2 L_L R_2 R_L g_m s^3 + C_2 L_L R_2 g_m s^2 + C_2 L_L R_2 g_m s^2 + C_2 L_L R_2 g_m s^3 + C_2 L_L R_2 g_$$

10.168 INVALID-ORDER-168
$$Z(s) = \left(\infty, \infty, R_3, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

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

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

$$H(s) = \frac{R_L \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 L_2 s^3 + C_1 C_2 R_L s^2 + C_1 s + C_2 L_2 g_m s^2 + C_2 s + g_m}$$

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

$$H(s) = \frac{C_2 L_2 g_m s^2 + C_2 s + g_m}{s \left(C_1 C_2 C_L L_2 s^3 + C_1 C_2 s + C_1 C_L s + C_2 C_L L_2 g_m s^2 + C_2 C_L s + C_L g_m \right)}$$

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

$$H(s) = \frac{R_L \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 C_L L_2 R_L s^4 + C_1 C_2 L_2 s^3 + C_1 C_2 R_L s^2 + C_1 C_L R_L s^2 + C_2 C_L L_2 R_L g_m s^3 + C_2 C_L R_L s^2 + C_2 L_2 g_m s^2 + C_2 s + C_L R_L g_m s + g_m R_L \left(C_2 L_2 R_L s^2 + C_1 C_L R_L s^2 + C_1 C_L R_L s^2 + C_2 C_L R_L s^2 +$$

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

$$H(s) = \frac{\left(C_L R_L s + 1\right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{s \left(C_1 C_2 C_L L_2 s^3 + C_1 C_2 C_L R_L s^2 + C_1 C_2 s + C_1 C_L s + C_2 C_L L_2 g_m s^2 + C_2 C_L s + C_L g_m\right)}$$

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

$$H(s) = \frac{\left(C_L L_L s^2 + 1\right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{s \left(C_1 C_2 C_L L_2 s^3 + C_1 C_2 C_L L_L s^3 + C_1 C_2 s + C_1 C_L s + C_2 C_L L_2 g_m s^2 + C_2 C_L s + C_L g_m\right)}$$

10.175 INVALID-ORDER-175 $Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_L s \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{C_1 C_2 C_L L_2 L_L s^5 + C_1 C_2 L_2 s^3 + C_1 C_2 L_L s^3 + C_1 C_L L_L s^3 + C_1 s + C_2 C_L L_2 L_L q_m s^4 + C_2 C_L L_L s^3 + C_2 L_2 q_m s^2 + C_2 s + C_L L_L q_m s^2 + q_m}$$

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

$$H(s) = \frac{\left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{s \left(C_1 C_2 C_L L_2 s^3 + C_1 C_2 C_L L_L s^3 + C_1 C_2 C_L R_L s^2 + C_1 C_2 s + C_1 C_L s + C_2 C_L L_2 g_m s^2 + C_2 C_L s + C_L g_m\right)}$$

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

$$H(s) = \frac{L_L R_L s \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{C_1 C_2 C_L L_L R_L s^5 + C_1 C_2 L_L L_S^4 + C_1 C_2 L_L R_L s^3 + C_1 C_L L_L R_L s^3 + C_1 L_L s^2 + C_1 R_L s + C_2 C_L L_L R_L g_m s^4 + C_2 C_L L_L R_L s^3 + C_2 L_L R_L g_m s^3 + C_2 L_L R_L g_m s^4 + C_2 C_L R_L R_L s^3 + C_2 R_L R_L s^3 + C_2 R_L R_L s^3 + C_2 R_L R_L s^4 + C_2 R_L R_L s^3 + C_2 R_L R_L s^4 + C_2 R_L R_L s^$$

10.178 INVALID-ORDER-178
$$Z(s) = \left(\infty, \infty, \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{\left(C_{2}L_{2}g_{m}s^{2} + C_{2}s + g_{m}\right)\left(C_{L}L_{L}R_{L}s^{2} + L_{L}s + R_{L}\right)}{C_{1}C_{2}C_{L}L_{L}L^{5} + C_{1}C_{2}L_{L}L^{3} + C_{1}C_{2}L_{L}s^{3} + C_{1}C_{2}L_{L}s^{3} + C_{1}C_{L}L_{L}s^{3} + C_{1}C_{L}L_{L}s^{3} + C_{2}C_{L}L_{L}L^{3} + C_{2}C_{L}L_{L}s^{3} + C_{2}L_{2}g_{m}s^{2} + C_{2}s + C_{L}L_{L}g_{m}s^{2} + g_{m}}$$

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

$$H(s) = \frac{R_L \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 C_L L_2 L_L s^5 + C_1 C_2 C_L L_2 R_L s^4 + C_1 C_2 L_2 s^3 + C_1 C_2 R_L s^2 + C_1 C_L L_L s^3 + C_1 C_L R_L s^2 + C_1 s + C_2 C_L L_2 L_L g_m s^4 + C_2 C_L L_2 R_L g_m s^3 + C_2 C_L L_L s^3 + C_1 C_2 R_L s^3 + C_1 C_2 R_L s^2 + C_1 C_L R_L s^2 + C_1 C_L R_L s^3 + C_2 C_$$

10.180 INVALID-ORDER-180
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3R_3s+1}, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 L_2 s^3 + C_1 C_2 R_2 s^2 + C_1 C_2 R_L s^2 + C_1 s + C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m}$$

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

$$H(s) = \frac{C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m}{s \cdot (C_1 C_2 C_L L_2 s^3 + C_1 C_2 C_L R_2 s^2 + C_1 C_2 s + C_1 C_L s + C_2 C_L L_2 g_m s^2 + C_2 C_L R_2 g_m s + C_2 C_L s + C_L g_m)}$$

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

$$H(s) = \frac{R_L \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L L_2 R_L s^4 + C_1 C_2 C_L R_2 R_L s^3 + C_1 C_2 R_2 s^2 + C_1 C_2 R_L s^2 + C_1 C_L R_L s^2 + C_1 S_L R_L s^3 + C_2 C_L R_2 R_L g_m s^3 + C_2 C_L R_2 R_L g_m s^2 + C_2 C_L R_L s^2 + C_2 R_2 g_m s^2 + C_$$

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

$$H(s) = \frac{\left(C_L R_L s + 1\right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m\right)}{s \left(C_1 C_2 C_L L_2 s^3 + C_1 C_2 C_L R_2 s^2 + C_1 C_2 C_L R_L s^2 + C_1 C_2 s + C_1 C_L s + C_2 C_L L_2 g_m s^2 + C_2 C_L R_2 g_m s + C_2 C_L s + C_L g_m\right)}$$

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

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

10.185 INVALID-ORDER-185
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m\right)}{C_1 C_2 C_L L_L L_S^5 + C_1 C_2 L_L L_S^3 + C_1 C_2 L_L s^3 + C_1 C_2 L_L s^3 + C_1 C_2 L_L L_S^3 + C_2 C_L L_L L_S^3$$

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

$$H(s) = \frac{\left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m\right)}{s \left(C_1 C_2 C_L L_2 s^3 + C_1 C_2 C_L L_L s^3 + C_1 C_2 C_L R_2 s^2 + C_1 C_2 C_L R_L s^2 + C_1 C_2 s + C_1 C_L s + C_2 C_L L_2 q_m s^2 + C_2 C_L R_2 q_m s + C_2 C_L s + C_L q_m\right)}$$

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

$$H(s) = \frac{L_L R_L s \left(C_2 L_2 g_m s^2 + C_1 C_2 C_L L_L R_2 s^3 + C_1 C_2 L_L R_2 s^3 + C_1 C_2 L_L R_2 s^3 + C_1 C_2 L_L R_L s^3 + C_1 L_L R_L$$

10.188 INVALID-ORDER-188
$$Z(s) = \left(\infty, \infty, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{\left(C_{L}L_{L}R_{L}s^{2} + L_{L}s + R_{L}\right)\left(C_{2}L_{2}g_{m}s^{2} + C_{2}R_{2}g_{m}s + C_{2}s + g_{m}\right)}{C_{1}C_{2}C_{L}L_{L}L_{S}^{5} + C_{1}C_{2}L_{L}L_{L}S^{4} + C_{1}C_{2}L_{2}S^{3} + C_{1}C_{2}L_{L}S^{3} + C_{1}C_{2}R_{L}s^{2} + C_{1}C_{L}L_{L}S^{3} + C_{1}s + C_{2}C_{L}L_{L}L_{g}ms^{4} + C_{2}C_{L}L_{L}R_{2}g_{m}s^{3} + C_{2}C_{L}L_{L}R_{2}g_{m}s^{4} + C_{2}C_{L}L_{L}R_{2}g_{m}s^{3} + C_{2}C_{L}L_{L}R_{2}g_{m}s^{4} + C_{2}C_{L}L_{L}R_{2}g_{m}s$$

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

$$H(s) = \frac{R_L \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_1 C_2 C_L L_2 R_L s^4 + C_1 C_2 C_L L_L R_2 s^4 + C_1 C_2 C_L L_L R_L s^4 + C_1 C_2 C_L R_2 R_L s^3 + C_1 C_2 R_2 s^2 + C_1 C_2 R_L s^2 + C_1 C_L L_L s^3 + C_1 C_L R_L s^4 + C_1 C_L R_L$$

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

$$H(s) = \frac{R_L \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_1 C_2 L_2 R_2 s^3 + C_1 C_2 L_2 R_L s^3 + C_1 L_2 s^2 + C_1 R_2 s + C_1 R_L s + C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1}$$

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

$$H(s) = \frac{C_2L_2R_2g_ms^2 + C_2L_2s^2 + L_2g_ms + R_2g_m + 1}{s\left(C_1C_2C_LL_2R_2s^3 + C_1C_2L_2s^2 + C_1C_LL_2s^2 + C_1C_LR_2s + C_1 + C_2C_LL_2R_2g_ms^2 + C_2C_LL_2s^2 + C_LL_2g_ms + C_LR_2g_m + C_L\right)}$$

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

$$H(s) = \frac{R_L \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_1 C_2 C_L L_2 R_L s^4 + C_1 C_2 L_2 R_2 s^3 + C_1 C_L L_2 R_L s^3 + C_1 C_L L_2 R_L s^3 + C_1 C_L R_2 R_L s^2 + C_1 L_2 s^2 + C_1 R_2 s + C_1 R_L s + C_2 C_L L_2 R_L g_m s^3 + C_2 C_L L_2 R_L s^3 + C_2 L_2 R_2 g_m s^2 + C_2 R_2 R_L g_m s^3 + C_2 R_L g_$$

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

$$H(s) = \frac{\left(C_L R_L s + 1\right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1\right)}{s \left(C_1 C_2 C_L L_2 R_2 s^3 + C_1 C_2 L_2 R_2 s^3 + C_1 C_2 L_2 s^2 + C_1 C_L L_2 s^2 + C_1 C_L R_2 s + C_1 C_L R_L s + C_1 + C_2 C_L L_2 R_2 g_m s^2 + C_2 C_L L_2 s^2 + C_L L_2 g_m s + C_L R_2 g_m + C_L\right)}$$

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

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

10.195 INVALID-ORDER-195
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1\right)}{C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 L_2 L_L s^4 + C_1 C_L L_L L_2 s^4 + C_1 C_L L_L R_2 s^3 + C_1 L_2 s^2 + C_1 L_L s^2 + C_1 R_2 s + C_2 C_L L_2 L_L R_2 g_m s^4 + C_2 C_L L_2 L_L s^4 + C_2 L_2 R_2 g_m s^2 + C_2 L_2 R_2 g_m s^2 + C_2 L_2 R_2 g_m s^2 + C_2 R_2 g_m s^2 +$$

10.196 INVALID-ORDER-196
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.197 INVALID-ORDER-197
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_2 R_L s^5 + C_1 C_2 L_2 L_L R_2 s^4 + C_1 C_2 L_2 L_L R_L s^4 + C_1 C_2 L_2 R_2 R_L s^3 + C_1 C_L L_L R_L s^4 + C_1 C_L L_L R_2 R_L s^3 + C_1 L_2 L_L R_2 s^3 + C_1 L_2 R_L s^3 + C_1 R_$$

10.198 INVALID-ORDER-198
$$Z(s) = \left(\infty, \ \infty, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.199 INVALID-ORDER-199
$$Z(s) = \left(\infty, \infty, R_3 + \frac{1}{C_3 s}, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 C_L L_2 L_L R_L s^5 + C_1 C_2 C_L L_2 R_2 R_L s^4 + C_1 C_2 L_2 R_2 s^3 + C_1 C_2 L_2 R_L s^3 + C_1 C_L L_L R_2 s^3 + C_1 C_L R_2 s^3 + C_1$$

10.200 INVALID-ORDER-200
$$Z(s) = \left(\infty, \infty, L_3 s + \frac{1}{C_3 s}, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1 \right)}{C_1 C_2 L_2 R_2 s^3 + C_1 C_2 L_2 R_L s^3 + C_1 C_2 R_2 R_L s^2 + C_1 R_2 s + C_1 R_L s + C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1}$$

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

$$H(s) = \frac{C_2L_2R_2g_ms^2 + C_2L_2s^2 + C_2R_2s + R_2g_m + 1}{s\left(C_1C_2C_LL_2R_2s^3 + C_1C_2L_2s^2 + C_1C_2R_2s + C_1C_LR_2s + C_1 + C_2C_LL_2R_2g_ms^2 + C_2C_LL_2s^2 + C_2C_LR_2s + C_LR_2g_m + C_L\right)}$$

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

$$H(s) = \frac{R_L \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1 \right)}{C_1 C_2 C_L L_2 R_2 s^4 + C_1 C_2 L_2 R_2 s^3 + C_1 C_2 L_2 R_L s^3 + C_1 C_2 R_2 R_L s^2 + C_1 C_L R_2 R_L s^2 + C_1 R_L s + C_2 C_L L_2 R_2 R_L g_m s^3 + C_2 C_L L_2 R_L s^3 + C_2 C_L R_2 R_L s^2 + C_2 L_2 R_2 R_L s^2 + C_2 R_2 R_L s^$$

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

$$H(s) = \frac{\left(C_L R_L s + 1\right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1\right)}{s \left(C_1 C_2 C_L L_2 R_2 s^3 + C_1 C_2 C_L L_2 R_L s^3 + C_1 C_2 L_2 R_2 s^2 + C_1 C_2 L_2 s^2 + C_1 C_2 R_2 s + C_1 C_L R_2 s +$$

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

$$H(s) = \frac{\left(C_L L_L s^2 + 1\right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1\right)}{s \left(C_1 C_2 C_L L_2 L_2 s^4 + C_1 C_2 C_L L_2 R_2 s^3 + C_1 C_2 L_2 s^2 + C_1 C_2 R_2 s + C_1 C_L L_L s^2 + C_1 C_L L_2 s^2 + C_1 C_L L_2 s^2 + C_2 C_$$

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

$$H(s) = \frac{L_L s \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 L_2 L_2 s^4 + C_1 C_2 L_2 R_2 s^3 + C_1 C_L L_L R_2 s^3 + C_1 L_L L_2 s^3 + C_1 L_L L_2 s^2 + C_2 L_L L_L R_2 g_m s^4 + C_2 C_L L_2 L_L L_2 s^4 + C_2 C_L L_2 L_L R_2 s^3 + C_2 L_2 R_2 g_m s^4 + C_2 C_L L_2 L_2 L_2 s^4 + C_2 C_L L_2 L_2 R_2 s^3 + C_2 L_2 R_2 g_m s^4 + C_2 C_L L_2 L_2 R_2 s^4 + C_2 C_L L_2 R_2 s^3 + C_2 L_2 R_2 s^3 + C_2 L_2 R_2 g_m s^4 + C_2 C_L L_2 L_2 R_2 s^4 + C_2 C_L L_2 R_2 s^3 + C_2 L_2 R_$$

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

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

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

 $H(s) = \frac{L_L \kappa_L s}{C_1 C_2 C_L L_2 L_L R_2 R_L s^5 + C_1 C_2 L_2 L_L R_2 s^4 + C_1 C_2 L_2 L_L R_L s^4 + C_1 C_2 L_2 R_2 R_L s^3 + C_1 C_2 L_L R_2 R_L s^3 + C_1 C_L L_L R_2 R_L s^3 + C_1 L_L R_2 s^2 + C_1 L_L R_L s^2 + C_1 R_2 R_L s + C_2 C_L L_2 L_L R_2 R_L s^3 + C_1 C_2 L_2 R_2 R_L s^3 + C_1 C_2 L_$

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

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

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

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 C_L L_2 L_L R_L s^5 + C_1 C_2 C_L L_2 R_2 R_L s^4 + C_1 C_2 C_L L_L R_2 R_L s^4 + C_1 C_2 L_2 R_2 s^3 + C_1 C_2 L_2 R_L s^3 + C_1 C_2 R_2 R_L s^3 + C_1 C_2 L_L R_2 R_L s^3 + C_1 C_2 L_L R_2 R_L s^3 + C_1 C_2 R_2$$

10.210 INVALID-ORDER-210
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_L (R_2 g_m + 1)}{C_1 R_1 R_2 s + C_1 R_1 R_L s + R_1 R_2 g_m + R_1 + R_2 + R_L}$$

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

$$H(s) = \frac{R_1 \left(R_2 g_m + 1 \right) \left(C_L L_L s^2 + 1 \right)}{C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_2 s^2 + C_1 R_1 s + C_L L_L s^2 + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + 1}$$

10.212 INVALID-ORDER-212
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{L_L R_1 s \left(R_2 g_m + 1\right)}{C_1 C_L L_L R_1 R_2 s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_2 s + C_L L_L R_1 R_2 g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_2 s^2 + L_L s + R_1 R_2 g_m + R_1 + R_2 r^2 + C_L R_1 R_2$$

10.213 INVALID-ORDER-213
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_{3s}^2 + 1}, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(R_2 g_m + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_2 s^2 + C_1 C_L R_1 R_2 s^2 + C_1 R_1 s + C_L L_L s^2 + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + C_L R_L s + 1}$$

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

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

$$H(s) = \frac{R_1 \left(R_2 g_m + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{C_1 C_L L_L R_1 R_2 s^3 + C_1 C_L L_L R_1 R_2 s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_2 s + C_1 R_1 R_L s + C_L L_L R_1 R_2 g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_2 s^2 + L_L s + R_1 R_2 g_m + R_1 + R_2 + R_2 R_2 g_m + R_1 R_2 g_m + R_1 R_2 g_m + R_1 R_2 g_m + R_2 R_2 g_m + R_1 R_2 g_m + R_2 R_2 g_m +$$

10.216 INVALID-ORDER-216
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1}, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_1 R_L \left(R_2 g_m + 1\right) \left(C_L L_L s^2 + 1\right)}{C_1 C_L L_L R_1 R_2 s^3 + C_1 C_L L_R R_2 R_L s^2 + C_1 R_1 R_2 s + C_1 R_1 R_L s + C_L L_L R_1 R_2 g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_2 s^2 + C_L L_L R_2 s^2 + C_L L_L R_2 s^2 + C_L R_1 R_2 R_L g_m s + C_L R_1 R_2 R_2 R_2 r_2 + C_L R_1 R_2 R_2 r_2 + C_L R_1 R_2 R_2 r_2 + C_L R_1 r_2 + C_L$$

10.217 INVALID-ORDER-217
$$Z(s) = \left(\infty, \ \infty, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \infty, \ \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1 \left(C_2s + g_m\right)}{s \left(C_1C_2R_1s + C_1C_LR_1s + C_2C_LR_1s + C_2 + C_LR_1g_m + C_L\right)}$$

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

$$H(s) = \frac{R_1 \left(C_2 s + g_m \right) \left(C_L R_L s + 1 \right)}{s \left(C_1 C_2 C_L R_1 R_L s^2 + C_1 C_2 R_1 s + C_1 C_L R_1 s + C_2 C_L R_1 s + C_2 C_L R_L s + C_2 + C_L R_1 g_m + C_L \right)}$$

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

$$H(s) = \frac{R_1 \left(C_2 s + g_m \right) \left(C_L L_L s^2 + 1 \right)}{s \left(C_1 C_2 C_L L_L R_1 s^3 + C_1 C_2 R_1 s + C_1 C_L R_1 s + C_2 C_L L_L s^2 + C_2 C_L R_1 s + C_2 + C_L R_1 g_m + C_L \right)}$$

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

$$H(s) = \frac{L_L R_1 s \left(C_2 s + g_m\right)}{C_1 C_2 L_L R_1 s^3 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + C_2 C_L L_L R_1 s^3 + C_2 L_L s^2 + C_2 R_1 s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + R_1 g_m + 1}$$

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

$$H(s) = \frac{R_1 \left(C_2 s + g_m \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(C_1 C_2 C_L L_L R_1 s^3 + C_1 C_2 C_L R_1 R_L s^2 + C_1 C_2 R_1 s + C_1 C_L R_1 s + C_2 C_L L_L s^2 + C_2 C_L R_1 s +$$

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

$$H(s) = \frac{L_L R_1 R_L s \left(C_2 s + g_m\right)}{C_1 C_2 L_L R_1 R_L s^3 + C_1 L_L R_1 S^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_L s + C_2 C_L L_L R_1 R_L s^3 + C_2 L_L R_1 s^2 + C_2 L_L R_$$

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

$$H(s) = \frac{R_1 \left(C_2 s + g_m \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{C_1 C_2 C_L L_L R_1 s^4 + C_1 C_2 L_L R_1 s^3 + C_1 C_2 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_1 s^3 + C_2 C_L L_L R_1 s^3 + C_2 L_L s^2 + C_2 R_1 s + C_2 R_L s + C_L L_L R_1 g_m s^2 + C_L L_L s^2 + C_2 R_1 s + C_$$

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

$$H(s) = \frac{R_1 R_L \left(C_2 s + g_m\right) \left(C_L L_L s^2 + 1\right)}{C_1 C_2 C_L L_L R_1 R_L s^4 + C_1 C_2 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_2 C_L L_L R_1 s^3 + C_2 C_L L_L R_1 s^3 + C_2 C_L L_L R_1 s^2 + C_2 R_1 s + C_2 R_L s + C_L L_L R_1 g_m s^2 + C_L R_$$

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

$$H(s) = \frac{R_1 \left(C_L R_L s + 1 \right) \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_1 C_2 C_L R_1 R_2 R_L s^3 + C_1 C_2 R_1 R_2 s^2 + C_1 C_L R_1 R_2 s^2 + C_1 C_L R_1 R_2 s^2 + C_2 C_L R_1 R_2 s^2 + C_2 C_L R_2 R_L s^2 + C_2 R_2 R_L s^2 + C_2$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_1 C_2 C_L L_L R_1 R_2 s^4 + C_1 C_2 R_1 R_2 s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_2 s^2 + C_1 R_1 s + C_2 C_L L_L R_2 s^3 + C_2 C_L R_1 R_2 s^2 + C_2 R_2 s + C_L L_L s^2 + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + 1}$$

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

$$H(s) = \frac{L_L R_1 s \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 L_L R_1 R_2 s^3 + C_1 C_L L_L R_1 R_2 s^3 + C_1 L_L R_1 s^2 + C_1 R_1 R_2 s + C_2 C_L L_L R_1 R_2 s^3 + C_2 L_L R_2 s^2 + C_2 R_1 R_2 s + C_L L_L R_1 R_2 g_m s^2 + C_L L_L R_1 s^2 + C_L L_L R_1 s^2 + L_L s + R_1 R_2 g_m s^2 + C_L L_L R_1 s^2$$

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

$$H(s) = \frac{R_1 R_L \left(C_L L_L s^2 + 1 \right)}{C_1 C_2 C_L L_L R_1 R_2 R_L s^4 + C_1 C_2 R_1 R_2 R_L s^2 + C_1 C_L L_L R_1 R_2 s^3 + C_2 C_L R_2 R_2 s^3 + C_2 C_L R_$$

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

$$H(s) = \frac{R_1 \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L R_1 R_2 s^2 + C_1 C_2 R_1 s + C_1 C_L R_1 s + C_2 C_L R_1 R_2 q_m s + C_2 C_L R_1 s + C_2 C_L R_2 s + C_2 + C_L R_1 q_m + C_L \right)}$$

10.233 INVALID-ORDER-233
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_L \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L R_1 R_2 R_L s^3 + C_1 C_2 R_1 R_2 s^2 + C_1 C_2 R_1 R_L s^2 + C_1 R_1 s + C_2 C_L R_1 R_2 R_L g_m s^2 + C_2 C_L R_1 R_L s^2 + C_2 C_L R_2 R_L s^2 + C_2 R_1 R_2 g_m s + C_2 R_1 s + C_2 R_2 s + C_2 R_2 R_2 s^2 + C_2 R_1 R_2 g_m s + C_2 R_2 R_2 s^2 + C_2 R_2 R_2 R_2 s^2 + C_2 R_2 R_2 s^2 + C_2 R_2 R_2 s^2 + C_2 R_2 R_2 s^2 +$$

10.234 INVALID-ORDER-234
$$Z(s) = \left(\infty, \infty, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_L R_L s + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L R_1 R_2 s^2 + C_1 C_2 C_L R_1 R_L s^2 + C_1 C_2 R_1 s + C_1 C_L R_1 s + C_2 C_L R_1 R_2 g_m s + C_2 C_L R_1 s + C_2 C_L$$

10.235 INVALID-ORDER-235
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_L R_1 s^3 + C_1 C_2 C_L R_1 R_2 s^2 + C_1 C_2 R_1 s + C_1 C_L R_1 s + C_2 C_L L_L s^2 + C_2 C_L R_1 R_2 g_m s + C_2 C_L R_1 s + C_2 C_L R_1 s + C_2 C_L R_1 g_m + C_L \right)}$$

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

$$H(s) = \frac{L_L R_1 s \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{C_1 C_2 C_L L_L R_1 R_2 s^4 + C_1 C_2 L_L R_1 s^3 + C_1 C_2 R_1 R_2 s^2 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + C_2 C_L L_L R_1 R_2 g_m s^3 + C_2 C_L L_L R_1 s^3 + C_2 C_L L_L R_2 s^3 + C_2 L_L s^2 + C_2 R_1 R_2 g_m s + C_2 R_1 s + C_2 R_1 R_2 g_m s^3 + C_2$$

10.237 INVALID-ORDER-237
$$Z(s) = \left(\infty, \infty, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_L R_1 s^3 + C_1 C_2 C_L R_1 R_2 s^2 + C_1 C_2 C_L R_1 R_L s^2 + C_1 C_2 R_1 s + C_2 C_L L_L s^2 + C_2 C_L R_1 R_2 g_m s + C_2 C_L R_1 s + C_2 C_L R_2 s + C_2 C_L R_1 s + C_2 C_L R_2 s + C_2 C_L R_1 s$$

10.238 INVALID-ORDER-238
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3 L_{3s^2+1}} + R_3, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

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

$$R_1 \left(C_2 R_2 g_m s + C_2 s + g_m \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)$$

$$H(s) = \frac{R_1 \left(C_2 R_2 g_m s + C_2 s + g_m \right) \left(C_L L_L R_1 s^2 + L_L s + R_L \right)}{C_1 C_2 C_L L_L R_1 R_2 s^4 + C_1 C_2 L_L R_1 R_2 s^3 + C_1 C_2 R_1 R_2 s^2 + C_1 C_2 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_2 C_L L_L R_1 R_2 g_m s^3 + C_2 C_L L_L R_1 s^3 + C_2 C_L L_L R_2 s^3 + C_2$$

10.240 INVALID-ORDER-240
$$Z(s) = \left(\infty, \infty, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_1 R_1}{C_1 C_2 C_L L_L R_1 R_2 s^4 + C_1 C_2 C_L L_L R_1 R_L s^4 + C_1 C_2 C_L R_1 R_2 R_L s^3 + C_1 C_2 R_1 R_2 s^2 + C_1 C_2 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_2 C_L L_L R_1 R_2 g_m s^3 + C_2 C_L R_1 R_2 g_m s^3 + C_2$$

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

$$H(s) = \frac{R_1 R_L \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 L_2 R_1 s^3 + C_1 C_2 R_1 R_L s^2 + C_1 R_1 s + C_2 L_2 R_1 g_m s^2 + C_2 L_2 s^2 + C_2 R_1 s + C_2 R_L s + R_1 g_m + 1}$$

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

$$H(s) = \frac{R_1 \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_2 R_1 s^3 + C_1 C_2 R_1 s + C_1 C_L R_1 s + C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_2 s^2 + C_2 C_L R_1 s + C_2 + C_L R_1 g_m + C_L \right)}$$

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

$$H(s) = \frac{R_1 R_L \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 C_L L_2 R_1 R_L s^4 + C_1 C_2 L_2 R_1 s^3 + C_1 C_2 R_1 R_L s^2 + C_1 R_1 R_L s^2 + C_1 R_1 s + C_2 C_L L_2 R_1 R_L g_m s^3 + C_2 C_L L_2 R_L s^3 + C_2 C_L R_1 R_L s^2 + C_2 L_2 R_1 g_m s^2 + C_2 L_2 s^2 + C_2 R_1 s + C_2 R_1 R_L s^2 +$$

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

$$H(s) = \frac{R_1 \left(C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_2 R_1 s^3 + C_1 C_2 C_L R_1 R_L s^2 + C_1 C_2 R_1 s + C_1 C_L R_1 s + C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_2 s^2 + C_2 C_L R_1 s + C_2 C_L R_1 s + C_2 C_L R_1 g_m + C_L \right)}$$

10.245 INVALID-ORDER-245
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_2 R_1 s^3 + C_1 C_2 C_L L_L R_1 s^3 + C_1 C_2 R_1 s + C_1 C_L R_1 s + C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_2 s^2 + C_2$$

10.246 INVALID-ORDER-246
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 s \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{C_1 C_2 C_L L_2 L_L R_1 s^5 + C_1 C_2 L_2 R_1 s^3 + C_1 C_L L_L R_1 s^3 + C_1 R_1 s + C_2 C_L L_2 L_L R_1 g_m s^4 + C_2 C_L L_2 L_L S^4 + C_2 C_L L_L R_1 s^3 + C_2 L_2 R_1 g_m s^2 + C_2 L_2 s^2 + C_2 L_L s^2 + C_2 L_2 R_1 g_m s^2 + C_2 R_2 R_2 R_2 g_m s^2 + C_2 R_2 R_2 g_m$$

10.247 INVALID-ORDER-247
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_2 R_1 s^3 + C_1 C_2 C_L L_L R_1 s^3 + C_1 C_2 C_L R_1 R_L s^2 + C_1 C_2 R_1 s + C_1 C_L R_1 s + C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_2 s^2 + C_2 C_L L_2 s^2 + C_2 C_L R_1 s + C_2 C_L$$

10.248 INVALID-ORDER-248
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

10.249 INVALID-ORDER-249
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \infty, \infty, \infty, \frac{L_{Ls}}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{C_1 C_2 C_L L_L L_R I_s^5 + C_1 C_2 L_L R_1 R_L s^4 + C_1 C_2 L_L R_1 s^3 + C_1 C_2 L_L R_1 s^3 + C_1 C_L L_L R_1 s^4 + C_2 C_L L_L L_L R_1 s^3 + C_1 C_L R_$$

10.250 INVALID-ORDER-250
$$Z(s) = \left(\infty, \infty, \frac{R_3\left(L_3s + \frac{1}{C_3s}\right)}{L_3s + R_3 + \frac{1}{C_3s}}, \infty, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_1 R_L}{C_1 C_2 C_L L_2 L_L R_1 s^5 + C_1 C_2 C_L L_2 R_1 R_L s^4 + C_1 C_2 C_L L_L R_1 R_L s^4 + C_1 C_2 L_2 R_1 s^3 + C_1 C_2 R_1 R_L s^2 + C_1 C_L L_L R_1 s^3 + C_1 C_L R_1 R_L s^2 + C_1 R_1 s + C_2 C_L L_2 L_L R_1 g_m s^4 + C_2 C_L L_2 R_1 g_m s^4 + C_2 C_L L_2$$

10.251 INVALID-ORDER-251 $Z(s) = (\infty, \infty, \infty, R_4, \infty, R_L)$

$$H(s) = \frac{R_1 R_L \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 L_2 R_1 s^3 + C_1 C_2 R_1 R_2 s^2 + C_1 R_1 s + C_2 L_2 R_1 g_m s^2 + C_2 L_2 s^2 + C_2 R_1 R_2 g_m s + C_2 R_1 s + C_2 R_2 s + C_2 R_1 s + R_1 g_m + 1}$$

10.252 INVALID-ORDER-252 $Z(s) = \left(\infty, \infty, \infty, R_4, \infty, \frac{1}{C_L s}\right)$

$$H(s) = \frac{R_1 \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_2 R_1 s^3 + C_1 C_2 C_L R_1 R_2 s^2 + C_1 C_2 R_1 s + C_1 C_L R_1 s + C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_2 s^2 + C_2 C_L R_1 R_2 g_m s + C_2 C_L R_1 s + C_2 C_L R_2 s + C_2 + C_L R_1 g_m + C_L \right)}$$

10.253 INVALID-ORDER-253 $Z(s) = \left(\infty, \infty, \infty, R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_1 R_L \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 R_$$

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

$$H(s) = \frac{R_1 \left(C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_2 R_1 s^3 + C_1 C_2 C_L R_1 R_2 s^2 + C_1 C_2 C_L R_1 R_L s^2 + C_1 C_2 R_1 s + C_1 C_L R_1 s + C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_2 s^2 + C_2 C_L R_1 R_2 g_m s + C_2 C_L R_1 s + C_2 C_L R_2 s +$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_2 R_1 s^3 + C_1 C_2 C_L L_1 R_2 s^2 + C_1 C_2 R_1 s + C_1 C_L R_1 s + C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_2 s^2 + C_2 C_L L_2 s^2 + C_2 C_L L_1 s^2 + C_2 C_L R_1 s + C_2 C_L R_2 s^2 + C_2 C_L R_1 s^2 + C_2 C_L$$

10.256 INVALID-ORDER-256
$$Z(s) = \left(\infty, \infty, \infty, R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 s \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 R$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_2 R_1 s^3 + C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 C_L R_1 R_2 s^2 + C_1 C_2 C_L R_1 R_L s^2 + C_1 C_2 R_1 s + C_1 C_L R_1 s + C_2 C_L L_2 R_1 g_m s^2 + C_2 C_L L_2 s$$

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

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_1 R_L s^5 + C_1 C_2 C_L L_L R_1 R_2 R_L s^4 + C_1 C_2 L_2 L_L R_1 s^4 + C_1 C_2 L_2 R_1 R_L s^3 + C_1 C_2 L_L R_1 R_2 s^3 + C_1 C_2 L_L R_1 R_L s^3 + C_1 C_2 R_1 R_2 R_2 s^2 + C_1 C_2 L_L R_1 R_L s^3 + C_1 C_2 L_L R_$$

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

$$H(s) = \frac{R_1 \left(C_L L_L R_1 R_1 S_1 + C_1 C_2 C_L L_L R_1 R_2 S_2 + C_1 C_2 C_L L_L R_1 R_2 S_1 + C_1 C_2 L_L R_1 R_2 S_1 + C_1 C_2 L_L R_1 S_1 S_2 + C_1 C_2 R_1 R_2 S_1 + C_1 C_2 R_1 R_2 S_2 + C_1 C_2 R_1 R_2 S_2 + C_1 C_2 R_1 R_2 S_2 + C_1 C_2 R_1 R_2 S_1 + C_1 C_2 R_1 R_2 S_2 + C_$$

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

10.261 INVALID-ORDER-261
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_L \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_1 C_2 L_2 R_1 R_2 s^3 + C_1 C_2 L_2 R_1 R_2 s^2 + C_1 R_1 R_2 s + C_1 R_1 R_2 s + C_2 L_2 R_1 R_2 g_m s^2 + C_2 L_2 R_1 s^2 + C_2 L_2 R_2 s^2 + C_2 L_2 R_2 s^2 + L_2 R_1 g_m s + L_2 s + R_1 R_2 g_m + R_1 + R_2 g_m + R_2 g_m + R_3 g_m + R_4 g_m + R_$$

10.262 INVALID-ORDER-262
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_1 C_2 C_L L_2 R_1 R_2 s^4 + C_1 C_2 L_2 R_1 s^3 + C_1 C_L L_2 R_1 R_2 s^2 + C_1 R_1 s + C_2 C_L L_2 R_1 R_2 g_m s^3 + C_2 C_L L_2 R_1 s^3 + C_2 C_L L_2 R_2 s^3 + C_2 L_2 s^2 + C_L L_2 R_1 g_m s^2 + C_L L_2 s^2 + C_L L_2 R_1 g_m s^2 + C_L L_2 R_1 g_m s^3 + C_2 C_L L_2 R_1 s^3 + C_2 C_L L_2 R_1 g_m s^2 + C_L L_2 R_1 g_m s^2 + C_L L_2 R_1 g_m s^3 + C_2 C_L L_2 R_1 s^3 + C_2 C_L L_2 R_1 g_m s^2 + C_L L_2 R_1 g_m s^2 + C_L L_2 R_1 g_m s^3 + C_2 C_L L_2 R_$$

10.263 INVALID-ORDER-263
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_L}{C_1 C_2 C_L L_2 R_1 R_2 R_L s^4 + C_1 C_2 L_2 R_1 R_2 s^3 + C_1 C_2 L_2 R_1 R_L s^3 + C_1 C_L L_2 R_1 R_L s^3 + C_1 C_L R_1 R_2 R_L s^2 + C_1 L_2 R_1 s^2 + C_1 R_1 R_2 s + C_1 R_1 R_L s + C_2 C_L L_2 R_1 R_2 R_L s^3 + C_2 C_L L_2 R_1 R_2 R_L s^3 + C_1 C_L R_1 R_2 R_L s^3 + C_1 C_L R_1 R_2 R_L s^2 + C_1 R_1 R_2 s + C_1 R_1 R_2 s + C_1 R_1 R_2 R_L s^3 + C_1 C_L R_1 R_2 R_L s^3 + C_1 C_L$$

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

$$H(s) = \frac{R_1 \left(C_L R_L s + 1 \right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_1 C_2 C_L L_2 R_1 R_2 s^4 + C_1 C_2 L_2 R_1 R_2 s^3 + C_1 C_L L_2 R_1 s^3 + C_1 C_L L_2 R_1 s^3 + C_1 C_L R_1 R_2 s^2 + C_1 C_L R_1 R_2 s^2 + C_1 R_1 s + C_2 C_L L_2 R_1 R_2 g_m s^3 + C_2 C_L L_2 R_1 s^3$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_1 C_2 C_L L_2 L_L R_1 s^5 + C_1 C_2 C_L L_2 R_1 R_2 s^4 + C_1 C_2 L_2 R_1 s^3 + C_1 C_L L_2$$

10.266 INVALID-ORDER-266
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1}{C_1 C_2 C_L L_2 L_L R_1 R_2 s^5 + C_1 C_2 L_2 L_L R_1 s^4 + C_1 C_2 L_2 R_1 R_2 s^3 + C_1 C_L L_L R_1 s^4 + C_1 C_L L_L R_1 R_2 s^3 + C_1 L_2 R_1 s^2 + C_1 L_L R_1 s^2 + C_1 R_1 R_2 s + C_2 C_L L_2 L_L R_1 R_2 g_m s^4 + C_2 C_L L_2 L_L R_1 R_2 s^3 + C_1 C_2 L_2 R_1 R_2 s^3 + C_1 C_2$$

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

$$H(s) = \frac{R_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 L_2 R_2 g_m R_L s^2 + C_1 C_2 L_2 R_1 R_2 s^4 + C_1 C_2 L_2 R_1 R_2 s^4 + C_1 C_2 L_2 R_1 R_2 s^3 + C_1 C_L L_2 R_1 s^3 + C_1 C_L L_2 R_1 s^3 + C_1 C_L L_2 R_1 R_2 s^2 + C_1 C_L R_1 R_2 s^2 + C_1 C_L R_1 R_2 s^2 + C_1 C_L R_1 R_2 s^4 + C_1 C_L R_1 R_2$$

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

10.269 INVALID-ORDER-269
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_1 R_2 s^5 + C_1 C_2 C_L L_2 L_L R_1 R_L s^5 + C_1 C_2 L_2 L_L R_1 s^4 + C_1 C_2 L_2 R_1 R_2 s^3 + C_1 C_2 L_2 R_1 R_L s^3 + C_1 C_L L_L R_1 R_2 s^3 + C_1 C_L R_1 R_2 s^3 + C_1$$

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

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_1 R_2 s^5 + C_1 C_2 C_L L_2 L_L R_1 R_L s^5 + C_1 C_2 C_L L_2 R_1 R_2 R_2 s^4 + C_1 C_2 L_2 R_1 R_2 s^3 + C_1 C_2 L_2 R_1 R_L s^3 + C_1 C_L L_2 L_L R_1 s^4 + C_1 C_L L_2 R_1 R_L s^3 + C_1 C_L L_2 R_1 R_2 s^3 + C_1 C_2 L_2 R_1 R_2 s^3 + C_1 C_$$

10.271 INVALID-ORDER-271
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, R_L\right)$$

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

$$H(s) = \frac{R_1 \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1 \right)}{C_1 C_2 C_L L_2 R_1 R_2 s^4 + C_1 C_2 L_2 R_1 s^3 + C_1 C_L R_1 R_2 s^2 + C_1 R_1 s + C_2 C_L L_2 R_1 R_2 g_m s^3 + C_2 C_L L_2 R_1 s^3 + C_2 C_L L_2 R_2 s^3 + C_2 C_L R_1 R_2 s^2 + C_2 R_2 s + C_2 R_$$

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

$$H(s) = \frac{R_1 R_L \left(C_2 L_2 R_2 g_2 g_3 + C_1 C_2 L_2 R_1 R_2 s_3 + C_1 C_2 L_2 R_1 R_2 s_3 + C_1 C_2 R_1 R_2 R_L s_2 + C_1 C_L R_1 R_2 R_L s_2 + C_1 R_1 R_2 s_3 + C_1 C_L L_2 R_1 R_2 R_L s_3 + C_2 C_L L_2 R_1 R_2 s_3 + C_2 C_L L_2 R_1 R_2 s_3 + C_3 C$$

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

$$H(s) = \frac{R_1 \left(C_L R_L s + 1 \right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_1 R_2 s^2 + C_2 L_2 R_1 R_2 s^2 + C_1 C_L R_1 R_2 s^$$

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

10.276 INVALID-ORDER-276
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 s \left(C_2 L_2 R_1 R_2 s^5 + C_1 C_2 L_2 L_L R_1 s^4 + C_1 C_2 L_2 R_1 R_2 s^3 + C_1 C_2 L_L R_1 R_2 s^3 + C_1 L_L R$$

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

$$H(s) = \frac{R}{C_1C_2C_LL_2L_LR_1s^5 + C_1C_2C_LL_2R_1R_2s^4 + C_1C_2C_LL_2R_1R_Ls^4 + C_1C_2C_LL_LR_1R_2s^4 + C_1C_2C_LR_1R_2R_Ls^3 + C_1C_2L_2R_1s^3 + C_1C_2R_1R_2s^2 + C_1C_LL_LR_1s^3 + C_1C_LR_1R_2s^4 + C_1C_2C_LR_1R_2s^4 + C_1C_2C_LR_1R$$

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

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_1 R_2 R_L s^5 + C_1 C_2 L_2 L_L R_1 R_2 s^4 + C_1 C_2 L_2 L_L R_1 R_L s^4 + C_1 C_2 L_2 R_1 R_2 R_L s^3 + C_1 C_2 L_L R_1 R_2 R_L s^3 + C_1 C_L L_L R_1 R_2 R_L s^3 + C_1 L_L R_1 R_2 s^2 + C_1 L_L R_1 R_2 s^$$

10.279 INVALID-ORDER-279
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_1 R_2 s^5 + C_1 C_2 C_L L_2 L_L R_1 R_L s^5 + C_1 C_2 C_L L_L R_1 R_2 R_L s^4 + C_1 C_2 L_2 L_L R_1 s^4 + C_1 C_2 L_2 R_1 R_2 s^3 + C_1 C_2 L_2 R_1 R_L s^3 + C_1 C_2 L_L R_1 R_2 s^3 + C_1 C_2 R_1 R_2 s^3 +$$

10.280 INVALID-ORDER-280
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_1 R_2 s^5 + C_1 C_2 C_L L_2 L_L R_1 R_L s^5 + C_1 C_2 C_L L_2 R_1 R_2 R_L s^4 + C_1 C_2 C_L L_L R_1 R_2 R_L s^4 + C_1 C_2 L_2 R_1 R_2 s^3 + C_1 C_2 L_2 R_1 R_L s^3 + C_1 C_2 R_1 R_2 R_L s^2 + C_1 C_2 L_L R_1 R_2 R_L s^4 + C_1 C_2 L_L R_1 R_2 R_L s^4 + C_1 C_2 L_2 R_1 R_2 R_2 R_1 R_2 R_1 R_2 R_1 R_2 R_2 R_1 R_2 R_$$

10.281 INVALID-ORDER-281
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L\right)$$

$$H(s) = \frac{R_L (R_2 g_m + 1) (C_1 R_1 s + 1)}{C_1 R_1 R_2 g_m s + C_1 R_1 s + C_1 R_2 s + C_1 R_L s + R_2 g_m + 1}$$

10.282 INVALID-ORDER-282
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{(R_2 g_m + 1) (C_1 R_1 s + 1)}{s (C_1 C_L R_1 R_2 g_m s + C_1 C_L R_1 s + C_1 C_L R_2 s + C_1 + C_L R_2 g_m + C_L)}$$

10.283 INVALID-ORDER-283
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{\left(R_2 g_m + 1\right) \left(C_1 R_1 s + 1\right) \left(C_L R_L s + 1\right)}{s \left(C_1 C_L R_1 R_2 g_m s + C_1 C_L R_1 s + C_1 C_L R_2 s + C_1 C_L R_L s + C_1 + C_L R_2 g_m + C_L\right)}$$

10.284 INVALID-ORDER-284
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{\left(R_2 g_m + 1\right) \left(C_1 R_1 s + 1\right) \left(C_L L_L s^2 + 1\right)}{s \left(C_1 C_L L_L s^2 + C_1 C_L R_1 R_2 g_m s + C_1 C_L R_1 s + C_1 C_L R_2 s + C_1 + C_L R_2 g_m + C_L\right)}$$

10.285 INVALID-ORDER-285
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(R_2 g_m + 1\right) \left(C_1 R_1 s + 1\right)}{C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_2 s^3 + C_1 L_L s^2 + C_1 R_1 R_2 g_m s + C_1 R_1 s + C_1 R_2 s + C_L L_L R_2 g_m s^2 + C_L L_L s^2 + R_2 g_m + 1}$$

10.286 INVALID-ORDER-286
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.287 INVALID-ORDER-287
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.288 INVALID-ORDER-288
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.289 INVALID-ORDER-289
$$Z(s) = \left(\infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.290 INVALID-ORDER-290
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

10.291 INVALID-ORDER-291
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L \left(C_2 s + g_m \right) \left(C_1 R_1 s + 1 \right)}{C_1 C_2 C_L R_1 R_L s^3 + C_1 C_2 R_1 s^2 + C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_1 s^2 + C_1 R_1 g_m s + C_1 s + C_2 C_L R_L s^2 + C_2 s + C_L R_L g_m s + g_m r^2}$$

10.292 INVALID-ORDER-292
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.293 INVALID-ORDER-293
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.294 INVALID-ORDER-294
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(C_2 s + g_m\right) \left(C_1 R_1 s + 1\right)}{C_1 C_2 C_L L_L R_1 s^4 + C_1 C_2 L_L s^3 + C_1 C_2 R_1 s^2 + C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s^3 + C_1 R_1 g_m s + C_1 s + C_2 C_L L_L s^3 + C_2 s + C_L L_L g_m s^2 + g_m}$$

10.295 INVALID-ORDER-295
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.296 INVALID-ORDER-296
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.297 INVALID-ORDER-297
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.298 INVALID-ORDER-298
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L \left(C_2 s + g_m \right) \left(C_1 R_1 s + 1 \right) \left(C_L L_L s^2 + 1 \right)}{C_1 C_2 C_L L_L R_1 s^4 + C_1 C_2 C_L R_1 R_L s^3 + C_1 C_2 R_1 s^2 + C_1 C_2 R_L s^2 + C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s^3 + C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_1 g_m s + C_1 s + C_1 C_L R_1 g_m s^2 + C_$$

10.299 INVALID-ORDER-299
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{(C_1R_1s+1)(C_2R_2s+R_2g_m+1)}{s(C_1C_2C_LR_1R_2s^2+C_1C_2R_2s+C_1C_LR_1R_2g_ms+C_1C_LR_1s+C_1C_LR_2s+C_1+C_2C_LR_2s+C_LR_2g_m+C_L)}$$

10.300 INVALID-ORDER-300
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \infty, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{R_L \left(C_1 R_1 s + 1 \right) \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_1 C_2 C_L R_1 R_2 R_L s^3 + C_1 C_2 R_1 R_2 s^2 + C_1 C_L R_1 R_2 R_L g_m s^2 + C_1 C_L R_1 R_L s^2 + C_1 C_L R_2 R_L s^2 + C_1 R_1 R_2 g_m s + C_1 R_1 s + C_1 R_2 s + C_1 R_L s + C_2 C_L R_2 R_L s^2 + C_1 R_2 R_L$$

10.301 INVALID-ORDER-301
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.302 INVALID-ORDER-302
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.303 INVALID-ORDER-303
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(C_1 R_1 s + 1\right) \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 C_L L_L R_1 R_2 s^4 + C_1 C_2 L_L R_2 s^3 + C_1 C_2 L_L R_1 R_2 g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_2 s^3 + C_1 L_L s^2 + C_1 R_1 R_2 g_m s + C_1 R_1 s + C_1 R_2 s + C_2 C_L L_L R_2 s^3 + C_1 C_L L_L R_2$$

10.304 INVALID-ORDER-304
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_{4}s}{C_{4}L_{4}s^{2}+1}, \infty, L_{L}s + R_{L} + \frac{1}{C_{L}s}\right)$$

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

10.305 INVALID-ORDER-305
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L s \cdot (C_L R_L R_1 R_2 R_L s^4 + C_1 C_2 L_L R_1 R_2 s^3 + C_1 C_2 L_L R_2 R_L s^3 + C_1 C_2 R_1 R_2 R_L s^2 + C_1 C_L L_L R_1 R_2 R_L g s^3 + C_1 C_L L_L R_1 R_L s^3 + C_1 C_L L_L R_2 R_L s^3 + C_1 L_L R_1 R_2 g_m s^2 + C_1 L_L R_1 R_2 R_L s^3 + C_1 C_L R_1 R_$$

10.306 INVALID-ORDER-306
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.307 INVALID-ORDER-307
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

 $H(s) = \frac{R_L \left(C_1 R_2 R_2 R_3 + C_1 C_2 C_L L_L R_2 R_L s^4 + C_1 C_2 C_L R_1 R_2 R_L s^3 + C_1 C_2 R_1 R_2 s^2 + C_1 C_2 R_2 R_L s^2 + C_1 C_L L_L R_1 R_2 g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_2 s^3 + C_1 C_L R_2 s^3 + C_$

10.308 INVALID-ORDER-308
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s}\right)$$

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

10.309 INVALID-ORDER-309
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L \left(C_1 R_1 s + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L R_1 R_2 g_m s^3 + C_1 C_2 C_L R_1 R_L s^3 + C_1 C_2 R_1 R_2 g_m s^2 + C_1 C_2 R_1 s^2 + C_1 C_2 R_2 s^2 + C_1 C_2 R_L s^2 + C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_1 R_2 g_m s^2 + C_1 C_2 R_2 g_m s^2 + C_1 C_2 R_1 R_2 g_m s^2$$

10.310 INVALID-ORDER-310
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.311 INVALID-ORDER-311
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.312 INVALID-ORDER-312
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(C_1 R_1 s + 1\right) \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{C_1 C_2 C_L L_L R_1 s^4 + C_1 C_2 C_L L_L R_2 s^4 + C_1 C_2 L_L s^3 + C_1 C_2 R_1 R_2 g_m s^2 + C_1 C_2 R_2 s^2 + C_1 C_L L_L R_1 g_m s^3 + C_1 C_L L_L s^3 + C_1 R_1 g_m s + C_1 s^3 + C_1 R_2 g_m s^2 + C_1 C_2 R_2 s^2 + C_1 C_2 R_2 s^2 + C_1 C_2 R_2 s^3 + C_1 C_2 R_2$$

10.313 INVALID-ORDER-313
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.314 INVALID-ORDER-314
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_L R_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_L R_1 R_L s^4 + C_1 C_2 C_L L_L R_2 R_L s^4 + C_1 C_2 L_L R_1 R_2 g_m s^3 + C_1 C_2 L_L R_1 s^3 + C_1 C_2 L_L R_2 s^3 + C_1 C_2 L_L$$

10.315 INVALID-ORDER-315
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.316 INVALID-ORDER-316
$$Z(s) = \left(\infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.317 INVALID-ORDER-317
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 R_1 s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 L_2 R_1 g_m s^3 + C_1 C_2 L_2 s^3 + C_1 C_2 R_1 s^2 + C_1 C_2 R_L s^2 + C_1 R_1 g_m s + C_1 s + C_2 L_2 g_m s^2 + C_2 s + g_m}$$

10.318 INVALID-ORDER-318
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{(C_1 R_1 s + 1) \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{s \left(C_1 C_2 C_L L_2 R_1 g_m s^3 + C_1 C_2 C_L L_2 s^3 + C_1 C_2 C_L R_1 s^2 + C_1 C_2 s + C_1 C_L R_1 g_m s + C_1 C_L s + C_2 C_L L_2 g_m s^2 + C_2 C_L s + C_L g_m\right)}$$

10.319 INVALID-ORDER-319
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L \left(C_1 R_1 s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 C_L L_2 R_1 R_L g^3 + C_1 C_2 L_2 R_1 g_m s^3 + C_1 C_2 L_2 s^3 + C_1 C_2 R_L s^2 + C_1 C_2 R_1 R_L g_m s^2 + C_1 C_L R_$$

10.320 INVALID-ORDER-320
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.321 INVALID-ORDER-321
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.322 INVALID-ORDER-322
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(C_1 R_1 s + 1\right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{C_1 C_2 C_L L_L R_1 g_m s^5 + C_1 C_2 C_L L_L R_1 s^4 + C_1 C_2 L_2 R_1 g_m s^3 + C_1 C_2 L_2 s^3 + C_1 C_2 L_L s^3 + C_1 C_2 L_L R_1 g_m s^3 + C_1 C_L R_1 g_m s^3 + C_1$$

10.323 INVALID-ORDER-323
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.324 INVALID-ORDER-324
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_1 R_L g_m s^5 + C_1 C_2 C_L L_2 L_L R_L s^5 + C_1 C_2 C_L L_L R_1 R_L s^4 + C_1 C_2 L_2 L_L R_1 g_m s^4 + C_1 C_2 L_2 L_L s^4 + C_1 C_2 L_2 R_1 R_L g_m s^3 + C_1 C_2 L_2 R_L s^3 + C_1 C_2 L_L R_1 s^3 + C_1 C_2 L_L R_1 s^4 + C_1 C_2 L_2 R_1 R_L g_m s^4 + C_1 C_2 L_2 R_1 R_L g_m s^3 + C_1 C_2 L_2 R_L R_1 s^3 + C_1 C_2 L_2 R_1 R_L g_m s^4 + C_1 C_2 R_1 R_L g_m s^4 + C_$$

10.325 INVALID-ORDER-325
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{\left(C_{1}R_{1}s+1\right)\left(C_{2}L_{2}g_{m}s^{2}+C_{2}s+g_{m}\right)\left(C_{L}L_{L}R_{L}s^{2}+L_{L}s+R_{L}\right)}{C_{1}C_{2}C_{L}L_{2}L_{L}R_{1}g_{m}s^{5}+C_{1}C_{2}C_{L}L_{L}R_{1}s^{4}+C_{1}C_{2}C_{L}L_{L}R_{1}s^{4}+C_{1}C_{2}L_{2}R_{1}g_{m}s^{3}+C_{1}C_{2}L_{2}s^{3}+C_{1}C_{2}L_{L}s^{3}+C_{1}C_{2}R_{L}s^{2}+C_{1}C_{L}L_{L}R_{1}g_{m}s^{3}+C_{1}C_{2}L_{2}s^{3}+C_{1}C_{2}L_{L}s^{3}+C_{1}C_{2}R_{L}s^{2}+C_{1}C_{L}L_{L}R_{1}g_{m}s^{3}+C_{1}C_{2}L_{2}s^{3}+C_{1}C_{2}L_{L}s^{3}+C_{1}C_{2}R_{L}s^{2}+C_{1}C_{L}L_{L}R_{1}g_{m}s^{3}+C_{1}C_{2}L_{2}s^{3}+C_{1}C_{2}L_{2}s^{3}+C_{1}C_{2}R_{1}s^{2}+C_{1}C_{2}R_{1}s^{2}+C_{1}C_{2}L_{L}R_{1}g_{m}s^{3}+C_{1}C_{2}L_{2}s^{3}+C_{1}C_{2}L_{2}s^{3}+C_{1}C_{2}R_{1}s^{2}+C_{1$$

10.326 INVALID-ORDER-326
$$Z(s) = \left(\infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_1 g_m s^5 + C_1 C_2 C_L L_2 L_L s^5 + C_1 C_2 C_L L_2 R_1 R_L g_m s^4 + C_1 C_2 C_L L_2 R_1 s^4 + C_1 C_2 C_L L_L R_1 s^4 + C_1 C_2 C_L L_L R_L s^4 + C_1 C_2 C_L R_1 R_L s^3 + C_1 C_2 L_2 R_1 g_m s^3 + C_1 C_2 R_1 R_L s^4 + C_1 C_2 C_L R_1 R_$$

10.327 INVALID-ORDER-327
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 R_1 s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 L_2 R_1 g_m s^3 + C_1 C_2 L_2 s^3 + C_1 C_2 R_1 g_m s^2 + C_1 C_2 R_1 s^2 + C_1 C_2 R_2 s^2 + C_1 C_2 R_L s^2 + C_1 R_1 g_m s + C_1 s + C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m r^2}$$

10.328 INVALID-ORDER-328
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s}\right)$$

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

10.329 INVALID-ORDER-329
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

10.330 INVALID-ORDER-330
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.331 INVALID-ORDER-331
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.332 INVALID-ORDER-332
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(C_1 R_1 s + 1\right) \left(C_2 L_2 L_4 R_1 g_m s^5 + C_1 C_2 C_L L_2 L_4 s^5 + C_1 C_2 C_L L_4 R_1 R_2 g_m s^4 + C_1 C_2 C_L L_4 R_1 s^4 + C_1 C_2 C_L L_4 R_2 s^4 + C_1 C_2 L_4 R_1 g_m s^3 + C_1 C_2 L_2 s^3 + C_1 C_2 L_4 s^3 + C_1 C_2 L_4 R_1 g_m s^2 + C_1 C_2 L_4 R_1 g_m s^4 + C_1 C_2 C_4 R_1 g_m s^4 + C_1 C_2 C$$

10.333 INVALID-ORDER-333
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

10.334 INVALID-ORDER-334
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_1 R_L g_m s^5 + C_1 C_2 C_L L_2 L_L R_L s^5 + C_1 C_2 C_L L_L R_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_L R_1 R_L s^4 + C_1 C_2 C_L L_L R_2 R_L s^4 + C_1 C_2 L_L L_R R_1 R_L s^4 + C_1 C_2 L_L R_1 R_L s^$$

10.335 INVALID-ORDER-335
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{(C_1R_1s + 1)(C_LL_2L_2L_2S_1 + C_1C_2C_LL_2L_2S_2S_1 + C_1C_2C_LL_2R_1S_2S_2S_1 + C_1C_2C_LL_2R_2S_2S_1 + C_1C_2C_LL_2R_2S_2S_1 + C_1C_2C_LL_2R_2S_2S_1 + C_1C_2C_LL_2R_2S_2S_1 + C_1C_2C_LL_2R_2S_2S_1 + C_1C_2C_LL_2R_2S_2S_1 + C_1C_2C_LL_2R_2S_1 + C_1C_2C_LL_2R_2S_2S_1 + C_1C_2C_LL_2R_2S_2S_2 + C_1C_2C_LL_2R_2S_2S_2 + C_1C_2C_LL_2R_2S_2 +$$

10.336 INVALID-ORDER-336
$$Z(s) = \left(\infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_1 g_m s^5 + C_1 C_2 C_L L_2 L_L s^5 + C_1 C_2 C_L L_2 R_1 R_L g_m s^4 + C_1 C_2 C_L L_2 R_L s^4 + C_1 C_2 C_L L_L R_1 R_2 g_m s^4 + C_1 C_2 C_L L_L R_1 s^4 + C_1 C_$$

10.337 INVALID-ORDER-337
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 R_1 s + 1 \right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_1 C_2 L_2 R_1 R_2 g_m s^3 + C_1 C_2 L_2 R_1 s^3 + C_1 C_2 L_2 R_2 s^3 + C_1 L_2 R_1 g_m s^2 + C_1 L_2 s^2 + C_1 R_1 R_2 g_m s + C_1 R_1 s + C_1 R_2 s + C_1 R_1 s + C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s^2 + L_2 g_$$

10.338 INVALID-ORDER-338
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{1}{C_Ls}\right)$$

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

10.339 INVALID-ORDER-339
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_2 R_1 R_L s^4 + C_1 C_2 C_L L_2 R_2 R_L s^4 + C_1 C_2 L_2 R_1 R_2 g_m s^3 + C_1 C_2 L_2 R_1 s^3 + C_1 C_2 L_2 R_2 s^3 + C_1 C_2 L_2 R_1 R_2 g_m s^3 + C_1 C_2 L_2 R_2 R_2 g_m s^3 + C_1 C_2 L_2 R_2 g_m s^3 + C_1$$

10.340 INVALID-ORDER-340
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, R_L + \frac{1}{C_Ls}\right)$$

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

10.341 INVALID-ORDER-341
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.342 INVALID-ORDER-342
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

10.343 INVALID-ORDER-343
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

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

10.344 INVALID-ORDER-344
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4 s + \frac{1}{C_4 s}\right)}{L_4 s + R_4 + \frac{1}{C_4 s}}, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.345 INVALID-ORDER-345
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_2 L_L R_1 s^5 + C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 L_2 L_2 L_2 R_2 s^5 + C_1 C_2 L_2 L_2 R_2 s^5 + C_1 C_2 L_2 L_2 R_2 s^5 + C_1 C_2 L_2 L_2$$

10.346 INVALID-ORDER-346
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_2 L_L R_1 s^5 + C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 C_L L_2 L_L R_L s^5 + C_1 C_2 C_L L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_2 R_1 R_L s^4 + C_1 C_2 R_1 R_L s^4 + C_$$

10.347 INVALID-ORDER-347 $Z(s) = (\infty, \infty, \infty, \infty, R_4, R_L)$

$$H(s) = \frac{R_L \left(C_1 R_1 s + 1 \right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1 \right)}{C_1 C_2 L_2 R_1 R_2 g_m s^3 + C_1 C_2 L_2 R_1 s^3 + C_1 C_2 L_2 R_2 s^3 + C_1 C_2 R_1 R_2 s^2 + C_1 C_2 R_2 R_L s^2 + C_1 R_1 R_2 g_m s + C_1 R_1 s + C_1 R_2 s + C_1 R_L s + C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_1 R_1 R_2 g_m s + C_1 R_1 R_2 g_m s + C_1 R_2 g_m s$$

10.348 INVALID-ORDER-348 $Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{1}{C_L s}\right)$

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

10.349 INVALID-ORDER-349
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_2 R_1 R_L s^4 + C_1 C_2 C_L L_2 R_2 R_L s^4 + C_1 C_2 C_L R_1 R_2 R_L s^3 + C_1 C_2 L_2 R_1 R_2 g_m s^3 + C_1 C_2 L_2 R_1 s^3 + C_1 C_2 L_2 R_2 s^3 + C_1 C_2 L_2 R_1 s^3 + C_1 C_2 L_2 R_1 s^3 + C_1 C_2 L_2 R_2 s^3 + C_1 C_2 L_2 R_1 s^3 + C_1 C_2 L_2 R_1 s^3 + C_1 C_2 L_2 R_2 s^3 + C_1 C_2 L_2 R_1 s^3 + C_1 C_2 L_2 R_2 s^3 + C_1$$

10.350 INVALID-ORDER-350
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, R_L + \frac{1}{C_L s}\right)$$

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

10.351 INVALID-ORDER-351
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, L_L s + \frac{1}{C_L s}\right)$$

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

10.352 INVALID-ORDER-352
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_2 L_L R_1 s^5 + C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 C_L L_L R_1 R_2 s^4 + C_1 C_2 L_2 L_L s^4 + C_1 C_2 L_2 R_1 R_2 g_m s^3 + C_1 C_2 L_2 R_1 s^3 + C_1 C_2 L_2 R_2 s^3 + C_1 C_2 L_2 R_1 R_2 g_m s^4 + C_1 C_2 L_2 R_2 R_2 g_m s^4 + C_1 C_2 L_2 R_2 R_2 g_m s^4 + C_1 C_2 R_2 R_2 g_$$

10.353 INVALID-ORDER-353
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.354 INVALID-ORDER-354
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_1 R_2 R_L g_m s^5 + C_1 C_2 C_L L_2 L_L R_1 R_L s^5 + C_1 C_2 C_L L_2 L_L R_2 R_L s^5 + C_1 C_2 C_L L_L R_1 R_2 R_L s^4 + C_1 C_2 L_2 L_L R_1 R_2 g_m s^4 + C_1 C_2 L_2 L_L R_1 s^4 + C_1 C_2 L_2 L_L R_2 s^4 + C_1 C_2 L_2 L_L R_1 R_2 R_L s^4 + C_1 C_2 L_2 L_2 R_1 R_2 R_L s^4 +$$

10.355 INVALID-ORDER-355
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_2 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_2 L_L R_1 s^5 + C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 C_L L_2 L_L R_1 s^5 + C_1 C_2 C_L L_L R_1 R_2 s^4 + C_1 C_2 C_L L_L R_2 R_L s^4 + C_1 C_2 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_L R_1 R_2 s^6 + C_1 C_2 C_L R_1 R_2 s^6 +$$

10.356 INVALID-ORDER-356
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.357 INVALID-ORDER-357
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{(R_2 g_m + 1) (C_1 L_1 s^2 + 1)}{s (C_1 C_L L_1 R_2 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_2 s + C_1 + C_L R_2 g_m + C_L)}$$

10.358 INVALID-ORDER-358
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L \left(R_2 g_m + 1 \right) \left(C_1 L_1 s^2 + 1 \right)}{C_1 C_L L_1 R_2 R_L g_m s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L R_2 R_L s^2 + C_1 L_1 R_2 g_m s^2 + C_1 L_1 s^2 + C_1 R_2 s + C_1 R_L s + C_L R_2 R_L g_m s + C_L R_L s + R_2 g_m + 1}$$

10.359 INVALID-ORDER-359
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{\left(R_2 g_m + 1\right) \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right)}{s \left(C_1 C_L L_1 R_2 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_2 s + C_1 C_L R_L s + C_1 + C_L R_2 g_m + C_L\right)}$$

10.360 INVALID-ORDER-360
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{\left(R_2 g_m + 1\right) \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{s \left(C_1 C_L L_1 R_2 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L L_L s^2 + C_1 C_L R_2 s + C_1 + C_L R_2 g_m + C_L\right)}$$

10.361 INVALID-ORDER-361
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(R_2 g_m + 1\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 C_L L_1 L_L R_2 g_m s^4 + C_1 C_L L_L L_2 s^4 + C_1 C_L L_L R_2 s^3 + C_1 L_1 R_2 g_m s^2 + C_1 L_1 s^2 + C_1 L_L s^2 + C_1 L_L s^2 + C_1 L_L R_2 g_m s^2 + C_L R_2$$

10.362 INVALID-ORDER-362
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{\left(R_2 g_m + 1\right) \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{s \left(C_1 C_L L_1 R_2 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L L_L s^2 + C_1 C_L R_2 s + C_1 C_L R_L s + C_1 + C_L R_2 g_m + C_L\right)}$$

10.363 INVALID-ORDER-363
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L s \left(R_2 g_m + 1\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 C_L L_1 L_L R_2 g_m s^4 + C_1 C_L L_1 L_L R_2 s^4 + C_1 C_L L_L R_2 s^3 + C_1 L_1 L_L s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_2 s^2 + C_1 L_1 R_L s^2 + C_1 L_L R_2 s^2 + C_$$

10.364 INVALID-ORDER-364
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.365 INVALID-ORDER-365
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s}, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L \left(R_2 g_m + 1 \right) \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right)}{C_1 C_L L_1 L_L R_2 g_m s^4 + C_1 C_L L_1 R_2 R_L g_m s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L L_L R_2 s^3 + C_1 C_L R_2 R_L s^2 + C_1 L_1 R_2 g_m s^2 + C_1 L_1 s^2 + C_1 R_2 s + C_1 R_$$

10.366 INVALID-ORDER-366
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_L\right)$$

$$H(s) = \frac{R_L (C_2 s + g_m) (C_1 L_1 s^2 + 1)}{C_1 C_2 L_1 s^3 + C_1 C_2 R_L s^2 + C_1 L_1 g_m s^2 + C_1 s + C_2 s + g_m}$$

10.367 INVALID-ORDER-367
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{(C_2s + g_m)(C_1L_1s^2 + 1)}{s(C_1C_2C_LL_1s^3 + C_1C_2s + C_1C_LL_1g_ms^2 + C_1C_Ls + C_2C_Ls + C_Lg_m)}$$

10.368 INVALID-ORDER-368
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4R_4s+1}, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{R_L \left(C_2 s + g_m \right) \left(C_1 L_1 s^2 + 1 \right)}{C_1 C_2 C_L L_1 R_L s^4 + C_1 C_2 L_1 s^3 + C_1 C_2 R_L s^2 + C_1 C_L L_1 R_L g_m s^3 + C_1 C_L R_L s^2 + C_1 L_1 g_m s^2 + C_1 s + C_2 C_L R_L s^2 + C_2 s + C_L R_L g_m s + g_m R_L \left(C_2 s + g_m \right) \left(C_1 L_1 s^2 + 1 \right)}$$

10.369 INVALID-ORDER-369
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, R_L + \frac{1}{C_L s}\right)$$

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

10.370 INVALID-ORDER-370
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, L_L s + \frac{1}{C_L s}\right)$$

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

10.371 INVALID-ORDER-371
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

10.372 INVALID-ORDER-372
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.373 INVALID-ORDER-373
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L s \left(C_2 s + g_m\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 C_2 C_L L_1 L_L R_L s^5 + C_1 C_2 L_1 L_L s^4 + C_1 C_2 L_1 R_L s^3 + C_1 C_L L_1 L_L R_L g_m s^4 + C_1 C_L L_L R_L s^3 + C_1 L_1 L_L g_m s^3 + C_1 L_1 R_L g_m s^2 + C_1 L_L s^2 + C_1 R_L s + C_2 C_L L_1 R_L s^3 + C_1 L_1 R_L g_m s^3 + C_1 R_L s + C_2 R_L s^3 + C_1 R_L s + C_2 R_L s^3 + C_1 R_L s^3 + C_$$

10.374 INVALID-ORDER-374
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{\left(C_{2}s + g_{m}\right)\left(C_{1}L_{1}s^{2} + 1\right)\left(C_{L}L_{L}R_{L}s^{2} + L_{L}s + R_{L}\right)}{C_{1}C_{2}C_{L}L_{1}L_{L}s^{5} + C_{1}C_{2}L_{L}s^{3} + C_{1}C_{2}L_{L}s^{3} + C_{1}C_{2}R_{L}s^{2} + C_{1}C_{L}L_{1}L_{L}g_{m}s^{4} + C_{1}C_{L}L_{L}s^{3} + C_{1}L_{1}g_{m}s^{2} + C_{1}s + C_{2}C_{L}L_{L}s^{3} + C_{2}s + C_{L}L_{L}g_{m}s^{2} + g_{m}s^{2}}$$

10.375 INVALID-ORDER-375
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4}{C_4 R_4 s + 1}, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L \left(C_2 s + g_m \right) \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right)}{C_1 C_2 C_L L_1 L_L s^5 + C_1 C_2 C_L L_1 R_L s^4 + C_1 C_2 L_1 s^3 + C_1 C_2 R_L s^2 + C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_1 R_L g_m s^3 + C_1 C_L L_L s^3 + C_1 C_L R_L s^2 + C_1 L_1 g_m s^2 + C_1 s + C_1 C_1 R_L g_m s^3 + C_1 C_2 R_L g_m s^3 + C_1 C_$$

10.376 INVALID-ORDER-376
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + 1 \right) \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_1 C_2 L_1 R_2 s^3 + C_1 C_2 R_2 R_L s^2 + C_1 L_1 R_2 g_m s^2 + C_1 L_1 s^2 + C_1 R_2 s + C_1 R_L s + C_2 R_2 s + R_2 g_m + 1}$$

10.377 INVALID-ORDER-377
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{\left(C_1L_1s^2 + 1\right)\left(C_2R_2s + R_2g_m + 1\right)}{s\left(C_1C_2C_LL_1R_2s^3 + C_1C_2R_2s + C_1C_LL_1R_2g_ms^2 + C_1C_LL_1s^2 + C_1C_LR_2s + C_1 + C_2C_LR_2s + C_LR_2g_m + C_L\right)}$$

10.378 INVALID-ORDER-378
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + 1 \right) \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_2 L_1 R_2 s^3 + C_1 C_L L_1 R_2 R_L g_m s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L R_2 R_L s^2 + C_1 L_1 R_2 g_m s^2 + C_1 L_1 s^2 + C_1 R_2 s + C_1 R_L s + C_2 C_L R_2 R_L s^2 + C_1 R_$$

10.379 INVALID-ORDER-379
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, R_L + \frac{1}{C_L s}\right)$$

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

10.380 INVALID-ORDER-380
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, L_L s + \frac{1}{C_L s}\right)$$

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

10.381 INVALID-ORDER-381
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(C_1 L_1 s^2 + 1\right) \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 L_1 R_2 s^3 + C_1 C_L L_L L_L R_2 g_m s^4 + C_1 C_L L_L L_L s^4 + C_1 C_L L_L L_R s^3 + C_1 L_1 R_2 g_m s^2 + C_1 L_1 s^2 + C_1 L_L s^2 + C_1 L_L s^2 + C_1 L_L s^3 + C_1 L_L R_2 s^3 + C_1 L_L R_2$$

10.382 INVALID-ORDER-382
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.383 INVALID-ORDER-383
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L s}{C_1 C_2 C_L L_1 L_L R_2 R_L s^5 + C_1 C_2 L_1 L_L R_2 s^4 + C_1 C_2 L_1 R_2 R_L s^3 + C_1 C_2 L_L R_2 R_L s^3 + C_1 C_L L_1 L_L R_2 R_L g_m s^4 + C_1 C_L L_1 L_L R_2 s^4 + C_1 C_L L_L R_2 R_L s^3 + C_1 L_1 L_L R_2 R_L g_m s^3 + C_1 L_1 L_L R_2 R_L g_m s^4 + C_1 C_L L_1 L_L R_2 R_L g_m s^4 + C_1 C_L L_1 L_L R_2 R_L g_m s^3 + C_1 L_1 L_L R_2 R_L g_m s^4 + C_1 C_L L_1 R_2 R_L g_m s^4 + C_1 C_L R_2 R_L g_m s^4 + C_1 C_$$

10.384 INVALID-ORDER-384
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_L R_2 R_L s^4 + C_1 C_2 L_1 R_2 s^3 + C_1 C_2 L_L R_2 s^3 + C_1 C_2 R_L s^2 + C_1 C_L L_1 L_L R_2 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_L R_2 s^3 + C_1 C_L R_2$$

10.385 INVALID-ORDER-385
$$Z(s) = \left(\infty, \infty, \infty, \infty, R_4 + \frac{1}{C_4 s}, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L \left(C_1 L_2 C_2 L_1 L_2 R_2 s^5 + C_1 C_2 C_2 L_1 R_2 R_L s^4 + C_1 C_2 L_2 R_2 R_L s^4 + C_1 C_2 L_1 R_2 s^3 + C_1 C_2 R_2 R_L s^2 + C_1 C_L L_1 L_L R_2 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_2 R_L g_m s^3 + C_1 C_L L_1 R_2 R_L g_m s^3 + C_1 C_L L_1 R_2 R_L g_m s^4 + C_1 C_L L_1 R_2$$

10.386 INVALID-ORDER-386
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 L_1 R_2 g_m s^3 + C_1 C_2 L_1 s^3 + C_1 C_2 R_2 s^2 + C_1 C_2 R_L s^2 + C_1 L_1 g_m s^2 + C_1 s + C_2 R_2 g_m s + C_2 s + g_m}$$

10.387 INVALID-ORDER-387
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{1}{C_L s}\right)$$

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

10.388 INVALID-ORDER-388
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + 1\right) \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{C_1 C_2 C_L L_1 R_2 g_m s^4 + C_1 C_2 C_L L_1 R_L s^4 + C_1 C_2 L_1 R_2 g_m s^3 + C_1 C_2 L_1 s^3 + C_1 C_2 R_2 s^2 + C_1 C_2 R_L s^2 + C_1 C_L L_1 R_L g_m s^3 + C_1 C_L R_L s^2 + C_1 L_1 g_m s^2 + C_1 C_2 R_L s^2$$

10.389 INVALID-ORDER-389
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, R_L + \frac{1}{C_L s}\right)$$

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

10.390 INVALID-ORDER-390
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, L_L s + \frac{1}{C_L s}\right)$$

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

10.391 INVALID-ORDER-391
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(C_1 L_1 s^2 + 1\right) \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{C_1 C_2 C_L L_1 L_L R_2 g_m s^5 + C_1 C_2 C_L L_L L_L S^5 + C_1 C_2 L_L R_2 s^4 + C_1 C_2 L_1 R_2 g_m s^3 + C_1 C_2 L_L s^$$

10.392 INVALID-ORDER-392
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.393 INVALID-ORDER-393
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_L R_L s^5 + C_1 C_2 C_L L_L R_2 R_L s^4 + C_1 C_2 L_1 L_L R_2 g_m s^4 + C_1 C_2 L_1 L_L s^4 + C_1 C_2 L_1 R_2 R_L g_m s^3 + C_1 C_2 L_1 R_L s^3 + C_1 C_2 L_L R_2 s^3 + C_1$$

10.394 INVALID-ORDER-394
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{\left(C_{1}L_{1}s^{2}+1\right)\left(C_{2}R_{2}g_{m}s+C_{2}s+g_{m}\right)\left(C_{L}L_{L}R_{L}s^{2}+L_{L}s+R_{L}\right)}{C_{1}C_{2}C_{L}L_{1}L_{L}R_{2}g_{m}s^{5}+C_{1}C_{2}C_{L}L_{L}L_{2}s^{4}+C_{1}C_{2}C_{L}L_{L}R_{L}s^{4}+C_{1}C_{2}L_{1}R_{2}g_{m}s^{3}+C_{1}C_{2}L_{L}s^{3}+C_{1}C_{2}R_{2}s^{2}+C_{1}C_{2}R_{L}s^{2}+C_{1}C_{L}L_{L}L_{L}g_{m}s^{4}+C_{1}C_{2}L_{L}R_{L}s^{4}+C_{1}C_{2}L_{L}R_{L}s^{4}+C_{1}C_{2}L_{L}S^{3}+C_{1}C_{2}L_{L}S^{3}+C_{1}C_{2}R_{L}s^{2}+C_{1}C_{L}L_{L}L_{L}g_{m}s^{4}+C_{1}C_{2}L_{L}R_{L}s^{4}+C_{1}C_{2}L_{L}R_{L}s^{4}+C_{1}C_{2}L_{L}S^{3}+C_{1}C_{2}L_{L}S^{3}+C_{1}C_{2}R_{L}s^{2}+C_{1}C_{L}L_{L}L_{L}g_{m}s^{4}+C_{1}C_{2}L_{L}R_{L}s^{4}+C_{1}C_{2}L_{L}R_{L}s^{4}+C_{1}C_{2}L_{L}S^{3}+C_{1}C_{2}L_{L}S^{3}+C_{1}C_{2}R_{L}s^{2}+C_{1}C_{2}R_{L}S^{2}+C_{1}C_{L}L_{L}L_{L}g_{m}s^{4}+C_{1}C_{2}L_{L}R_{L}s^{4}+C_{1}C_{2}L_{L}S^{3}+C_{1}C_{2}L_{L}S^{3}+C_{1}C_{2}R_{L}S^{2}+C_{1}C_{2}R_{L}S^{2}+C_{1}C_{2}L_{L}L_{L}g_{m}s^{4}+C_{1}C_{2}L_{L}R_{L}S^{4}+C_{1}C_{2}L_{L}S^{3}+C_{1}C_{2}L_{L}S^{3}+C_{1}C_{2}R_{L}S^{2}+C_{1}C_{2}R_{L}S^$$

10.395 INVALID-ORDER-395
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + \frac{1}{C_4 s}, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L s^5 + C_1 C_2 C_L L_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_1 R_L s^4 + C_1 C_2 C_L L_L R_2 s^4 + C_1 C_2 C_L L_L R_L s^4 + C_1 C_2 C_L R_L R_L s^4 + C_1 C_2 C_L R_$$

10.396 INVALID-ORDER-396
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 L_1 L_2 g_m s^4 + C_1 C_2 L_1 s^3 + C_1 C_2 L_2 s^3 + C_1 C_2 R_L s^2 + C_1 L_1 g_m s^2 + C_1 s + C_2 L_2 g_m s^2 + C_2 s + g_m}$$

10.397 INVALID-ORDER-397
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_{4s}}{C_4 L_4 s^2 + 1}, \frac{1}{C_{Ls}}\right)$$

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

10.398 INVALID-ORDER-398
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_2 R_L g^5 + C_1 C_2 C_L L_1 R_L s^4 + C_1 C_2 L_1 L_2 g_m s^4 + C_1 C_2 L_1 s^3 + C_1 C_2 L_2 s^3 + C_1 C_2 R_L s^2 + C_1 C_L L_1 R_L g_m s^3 + C_1 C_L R_L s^2 + C_1 L_1 g_m s^2 + C_1 S_1 g_m s^2 + C_1 S_2 g_m s^3 + C_1 C_2 R_L g^2 + C_1 S_2 g_m s^3 + C_1 C_2 R_L g^2 + C_1 C_2 R_$$

10.399 INVALID-ORDER-399
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_{4s}}{C_4L_4s^2+1}, R_L + \frac{1}{C_Ls}\right)$$

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

10.400 INVALID-ORDER-400
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_{4s}}{C_4 L_4 s^2 + 1}, L_L s + \frac{1}{C_L s}\right)$$

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

10.401 INVALID-ORDER-401
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{L_L s \left(C_1 L_1 s^2 + 1\right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{C_1 C_2 C_L L_1 L_2 L_2 g_m s^6 + C_1 C_2 C_L L_1 L_L s^5 + C_1 C_2 L_1 L_2 g_m s^4 + C_1 C_2 L_1 s^3 + C_1 C_2 L_2 s^3 + C_1 C_2 L_1 s^3 + C_1 C_L L_1 L_L g_m s^4 + C_1 C_L L_L s^3 + C_1 L_1 g_m s^2 + C_1 s^3 + C_1 C_2 L_1 s^3$$

10.402 INVALID-ORDER-402
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_{4s}}{C_4 L_4 s^2 + 1}, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.403 INVALID-ORDER-403
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1}, \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_L g_m s^6 + C_1 C_2 C_L L_1 L_L R_L s^5 + C_1 C_2 L_L L_L R_L s^5 + C_1 C_2 L_1 L_2 L_L g_m s^5 + C_1 C_2 L_1 L_2 R_L g_m s^4 + C_1 C_2 L_1 L_L s^4 + C_1 C_2 L_1 R_L s^3 + C_1 C_2 L_2 L_L s^4 + C_1 C_2 L_2 L_L s^4 + C_1 C_2 L_1 L_2 R_L g_m s^6 + C_1 C_2 L_1 R_L g_m s^6 + C_1 C_2$$

10.404 INVALID-ORDER-404
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_{4s}}{C_4L_4s^2+1}, \frac{L_{Ls}}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{\left(C_{1}L_{1}s^{2}+1\right)\left(C_{2}L_{2}g_{m}s^{2}+C_{2}s+g_{m}\right)\left(C_{L}L_{L}R_{L}s^{2}+L_{L}s+R_{L}\right)}{C_{1}C_{2}C_{L}L_{1}L_{2}L_{2}g_{m}s^{6}+C_{1}C_{2}C_{L}L_{1}L_{2}s^{5}+C_{1}C_{2}C_{L}L_{L}R_{L}s^{4}+C_{1}C_{2}L_{1}L_{2}g_{m}s^{4}+C_{1}C_{2}L_{1}s^{3}+C_{1}C_{2}L_{2}s^{3}+C_{1}C_{2}L_{L}s^{3}+C_{1}C_{2}R_{L}s^{2}+C_{1}C_{L}L_{L}L_{L}g_{m}s^{4}+C_{1}C_{2}L_{1}S^{3}+C_{1}C_{2}L_{2}S^{3}+C_{1}C_{2$$

10.405 INVALID-ORDER-405
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1}, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L g_m s^6 + C_1 C_2 C_L L_1 L_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_L s^5 + C_1 C_2 C_L L_1 R_L s^4 + C_1 C_2 C_L L_2 L_L s^5 + C_1 C_2 C_L L_2 R_L s^4 + C_1 C_2 C_L L_$$

10.406 INVALID-ORDER-406
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 L_1 L_2 g_m s^4 + C_1 C_2 L_1 g_m s^3 + C_1 C_2 L_1 s^3 + C_1 C_2 L_2 s^3 + C_1 C_2 R_2 s^2 + C_1 C_2 R_L s^2 + C_1 L_1 g_m s^2 + C_1 s + C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m c^2 + C_1 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 R_2 g_m$$

10.407 INVALID-ORDER-407
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{1}{C_L s}\right)$$

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

10.408 INVALID-ORDER-408
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + 1 \right) \left(C_2 L_1 L_2 R_L g_m s^5 + C_1 C_2 C_L L_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_1 R_L s^4 + C_1 C_2 C_L L_2 R_L s^4 + C_1 C_2 C_L R_2 R_L s^3 + C_1 C_2 L_1 L_2 g_m s^4 + C_1 C_2 L_1 R_2 g_m s^3 + C_1 C_2 L_1 s^3 + C_1 C_2 L_2 s^3 + C_1 C_2 L_1 R_2 g_m s^4 + C_1 C_2 L_1 R_2 g_m s^3 + C_1 C_2 L_1 R_2 g_m s^4 + C_1 C_2 L_1$$

10.409 INVALID-ORDER-409
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, R_L + \frac{1}{C_L s}\right)$$

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

10.410 INVALID-ORDER-410
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, L_L s + \frac{1}{C_L s}\right)$$

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

10.411 INVALID-ORDER-411
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(C_1 L_1 s^2 + 1\right) \left(C_2 L_1 L_2 L_2 g_m s^6 + C_1 C_2 C_L L_1 L_L R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L s^5 + C_1 C_2 C_L L_2 L_L s^5 + C_1 C_2 C_L L_L R_2 s^4 + C_1 C_2 L_1 L_2 g_m s^4 + C_1 C_2 L_1 R_2 g_m s^3 + C_1 C_2 L_1 s^3 + C_1 C_2 L_2 s^3 + C_1 C_2 L_1 L_2 g_m s^4 + C_1 C_2 L_1 R_2 g_m s^3 + C_1 C_2 L_2 L_2 s^3 + C_1 C_2 L_2 L_2 s^3 + C_1 C_2 L_2 L_2 s^4 + C_1 C_2 L_2 L_2 g_m s^4 + C_1 C_2 L_1 R_2 g_m s^3 + C_1 C_2 L_2 L_2 s^3 + C_1 C_2 L_2 L_2 s^4 + C_1 C_2 L_2 L_2 g_m s^4 + C_1 C_2 L_2 L_2 g_m s^4 + C_1 C_2 L_2 L_2 s^3 + C_1 C_2 L_2 L_2 s^4 + C_1 C_2 L_2 L_2 g_m s^4 + C_1 C_2 L_2 L_2$$

10.412 INVALID-ORDER-412
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.413 INVALID-ORDER-413
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_L g_m s^6 + C_1 C_2 C_L L_1 L_L R_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_L R_L s^5 + C_1 C_2 C_L L_2 L_L R_L s^5 + C_1 C_2 C_L L_L R_2 R_L s^4 + C_1 C_2 L_1 L_2 L_L g_m s^5 + C_1 C_2 L_1 L_2 R_L g_m s^4 + C_1 C_2 L_2 L_2 R_L g_m s^6 + C_1 C_2 C_L L_2 L_2 R_L g_m s^6 + C_1 C_2 C_L L_2 L_2 R_L g_m s^6 + C_1 C_2 C_L L_2 L_2 R_L g_m s^6 + C_1 C_2 C_L L_2 L_2 R_L g_m s^6 + C_1 C_2 C_L L_2 L_2 R_L g_m s^6 + C_1 C_2 C_L L_2 L_2 R_L g_m s^6 + C_1 C_2 C_L R_2 R_2 R_L g_m s^6 + C_1 C_2 C_L R_2 R_L g_m s^6 + C_1 C_2 C_L R_2 R_2 R_L g_m s^6 + C_1 C_2 C_L R_2 R_L g_m s^6 + C_1$$

10.414 INVALID-ORDER-414
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$(C_1L_1s^2+1)(C_1s^2+1)$$

$$H(s) = \frac{(C_1L_1s^2 + 1)(C_LS_1s^2 + 1)(C_LS_2s^2 + C_1C_2C_LL_1L_2s^3 + C_1C_2C_LL_2L_2s^3 + C_1C_2C_LL_2L_2s^4 + C_1C_2C_LL_2L_2s^4 + C_1C_2L_1L_2s^4 + C_1C_2L_2L_2s^4 + C_1C_2L_2s^4 + C_1C_2L_2s^4 + C_1C_2$$

10.415 INVALID-ORDER-415
$$Z(s) = \left(\infty, \infty, \infty, \infty, L_4 s + R_4 + \frac{1}{C_4 s}, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L g_m s^6 + C_1 C_2 C_L L_1 L_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_L R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L s^5 + C_1 C_2 C_L L_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_1 R_L s^4 + C_1 C_2 C_L L_2 L_2 R_L s^5 + C_1 C_2 C_L R_L s^5 + C_1 C_2 C_$$

10.416 INVALID-ORDER-416
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + 1 \right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_1 C_2 L_1 L_2 R_2 g_m s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_2 R_2 s^3 + C_1 L_1 L_2 g_m s^3 + C_1 L_1 R_2 g_m s^2 + C_1 L_1 s^2 + C_1 L_2 s^2 + C_1 R_2 s + C_1 R_2 s + C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s^2 + C_2 L_2 s^2 +$$

10.417 INVALID-ORDER-417
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \frac{1}{C_L s}\right)$$

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

10.418 INVALID-ORDER-418
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_2 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_2 g_m s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_2 R_2 s^3 + C_1 C_2 L_2 R_L s^3 + C_1 C_L L_1 L_2 R_L g_m s^4 + C_1 C_L$$

10.419 INVALID-ORDER-419
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, R_L + \frac{1}{C_L s}\right)$$

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

10.420 INVALID-ORDER-420
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, L_L s + \frac{1}{C_L s}\right)$$

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

10.421 INVALID-ORDER-421
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

10.422 INVALID-ORDER-422
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.423 INVALID-ORDER-423
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.424 INVALID-ORDER-424
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_2 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 L_1 L_2 R_2 g_m s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_2 L_L s^4 + C_1 C_2 L_2 L_2 R_2 s^3 + C_1 C_2 L_2 L_2 R_2 s^4 + C_1 C_2 L_$$

10.425 INVALID-ORDER-425
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{1}{C_4 s + \frac{1}{R_4} + \frac{1}{L_4 s}}, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_2 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_2 R_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 C_L L_2 L_2 R_2 s^5 + C_1 C_2 C_L L_2 R_2 s^5 + C_1 C_2$$

10.426 INVALID-ORDER-426
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + 1 \right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 s + R_2 g_m + 1 \right)}{C_1 C_2 L_1 L_2 R_2 g_m s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_2 R_2 s^3 + C_1 C_2 L_2 R_L s^3 + C_1 C_2 R_2 R_L s^2 + C_1 L_1 R_2 g_m s^2 + C_1 L_1 s^2 + C_1 R_L s + C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + C_2 R_2 R_L s^2 + C_2 R_2 R_L$$

10.427 INVALID-ORDER-427
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \frac{1}{C_Ls}\right)$$

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

10.428 INVALID-ORDER-428
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_2 C_L L_2 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_2 g_m s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_1 R_2 s^3 + C_1 C_2 L_2 R_2 s^3 + C_1 C_2 L_2 R_2 R_2 s^4 + C_1 C_2 L_1 L_2 R_2 g_m s^4 + C_1 C_2 L_2 R_2 g_m s^4 + C_$$

10.429 INVALID-ORDER-429
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, R_L + \frac{1}{C_Ls}\right)$$

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

10.430 INVALID-ORDER-430
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, L_Ls + \frac{1}{C_Ls}\right)$$

10.431 INVALID-ORDER-431
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

10.432 INVALID-ORDER-432
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

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

10.433 INVALID-ORDER-433
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4 s}{C_4 L_4 s^2 + 1} + R_4, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_2 R_L g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L R_L s^6 + C_1 C_2 C_L L_1 L_L R_2 R_L s^5 + C_1 C_2 L_L L_L R_2 R_L s^5 + C_1 C_2 L_1 L_2 L_L R_2 g_m s^5 + C_1 C_2 L_1 L_2 L_L R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 L_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 L_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 L_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 L_2 R_L g_m s^4 + C_1 C_2 L_2 L_2 R_L g_m$$

10.434 INVALID-ORDER-434
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

10.435 INVALID-ORDER-435
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{L_4s}{C_4L_4s^2+1} + R_4, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_2 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_2 R_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_$$

10.436 INVALID-ORDER-436
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_1s\left(R_2g_m + 1\right)}{C_1C_LL_1R_2s^3 + C_1L_1s^2 + C_LL_1R_2g_ms^2 + C_LL_1s^2 + C_LR_2s + 1}$$

10.437 INVALID-ORDER-437
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{L_1R_Ls\left(R_2g_m + 1\right)}{C_1C_LL_1R_2R_Ls^3 + C_1L_1R_2s^2 + C_1L_1R_Ls^2 + C_LL_1R_2R_Lg_ms^2 + C_LL_1R_Ls^2 + C_LR_2R_Ls + L_1R_2g_ms + L_1s + R_2 + R_L}$$

10.438 INVALID-ORDER-438
$$Z(s) = \left(\infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_1s\left(R_2g_m + 1\right)\left(C_LR_Ls + 1\right)}{C_1C_LL_1R_2s^3 + C_1C_LL_1R_Ls^3 + C_1L_1s^2 + C_LL_1R_2g_ms^2 + C_LL_1s^2 + C_LR_2s + C_LR_Ls + 1}$$

10.439 INVALID-ORDER-439
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_1s\left(R_2g_m + 1\right)\left(C_LL_Ls^2 + 1\right)}{C_1C_LL_1L_1s^4 + C_1C_LL_1R_2s^3 + C_1L_1s^2 + C_LL_1R_2g_ms^2 + C_LL_1s^2 + C_LL_1s^2$$

10.440 INVALID-ORDER-440
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L s^2 (R_2 g_m + 1)}{C_1 C_L L_1 L_L R_2 s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_2 s^2 + C_L L_1 L_L R_2 g_m s^3 + C_L L_1 L_L s^3 + C_L L_1 L_L s^2 + L_1 R_2 g_m s + L_1 s + L_L s + R_2}$$

10.441 INVALID-ORDER-441
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_1 s \left(R_2 g_m + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_2 s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_L L_1 R_2 g_m s^2 + C_L L_1 s^2 + C_L L_1 s^2 + C_L R_2 s + C_L R_L s + 1}$$

10.442 INVALID-ORDER-442
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{L_1 L_L R_L s^2 \left(R_2 g_m + 1\right)}{C_1 C_L L_1 L_L R_2 R_L s^4 + C_1 L_1 L_L R_2 s^3 + C_1 L_1 L_L R_2 s^2 + C_L L_1 L_L R_2 R_L g_m s^3 + C_L L_1 L_L R_2 s^3 + C_L L_1 L_L R_2 s^2 + L_1 L_L R_2 s^2 +$$

10.443 INVALID-ORDER-443
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

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

10.444 INVALID-ORDER-444
$$Z(s) = \left(\infty, \infty, \infty, \infty, \frac{R_4\left(L_4s + \frac{1}{C_4s}\right)}{L_4s + R_4 + \frac{1}{C_4s}}, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{L_1 R_L s \left(R_2 g_m + 1\right) \left(C_L L_L s^2 + 1\right)}{C_1 C_L L_1 L_L R_2 s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 R_2 s^2 + C_1 L_1 R_L s^2 + C_L L_1 L_L R_2 g_m s^3 + C_L L_1 L_L s^3 + C_L L_1 R_2 R_L g_m s^2 + C_L L_1 R_L s^2 + C_L L_L R_2 s^2$$

10.445 INVALID-ORDER-445 $Z(s) = (R_1, R_2, \infty, \infty, \infty, R_L)$

$$H(s) = \frac{L_1 R_L s (C_2 s + g_m)}{C_1 C_2 L_1 R_L s^3 + C_1 L_1 s^2 + C_2 L_1 s^2 + C_2 R_L s + L_1 g_m s + 1}$$

10.446 INVALID-ORDER-446 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{L_1 R_L s \left(C_2 s + g_m\right)}{C_1 C_2 L_1 R_L s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_2 C_L L_1 R_L s^3 + C_2 L_1 s^2 + C_2 R_L s + C_L L_1 R_L g_m s^2 + C_L R_L s + L_1 g_m s + 1}$$

10.447 INVALID-ORDER-447 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 \left(C_2 s + g_m \right) \left(C_L R_L s + 1 \right)}{C_1 C_2 C_L L_1 R_L s^3 + C_1 C_2 L_1 s^2 + C_1 C_L L_1 s^2 + C_2 C_L L_1 s^2 + C_2$$

10.448 INVALID-ORDER-448 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

10.449 INVALID-ORDER-449 $Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_1 L_L s^2 \left(C_2 s + g_m\right)}{C_1 C_2 L_1 L_L s^4 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_2 C_L L_1 L_L s^4 + C_2 L_1 s^2 + C_2 L_L s^2 + C_L L_1 L_L g_m s^3 + C_L L_L s^2 + L_1 g_m s + 1}$$

10.450 INVALID-ORDER-450
$$Z(s) = \left(R_1, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 \left(C_2 s + g_m \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{C_1 C_2 C_L L_1 L_L s^4 + C_1 C_2 C_L L_1 R_L s^3 + C_1 C_2 L_1 s^2 + C_1 C_L L_1 s^2 + C_2 C_L L_1 s^2 + C_2 C_L L_L s^2 + C_2 C_L R_L s + C_2 + C_L L_1 g_m s + C_L R_L s + C_2 C_L R_L$$

10.451 INVALID-ORDER-451
$$Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.452 INVALID-ORDER-452
$$Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_{1}s\left(C_{2}s + g_{m}\right)\left(C_{L}L_{L}R_{L}s^{2} + L_{L}s + R_{L}\right)}{C_{1}C_{2}C_{L}L_{1}L_{L}s^{5} + C_{1}C_{2}L_{1}L_{L}s^{3} + C_{1}C_{L}L_{1}L_{L}s^{4} + C_{1}C_{L}L_{1}L_{L}s^{4} + C_{1}L_{1}L_{2}s^{4} + C_{2}C_{L}L_{1}L_{L}s^{4} + C_{2}C_{L}L_{L}R_{L}s^{3} + C_{2}L_{1}s^{2} + C_{2}L_{L}s^{2} + C_{2}L_{$$

10.453 INVALID-ORDER-453
$$Z(s) = \left(R_1, R_2, \infty, \infty, \infty, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_L s \left(C_2 s + g_m\right) \left(C_L L_L s^2 + 1\right)}{C_1 C_2 C_L L_1 L_L s^5 + C_1 C_2 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_2 C_L L_1 L_L s^4 + C_2 C_L L_1 R_L s^3 + C_2 C_L L_1 R_L s^3 + C_2 L_1 s^2 + C_2 R_L s + C_L L_1 L_L g_m s^3 + C_L L_1 L_L g_m s^3 + C_L L_1 R_L s^4 + C_1 C_L R_L s^4 +$$

10.454 INVALID-ORDER-454
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_L s \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 L_1 R_2 R_L s^3 + C_1 L_1 R_2 s^2 + C_1 L_1 R_L s^2 + C_2 L_1 R_2 s^2 + C_2 R_2 R_L s + L_1 R_2 g_m s + L_1 s + R_2 + R_L R_2 R_L s^2 + C_2 R_2 R_L s + L_1 R_2 R_L s^2 + C_2 R_2 R_$$

10.455 INVALID-ORDER-455
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.456 INVALID-ORDER-456
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_L s \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 L_1 R_2 R_L s^3 + C_1 L_1 R_2 s^2 + C_1 L_1 R_L s^2 + C_2 C_L L_1 R_2 R_L s^3 + C_2 L_1 R_2 s^2 + C_2 R_2 R_L s + C_L L_1 R_2 R_L g_m s^2 + C_L L_1 R_L s^2 + C_L R_2 R_L s + L_1 R_2 g_m s + L_1 R_2 g_m s^2 + C_L R_2 R_L s + C_L$$

10.457 INVALID-ORDER-457
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 s \left(C_L R_L s + 1\right) \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_2 L_1 R_2 s^3 + C_1 C_L L_1 R_2 s^3 + C_1 L_1 s^2 + C_2 C_L L_1 R_2 s^3 + C_2 C_L R_2 R_L s^2 + C_2 R_2 s + C_L L_1 R_2 g_m s^2 + C_L L_1 s^2 + C_L R_2 s + C_$$

10.458 INVALID-ORDER-458
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_{1}s\left(C_{L}L_{L}s^{2} + 1\right)\left(C_{2}R_{2}s + R_{2}g_{m} + 1\right)}{C_{1}C_{2}C_{L}L_{1}L_{L}R_{2}s^{5} + C_{1}C_{2}L_{1}R_{2}s^{3} + C_{1}C_{L}L_{1}L_{2}s^{4} + C_{1}C_{L}L_{1}R_{2}s^{3} + C_{1}L_{1}s^{2} + C_{2}C_{L}L_{1}R_{2}s^{3} + C_{2}C_{L}L_{1}R_{2}s^{3} + C_{2}R_{2}s + C_{L}L_{1}R_{2}g_{m}s^{2} + C_{L}L_{1}s^{2} + C_{L}L$$

10.459 INVALID-ORDER-459
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L s^2 \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 L_1 L_L R_2 s^4 + C_1 L_L L_L R_2 s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_2 s^2 + C_2 L_L L_L L_R L_2 s^2 + C_2 L_L L_L R_2 s^2 + C_2 L_L L_L R_2 s^3 + C_L L_L L_L R_2 s^3 + C_L L_L L_L R_2 s^3 + C_L R_2 s^3 +$$

10.460 INVALID-ORDER-460
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_{1}s\left(C_{2}R_{2}s + R_{2}g_{m} + 1\right)\left(C_{L}L_{L}s^{2} + C_{L}R_{L}s + 1\right)}{C_{1}C_{2}C_{L}L_{1}L_{L}R_{2}s^{5} + C_{1}C_{2}L_{L}R_{2}s^{4} + C_{1}C_{L}L_{1}L_{L}s^{4} + C_{1}C_{L}L_{1}R_{2}s^{3} + C_{1}C_{L}L_{1}R_{2}s^{3} + C_{1}L_{1}s^{2} + C_{2}C_{L}L_{1}R_{2}s^{3} + C_{2}C_{L}L_{1}R_{2}s^{3}$$

10.461 INVALID-ORDER-461
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_2 s^2 \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 L_1 L_L R_2 R_L s^4 + C_1 L_L L_L R_2 s^3 + C_1 L_1 L_1 R_2 s^3 + C_$$

10.462 INVALID-ORDER-462
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.463 INVALID-ORDER-463
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_L s \left(C_L L_L s^2 + L_1 R_L R_L s^3 + C_1 C_L L_1 L_L R_2 s^4 + C_1 C_L L_1 L_L R_2 s^4 + C_1 C_L L_1 R_2 R_L s^3 + C_1 L_1 R_2 s^2 + C_1 L_1 R_L s^2 + C_2 C_L L_1 L_L R_2 s^4 + C_2 C_L L_1 R_2 R_L s^3 + C_2 C$$

10.464 INVALID-ORDER-464
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_L s \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{C_1 C_2 L_1 R_2 s^3 + C_1 C_2 L_1 R_L s^3 + C_1 L_1 s^2 + C_2 L_1 R_2 g_m s^2 + C_2 L_1 s^2 + C_2 R_2 s + C_2 R_L s + L_1 g_m s + 1}$$

10.465 INVALID-ORDER-465
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 R_2 s^3 + C_1 C_2 L_1 s^2 + C_1 C_L L_1 s^2 + C_2 C_L L_1 R_2 g_m s^2 + C_2 C_L L_1 s^2 +$$

10.466 INVALID-ORDER-466
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

10.467 INVALID-ORDER-467
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 \left(C_L R_L s + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 R_2 s^3 + C_1 C_2 L_1 R_L s^3 + C_1 C_2 L_1 s^2 + C_2 C_L L_1 R_2 g_m s^2 + C_2 C_L L_1 s^2 + C_2 C_L R_2 s + C_2 C_L R_L s + C_2 + C_L L_1 g_m s + C_L R_2 g_m s^2 + C_2 C_L R_2$$

10.468 INVALID-ORDER-468
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_L s^4 + C_1 C_2 L_L L_1 R_2 s^3 + C_1 C_2 L_1 s^2 + C_2 C_L L_1 R_2 g_m s^2 + C_2 C_L L_1 s^2 + C_2 C_$$

10.469 INVALID-ORDER-469
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L s^2 \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 L_1 L_L s^4 + C_1 C_2 L_1 L_L s^4 + C_1 L_1 s^2 + C_2 C_L L_1 L_L R_2 g_m s^4 + C_2 C_L L_1 L_L s^4 + C_2 C_L L_1 L_L s^3 + C_2 L_1 R_2 g_m s^2 + C_2 L_1 s^2 + C_2 L_1 L_2 s^4 + C_2 L_1 L_1 L_2 s^4 + C_2 L_1 L_2 L_1$$

10.470 INVALID-ORDER-470
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_L s^4 + C_1 C_2 C_L L_1 R_2 s^3 + C_1 C_2 C_L L_1 R_2 s^3 + C_1 C_2 L_1 s^2 + C_1 C_L L_1 s^2 + C_2 C_L L_1 R_2 g_m s^2 + C_2 C_L L_1 s^2 + C_2$$

10.471 INVALID-ORDER-471
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_1}{C_1 C_2 C_L L_1 L_L R_2 R_L s^5 + C_1 C_2 L_1 L_L R_2 s^4 + C_1 C_2 L_1 L_L R_L s^4 + C_1 C_2 L_1 R_2 R_L s^3 + C_1 C_L L_1 L_L R_2 s^4 + C_1 L_1 L_L R_2 s^4 + C_2 C_L L_1 L_L R_2$$

10.472 INVALID-ORDER-472
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_{1}s\left(C_{2}R_{2}g_{m}s + C_{2}s + g_{m}\right)\left(C_{L}L_{L}R_{L}s^{2} + L_{L}s + R_{L}\right)}{C_{1}C_{2}C_{L}L_{1}L_{L}R_{2}s^{5} + C_{1}C_{2}L_{1}L_{L}s^{4} + C_{1}C_{2}L_{1}R_{2}s^{3} + C_{1}C_{2}L_{1}L_{L}s^{4} + C_{1}L_{1}L_{2}s^{4} + C_{1}L_{1}L_{2}s^{4} + C_{2}C_{L}L_{1}L_{L}R_{2}s^{3} + C_{2}C_{L}L_{1}L_{L}R_{2}s^{3} + C_{2}C_{L}L_{1}L_{L}R_{2}s^{4} + C_{2}C_{L}L_{1}L_{2}s^{4} + C_{2}C_{L}L$$

10.473 INVALID-ORDER-473
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_2}{C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_2 L_1 R_2 s^3 + C_1 C_2 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_2 C_L L_1 L_L R_2 g_m s^4 + C_2 C_L L_1 L_L R_2 g_m s^4 + C_2 C_L L_1 R_2 g_m s^4 + C_2 C_$$

10.474 INVALID-ORDER-474
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_L s \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_1 R_L s^3 + C_1 L_1 s^2 + C_2 L_1 L_2 g_m s^3 + C_2 L_1 s^2 + C_2 L_2 s^2 + C_2 R_L s + L_1 g_m s + 1}$$

10.475 INVALID-ORDER-475
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_2 s^4 + C_1 C_2 L_1 s^2 + C_1 C_L L_1 s^2 + C_2 C_L L_1 L_2 g_m s^3 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_2 + C_L L_1 g_m s + C_L L_1 g_m s^2 + C_2 C_L L_1 g_m s^3 + C_2$$

10.476 INVALID-ORDER-476
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_L s \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_1 R_L s^3 + C_1 L_1 s^2 + C_2 C_L L_1 L_2 R_L g_m s^4 + C_2 C_L L_1 R_L s^3 + C_2 L_1 L_2 g_m s^3 + C_2 L_1 s^2 + C_2 L_2 s^2 + C_2 L_1 L_2 R_L g_m s^4 + C_2 C_L L_1 R_L s^3 + C_2 L_1 L_2 R_L s^3 + C_2 L_2 R_L s^3$$

10.477 INVALID-ORDER-477
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 \left(C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_2 s^4 + C_1 C_2 L_1 R_L s^3 + C_1 C_2 L_1 s^2 + C_2 C_L L_1 L_2 g_m s^3 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_2 C_L R_L s + C_2 + C_L L_1 g_m s + C_L R_L s^2 + C_2 C_L R_L s + C_$$

10.478 INVALID-ORDER-478
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_2 s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_1 s^2 + C_1 C_L L_1 s^2 + C_2 C_L L_1 L_2 g_m s^3 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_2 C_L L_2 s^2 + C_2 C_L L_1 s^2 + C_2 C_L$$

10.479 INVALID-ORDER-479
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L s^2 \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 L_1 L_2 s^4 + C_1 C_L L_1 L_L s^4 + C_1 L_1 s^2 + C_2 C_L L_1 L_2 L_L g_m s^5 + C_2 C_L L_1 L_L s^4 + C_2 L_1 L_2 g_m s^3 + C_2 L_1 s^2 + C_2 L_2 s^2 + C_2 L_1 L_2 L_1 g_m s^4 + C_2 L_1 L_2 L_1 g_m s^4 + C_2 L_1 L_2 L_1 g_m s^4 + C_2 L_1 L_2 g_m s^4 + C_2 L_2 L_2 g_m s^4 + C_$$

10.480 INVALID-ORDER-480
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_2 s^4 + C_1 C_2 C_L L_1 R_L s^3 + C_1 C_2 L_1 s^2 + C_1 C_L L_1 s^2 + C_2 C_L L_1 L_2 g_m s^3 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_2 C_L L_$$

10.481 INVALID-ORDER-481
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L}{C_1 C_2 C_L L_1 L_2 L_L R_L s^6 + C_1 C_2 L_1 L_2 L_L s^5 + C_1 C_2 L_1 L_2 R_L s^4 + C_1 C_2 L_1 L_L R_L s^4 + C_1 C_L L_1 L_L R_L s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_L s^2 + C_2 C_L L_1 L_2 L_L R_L g_m s^5 + C_2 C_L L_1 L_L R_L s^4 + C_1 C_2 L_1 L_L R_L s^4$$

10.482 INVALID-ORDER-482
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{L_{1}s\left(C_{2}L_{2}g_{m}s^{2} + C_{2}s + g_{m}\right)\left(C_{L}L_{L}R_{L}s^{2} + L_{L}s + R_{L}\right)}{C_{1}C_{2}C_{L}L_{1}L_{L}L_{s}^{6} + C_{1}C_{2}L_{L}L_{L}L_{s}^{4} + C_{1}C_{2}L_{1}L_{L}s^{4} + C_{1}C_{2}L_{1}L_{L}s^{4} + C_{1}C_{L}L_{L}L_{s}^{4} + C_{1}C_{L}L_{s}^{4} + C_{1}C_{L}L_{s}^{4}$$

10.483 INVALID-ORDER-483
$$Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{L_1 R_L}{C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_1 L_L R_L s^5 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_1 R_L s^3 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_L s^3 + C_1 L_1 s^2 + C_2 C_L L_1 L_2 L_L g_m s^5 + C_2 C_L L_1 L_2 L_L g_m s^5 + C_2 C_L L_1 L_2 L_2 g_m s^5 + C_2 C_L L_2 L_2 g_m s^5 + C_2 C_L L_2 L_2 L_2 g_m s^5 + C_2 C_L L_2 L_2 g_$$

10.484 INVALID-ORDER-484
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_L s \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m\right)}{C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_1 R_2 s^3 + C_1 C_2 L_1 R_L s^3 + C_1 L_1 s^2 + C_2 L_1 L_2 g_m s^3 + C_2 L_1 R_2 g_m s^2 + C_2 L_1 s^2 + C_2 L_2 s^2 + C_2 R_2 s + C_2 R_L s + L_1 g_m s + 1}$$

10.485 INVALID-ORDER-485
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_2 s^4 + C_1 C_2 L_L L_1 S^2 + C_1 C_L L_1 s^2 + C_2 C_L L_1 L_2 g_m s^3 + C_2 C_L L_1 R_2 g_m s^2 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_2 C_L L_2 s^2 + C_2 C_L L_1 g_m s + C_L L_1 g_m s + C_L L_1 g_m s^2 + C_2 C_L L_1 g_$$

10.486 INVALID-ORDER-486
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_L s \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 R$$

10.487 INVALID-ORDER-487
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 \left(C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_2 s^4 + C_1 C_2 C_L L_1 R_2 s^3 + C_1 C_2 L_1 s^2 + C_1 C_L L_1 s^2 + C_2 C_L L_1 L_2 g_m s^3 + C_2 C_L L_1 R_2 g_m s^2 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_2 C_L R_2 s + C_2 C_$$

10.488 INVALID-ORDER-488
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_2 s^4 + C_1 C_2 C_L L_1 R_2 s^3 + C_1 C_2 L_1 s^2 + C_1 C_L L_1 s^2 + C_2 C_L L_1 L_2 g_m s^3 + C_2 C_L L_1 R_2 g_m s^2 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2$$

10.489 INVALID-ORDER-489
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

10.490 INVALID-ORDER-490
$$Z(s) = \left(R_1, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_2 s^4 + C_1 C_2 C_L L_1 R_2 s^3 + C_1 C_2 C_L L_1 R_L s^3 + C_1 C_2 L_1 s^2 + C_1 C_L L_1 s^2 + C_2 C_L L_1 L_2 g_m s^3 + C_2 C_L L_1 R_2 g_m s^2 + C_2 C_L L_1 s^2 + C_2 C_L L_2 s^2 + C_2 C_L L_1 R_2 g_m s^3 + C_2 C_L L_1 R_2 g_m s^2 +$$

10.491 INVALID-ORDER-491
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_L s^6 + C_1 C_2 C_L L_1 L_L R_2 R_L s^5 + C_1 C_2 L_1 L_2 L_L s^5 + C_1 C_2 L_1 L_2 R_L s^4 + C_1 C_2 L_1 L_L R_2 s^4 + C_1 C_2 L_1 L_L R_L s^4 + C_1 C_2 L_1 L_L R_2 s^4 + C_1 C_2 L_1 L_$$

10.492 INVALID-ORDER-492 $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

10.493 INVALID-ORDER-493
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_1 L_L R_L s^5 + C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_1 R_2 s^3 + C_1 C_2 L_1 R_L s^4 + C_1 C_2 L_1 R_2 s^4 + C_1 C_2 L_1 R_2 s^3 + C_1 C_2 L_1 R_2 s^4 + C_1 C_2 L_1$$

10.494 INVALID-ORDER-494
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_L s \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1\right)}{C_1 C_2 L_1 L_2 R_2 s^4 + C_1 C_2 L_1 L_2 R_3 + C_1 L_1 R_2 s^2 + C_1 L_1 R_2 s^2 + C_2 L_1 L_2 R_2 g_m s^3 + C_2 L_1 L_2 s^3 + C_2 L_2 R_2 s^2 + C_2 L_2 R_2 s^2 + L_1 L_2 g_m s^2 + L_1 R_2 g_m s + L_1 s + L_2 s^2 + C_2 L_2 R_2 s^2$$

10.495 INVALID-ORDER-495
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_{1}s\left(C_{2}L_{2}R_{2}g_{m}s^{2} + C_{2}L_{2}s^{2} + L_{2}g_{m}s + R_{2}g_{m} + 1\right)}{C_{1}C_{2}C_{L}L_{1}L_{2}s^{5} + C_{1}C_{2}L_{1}L_{2}s^{4} + C_{1}C_{L}L_{1}R_{2}s^{3} + C_{1}L_{1}s^{2} + C_{2}C_{L}L_{1}L_{2}R_{2}g_{m}s^{4} + C_{2}C_{L}L_{1}L_{2}s^{4} + C_{2}C_{L}L_{2}R_{2}s^{3} + C_{2}L_{2}s^{2} + C_{L}L_{1}L_{2}g_{m}s^{3} + C_{L}L_{1}R_{2}g_{m}s^{4} + C_{2}C_{L}L_{1}L_{2}s^{4} + C_{2}C_{L}L_{1}L_{2}s^$$

10.496 INVALID-ORDER-496
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_2}{C_1 C_2 C_L L_1 L_2 R_2 R_L s^5 + C_1 C_2 L_1 L_2 R_2 s^4 + C_1 C_2 L_1 L_2 R_L s^4 + C_1 C_L L_1 L_2 R_L s^4 + C_1 C_L L_1 R_2 R_L s^3 + C_1 L_1 L_2 s^3 + C_1 L_1 R_2 s^2 + C_1 L_1 R_L s^2 + C_2 C_L L_1 L_2 R_2 R_L s^4 + C_2 C_L L_1 L_2 R_2 R_L s^4 + C_1 C_L L_1 L_2 R_L s^4 + C_1 C_L L_1 R_2 R_L s^3 + C_1 L_1 L_2 R_2 R_L s^3 + C_1 L_1 R_2 R_L s^4 + C_1 C_L L_1 L_2 R_L s^4 + C_1 C_L L_1 R_2 R_L s^4 + C_1 C_L R_2 R_L s^4$$

10.497 INVALID-ORDER-497
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_{1}s\left(C_{L}R_{L}s+1\right)\left(C_{2}L_{2}R_{2}g_{m}s^{2}+C_{2}L_{2}s^{2}+L_{2}g_{m}s+R_{2}g_{m}+1\right)}{C_{1}C_{2}C_{L}L_{1}L_{2}R_{2}s^{5}+C_{1}C_{2}L_{L}L_{2}s^{4}+C_{1}C_{L}L_{1}L_{2}s^{4}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}L_{1}s^{2}+C_{2}C_{L}L_{1}L_{2}R_{2}g_{m}s^{4}+C_{2}C_{L}L_{1}L_{2}s^{4}+C_{2}C_{L}L_{2}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}L_{2}R_{2}g_{m}s^{4}+C_{2}C_{L}L_{1}L_{2}s^{4}+C_{2}C_{L}L_{2}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}L_{2}R_{2}g_{m}s^{4}+C_{2}C_{L}L_{1}L_{2}s^{4}+C_{2}C_{L}L_{2}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}L_{2}R_{2}g_{m}s^{4}+C_{2}C_{L}L_{1}L_{2}s^{4}+C_{2}C_{L}L_{2}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}L_{2$$

10.498 INVALID-ORDER-498
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_{1}s\left(C_{L}L_{L}s^{2}+1\right)\left(C_{2}L_{2}R_{2}g_{m}s^{2}+C_{2}L_{2}s^{2}+L_{2}g_{m}s+R_{2}g_{m}+1\right)}{C_{1}C_{2}C_{L}L_{1}L_{2}s^{6}+C_{1}C_{2}L_{1}L_{2}s^{4}+C_{1}C_{L}L_{1}L_{2}s^{4}+C_{1}C_{L}L_{1}L_{2}s^{4}+C_{1}C_{L}L_{1}L_{2}s^{3}+C_{1}L_{1}s^{2}+C_{2}C_{L}L_{1}L_{2}R_{2}g_{m}s^{4}+C_{2}C_{L}L_{1}L_{2}s^{4}+C_{2}C_{L}L_{2}L_{2}s^{4}+C_{2}C_$$

10.499 INVALID-ORDER-499
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L}{C_1 C_2 C_L L_1 L_2 L_L R_2 s^6 + C_1 C_2 L_1 L_2 L_L s^5 + C_1 C_2 L_1 L_2 R_2 s^4 + C_1 C_L L_1 L_L L_S^5 + C_1 C_L L_1 L_L R_2 s^4 + C_1 L_1 L_2 s^3 + C_1 L_1 L_L s^3 + C_1 L_1 L_2 s^2 + C_2 C_L L_1 L_2 L_L R_2 g_m s^5 + C_2 C_L L_1 L_2 L_2 L_2 R_2 g_m s^5 + C_2 C_L L_1 L_2 L_2 R_2 g_m s^5 + C_2 C_L L_1 L_2 L_2 R_2 g_m s^5 + C_2 C_L L_2 L_2 L_2 R_2 g_m s^5 + C_2 C_L L_2 R_2 g_m s^5 + C_2 C_L L_$$

10.500 INVALID-ORDER-500
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_{1}s\left(C_{L}L_{L}s^{2} + C_{L}R_{L}s + 1\right)\left(C_{2}L_{2}R_{2}g_{r}\right)}{C_{1}C_{2}C_{L}L_{1}L_{2}L_{2}s^{6} + C_{1}C_{2}C_{L}L_{1}L_{2}R_{L}s^{5} + C_{1}C_{2}L_{1}L_{2}s^{4} + C_{1}C_{L}L_{1}L_{2}s^{4} + C_{1}C_{L}L_{1}L_{2}s^{3} + C_{1}C_{L}L_{1}R_{L}s^{3} + C_{1}L_{1}s^{2} + C_{2}C_{L}L_{1}L_{2}R_{2}s^{5} + C_{1}C_{L}L_{1}L_{2}R_{2}s^{4} + C_{1}C_{L}L_{1}L_{2}s^{4} + C_{1}C_{L}L_{1}L_{2}s^{4} + C_{1}C_{L}L_{1}L_{2}s^{3} + C_{1}C_{L}L_{1}L_{2}s^{3} + C_{1}L_{1}L_{2}R_{2}s^{5} + C_{1}C_{2}L_{1}L_{2}R_{2}s^{5} + C_{$$

10.501 INVALID-ORDER-501
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_2 R_L s^6 + C_1 C_2 L_1 L_2 L_L R_2 s^5 + C_1 C_2 L_1 L_2 L_L R_L s^5 + C_1 C_2 L_1 L_2 R_L s^4 + C_1 L_1 L_2 L_L R_L s^5 + C_1 C_L L_1 L_2 L_L R_L s^5 + C_1 C_L L_1 L_2 L_L R_2 R_L s^4 + C_1 L_1 L_2 L_L R_$$

10.502 INVALID-ORDER-502
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_2 s^6 + C_1 C_2 C_L L_1 L_2 L_L R_2 s^6 + C_1 C_2 L_1 L_2 L_L s^5 + C_1 C_2 L_1 L_2 R_2 s^4 + C_1 C_2 L_1 L_2 R_L s^4 + C_1 C_L L_1 L_2 L_L s^5 + C_1 C_L L_1 L_L R_2 s^4 + C_1 C_L L_1 L_$$

10.503 INVALID-ORDER-503
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_2 s^6 + C_1 C_2 C_L L_1 L_2 L_L R_L s^6 + C_1 C_2 C_L L_1 L_2 R_2 R_L s^5 + C_1 C_2 L_1 L_2 R_2 s^4 + C_1 C_2 L_1 L_2 R_L s^4 + C_1 C_L L_1 L_2 L_L s^5 + C_1 C_L L_1 L_2 R_L s^4 + C_1 C_$$

10.504 INVALID-ORDER-504
$$Z(s) = \left(R_1, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L\right)$$

10.505 INVALID-ORDER-505
$$Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_{1}s\left(C_{2}L_{2}R_{2}g_{m}s^{2} + C_{2}L_{2}s^{2} + C_{2}R_{2}s + R_{2}g_{m} + 1\right)}{C_{1}C_{2}C_{L}L_{1}L_{2}s^{5} + C_{1}C_{2}L_{1}L_{2}s^{3} + C_{1}C_{L}L_{1}R_{2}s^{3} + C_{1}L_{1}s^{2} + C_{2}C_{L}L_{1}L_{2}R_{2}g_{m}s^{4} + C_{2}C_{L}L_{1}L_{2}s^{4} + C_{2}C_{L}L_{1}R_{2}s^{3} + C_{2}L_{2}s^{2} + C_{2}R_{2}s + C_{2}R_{$$

10.506 INVALID-ORDER-506
$$Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$$

$$H(s) = \frac{L_1 R_L s \left(C_2 L_2 R_2 R_2 R_3 + C_1 C_2 L_1 L_2 R_2 R_4 + C_1 C_2 L_1 L_2 R_2 R_4 + C_1 C_2 L_1 R_2 R_2 R_3 + C_1 C_2 L_1 R_2 R_2 R_3 + C_1 L_1 R_2 R_2 R_2 R_3 + C_1 L_1 R_2 R_2 R_3 + C_1 L_1$$

10.507 INVALID-ORDER-507
$$Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$$

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

10.508 INVALID-ORDER-508
$$Z(s) = \left(R_1, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \infty, \ L_Ls + \frac{1}{C_Ls}\right)$$

10.509 INVALID-ORDER-509
$$Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$$

$$H(s) = \frac{L_1 L_L s^2 \left(C_2 L_2 R_2 S_1 + C_1 C_2 L_1 L_2 L_L S_2 + C_1 C_2 L_1 L_2 R_2 S_1 + C_1 C_2 L_1 L_L R_2 S_2 + C_1 C_L L_1 L_L R_2 S_2 + C_1 L_1 L_L R_2 S_2 + C_2 C_L L_1 L_2 L_L R_2 S_3 + C_1 L_1 L_2 L_L S_2 + C_2 C_L L_1 L_2 L_L R_2 S_3 + C_1 L_1 L_2 L_L S_3 + C_1 L_1 L_2 L_L R_2 S_3 + C_1 L_1 L_2 L_1 R_2 S_3 + C_1 L_1 L_1 L_1 L_1$$

10.510 INVALID-ORDER-510
$$Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{L_1}{C_1C_2C_LL_1L_2L_Ls^6 + C_1C_2C_LL_1L_2R_2s^5 + C_1C_2C_LL_1L_2R_Ls^5 + C_1C_2C_LL_1L_LR_2s^5 + C_1C_2C_LL_1R_2R_Ls^4 + C_1C_2L_1L_2s^4 + C_1C_2L_1R_2s^3 + C_1C_LL_1L_2s^4 + C_$$

10.511 INVALID-ORDER-511
$$Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_2 R_L s^6 + C_1 C_2 L_1 L_2 L_L R_2 s^5 + C_1 C_2 L_1 L_2 L_L R_L s^5 + C_1 C_2 L_1 L_2 R_2 R_L s^4 + C_1 C_2 L_1 L_L R_2 R_L s^4 + C_1 C_L L_1 L_L R_2 R_L s^4 + C_1 L_1 L_L R_2 R_L s^4$$

10.512 INVALID-ORDER-512
$$Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_2 s^6 + C_1 C_2 C_L L_1 L_2 L_L R_2 s^6 + C_1 C_2 C_L L_1 L_L R_2 R_L s^5 + C_1 C_2 L_1 L_2 L_L s^5 + C_1 C_2 L_1 L_2 R_2 s^4 + C_1 C_2 L_1 L_2 R_L s^4 + C_1 C_2 L_1 L_2 R_2 s^4 + C_1 C_2 L_2 R_2 s^4 +$$

10.513 INVALID-ORDER-513
$$Z(s) = \left(R_1, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_2 s^6 + C_1 C_2 C_L L_1 L_2 L_L R_L s^6 + C_1 C_2 C_L L_1 L_2 R_2 R_L s^5 + C_1 C_2 L_L L_L R_2 R_L s^5 + C_1 C_2 L_1 L_2 R_2 s^4 + C_1 C_2 L_1 L_2 R_L s^4 + C_1 C_2 L_1 R_2 R_L s^3 + C_1 C_L L_1 L_L R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_L s^4 + C_1 C_2 L_1 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_L s^4 + C_1 C_2 L_1 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_L s^4$$

10.514 INVALID-ORDER-514
$$Z(s) = \left(R_1, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{\left(R_2 g_m + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{s \left(C_1 C_L L_1 R_2 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_1 R_2 g_m s + C_1 C_L R_1 s + C_1 C_L R_2 s + C_1 + C_L R_2 g_m + C_L\right)}$$

10.515 INVALID-ORDER-515
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls + 1}\right)$$

$$H(s) = \frac{R_L \left(R_2 g_m + 1 \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{C_1 C_L L_1 R_2 R_L g_m s^3 + C_1 C_L L_1 R_2 R_L g_m s^2 + C_1 C_L R_1 R_2 s^2 + C_1 C_L R_1 R_2 s^2 + C_1 L_1 R_2 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 R_2 g_m s + C_1 R_1 s + C_1 R_2 s + C_1 R_$$

10.516 INVALID-ORDER-516
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$$

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

10.517 INVALID-ORDER-517
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{(R_2g_m + 1)\left(C_LL_Ls^2 + 1\right)\left(C_1L_1s^2 + C_1R_1s + 1\right)}{s\left(C_1C_LL_1R_2g_ms^2 + C_1C_LL_1s^2 + C_1C_LL_Ls^2 + C_1C_LR_1R_2g_ms + C_1C_LR_1s + C_1C_LR_2s + C_1 + C_LR_2g_m + C_L\right)}$$

10.518 INVALID-ORDER-518
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(R_2 g_m + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{C_1 C_L L_L L_L R_2 g_m s^4 + C_1 C_L L_L R_1 R_2 g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_2 s^3 + C_1 L_1 R_2 g_m s^2 + C_1 L_1 s^2 + C_1 L_L s^2 + C_1 R_1 R_2 g_m s + C_1 R_1 s + C_1 R_2 s + C_L L_L R_2 g_m s^2 + C_1 L_1 s^$$

10.519 INVALID-ORDER-519
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$$

$$H(s) = \frac{\left(R_2g_m + 1\right)\left(C_1L_1s^2 + C_1R_1s + 1\right)\left(C_LL_Ls^2 + C_LR_Ls + 1\right)}{s\left(C_1C_LL_1R_2g_ms^2 + C_1C_LL_1s^2 + C_1C_LL_1s^2 + C_1C_LR_1R_2g_ms + C_1C_LR_1s + C_1C_LR_2s + C_1C$$

10.520 INVALID-ORDER-520
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$$

10.521 INVALID-ORDER-521
$$Z(s) = \left(R_1, \ \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$$

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

10.522 INVALID-ORDER-522
$$Z(s) = \left(R_1, \frac{R_2\left(L_2s + \frac{1}{C_2s}\right)}{L_2s + R_2 + \frac{1}{C_2s}}, \infty, \infty, \infty, \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$$

$$H(s) = \frac{R_L \left(R_2 g_m + 1 \right) \left(C_L L_L s^2 + 1 \right)}{C_1 C_L L_1 L_L R_2 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_2 R_L g_m s^3 + C_1 C_L L_L R_1 R_2 g_m s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_L R_2 s^3 + C_1 C_L$$

10.523 INVALID-ORDER-523 $Z(s) = (L_1 s, R_2, \infty, \infty, \infty, R_L)$

$$H(s) = \frac{R_L \left(C_2 s + g_m \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{C_1 C_2 L_1 s^3 + C_1 C_2 R_1 s^2 + C_1 C_2 R_L s^2 + C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + C_2 s + g_m}$$

10.524 INVALID-ORDER-524 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$

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

10.525 INVALID-ORDER-525 $Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{R_L \left(C_2 s + g_m \right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right)}{C_1 C_2 C_L L_1 R_L s^4 + C_1 C_2 C_L R_1 R_L s^3 + C_1 C_2 R_1 s^2 + C_1 C_2 R_L s^2 + C_1 C_L L_1 R_L g_m s^3 + C_1 C_L R_1 R_L g_m s^2 + C_1 C_L R_1 g_m s^2 + C_1 R_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + C_2 C_L R_1 R_1 g_m s^2 + C_1 R_1 g_m s^2 + C_$$

10.526 INVALID-ORDER-526 $Z(s) = \left(L_1 s, \ R_2, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$

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

10.527 INVALID-ORDER-527
$$Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.528 INVALID-ORDER-528
$$Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

10.529 INVALID-ORDER-529
$$Z(s) = \left(L_1 s, \ R_2, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.530 INVALID-ORDER-530
$$Z(s) = \left(L_1 s, \ R_2, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_L R_L s \left(C_2 s + g_m\right) \left(C_3 s + C_1 C_2 C_L L_L R_1 R_L s^4 + C_1 C_2 L_1 L_L s^4 + C_1 C_2 L_1 R_L s^3 + C_1 C_2 L_L R_1 s^3 + C_1 C_2 L_L R_L s^3 + C_1 C_2 L_L$$

10.531 INVALID-ORDER-531
$$Z(s) = \left(L_1 s, \ R_2, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{\left(C_{2}s + g_{m}\right)\left(C_{1}L_{1}s^{2} + C_{1}R_{1}s + 1\right)\left(C_{L}L_{L}R_{L}s^{2} + L_{L}s + R_{L}\right)}{C_{1}C_{2}C_{L}L_{L}L_{S}^{5} + C_{1}C_{2}L_{L}L_{L}S^{4} + C_{1}C_{2}L_{L}S^{3} + C_{1}C_{2}L_{L}s^{3} + C_{1}C_{2}R_{L}s^{2} + C_{1}C_{L}L_{L}L_{L}g_{m}s^{4} + C_{1}C_{L}L_{L}R_{1}g_{m}s^{3} + C_{1}C_{L}L_{L}S^{3} + C_{1}L_{L}g_{m}s^{4} + C_{1}C_{L}L_{L}S^{3} + C_{1}C_{L}L_{L}S^$$

10.532 INVALID-ORDER-532
$$Z(s) = \left(L_1 s, R_2, \infty, \infty, \infty, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{R_L \left(C_2 s + g_m \right) \left(C_L L_L s^2 + 1 \right) \left(C_L L_L s^2 + C_1 C_2 C_L L_L R_L s^4 + C_1 C_2 C_L L_L R_L s^4 + C_1 C_2 C_L R_L R_L s^3 + C_1 C_2 L_L s^3 + C_1 C_2 R_L s^2 + C_1 C_L R_L s^2 + C_1 C_L L_L R_L s^4 + C_1 C_L R_L R_L$$

10.533 INVALID-ORDER-533
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_1 C_2 L_1 R_2 s^3 + C_1 C_2 R_1 R_2 s^2 + C_1 C_2 R_2 R_L s^2 + C_1 L_1 R_2 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 R_2 g_m s + C_1 R_1 s + C_1 R_2 s + C_1 R_L s + C_2 R_2 s + R_2 g_m + 1}$$

10.534 INVALID-ORDER-534
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.535 INVALID-ORDER-535
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_2 R_2 s - C_2 R_1 R_2 R_2 s^4 + C_1 C_2 L_1 R_2 R_2 s^3 + C_1 C_2 R_1 R_2 s^2 + C_1 C_2 R_2 R_2 s^2 + C_1 C_2 L_1 R_2 R_2 g_m s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L R_1 R_2 R_L g_m s^2 + C_1 C_L R_1 R_L s^2 + C_1 C_L R_1 R_2 R_2 g_m s^3 + C_1 C_L R_1 R_2 g_m s^3 + C_$$

10.536 INVALID-ORDER-536
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.537 INVALID-ORDER-537
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.538 INVALID-ORDER-538
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_2 R_2 s + C_1 C_2 L_L L_1 L_2 s^5 + C_1 C_2 L_L R_1 R_2 s^4 + C_1 C_2 L_L R_2 s^3 + C_1 C_2 L_L R_2 s$$

10.539 INVALID-ORDER-539
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.540 INVALID-ORDER-540
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_2 R_L s^5 + C_1 C_2 C_L L_L R_1 R_2 R_L s^4 + C_1 C_2 L_1 L_L R_2 s^4 + C_1 C_2 L_1 R_2 R_L s^3 + C_1 C_2 L_L R_1 R_2 s^3 + C_1 C_2 L_L R_2 R_L s^3 + C_1 C_2 R_1 R_$$

10.541 INVALID-ORDER-541
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{\left(C_{1}L_{1}s^{2} + C_{1}C_{2}C_{L}L_{1}L_{L}R_{2}s^{5} + C_{1}C_{2}C_{L}L_{L}R_{1}R_{2}s^{4} + C_{1}C_{2}L_{L}R_{2}R_{L}s^{4} + C_{1}C_{2}L_{L}R_{2}s^{3} + C_{1}C_{2}L_{L}R_{2}s^{3} + C_{1}C_{2}R_{1}R_{2}s^{2} + C_{1}C_{2}R_{2}R_{L}s^{2} + C_{1}C_{L}L_{L}L_{L}R_{2}g_{m}s^{4} + C_{1}C_{L}L_{L}L_{L}s^{4} + C_{1}C_{L}L_{L}s^{4} + C_{1}C_{L}s^{4} + C_{1}C_{L}s^$$

10.542 INVALID-ORDER-542
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_2 C_L L_L R_1 R_2 s^4 + C_1 C_2 C_L L_L R_2 R_L s^4 + C_1 C_2 C_L L_L R_2 R_$$

10.543 INVALID-ORDER-543
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$$

10.544 INVALID-ORDER-544
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

10.545 INVALID-ORDER-545
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + C_1 R_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_1 R_L s^4 + C_1 C_2 C_L R_1 R_2 R_L g_m s^3 + C_1 C_2 C_L R_1 R_L s^3 + C_1 C_2 C_L R_2 R_L s^3 + C_1 C_2 L_1 R_2 g_m s^3 + C_1 C_2 L_1 s^3 + C_1 C_2 R_1 R_2 g_m s^2 + C_1 C_2 R_1 R_2 g_m s^3 + C_1 C_2 R_1$$

10.546 INVALID-ORDER-546
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.547 INVALID-ORDER-547
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.548 INVALID-ORDER-548
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(C_1 L_1 s^2 + C_1 R_1 s^2 + C_1 R_2 r_3 s^3 + C_1 C_2 C_L L_1 L_L s^5 + C_1 C_2 C_L L_L R_1 R_2 g_m s^4 + C_1 C_2 C_L L_L R_1 s^4 + C_1 C_2 C_L L_L R_2 s^4 + C_1 C_2 L_1 R_2 g_m s^3 + C_1 C_2 L_1 s^3 + C_1 C_2 L_L s^3 + C_1 C_2 R_1 R_2 g_m s^2 + C_1 C_2 R_1 R_2 g_m s^4 + C_1 C_2 R_1 R$$

10.549 INVALID-ORDER-549
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.550 INVALID-ORDER-550
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.551 INVALID-ORDER-551
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{\left(C_{1}L_{1}s^{2} + C_{1}R_{2}\right)}{C_{1}C_{2}C_{L}L_{1}L_{L}R_{2}g_{m}s^{5} + C_{1}C_{2}C_{L}L_{L}R_{1}R_{2}g_{m}s^{4} + C_{1}C_{2}C_{L}L_{L}R_{1}s^{4} + C_{1}C_{2}C_{L}L_{L}R_{2}s^{4} + C_{1}C_{2}L_{L}R_{2}s^{4} + C$$

10.552 INVALID-ORDER-552
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L s^5 + C_1 C_2 C_L L_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_1 R_L s^4 + C_1 C_2 C_L L_L R_1 R_2 g_m s^4 + C_1 C_2 C_L L_L R_1 s^4 + C_1 C_$$

10.553 INVALID-ORDER-553
$$Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 L_1 L_2 g_m s^4 + C_1 C_2 L_1 s^3 + C_1 C_2 L_2 g_m s^3 + C_1 C_2 L_2 s^3 + C_1 C_2 R_1 s^2 + C_1 C_2 R_L s^2 + C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + C_2 L_2 g_m s^2 + C_2 s + g_m r^2}$$

10.554 INVALID-ORDER-554
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$$

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

10.555 INVALID-ORDER-555
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + C_1 R_1 s + C_1 C_2 C_L L_1 L_2 R_L g_m s^5 + C_1 C_2 C_L L_1 R_L s^4 + C_1 C_2 C_L L_2 R_1 R_L g_m s^4 + C_1 C_2 C_L L_2 R_1 R_L s^3 + C_1 C_2 L_1 L_2 g_m s^4 + C_1 C_2 L_1 s^3 + C_1 C_2 L_2 R_1 g_m s^3 + C_1 C_2 L_2 s^3 + C_1 C_2 L_2 R_1 g_m s^4 + C_1 C_2 L_2 R_1 g_m s^$$

10.556 INVALID-ORDER-556
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$$

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

10.557 INVALID-ORDER-557
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

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

10.558 INVALID-ORDER-558
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(C_1 L_1 s^2 + C_1 R_1 s + C_1 C_2 L_L L_1 L_2 L_2 m_1 s^6 + C_1 C_2 C_L L_1 L_L s^5 + C_1 C_2 C_L L_2 L_L R_1 g_m s^5 + C_1 C_2 C_L L_2 L_L s^5 + C_1 C_2 C_L L_L L_1 L_2 g_m s^4 + C_1 C_2 L_1 s^3 + C_1 C_2 L_2 R_1 g_m s^3 + C_1 C_2 L_2 s^3 + C_1 C_2 L_2 L_2 g_m s^4 + C_1 C_2 L_1 L_2 g_m s^4 + C_1 C_2 L_1 L_2 g_m s^4 + C_1 C_2 L_2 L_2 g$$

10.559 INVALID-ORDER-559
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.560 INVALID-ORDER-560
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.561 INVALID-ORDER-561
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{\left(C_{1}L_{1}s^{2} + C_{1}R_{1}\right)}{C_{1}C_{2}C_{L}L_{1}L_{2}L_{L}g_{m}s^{6} + C_{1}C_{2}C_{L}L_{1}L_{L}s^{5} + C_{1}C_{2}C_{L}L_{2}L_{L}S^{5} + C_{1}C_{2}C_{L}L_{L}L_{1}s^{4} + C_{1}C_{2}C_{L}L_{L}L_{1}s^{4} + C_{1}C_{2}L_{1}L_{2}g_{m}s^{4} + C_{1}C_{2}L_{1}s^{3} + C_{1}C_{2}L_{2}R_{1}g_{m}s^{4} + C_{1}C_{2}L_{1}L_{2}g_{m}s^{4} + C_{1}C_{2}L_{1}L_{2}g$$

10.562 INVALID-ORDER-562
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.563 INVALID-ORDER-563
$$Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 L_1 L_2 g_m s^4 + C_1 C_2 L_1 R_2 g_m s^3 + C_1 C_2 L_2 R_1 g_m s^3 + C_1 C_2 L_2 s^3 + C_1 C_2 R_1 R_2 g_m s^2 + C_1 C_2 R_1 s^2 + C_1 C_2 R_2 s^2 + C_1$$

10.564 INVALID-ORDER-564
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$$

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

10.565 INVALID-ORDER-565
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_L g_m s^5 + C_1 C_2 C_L L_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_1 R_L s^4 + C_1 C_2 C_L L_2 R_1 R_L g_m s^4 + C_1 C_2 C_L L_2 R_1 R_L g_m s^4 + C_1 C_2 C_L L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 C_L R_1 R_2 R_L g_m s^$$

10.566 INVALID-ORDER-566
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$$

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

10.567 INVALID-ORDER-567
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

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

10.568 INVALID-ORDER-568
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L g_m s^6 + C_1 C_2 C_L L_1 L_L R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L s^5 + C_1 C_2 C_L L_2 L_L R_1 g_m s^5 + C_1 C_2 C_L L_2 L_L S^5 + C_1 C_2 C_L L_L R_1 R_2 g_m s^4 + C_1 C_2 C_L L_L R_1 S^4 + C_1 C_2 C_L L_L R_1 S^6 + C_1 C_2 C_L R_1 S^$$

10.569 INVALID-ORDER-569
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.570 INVALID-ORDER-570
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.571 INVALID-ORDER-571
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L g_m s^6 + C_1 C_2 C_L L_1 L_L R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L s^5 + C_1 C_2 C_L L_2 L_L R_1 g_m s^5 + C_1 C_2 C_L L_2 L_L S^5 + C_1 C_2 C_L L_L R_1 R_2 g_m s^4 + C_1 C_2 C_L L_L R_1 S^4 + C_1 C_2 C_L L_L R_1 S^5 + C_1 C_2 C_L R_$$

10.572 INVALID-ORDER-572
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.573 INVALID-ORDER-573
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1 \right)}{C_1 C_2 L_1 L_2 R_2 g_m s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_2 R_1 R_2 g_m s^3 + C_1 C_2 L_2 R_2 s^3 + C_1 C_2 L_2 R_2 s^3 + C_1 L_1 L_2 g_m s^3 + C_1 L_1 R_2 g_m s^2 + C_1 L_1 s^2 + C_1 L_2 R_1 g_m s^2 + C_1 L_2 R_2 g_m s^2 + C_1 L_2$$

10.574 INVALID-ORDER-574
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$$

10.575 INVALID-ORDER-575
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_2 R_1 R_L s^4 + C_1 C_2 C_L L_2 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_2 g_m s^4 + C_1 C_2 L_1 L_2 R_2 R_L s^4 + C_1 C_2 L_2 R_2 R_L s^4 + C_1 C_2 L_2 R_2 R_2 R_2 R_L s^4 + C_1 C_2 L_2 R_2 R_2 R_L s^4 + C_1 C_2 L_2 R_2 R_2 R_2 R_2 R_2 R_2$$

10.576 INVALID-ORDER-576
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$$

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

10.577 INVALID-ORDER-577
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$(C_L L_L s^2 + 1) (C_1 L_1 s^2 + C_1 R_1 s + 1) ($$

10.578 INVALID-ORDER-578
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

10.579 INVALID-ORDER-579
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$\frac{\left(C_{1}L_{1}s^{2}+C_{1}R_{1}s+1\right)\left(C_{L}L_{L}^{2}+C_{1}C_{L}L_{L}^{2}\right)}{L_{1}R_{1}s^{2}+C$$

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

10.580 INVALID-ORDER-580
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.581 INVALID-ORDER-581
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_2 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_2 L_L R_1 s^5 + C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 C_L L_2 L_2 R_2 s^5 + C_1 C_$$

10.582 INVALID-ORDER-582
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_2 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_2 R_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_2 L_L R_1 s^5 + C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 C_L L_2 L_2 R_2 s^5$$

10.583 INVALID-ORDER-583
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L\right)$$

10.584 INVALID-ORDER-584
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.585 INVALID-ORDER-585
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_2 C_L L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_2 R_1 R_L s^4 + C_1 C_$$

10.586 INVALID-ORDER-586
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.587 INVALID-ORDER-587
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

10.588 INVALID-ORDER-588
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_2 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_2 L_L R_1 s^5 + C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 C_L L_2 L_L R_1 R_2 s^4 + C_1 C_2 C_L L_2 L_L R_1 R_2 s^6 + C_1 C_2 C_L L_2 L_2 L_2 R_1 R_2 s^6 + C_1 C_2 C_L L_2 L_2 R_1 R_2 s^6 + C_1 C_2 C_L L_2 L_2 R_1 R_2 s^6 + C_1 C_2 C_L L_2 L_2 R_1 R_2 s^6 + C_1 C_2 C_L L_2 L_2 R_1 R_2 s^6 + C_1 C_2 C_L L_2 L_2 R_2 s^6 + C_1 C_2 C_L L_2 R_2 s^6 + C_1$$

10.589 INVALID-ORDER-589
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{\left(C_1L_1s^2 + \frac{C_2C_LL_1L_2R_2g_ms^4 + C_1C_2C_LL_1L_2s^4 + C_1C_2C_LL_1R_2s^3 + C_1C_2C_LL_2R_1s^4 + C_1C_2C_LL_2R_1R_2g_ms^3 + C_1C_2C_LL_2R_1s^3 + C_1C_2C_LL_2R_2s^3 + C_1C_2C_LL_2R_2s^2 + C_1C_2C_LL_2R_2s^2 + C_1C_2C_LL_2R_2s^2 + C_1C_2C_LL_2R_2s^2 + C_1C_2C_LL_2R_2$$

10.590 INVALID-ORDER-590
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_2 R_L g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L R_L s^6 + C_1 C_2 C_L L_1 L_L R_2 R_L s^5 + C_1 C_2 C_L L_2 L_L R_1 R_2 R_L g_m s^5 + C_1 C_2 C_L L_2 L_L R_1 R_L s^5 + C_1 C_2 C_L L_2 L_L R_2 R_L s^5 + C_1 C_2 C_L L_2 L_2 R_L s^5 + C_1 C_2 C_L L_2 R_2 R_L s^5 + C_1 C_2 C_L L_2 R_2 R_L s^5 + C_1 C_2 C_L L_2 R_L s^5 + C_1 C_2 C_L$$

10.591 INVALID-ORDER-591
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_2 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_2 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_2 L_L R_1 s^5 + C_1 C_2 C_L L_2 L_L R_2 s^5 + C_1 C_2 C_L L_2 L_2 L_2 R_2 s^5 + C_1 C_2 C_L L_2 L_2 L_2 R_2 s^5 + C_1 C_2 C_L L_2 L_2 R_2 s^5$$

10.592 INVALID-ORDER-592
$$Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.593 INVALID-ORDER-593
$$Z(s) = \left(L_1 s, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 s \left(R_2 g_m + 1\right)}{C_1 C_L L_1 R_1 R_2 s^3 + C_1 L_1 R_1 s^2 + C_L L_1 R_1 R_2 g_m s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_2 s^2 + C_L R_1 R_2 s + L_1 s + R_1}$$

10.594 INVALID-ORDER-594
$$Z(s) = \left(L_1 s, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_L s \left(R_2 g_m + 1\right)}{C_1 C_L L_1 R_1 R_2 R_L s^3 + C_1 L_1 R_1 R_2 s^2 + C_L L_1 R_1 R_2 R_L g_m s^2 + C_L L_1 R_1 R_L s^2 + C_L L_1 R_2 R_L s^2 + C_L L_1 R_1 R_2 R_L s^2 + C_L L_1 R_2 R_L s^2 + C_L L_1 R_1 R_2 R_L s^2 + C_L L_1 R_1 R_2 R_L s^$$

10.595 INVALID-ORDER-595
$$Z(s) = \left(L_1 s, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 s \left(R_2 g_m + 1\right) \left(C_L R_L s + 1\right)}{C_1 C_L L_1 R_1 R_2 s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_L L_1 R_1 R_2 g_m s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_2 s^2 + C_L L_1 R_L s^2 + C_L R_1 R_2 s + C_L R_1 R_L s + L_1 s + R_1 R_1 R_1 R_2 R_1 R_2$$

10.596 INVALID-ORDER-596
$$Z(s) = \left(L_1 s, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 s \left(R_2 g_m + 1\right) \left(C_L L_L s^2 + 1\right)}{C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_2 s^3 + C_1 L_1 R_1 s^2 + C_L L_1 L_L s^3 + C_L L_1 R_1 R_2 g_m s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_2 s^2 + C_L L_1 R_1 s^2 + C_$$

$$\begin{aligned} & \textbf{10.598} \quad \textbf{INVALID-ORDER-598} \ Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s} \right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \, \infty, \, \infty, \, \infty, \, \infty, \, L_L s + R_L + \frac{1}{C_L s} \right) \\ & H(s) = \frac{L_1 R_1 s \left(R_2 g_m + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_2 s^3 + C_1 L_L R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_L L_1 L_L s^3 + C_L L_1 R_1 R_2 g_m s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_2 s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_2 R_2 s^2 + C_L L_1 R_2 R_2 s^3 + C_L L_1 L_2 R_1 R_2 s^2 + C_L L_1 L_2 R_1 R_2 s^3 + C_L L_1 L_2 R_1 R_2 s^3 + C_L L_1 L_2 R_1 R_2 s^2 + C_L L_1 L_2 R_1 R_2 s^3 + C_L L_1 L_2 R_2 R_2 s^3 + C$$

 $H(s) = \frac{L_1 L_L R_1 s^2 \left(R_2 g_m + 1\right)}{C_1 C_L L_1 L_L R_1 R_2 s^4 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 R_1 R_2 s^2 + C_L L_1 L_L R_1 R_2 g_m s^3 + C_L L_1 L_L R_1 s^3 + C_L L_1 L_L R_2 s^3 + C_L L_L R_1 R_2 s^2 + L_1 L_L s^2 + L_1 R_1 R_2 g_m s + L_1 R_1 s + L_1 R_2 s + L_1 R_1 R_2 g_m s + L_1 R_1 R_2 g_$

10.597 INVALID-ORDER-597 $Z(s) = \left(L_1 s, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

10.602 INVALID-ORDER-602 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L\right)$

$$H(s) = \frac{L_1 R_1 R_L s \left(C_2 s + g_m\right)}{C_1 C_2 L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_2 L_1 R_1 s^2 + C_2 L_1 R_L s^2 + C_2 R_1 R_L s + L_1 R_1 g_m s + L_1 s + R_1}$$

10.603 INVALID-ORDER-603 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$

$$H(s) = \frac{L_1 R_1 R_L s \left(C_2 s + g_m\right)}{C_1 C_2 L_1 R_1 R_L s^3 + C_1 L_1 R_1 R_L s^3 + C_2 L_1 R_1 R_L s^3 + C_2 L_1 R_1 s^2 + C_2 L_1 R_L s^2 + C_2 L_1 R_L s^2 + C_2 L_1 R_L s^2 + C_L L_1 R_L g_m s^2 + C_L L_1 R_L s^2 + C_L R_1 R_L s + L_1 R_1 g_m s + L_1 R_1 g_m s^2 + C_2 R_1 R_L s + C_2 R_1 R_L$$

10.604 INVALID-ORDER-604 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 \left(C_2 s + g_m\right) \left(C_L R_L s + 1\right)}{C_1 C_2 C_L L_1 R_1 R_L s^3 + C_1 C_2 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_2 C_L L_1 R_L s^2 + C_2 C_L L_1 R_L s + C_2 L_1 s + C_2 L_1 s + C_2 L_1 s + C_L L_1 R_1 g_m s + C_L L_1 s + C_L R_1 R_1 g_m s + C_L L_1 R_1 g_m s + C_L L_1$$

10.605 INVALID-ORDER-605 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 \left(C_2 s + g_m\right) \left(C_L L_L s^2 + 1\right)}{C_1 C_2 C_L L_1 L_L R_1 s^4 + C_1 C_2 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_2 C_L L_1 L_L s^3 + C_2 C_L L_1 R_1 s^2 + C_$$

10.606 INVALID-ORDER-606 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$

$$H(s) = \frac{L_1 L_L R_1 s^2 \left(C_2 s + g_m\right)}{C_1 C_2 L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_1 s^2 + C_2 C_L L_1 L_L R_1 s^4 + C_2 L_1 L_L s^3 + C_2 L_1 R_1 s^2 + C_2 L_L R_1 s^2 + C_L L_1 L_L R_1 g_m s^3 + C_L L_1 L_L s^3 + C_L L_1 L_L R_1 g_m s + L_1 L_1 R_1 g_m s^3 + C_2 L_1 R_1 s^2 + C_2 L_1 R_1 s^2$$

10.607 INVALID-ORDER-607 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$

$$H(s) = \frac{L_1 R_1 \left(C_2 s + g_m\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_1 C_2 C_L L_1 L_L R_1 s^4 + C_1 C_2 C_L L_1 R_1 R_L s^3 + C_1 C_2 L_1 R_1 s^2 + C_2 C_L L_1 L_L s^3 + C_2 C_L L_1 R_1 s^2 + C_2 C_L R_1 R_L s + C_2 R_1 R_1 s^2 + C_2 C_L R_$$

10.608 INVALID-ORDER-608
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{L_1 L_L R_1 R_L s^2 \left(C_2 s + g_m\right)}{C_1 C_2 L_1 L_L R_1 R_L s^4 + C_1 L_L L_L R_1 R_L s^3 + C_1 L_1 R_1 R_L s^2 + C_2 C_L L_1 L_L R_1 R_L s^4 + C_2 L_1 L_L R_1 s^3 + C_2 L_1 L_L R_1 s^3 + C_2 L_1 R_1 R_L s^2 + C_2 L_L R_1 R_L s^2 + C_2 L_L R_1 R_L s^2 + C_2 L_L R_1 R_L s^3 + C_2 L_1 R_1 R_L s^3$$

10.609 INVALID-ORDER-609
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.610 INVALID-ORDER-610
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.611 INVALID-ORDER-611
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L s \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 L_1 R_1 R_2 R_L s^3 + C_1 L_1 R_1 R_2 s^2 + C_1 L_1 R_1 R_L s^2 + C_2 L_1 R_1 R_2 s^2 + C_2 L_1 R_2 R_L s^2 + C_2 R_1 R_2 R_L s + L_1 R_1 R_2 g_m s + L_1 R_1 s + L_1 R_2 s + L_1 R_1 s + R_1 R_2 + R_1 R_L s + R_1 R_2 R_L s + L_1 R_1 R_2 R_L s + L_1 R_1 R_2 R_L s + L_1 R_2$$

10.612 INVALID-ORDER-612
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 s \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_L L_1 R_1 R_2 s^3 + C_1 L_1 R_1 s^2 + C_2 C_L L_1 R_1 R_2 s^3 + C_2 L_1 R_2 s^2 + C_2 R_1 R_2 s + C_L L_1 R_1 R_2 g_m s^2 + C_L L_1 R_1 s^2 + C_L L_1 R_2 s^2 + C_L R_1 R_2 s + L_1 s + R_1 R_2 g_m s^2 + C_L R_1 R_2 s^2 + C_L R_1 R_2 s + L_1 s + R_1 R_2 g_m s^2 + C_L R_1 R_2 s^2 + C_L R_1 R_2 s + C_L$$

10.613 INVALID-ORDER-613
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_L s \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 L_1 R_1 R_2 R_L s^3 + C_1 L_1 R_1 R_2 s^2 + C_1 L_1 R_1 R_2 s^2 + C_2 L_1 R_1 R_2 R_L s^3 + C_2 L_1 R_1 R_2 s^2 + C_2 L_1 R_2 R_L s^2 +$$

10.614 INVALID-ORDER-614
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 s \left(C_L R_L s + 1\right) \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 C_L L_1 R_1 R_2 s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_L L_1 R_1 R_2 s^3 + C_1 C_L L_1 R_1 R_2 s^3 + C_2 C_L L_1 R_1 R_2 s^3 + C_2 C_L L_1 R_2 R_L s^3 + C_2 C_L R_1 R_2 R_L s^2 + C_2 L_1 R_2 R_2 s^2 + C_2 R_1 R_2 R_2 r_2 + C_2 R_2 R_2 r_2 + C_2$$

10.615 INVALID-ORDER-615
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 s \left(C_L L_L s^2 + 1\right) \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 C_L L_1 L_L R_1 R_2 s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_2 s^3 + C_1 L_1 R_1 s^2 + C_2 C_L L_1 L_L R_2 s^4 + C_2 C_L L_1 R_1 R_2 s^3 +$$

10.616 INVALID-ORDER-616
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_1 s^2 \left(C_2 R_2 s + R_2 g_m + 1\right)}{C_1 C_2 L_1 L_L R_1 R_2 s^4 + C_1 L_L L_L R_1 s^3 + C_1 L_1 R_1 R_2 s^2 + C_2 C_L L_1 L_L R_1 R_2 s^4 + C_2 L_1 L_L R_2 s^3 + C_2 L_1 R_1 R_2 s^2 + C_2 L_L R_1 R_2 s^2 + C_L L_1 L_L R_1 R_2 g_m s^3 + C_L R_1 R_2 s^4 + C_2 L_1 R_2 R_2 s^4 + C_2 L_1 R_2 R_2 s^4 + C_2 L_1 R_2$$

10.617 INVALID-ORDER-617
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 s}{C_1 C_2 C_L L_1 L_L R_1 R_2 s^5 + C_1 C_2 C_L L_1 R_1 R_2 R_L s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_2 s^3 + C_1 C_L L_1 R_1 R_2 s^3 + C_1 C_L L_1 R_1 R_2 s^4 + C_2 C_L L_1 L_L R_1 R_2 s^4 + C_2 C_L L_1 R_1 R_2 s^4 + C_$$

10.618 INVALID-ORDER-618
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 L_1 L_L R_1 R_2 R_L s^4 + C_1 C_L L_1 L_L R_1 R_2 R_L s^4 + C_1 L_1 L_L R_1 R_2 s^3 + C_1 L_1 L_L R_1 R_2 s^3 + C_1 L_1 L_L R_1 R_2 R_L s^2 + C_2 C_L L_1 L_L R_1 R_2 R_L s^4 + C_2 L_1 L_L R_1 R_2 s^3 + C_2 L_1 L_L R_2 R_2 s^3 + C_$$

10.619 INVALID-ORDER-619
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 R_L s^5 + C_1 C_2 L_1 L_L R_1 R_2 s^4 + C_1 C_2 L_1 R_1 R_2 R_L s^3 + C_1 C_L L_1 L_L R_1 R_2 s^4 + C_1 C_L L_1 L_L R_1 R_2 s^4 + C_1 L_1 L_1 R_1 R_2 s^4 + C_$$

10.620 INVALID-ORDER-620
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 R_L s^5 + C_1 C_2 L_1 R_1 R_2 R_L s^3 + C_1 C_L L_1 L_L R_1 R_2 s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 R_1 R_2 R_L s^3 + C_1 L_1 R_1 R_2 s^2 + C_1 L_1 R_1 R_2 s^4 + C_1 C_L L_1 L_L R_1 R_2 s^4 + C_1 C_L L_1 R_1 R_2 s^4 + C_1 C_$$

10.621 INVALID-ORDER-621
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L s \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 L_1 R_1 s^2 + C_2 L_1 R_1 R_2 g_m s^2 + C_2 L_1 R_1 s^2 + C_2 L_1 R_2 s^2 + C_2 L_1 R_2 s^2 + C_2 R_1 R_2 s + C_2 R_1 R_2 s + L_1 R_1 g_m s + L_1 s + R_1 R_2 g_m s^2 + C_2 R_1 R_2 s^2 + C_2 R_1 R_2 s + C_$$

10.622 INVALID-ORDER-622
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_1 s^2 + C_2 C_L L_1 R_1 g_m s^2 + C_2 C_L L_1 R_1 s^2 + C_2 C_L L_1 R_2 s^2 +$$

10.623 INVALID-ORDER-623
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_2 S \left(C_2 R_2 g_m s + L_1 R_1 R_2 R_L s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_2 C_L L_1 R_1 R_2 R_L g_m s^3 + C_2 C_L L_1 R_1 R_L s^3 + C_2 C_L L_1 R_1 R_2 R_L s^3 + C_2 C_L R_1 R_2 R_L$$

10.624 INVALID-ORDER-624
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 \left(C_L R_L s + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 R_1 R_2 s^3 + C_1 C_2 L_L R_1 R_2 s^2 + C_1 C_L L_1 R_1 s^2 + C_2 C_L L_1 R_1 R_2 g_m s^2 + C_2 C_L L_1 R_1 s^2 + C_2 C_L L_1 R_2 s^2 + C_2 C_L L_1 R_2$$

10.625 INVALID-ORDER-625
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_L R_1 s^4 + C_1 C_2 C_L L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_2 C_L L_1 L_L s^3 + C_2 C_L L_1 R_1 g_2 g_m s^2 + C_2 C_L L_1 R_1 s^2 + C_2 C_L L_1 R_$$

10.626 INVALID-ORDER-626
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_1 s^2 \left(C_2 R_2 g_m s + L_1 L_L R_1 s^2 + C_1 C_2 L_1 L_L R_1 s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^2 + C_2 C_L L_1 L_L R_1 R_2 g_m s^4 + C_2 C_L L_1 L_L R_1 s^4 + C_2 C_L L_1 L_L R_1 R_2 s^4 + C_2 C_L L_1 R_1 R_2 s^4 +$$

10.627 INVALID-ORDER-627
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_L R_1 s^4 + C_1 C_2 C_L L_1 R_1 R_2 s^3 + C_1 C_2 L_L R_1 R_2 s^3 + C_1 C_2 L_L R_1 s^2 + C_2 C_L L_1 L_L s^3 + C_2 C_L L_1 R_1 R_2 g_m s^2 + C_2 C_L L_1 R_1 s^2 + C_2 C_L L_1 R_1$$

10.628 INVALID-ORDER-628
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 R_L s^5 + C_1 C_2 L_1 L_L R_1 R_2 s^4 + C_1 C_2 L_1 L_L R_1 R_L s^4 + C_1 C_2 L_1 R_1 R_2 R_L s^3 + C_1 C_L L_1 L_L R_1 R_2 s^4 + C_1 L_1 L_L R_1 R_2 s^4 + C_$$

10.629 INVALID-ORDER-629
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 s^5 + C_1 C_2 C_L L_1 L_L R_1 R_L s^5 + C_1 C_2 L_1 L_L R_1 s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^4 + C_1 L_1 R_1 s^4 + C_1 L_1 R_1 R_2 s^4$$

10.630 INVALID-ORDER-630
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.631 INVALID-ORDER-631
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L s \left(C_2 L_2 g_m s^2 + C_2 s + g_m\right)}{C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_2 L_1 L_2 R_1 g_m s^3 + C_2 L_1 L_2 s^3 + C_2 L_1 R_1 s^2 + C_2 L_1 R_L s^2 + C_2 L_2 R_1 s^2 + C_2 R_1 R_L s + L_1 R_1 g_m s + L_1 s + R_1 R_1 g_m s + L_1 g_m s$$

10.632 INVALID-ORDER-632
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_2 R_1 s^4 + C_1 C_2 L_1 R_1 s^2 + C_2 C_L L_1 L_2 R_1 g_m s^3 + C_2 C_L L_1 L_2 s^3 + C_2 C_L L_1 R_1 s^2 + C_2 C_L L_2 R_1 s^2 + C_2 L_1 s + C_2 R_1 + C_L L_1 R_1 g_m s + C_L L_1 s + C_L R_1 g_m s^3 + C_2 C_L L_1 L_2 s^3 + C_2 C_L L_1 L_2 s^3 + C_2 C_L L_2 R_1 s^2 + C_2 C_L L_1 R_1 s^2 + C_2 C_L L_$$

10.633 INVALID-ORDER-633
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{L_1 R_1 R_L s \left(C_2 L_2 g_m s^2 + L_1 R_1 R_L s^3 + C_1 C_2 L_1 L_2 R_1 R_L s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_2 C_L L_1 L_2 R_1 R_L g_m s^4 + C_2 C_L L_1 L_2 R_L s^4 + C_2 C_L L_1 R_1 R_L s^3 + C_2 C_L L_2 R_1 R_L g_m s^4 + C_2 C_L L_1 R_1 R_L s^3 + C_2 C_L L_2 R_1 R_L g_m s^4 + C_2 C_L L_1 R_1 R_L s^3 + C_2 C_L L_2 R_1 R_L g_m s^4 + C_2 C_L L_1 R_1 R_L s^3 + C_2 C_L L_2 R_1 R_L g_m s^4 + C_2 C_L L_1 R_1 R_L s^3 + C_2 C_L L_2 R_1 R_L g_m s^4 + C$$

10.634 INVALID-ORDER-634
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 \left(C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_2 R_1 s^4 + C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 L_1 R_1 s^2 + C_2 C_L L_1 L_2 R_1 g_m s^3 + C_2 C_L L_1 L_2 s^3 + C_2 C_L L_1 R_1 s^2 + C_2 C_L L_2 R_$$

10.635 INVALID-ORDER-635
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_2 R_1 s^4 + C_1 C_2 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_2 C_L L_1 L_2 R_1 g_m s^3 + C_2 C_L L_1 L_2 s^3 + C_2 C_L L_1 L_2 s^3 + C_2 C_L L_1 R_1 s^2 + C_2 C_L L_2 R_1 s^2 + C_2 C_L L_1 L_2 R_1 s^3 + C_2 C_L L_2 R_$$

10.636 INVALID-ORDER-636
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_1 L_L R_1 s^2 \left(C_2 L_2 g_m s^2 + L_1 L_2 L_L R_1 s^6 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 L_L R_1 s^4 + C_1 L_L R_1 s^4 + C_2 L_L L_L R_1 g_m s^5 + C_2 C_L L_L L_L L_L R_1 s^4 + C_2 C_L L_L L_L R_1 s^4 + C_2 C_L L_L L_L R_1 s^4 + C_2 C_L L_L R_1 s^4 + C_2 C_L L_L R_1 s^4 + C_2 C_L R_1 R_1 s^4 + C_2 C_L$$

10.637 INVALID-ORDER-637
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_2 R_1 s^4 + C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_2 C_L L_1 L_2 R_1 g_m s^3 + C_2 C_L L_1 L_2 s^3 + C_2 C_L L_2 L_2 s^3 +$$

10.638 INVALID-ORDER-638
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_L s^6 + C_1 C_2 L_1 L_2 L_L R_1 s^5 + C_1 C_2 L_1 L_2 R_1 R_L s^4 + C_1 C_2 L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 L_1 L_L R_1 R_L s^3 + C_1 L_1 R_1 R_L s^2 + C_2 C_L L_1 L_2 L_L R_1 R_L s^4 + C_1 C_2 L_1 L_2 L_1 R_1 R_L s^4 + C_1 C_2 L_1 L_2 L_1 R_1 R_L s^4 + C_1 C_2 L_1 L_2 L_1 R_1 R_L s^4 + C_1 C_2 L_1 L_2 L_1 R_1 R_L s^4 + C_1 C_2 L_1 L_2 L_1 R_1 R_L s^4 + C_1 C_2 L_1 L_2 L_2 R_1 R_L s^4 + C_1 C_2 L_1 L_2 L_2 R_1 R_L s^4 + C_1 C_2 L_1 L_2 L_2 R_1 R_L s^4 + C_1 C_2 L_1 R_1 R_L s^4$$

10.639 INVALID-ORDER-639
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + C_1 C_2 C_L L_1 L_L R_1 R_L s^5 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 L_L R_1 s^4 + C_1 C_2 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 L_1 R_1 s^4 + C_1 L_$$

10.640 INVALID-ORDER-640
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_L s^5 + C_1 C_2 C_L L_1 L_L R_1 R_L s^5 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L R_1 R_L s^3 +$$

10.641 INVALID-ORDER-641
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L s \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m\right)}{C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 L_2 R_1 g_m s^3 + C_2 L_1 L_2 s^3 + C_2 L_1 R_1 g_m s^2 + C_2 L_1 R_1 s^2 + C_2 L_1 R_1 s^2 + C_2 L_1 R_2 s^2 + C_$$

10.642 INVALID-ORDER-642
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 C_L L_1 L_2 R_1 s^4 + C_1 C_2 C_L L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_2 C_L L_1 L_2 R_1 g_m s^3 + C_2 C_L L_1 L_2 s^3 + C_2 C_L L_1 R_1 R_2 g_m s^2 + C_2 C_L L_1 R_1 s^2 + C_2 C_L L_1 R_2 s^2 + C_2 C_L L_$$

10.643 INVALID-ORDER-643
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_L s^5 + C_1 C_2 C_L L_1 R_1 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_1 R_L s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 L_1 R_1 s^2 + C_2 C_L L_1 L_2 R_1 R_L g_m s^4 + C_2 C_L L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_1 R_L s^3 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_$$

10.644 INVALID-ORDER-644
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 \left(C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_$$

10.645 INVALID-ORDER-645
$$Z(s) = \left(\frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s +$$

10.646 INVALID-ORDER-646
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + C_1 C_2 C_L L_1 L_L R_1 R_2 s^5 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 L_L R_1 s^4 + C_1 C_2 L_1 L_$$

10.647 INVALID-ORDER-647
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{L_1 R_1 \left(C_L L_L s^2 + C_L R_L s + C_L C_L L_1 L_2 R_1 s^4 + C_1 C_2 C_L L_1 L_1 R_1 s^3 + C_1 C_2 C_L L_1 R_1 R_L s^3 + C_1 C_2 L_1 R_1 s^2 + C_1 C_L L_1 R_1 s^2 + C_2 C_L L_1 L_2 R_1 g_m s^3 + C_2 C_L L_1 L_2 s^3 + C_2 C_L L_2 L_2 s^3 + C_2 C_L L_2 L_2 s^3 + C_2 C_L L_2 L_2 s^2 + C_2 C_L L_2$$

10.648 INVALID-ORDER-648
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_L s^6 + C_1 C_2 C_L L_1 L_L R_1 R_2 R_L s^5 + C_1 C_2 L_1 L_2 L_L R_1 s^5 + C_1 C_2 L_1 L_2 R_1 R_L s^4 + C_1 C_2 L_1 L_L R_1 R_2 s^4 + C_1 C_2 L_1 L_L R_1 R_L s^4 + C_1 C_2 L_1 L_L R_1 R_2 s^4 + C_1 C_$$

10.649 INVALID-ORDER-649
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + C_1 C_2 C_L L_1 L_L R_1 R_2 s^5 + C_1 C_2 C_L L_1 L_L R_1 R_L s^5 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 L_L R_1 s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 L_L R_1 R_2 s^4 + C_1 C_2 L_1 L_L R_1 R_2 s^$$

10.650 INVALID-ORDER-650
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_L s^5 + C_1 C_2 C_L L_1 L_L R_1 R_2 s^5 + C_1 C_2 C_L L_1 L_L R_1 R_L s^5 + C_1 C_2 C_L L_1 R_1 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_1 R_2 s^5 + C_1 C_2 C_L L_1 L_2 R_1 R_2 s^5 + C_1 C_2 C_L L_1 R_1 R_2 s^5 + C_1 C_$$

10.651 INVALID-ORDER-651
$$Z(s) = \left(\frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$H(s) = \frac{L_1 R_1 R_L s \left(C_2 L_2 R_2 g_m s^2 + C_2 L_2 s^2 + L_2 g_m s + R_2 g_m + 1\right)}{C_1 C_2 L_1 L_2 R_1 R_2 s^4 + C_1 C_2 L_1 L_2 R_1 R_2 s^3 + C_1 L_1 R_1 R_2 s^2 + C_1 L_1 R_1 R_2 s^2 + C_1 L_1 R_1 R_2 s^3 + C_2 L_1 L_2 R_1 s^3 + C_2 L_2 R_1 R_2 s^3 + C_2$$

10.652 INVALID-ORDER-652
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

10.653 INVALID-ORDER-653
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L s^5 + C_1 C_2 L_1 L_2 R_1 R_2 s^4 + C_1 C_2 L_1 L_2 R_1 R_L s^4 + C_1 C_L L_1 L_2 R_1 R_L s^4 + C_1 C_L L_1 R_1 R_2 R_L s^3 + C_1 L_1 L_2 R_1 s^3 + C_1 L_1 R_1 R_2 s^2 + C_1$$

10.654 INVALID-ORDER-654
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_2 s^5 + C_1 C_2 C_L L_1 L_2 R_1 R_L s^5 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_L L_1 L_2 R_1 s^4 + C_1 C_L L_1 R_1 R_2 s^3 + C_1 C_L L_1 R_1 R_2 s^3 + C_1 L_1 R_1 s^2 + C_2 C_L L_1 L_2 R_1 R_2 g_m s^4 + C_2 C_L L_1 L_2 R_1 R_2 s^4 + C_1 C_L L_1 R_1 R_2 s^3 + C_1 C_L L_$$

10.655 INVALID-ORDER-655
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_2 s^5 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_L L_1 L_$$

10.656 INVALID-ORDER-656
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 s^6 + C_1 C_2 L_1 L_2 L_L R_1 s^5 + C_1 C_2 L_1 L_2 R_1 R_2 s^4 + C_1 C_L L_1 L_2 L_L R_1 s^5 + C_1 C_L L_1 L_2 R_1$$

10.657 INVALID-ORDER-657
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_2 s^5 + C_1 C_2 C_L L_1 L_2 R_1 R_L s^5 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_L L_1 L_2 R_1 s^4 + C_1 C_L L_1 L_2 R_1 s^4 + C_1 C_L L_1 R_1 R_2 s^3 + C_1 C_$$

10.658 INVALID-ORDER-658
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L s^6 + C_1 C_2 L_1 L_2 L_L R_1 R_2 s^5 + C_1 C_2 L_1 L_2 L_L R_1 R_L s^5 + C_1 C_2 L_1 L_2 R_1 R_2 R_L s^4 + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L s^5 + C_1 C_L L_1 L_2 L_L R_1 R_2 R_L s^4 + C_1 C_L L_1 L_2 L_L R_1 R_$$

10.659 INVALID-ORDER-659
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.660 INVALID-ORDER-660
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 s^6 + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L s^5 + C_1 C_2 L_1 L_2 R_1 R_2 s^4 + C_1 C_2 L_1 L_2 R_1 R_L s^4 + C_1 C_L L_1 L_2 L_L R_1 R_2 s^4 + C_1 C_2 L_1 L_2 R_1 R_2 s^4 + C_1 C_2 L_$$

10.661 INVALID-ORDER-661
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L\right)$$

10.662 INVALID-ORDER-662
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

10.663 INVALID-ORDER-663
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L s^5 + C_1 C_2 L_1 L_2 R_1 R_2 s^4 + C_1 C_2 L_1 L_2 R_1 R_L s^4 + C_1 C_2 L_1 R_1 R_2 R_L s^3 + C_1 L_1 R_1 R_2 R_L s^3 + C_1 L_1 R_1 R_2 s^2 + C_1 L_1 R_1 R_L s^2 + C_2 C_L L_1 L_2 R_1 R_2 R_L s^4 + C_1 C_2 L_1 R_1 R_2 R_L s^3 + C_1 L_1 R_1 R_2 R_L s^3 + C_1 L_1 R_1 R_2 R_L s^3 + C_1 L_1 R_1 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L s^4 + C_1 C_2 L_1 R_1 R_2 R_L s^4 + C_1 C_2$$

10.664 INVALID-ORDER-664
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_2 s^5 + C_1 C_2 C_L L_1 L_2 R_1 R_L s^5 + C_1 C_2 C_L L_1 R_1 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_L L_1 R_1 R_2 s^3 + C_1 C_$$

10.665 INVALID-ORDER-665
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_2 s^5 + C_1 C_2 C_L L_1 L_L R_1 R_2 s^5 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_1 R_1 s^4 + C_1 C_L L_1 R_1 R_1 s^4 + C_1 C_$$

10.666 INVALID-ORDER-666
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 s^6 + C_1 C_2 L_1 L_2 L_L R_1 s^5 + C_1 C_2 L_1 L_2 R_1 R_2 s^4 + C_1 C_2 L_1 L_L R_1 R_2 s^4 + C_1 C_L L_1 L_L R_1 R_2 s^4 + C_1 L_1 L_1 R_1 R_2 s^4 + C_$$

10.667 INVALID-ORDER-667
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_2 s^5 + C_1 C_2 C_L L_2 R_1 R_2 s^5 + C_1 C_2 C_L L_2 R_1 R_2 s^5 +$$

10.668 INVALID-ORDER-668
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L s^6 + C_1 C_2 L_1 L_2 L_L R_1 R_2 s^5 + C_1 C_2 L_1 L_2 L_L R_1 R_L s^5 + C_1 C_2 L_1 L_2 R_1 R_2 R_L s^4 + C_1 C_2 L_1 L_L R_1 R_2 R_L s^4 + C_1 C_L L_1 R_1 R_2 R_L$$

10.669 INVALID-ORDER-669
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1C_2C_LL_1L_2L_LR_1R_2s^6 + C_1C_2C_LL_1L_2L_LR_1R_Ls^6 + C_1C_2C_LL_1L_LR_1R_2R_Ls^5 + C_1C_2L_1L_2L_LR_1s^5 + C_1C_2L_1L_2R_1R_2s^4 + C_1C_2L_1L_2R_1R_Ls^4 + C_1C_2L_1L_2R_1R_2s^4 + C_1C_2L_2R_1R_2s^4 + C_1C_2R_1R_2s^4 + C_1C_2R_1R_2s^4 + C_1C_2R$$

10.670 INVALID-ORDER-670
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.671 INVALID-ORDER-671
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{(R_2g_m + 1)\left(C_1L_1R_1s^2 + L_1s + R_1\right)}{C_1C_LL_1R_1g^3 + C_1C_LL_1R_1s^3 + C_1C_LL_1R_2s^3 + C_1L_1s^2 + C_LL_1R_2g_ms^2 + C_LL_1s^2 + C_LR_1R_2g_ms + C_LR_1s + C_LR_2s + 1}$$

10.672 INVALID-ORDER-672
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L \left(R_2 g_m + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{C_1 C_L L_1 R_1 R_2 R_L g_m s^3 + C_1 C_L L_1 R_1 R_2 S^3 + C_1 L_1 R_1 R_2 g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_2 s^2 +$$

10.673 INVALID-ORDER-673
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.674 INVALID-ORDER-674
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.675 INVALID-ORDER-675
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(R_2 g_m + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_2 s^4 + C_1 L_1 L_L s^3 + C_1 L_1 R_1 R_2 g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_2 s^2 + C_L L_1 L_L R_2 g_m s^3 + C_L L_1 L_L s^3 + C_L L_L R_1 R_2 g_m s^2}$$

10.676 INVALID-ORDER-676
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.677 INVALID-ORDER-677
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_L L_1 L_L R_1 R_2 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_2 R_L s^4 + C_1 L_1 L_L R_1 R_2 g_m s^3 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 L_L R_2 s^3 + C_1 L_1 L_L$$

10.678 INVALID-ORDER-678
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{(R_2 g_m + 1) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right) \left(C_L L_L R_L s^2 + L_2 s^2 + C_1 L_1 L_L R_2 s^4 + C_1 C_L L_1 L_L R_2 s^4 + C_1 L_1 L_L R_2 s$$

10.679 INVALID-ORDER-679
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2\left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \infty, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_L L_1 L_L R_1 R_2 g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_2 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_2 R_L g_m s^3 + C_1 C_L L_1 R_1 R_2 s^3 + C_1 C_L L_1 R_1 R_2 g_m s^2 + C_1 L_1 R_1 R_2 g_m s^2 + C_1 L_1 R_1 R_2 g_m s^3 + C_1 C_L L_1 R_2 g_m s^3 + C_1 C_L L_1 R_2 g_m s^3 + C_1 C_L L_1 R_2$$

10.680 INVALID-ORDER-680
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_2 s + g_m \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_1 R_L s^3 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_2 L_1 s^2 + C_2 R_1 s + C_2 R_L s + L_1 g_m s + R_1 g_m + 1}$$

10.681 INVALID-ORDER-681
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.682 INVALID-ORDER-682
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L \left(C_2 s + g_m \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{C_1 C_2 C_L L_1 R_1 R_L s^4 + C_1 C_2 L_1 R_1 s^3 + C_1 C_L L_1 R_1 R_L g_m s^3 + C_1 C_L L_1 R_L s^3 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_2 C_L L_1 R_L s^3 + C_2 C_L R_1 R_L s^2 + C_2 L_1 s^2 + C_2 R_1 s + C_2 R_1 s^2 + C_$$

10.683 INVALID-ORDER-683
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.684 INVALID-ORDER-684
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.685 INVALID-ORDER-685
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L s \left(C_2 s + g_m\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 L_1 L_L s^4 + C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_2 C_L L_1 L_L s^4 + C_2 C_L L_L R_1 s^3 + C_2 L_1 s^2 + C_2 C_L L_1 L_1 s^4 + C_1 C_2 L_1 s^4 + C_1 C_2 L_1 L_1 s^4 + C_1 C_2 L_1 s^4 + C_$$

10.686 INVALID-ORDER-686
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.687 INVALID-ORDER-687
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_L s^5 + C_1 C_2 L_1 L_L R_1 s^4 + C_1 C_2 L_1 L_L R_L s^4 + C_1 C_2 L_1 R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 L_1 L_L R_1 g_m s^3 + C_1 L_1 L_L R_1 g_m s^3 + C_1 L_1 L_L R_1 g_m s^4 + C_1 L_1 L_1 R_1 g_m s^4 + C_1 L_1$$

10.688 INVALID-ORDER-688
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

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

10.689 INVALID-ORDER-689
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_L R_L s^5 + C_1 C_2 C_L L_1 R_1 R_L s^4 + C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_1 R_L s^3 + C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_1 R_L g_m s^3 + C_1 C_L L_1 R_L s^4 + C_1 C_L L_1 R_1 R_L g_m s^4 + C_1 C_L R_1 R_L g_m s^4 + C_$$

10.690 INVALID-ORDER-690
$$Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_2 R_2 s + R_2 g_m + 1 \right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right)}{C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_2 R_L s^3 + C_1 L_1 R_1 R_2 g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_2 s^2 + C_2 L_1 R_2 s^2 + C_2 L_1 R_2 s^2 + C_2 R_1 R_2 s + L_1 R_2 g_m s + L_1 s + R_1 R_2 g_m + R_1 + R_2 g_m s^2 + C_1 R_2 g_m$$

10.691 INVALID-ORDER-691
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.692 INVALID-ORDER-692
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_L (s)}{C_1 C_2 C_L L_1 R_1 R_2 R_L s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_2 R_L s^3 + C_1 C_L L_1 R_1 R_2 R_L g_m s^3 + C_1 C_L L_1 R_1 R_L s^3 + C_1 C_L L_1 R_2 R_L s^3 + C_1 L_1 R_1 R_2 g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_2 s^2 + C_1 L_1 R_1 R_2 g_m s^2$$

10.693 INVALID-ORDER-693
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{\left(C_L R_L s + 1\right) \left(C_2 R_2 s + R_2 g_m + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1 C_2 C_L L_1 R_1 R_2 s^4 + C_1 C_2 L_L R_2 s^3 + C_1 C_L L_1 R_1 R_2 g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_2 s^3 + C_$$

10.694 INVALID-ORDER-694
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{\left(C_{L}L_{L}s^{2}+1\right)\left(C_{2}R_{2}s+R_{2}g_{m}+1\right)\left(C_{1}L_{1}R_{1}s^{2}+L_{1}s+R_{1}\right)}{C_{1}C_{2}C_{L}L_{1}L_{L}R_{2}s^{5}+C_{1}C_{2}L_{1}R_{1}R_{2}s^{3}+C_{1}C_{L}L_{1}L_{L}s^{4}+C_{1}C_{L}L_{1}R_{1}R_{2}g_{m}s^{3}+C_{1}C_{L}L_{1}R_{2}s^{3}+C_{1}L_{1}R_{2}s^{3}+C_{2}C_{L}L_{1}R_{2}s^{3}+C_{$$

10.695 INVALID-ORDER-695
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L}{C_1 C_2 C_L L_1 L_L R_1 R_2 s^5 + C_1 C_2 L_1 L_L R_2 s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_L L_1 L_L R_1 R_2 g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_2 s^4 + C_1 L_1 L_L R_3 s^2 + C_1 L_1 R_1 R_2 g_m s^2 + C_1 L_1 R_1 R_2 g_m s^4 + C_1 C_L L_1 L_L R_1 R_2 s^4 + C_1 L_1 L_L R_2 s^4 + C_1 L_1 L_L R_3 s^4 + C_1 L_1 L_1 R_3$$

10.696 INVALID-ORDER-696
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.697 INVALID-ORDER-697
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 R_L s^5 + C_1 C_2 L_1 L_L R_1 R_2 s^4 + C_1 C_2 L_1 L_L R_2 R_L s^4 + C_1 C_2 L_1 R_1 R_2 R_L s^3 + C_1 C_L L_1 L_L R_1 R_2 R_L s^4 + C_1 C_L L_1 R_1 R_2 R_L s^4 + C_1 C_L L_1 R_1 R_2 R_L s^4 + C_1 C_L L_1 R_1 R_2 R_L s^4 + C_1 C_L R_1 R_1 R_2 R_L s^4 + C_1 C_L R_1 R_1 R_2 R_L s^4 + C_1 C_L R_1 R_2 R_L s^4 + C_1 C_L R_1 R_2 R_L s^4 + C_$$

10.698 INVALID-ORDER-698
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 s^5 + C_1 C_2 C_L L_1 L_L R_2 R_L s^5 + C_1 C_2 L_1 L_L R_2 s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_2 R_L s^3 + C_1 C_L L_1 L_L R_1 R_2 g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_2 s^4 + C_1 C_$$

10.699 INVALID-ORDER-699
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 s^5 + C_1 C_2 C_L L_1 L_L R_2 R_L s^5 + C_1 C_2 C_L L_1 R_1 R_2 R_L s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_2 R_L s^3 + C_1 C_L L_1 L_L R_1 R_2 g_m s^4 + C_1 C_L L_1 L_1 R_2 g_m s^4 + C_1 C_L L_1 R_1 R_2 g_m s^4 + C_1 C_L L_1 R_2 g_m s^4 + C_$$

10.700 INVALID-ORDER-700
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_1 R_2 s^3 + C_1 C_2 L_1 R_2 s^3 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_2 L_1 R_2 g_m s^2 + C_2 L_1 s^2 + C_2 R_1 R_2 g_m s + C_2 R_1 s + C_2 R_2 s + C_2 R_1 s + L_1 g_m R_2 r^2 + C_2 R_1 R_2 r^2 + C_2 R_2$$

10.701 INVALID-ORDER-701
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.702 INVALID-ORDER-702
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 R_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_1 R_1 R_L s^4 + C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_2 L_1 R_1 R_2 g_m s^3 + C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_1 R_2 s^3 + C_1 C_2 L_1$$

10.703 INVALID-ORDER-703
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.704 INVALID-ORDER-704
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.705 INVALID-ORDER-705
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 L_1 L_L s^4 + C_1 C_2 L_1 R_1 R_2 g_m s^3 + C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_1 R_2 s^3 + C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L R_1 g_m s^4 +$$

10.706 INVALID-ORDER-706
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.707 INVALID-ORDER-707
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_L R_1 R_L s^5 + C_1 C_2 C_L L_1 L_L R_2 R_L s^5 + C_1 C_2 L_1 L_L R_1 R_2 g_m s^4 + C_1 C_2 L_1 L_L R_1 s^4 + C_1 C_2 L_1 L_L R_2 s^4 + C_1 C_2 L_1 L_L R_1 s^4 + C_1 C_2 L_1 L_L R_2 s^4 + C_1 C_2 L_1 L_L R_1 s^4 + C_1 C_2 L_1 L_L R_2 s^4 + C_1 C_2 L_1 L_L$$

10.708 INVALID-ORDER-708
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 L_1 L_1 L_1 R_2 s^5 + C_1 C_2 L_1 R_2 s^5$$

10.709 INVALID-ORDER-709
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_1 R_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_1 R_1 R_L s^4 + C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_$$

10.710 INVALID-ORDER-710
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 L_1 L_2 R_1 g_m s^4 + C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_1 R_L s^3 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_2 L_1 L_2 g_m s^3 + C_2 L_1 s^2 + C_2 L_2 R_1 g_m s^2 + C_2 R_1 s + C_2 R_L s + L_1 g_m r^2 + C_2 R_1 r^2 + C_$$

10.711 INVALID-ORDER-711
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.712 INVALID-ORDER-712
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_1 R_1 R_L s^4 + C_1 C_2 L_1 L_2 R_1 g_m s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_1 R_L s^3 + C_1 C_L L_1 R_1 R_L g_m s^3 + C_1 C_L L_1 R_1 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_1 g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_1 g_m s^4 + C_1 C_2 L_1 R_1 g_m s^4 + C_$$

10.713 INVALID-ORDER-713
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.714 INVALID-ORDER-714
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

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

10.715 INVALID-ORDER-715
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 L_1 L_2 R_1 g_m s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_1 L_L s^4 + C_1 C_2 L_1 R_1 s^3 + C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_2 L_1 L_2 R_1 g_m s^4 + C_1 C_2 L_1 R_1 g_m s^4 + C_1 C_$$

10.716 INVALID-ORDER-716
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.717 INVALID-ORDER-717
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.718 INVALID-ORDER-718
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 L_1 L_2 R_1 g_m s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_2 L_2 s^4 + C_1 C_2 L_2 L_2 s^4 + C_1$$

10.719 INVALID-ORDER-719
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_1 R_1 s^5 + C_1 C_2 C_L L_1 R_1 s^5 + C_1 C_2 C_L L_1 R_1 R_1 s^5 + C_1 C_2 C_L R_1 R_1 R_1 s^5 + C_1 C_2 C_L R_1 R_1 s^5 + C_1 C_2 C_L R_1 R_1 s^5 + C_1 C_2 C_L R_1 R_$$

10.720 INVALID-ORDER-720
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 L_1 L_2 R_1 g_m s^4 + C_1 C_2 L_1 R_2 g_m s^3 + C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_1 R_2 s^3 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_2 L_1 L_2 g_m s^3 + C_2 L_1 R_2 g_m s^2 + C_2 L_1 R_2 g_m s^2 + C_2 L_1 R_2 g_m s^3 + C_$$

10.721 INVALID-ORDER-721
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

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

10.722 INVALID-ORDER-722
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_1 R_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_1 R_1 R_L s^4 + C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_1 g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L g_m s^4 + C_1 C_2 L_1 R_2 R_L$$

10.723 INVALID-ORDER-723
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

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

10.724 INVALID-ORDER-724
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{\left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 R_2 R_1 R_2 R_1 R_2 R_1 R_2 R_3 + C_1 C_2 C_L L_1 L_2 R_2 R_3 + C_1 C_2 C_L L_1 R_2 R_2 R_3 + C_1 C_2 C_L L_1 R_2 R_3 + C_1 C_2 C_L L_1 R_2 R_2 R_3 + C$$

10.725 INVALID-ORDER-725
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 L_1 L_2 R_1 g_m s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_1 L_2 R_1 g_m s^5 + C_1 C_2 L_1 L_2 R_1 g_m s^6 + C_1 C_2 L_2 R_1 g_m s^6 + C_$$

10.726 INVALID-ORDER-726
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

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

10.727 INVALID-ORDER-727
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.728 INVALID-ORDER-728
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_$$

10.729 INVALID-ORDER-729
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 s^5 + C_1 C_$$

10.730 INVALID-ORDER-730
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_2 L_2 R_2 g_m s^2 + C_1 L_2 R_1 s^2 + C_1 L_2 R_2 s^4 + C_1 C_2 L_1 L_2 R_2 s^4 + C_1 L_2 R_2 s^4 + C_1 L_1 L_2 R_1 g_m s^3 + C_1 L_1 L_2 s^3 + C_1 L_1 R_1 R_2 g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_2 s^2 + C_$$

10.731 INVALID-ORDER-731
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{(C_1L_1R_1)}{C_1C_2C_LL_1L_2R_1R_2g_ms^5 + C_1C_2C_LL_1L_2R_1s^5 + C_1C_2C_LL_1L_2R_2s^5 + C_1C_2L_1L_2s^4 + C_1C_LL_1L_2R_1g_ms^4 + C_1C_LL_1L_2s^4 + C_1C_LL_1R_1R_2g_ms^3 + C_1C_LL_1R_1s^3 + C_1C_L$$

10.732 INVALID-ORDER-732
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 R_L s^5 + C_1 C_2 C_L L_1 L_2 R_2 R_L s^5 + C_1 C_2 L_1 L_2 R_1 R_2 g_m s^4 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 L_2 R_2 s^4 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 L_2$$

10.733 INVALID-ORDER-733
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 s^5 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 L_1 L_2 s^4 + C_1 C_L L_1 L_2 R_1 g_m s^4 + C_1 C_L L_1 L_2 R_1 g_m s^3 + C_1 C_2 C_L L_1 L_2 R_1 g_m s^3 + C_1 C_2 C_L L_1 L_2 R_1 g_m s^4 + C_1 C_L L_1 R_1 g_m s^4 +$$

10.734 INVALID-ORDER-734
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 s^5 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_2 L_1 L_2 s^4 + C_1 C_L L_1 L_2 R_1 g_m s^4 + C_1 C_L L_1 L_2 s^4 + C_1$$

10.735 INVALID-ORDER-735
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + C_1 C_2 C_L L_1 L_2 L_L R_2 s^6 + C_1 C_2 L_1 L_2 L_L s^5 + C_1 C_2 L_1 L_2 R_1 R_2 g_m s^4 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 L_2 R_2 s^4 + C_1 C_2 L_1 L_2 L_2 R_2 s^6 + C_1 C_2 L_1 L_2 R_2 s^6 + C_1 C_2 L_2 R_2 s^6 + C_1 C_2 L_2 R_2 s^6 + C_1 C_2 L_2$$

10.736 INVALID-ORDER-736
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 s^5 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_2 C_L L_$$

10.737 INVALID-ORDER-737
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.738 INVALID-ORDER-738
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.739 INVALID-ORDER-739
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.740 INVALID-ORDER-740
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_L \left(C_1 L_1 R_1 s^2 + L_1 s + R_1 \right) \left(C_2 L_2 L_2 L_2 R_1 s^2 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 L_2 R_2 s^4 + C_1 C_2 L_1 L_2 R_2 s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_2 R_2 s^3 + C_1 L_1 R_1 R_2 g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_2 s^2 + C_1 L_1 R_$$

10.741 INVALID-ORDER-741
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{\left(C_1L_1R_1s + C_2C_2L_1L_2R_1s + C_1C_2C_2L_1L_2R_1s + C_1C_2C_2L_1L_2R_1s + C_1C_2L_1L_2s + C_1C_2L_1L_2s + C_1C_2L_1R_2s + C_1C_$$

10.742 INVALID-ORDER-742
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 R_L s^5 + C_1 C_2 C_L L_1 L_2 R_2 R_L s^5 + C_1 C_2 C_L L_1 R_1 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_1 R_2 g_m s^4 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2 L_1 L_2 R_2 s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_1 R_$$

10.743 INVALID-ORDER-743
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 s^5 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_1 R_1 R_2 s^4 + C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_2 s^3 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_2 C_L L_1 R_2 R_2 s^4 + C_1 C_2 C_L L_1 R_$$

10.744 INVALID-ORDER-744
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 s^5 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_2 C_L L_$$

10.745 INVALID-ORDER-745
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + C_1 C_2 C_L L_1 L_2 L_L R_2 s^6 + C_1 C_2 C_L L_1 L_L R_1 R_2 s^5 + C_1 C_2 L_1 L_2 L_L s^5 + C_1 C_2 L_1 L_2 R_1 R_2 g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 g_m s^6 + C_1 C_2 R_1 R_2 g_$$

10.746 INVALID-ORDER-746
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 s^5 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_2 C_L L_$$

10.747 INVALID-ORDER-747
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L s^6 + C_1 C_2 C_L L_1 L_2 L_L R_2 R_L s^6 + C_1 C_2 C_L L_1 L_L R_1 R_2 R_L s^5 + C_1 C_2 L_1 L_2 L_L R_1 R_2 g_m s^5 + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L s^6 + C_1 C_2 L_1 L_2 L_2 R_1 R_2 R_2 R_2 R_2 R_2 R_1 R_2 R_2 R_2 R_2 R_2 R_2 R_2 R_2 R_2 R_$$

10.748 INVALID-ORDER-748
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.749 INVALID-ORDER-749
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + C_1 C_2 C_L L_1 L_2 L_L R_2 s^6 + C_1 C_2 C_L L_1 L_2 L_1 R_2 s^6 + C_1 C_2 C_L L_1 L_2 L_1 R_2 s^6 + C_1 C_2 C_L L_1 L_2 L_1 R_2 s^6 + C_1 C_2 C_L L_1 L_$$

10.750 INVALID-ORDER-750
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$R_1 \left(R_2 g_m + 1\right) \left(C_1 L_1 s^2 + 1\right)$$

$$H(s) = \frac{R_1 \left(R_2 g_m + 1 \right) \left(C_1 L_1 s^2 + 1 \right)}{C_1 C_L L_1 R_1 g_3 + C_1 C_L L_1 R_2 s^3 + C_1 C_L R_1 R_2 s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + 1}$$

10.751 INVALID-ORDER-751
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_L \left(R_2 g_m + 1\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 C_L L_1 R_1 R_2 R_L g^3 + C_1 C_L L_1 R_2 R_L s^3 + C_1 C_L R_1 R_2 R_L s^2 + C_1 L_1 R_1 R_2 g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_2 s^2 + C_1 L_1 R_$$

10.752 INVALID-ORDER-752
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(R_2 g_m + 1 \right) \left(C_1 L_1 s^2 + 1 \right) \left(C_L R_L s + 1 \right)}{C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_2 s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L R_1 R_2 s^2 + C_1 C_L R_1 R_L s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_L R_1 R_2 g_m s + C_L R_1 s + C_$$

10.753 INVALID-ORDER-753
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(R_2 g_m + 1 \right) \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right)}{C_1 C_L L_1 L_L s^4 + C_1 C_L L_1 R_1 g_m s^3 + C_1 C_L L_1 R_2 s^3 + C_1 C_L L_L R_1 s^3 + C_1 C_L L_1 R_2 s^2 + C_1 L_1 s^2 + C_1 L_1 s^2 + C_1 L_1 s^2 + C_L R_1 R_2 g_m s + C_L R_1 s + C_L R_2 s + 1}$$

10.754 INVALID-ORDER-754
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 s \left(R_2 g_m + 1\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_L L_R R_2 s^4 + C_1 C_L L_L R_1 R_2 s^3 + C_1 L_1 L_L s^3 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_2 s^2 + C_1 L_1 R_1 s^2 + C_1 L_1 R_2 s^2 + C_1 L_1 R_1 s^2 + C_1$$

10.755 INVALID-ORDER-755
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(R_2 g_m + 1 \right) \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{C_1 C_L L_1 R_1 R_2 g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L R_1 R_2 s^2 + C_1 C_L R_1 R_L s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_L L_1 s^2 + C_1 R_1 s^2 + C_$$

10.756 INVALID-ORDER-756
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_L L_1 L_L R_1 R_2 R_L g_m s^4 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 L_L R_2 R_L s^4 + C_1 C_L L_L R_1 R_2 R_L s^3 + C_1 L_1 L_L R_1 R_2 g_m s^3 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 L_L R_2 s^3 + C_1 L_1 L_L R_1 s^3 + C_1 L_1 L_L R_2 s^3 + C_1$$

10.757 INVALID-ORDER-757
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 \left(R_2 g_m + 1 \right) \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L L_L R_1 s^2 + C_1 C_L L_L L_L R_2 s^4 + C_1 C_L L_L L_L R_1 R_2 s^3 + C_1 C_L L_L R_1 R_2 s^3 + C_1 L_L L_L R_3 s^3 + C_1 L_1 L_L R_3 s^3 + C_1 L_1 L_L R_1 R_2 g_m s^2 + C_1 L_1 R_1 R_2 g_m s^2 + C_1 L_1 R_1 R_2 g_m s^2 + C_1 L_1 R_1 R_2 g_m s^3 + C_1 R_1 R_2$$

10.758 INVALID-ORDER-758
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(L_2 s + \frac{1}{C_2 s}\right)}{L_2 s + R_2 + \frac{1}{C_2 s}}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_L L_1 L_L R_1 R_2 g_m s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 L_L R_2 s^4 + C_1 C_L L_1 L_L R_1 s^4 + C_1 C_L L_1 R_1 R_2 R_L g_m s^3 + C_1 C_L L_1 R_1 R_2 s^3 + C_1 C_L L_1 R_$$

10.759 INVALID-ORDER-759
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_L \left(C_2 s + g_m\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_1 R_L s^3 + C_1 C_2 R_1 R_L s^2 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_2 R_1 s + C_2 R_L s + R_1 g_m + 1}$$

10.760 INVALID-ORDER-760
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_2 s + g_m \right) \left(C_1 L_1 s^2 + 1 \right)}{s \left(C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 L_1 s^2 + C_1 C_2 R_1 s + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_1 s + C_2 C_L R_1 s + C_2 + C_L R_1 g_m + C_L \right)}$$

10.761 INVALID-ORDER-761
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_L \left(C_2 s + g_m\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 C_2 C_L L_1 R_1 R_L s^4 + C_1 C_2 L_1 R_1 s^3 + C_1 C_2 R_1 R_L s^2 + C_1 C_L L_1 R_1 R_L g_m s^3 + C_1 C_L L_1 R_L s^3 + C_1 C_L R_1 R_L s^2 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 +$$

10.762 INVALID-ORDER-762
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_2 s + g_m\right) \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right)}{s \left(C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 C_L L_1 R_L s^3 + C_1 C_2 L_1 s^2 + C_1 C_2 L_1 s^2 + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L L_1 s + C_2 C_L R_1 s +$$

10.763 INVALID-ORDER-763
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_2 s + g_m\right) \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{s \left(C_1 C_2 C_L L_1 L_1 s^4 + C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 L_1 s^2 + C_1 C_2 R_1 s + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L L_1 s^2 + C_2 C_L L_1 s^2 + C_2 C_L R_1 s + C_2 + C_L R_1 g_m s^2 + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L R_1 g_m s^$$

10.764 INVALID-ORDER-764
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 s \left(C_2 s + g_m\right) \left(C_1 L_1 s^2 + 1\right)}{C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 L_1 L_L s^4 + C_1 C_2 L_1 R_1 s^3 + C_1 C_L L_L L_L R_1 g_m s^4 + C_1 C_L L_L L_L s^4 + C_1 C_L L_L R_1 s^3 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_2 C_L L_L R_1 s^3 + C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_$$

10.765 INVALID-ORDER-765
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_2 s + g_m \right) \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right)}{s \left(C_1 C_2 C_L L_1 L_L s^4 + C_1 C_2 C_L L_1 R_1 s^3 + C$$

10.766 INVALID-ORDER-766
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_L s^5 + C_1 C_2 L_1 L_L R_1 s^4 + C_1 C_2 L_1 L_L R_L s^4 + C_1 C_2 L_1 R_1 R_L s^3 + C_1 C_2 L_L R_1 R_L s^3 + C_1 C_L L_1 L_L R_1 R_L s^4 + C_1 C_L L_1 R_1 R_L s^4 + C_1 C_L L_1 R_1 R_L s^4 + C_1 C_L L_1 R_1 R_L s^4 + C_1 C_L R_1 R_L s^4 + C_$$

10.767 INVALID-ORDER-767
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{R_1 \left(C_2 s + g_m \right) \left(C_1 L_1 s^2 + 1 \right) \left(C_2 s + g_m \right) \left(C_1 s$$

10.768 INVALID-ORDER-768
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_L R_L s^5 + C_1 C_2 C_L L_1 R_1 R_L s^4 + C_1 C_2 C_L L_L R_1 R_L s^4 + C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_1 R_L s^3 + C_1 C_2 R_1 R_L s^2 + C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_L L_1 L_L R_1 g_m s^4 + C_1 C_2 L_1 L_L R_1 g_m s^4 + C_1 C_2 L_1 R_1 R_1 s^4 + C_1 C_2 L_1 R_$$

10.769 INVALID-ORDER-769
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

10.770 INVALID-ORDER-770
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 L_1 s^2 + 1 \right) \left(C_2 R_2 s + R_2 g_m + 1 \right)}{C_1 C_2 C_L L_1 R_1 R_2 s^4 + C_1 C_2 L_1 R_2 s^3 + C_1 C_L L_1 R_1 R_2 g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_2 s^3 + C_1 C_L L_1 R_2 s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_2 C_L R_1 R_2 s^2 + C_2 R_2 s + C_2 R_$$

10.771 INVALID-ORDER-771
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{R_1 R_L \left(C_{12} + C_{12} +$$

10.772 INVALID-ORDER-772
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 L_1 s^2 + 1 \right) \left(C_L R_L s + 1 \right) \left(C_2 R_2 s + R_1 R_2 R_L s^3 + C_1 C_2 L_1 R_2 R_2 s^3 + C_1 C_2 R_1 R_2 s^2 + C_1 C_L L_1 R_1 R_2 g_m s^3 + C_1 C_L L_1 R_1 s^3 + C_1 C_L L_1 R_2 s^3 + C_1 C_L$$

10.773 INVALID-ORDER-773
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right) \left(C_2 R_2 s + 1 \right) \left(C_$$

10.774 INVALID-ORDER-774
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{L_L R_1 s \left(c_1 + c_2 + c_3 + c_4 + c$$

10.775 INVALID-ORDER-775
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_1 R_1 R_2 s^4 + C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_2 C_L L_1 R_1 R_2 s^4 + C_1 C_2 C_L L_1 R_2 R_$$

10.776 INVALID-ORDER-776
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 R_L s^5 + C_1 C_2 L_1 L_L R_1 R_2 s^4 + C_1 C_2 L_1 L_L R_2 R_L s^4 + C_1 C_2 L_1 R_1 R_2 R_L s^3 + C_1 C_2 L_L R_1 R_2 R_L s^3 + C_1 C_L L_1 L_L R_1 R_2 R_L s^4 + C_1 C_L L_1 R_1$$

10.777 INVALID-ORDER-777
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 s^5 + C_1 C_2 C_L L_1 L_L R_2 R_L s^5 + C_1 C_2 C_L L_L R_1 R_2 R_L s^4 + C_1 C_2 L_1 L_L R_2 s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_2 R_L s^3 + C_1 C_2 L_L R_1 R_2 s^3 + C_1 C_$$

10.778 INVALID-ORDER-778
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 s^5 + C_1 C_2 C_L L_1 L_L R_2 R_L s^5 + C_1 C_2 C_L L_1 R_1 R_2 R_L s^4 + C_1 C_2 C_L L_L R_1 R_2 R_L s^4 + C_1 C_2 L_1 R_1 R_2 s^3 + C_1 C_2 L_1 R_2 R_L s^3 + C_1 C_2 R_1 R_2 R_L s^4 + C_1 C_2 L_1 L_L R_1 R_2 R_L s^4 + C_1 C_2 L_1 R_$$

10.779 INVALID-ORDER-779
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_L \left(C_1 L_1 s^2 + 1\right) \left(C_2 R_2 g_m s + C_2 s + g_m\right)}{C_1 C_2 L_1 R_1 g_m s^3 + C_1 C_2 L_1 R_2 s^3 + C_1 C_2 L_1 R_2 s^3 + C_1 C_2 R_1 R_2 s^2 + C_1 C_2 R_1 R_2 s^2 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_2 R_1 R_2 g_m s + C_2 R_1 s + C_2 R_2 s + C_1 R_2 g_m s^2 + C_1 R_2$$

10.780 INVALID-ORDER-780
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 L_1 s^2 + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 C_L L_1 R_2 s^3 + C_1 C_2 C_L R_1 R_2 s^2 + C_1 C_2 L_1 s^2 + C_1 C_2 R_1 s + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L R_1 s + C_2 C_L R_1 R_2 g_m s$$

10.781 INVALID-ORDER-781
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 R_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_1 R_1 R_L s^4 + C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_2 C_L R_1 R_2 R_L s^3 + C_1 C_2 L_1 R_1 R_2 g_m s^3 + C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_1 R_2 s^3 + C_1$$

10.782 INVALID-ORDER-782
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 L_1 s^2 + 1 \right) \left(C_L R_L s + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 C_L L_1 R_2 s^3 + C_1 C_2 C_L L_1 R_2 s^3 + C_1 C_2 C_L L_1 R_2 s^2 + C_1 C_2 C_L R_1 R_2 s^2 + C_1 C_2 L_1 s^2 + C_1 C_2 L_1 s^2 + C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_1 R_2 s^3 + C_1 C_2 C_L L_1 R_2 s^3$$

10.783 INVALID-ORDER-783
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right) \left(C_2 R_2 g_m s + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_1 L_L s^4 + C_1 C_2 C_L L_1 R_1 R_2 g_m s^3 + C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 C_L L_1 R_2 s^3 + C_1 C_2 C_L L_1$$

10.784 INVALID-ORDER-784
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_L R_1 R_2 s^4 + C_1 C_2 L_1 L_L s^4 + C_1 C_2 L_1 R_1 R_2 g_m s^3 + C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_1 R_2 s^3 + C_1$$

10.785 INVALID-ORDER-785
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left($$

10.786 INVALID-ORDER-786
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_L R_1 R_L s^5 + C_1 C_2 C_L L_1 L_L R_2 R_L s^5 + C_1 C_2 C_L L_L R_1 R_2 R_L s^4 + C_1 C_2 L_1 L_L R_1 R_2 g_m s^4 + C_1 C_2 L_1 L_L R_1 s^4 + C_1 C_2 L_1 L_L R_2 s^4 + C_1 C_2 L_1 L_L R_1 R_2 R_L s^4 + C_1 C_2 L_1 R_1 R_2 R_$$

10.787 INVALID-ORDER-787
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_L R_1 R_2 s^4 + C_1 C_2 C_L R_1 R_2$$

10.788 INVALID-ORDER-788
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_1 R_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_1 R_1 R_L s^4 + C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_$$

10.789 INVALID-ORDER-789
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ R_L\right)$$

$$H(s) = \frac{R_1 R_L \left(C_1 L_1 s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{C_1 C_2 L_1 L_2 R_1 g_m s^4 + C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_1 R_L s^3 + C_1 C_2 L_2 R_1 s^3 + C_1 C_2 R_1 R_L s^2 + C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + C_2 L_2 R_1 g_m s^2 + C_2 L_2 s^2 + C_2 R_1 s + C_2 R_1 R_1 s^2 + C_1 R_1 s^2 +$$

10.790 INVALID-ORDER-790
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 L_1 s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_1 L_2 s^4 + C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 C_L L_2 R_1 s^3 + C_1 C_2 L_1 s^2 + C_1 C_L L_1 R_1 g_m s^2 + C_1 C_L L_1 s^2 + C_1 C_L L$$

10.791 INVALID-ORDER-791
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

10.792 INVALID-ORDER-792
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 L_1 s^2 + 1 \right) \left(C_L R_L s + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_1 L_2 R_1 g_m s^4 + C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 C_L L_1 R_L s^3 + C_1 C_2 C_L L_1 R_L s^3 + C_1 C_2 C_L L_1 R_L s^3 + C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 C_L L_1$$

10.793 INVALID-ORDER-793
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 s + g_m \right)}{s \left(C_1 C_2 C_L L_1 L_2 R_1 g_m s^4 + C_1 C_2 C_L L_1 L_2 s^4 + C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 C_L L_2 R_1 s^3 + C_1 C_2 C_L L_2 R_1 s^3 + C_1 C_2 L_1 R_2 s^3 + C_1$$

10.794 INVALID-ORDER-794
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_2 L_L R_1 s^5 + C_1 C_2 L_1 L_2 R_1 g_m s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_1 L_2 R_1 s^3 + C_1 C_2 L_2 L_2 R_1 s^4 + C_1 C_2 L_1 L_2 R_1 g_m s^4 + C_1 C_2 L_1 R_1 g_m s^4 + C_$$

10.795 INVALID-ORDER-795
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_L L_L s^2 + C_L R_L s + 1 \right) \left(C_L R_L s + 1 \right) \left($$

10.796 INVALID-ORDER-796
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.797 INVALID-ORDER-797
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_2 L_L R_1 s^5 + C_1 C_2 C_L L_2 L_L R_1 s^5 + C_1 C_2 C_L L_2 L_2 R_1 s^6 + C_1 C_2 L_1 L_2 R_1 g_m s^4 + C_1 C_2 L_1 L_2 R_1 s^6 + C_1 C_2 C_L L_2 L_2 R_1 s^6$$

10.798 INVALID-ORDER-798
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

10.799 INVALID-ORDER-799
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

$$H(s) = \frac{R_1 R_L \left(C_1 L_1 s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s + C_2 s + g_m \right)}{C_1 C_2 L_1 L_2 R_1 g_m s^4 + C_1 C_2 L_1 R_1 R_2 g_m s^3 + C_1 C_2 L_1 R_1 s^3 + C_1 C_2 L_1 R_2 s^3 +$$

10.800 INVALID-ORDER-800
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 L_1 s^2 + 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s - 1 \right) \left(C_2 L_2 g_m s^2 + C_2 R_2 g_m s - 1 \right) \left(C_2 L_2 R_1 g_m s^4 + C_1 C_2 C_L L_1 L_2 s^4 + C_1 C_2 C_L L_1 R_1 g_m s^3 + C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 C_L L_1 R_2 s^3$$

10.801 INVALID-ORDER-801
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_1 R_1 R_2 R_L g_m s^4 + C_1 C_2 C_L L_1 R_1 R_L s^4 + C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_2 C_L L_2 R_1 R_L s^4 + C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_$$

10.802 INVALID-ORDER-802
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 L_1 s^2 + 1 \right) \left(C_L R_1 s^3 + C_1 C_2 C_L L_1 L_2 s^4 + C_1 C_2 C_L L_1 R_1 R_2 g_m s^3 + C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 C_L L_1 R_2 s^3 + C_1 C_2 C_L L_1 R_L s^3 + C_1 C_2 C_L L_2 R_1 s^3 + C_1 C_2 C_L L_1 R_2 s^2 + C_1 C_2 C_L R_1 R_2 s^2 + C_1 C_2 C_L R_1 R_2 s^3 + C_1 C_2$$

10.803 INVALID-ORDER-803
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 L_1 s^2 + 1 \right) \left(C_L L_1 L_2 R_1 g_m s^4 + C_1 C_2 C_L L_1 L_2 s^4 + C_1 C_2 C_L L_1 R_1 R_2 g_m s^3 + C_1 C_2 C_L L_1 R_1 s^3 + C_1 C_2 C_L L_1 R_2 s^3 + C_1 C_2 C_L L_2 R_1 s^$$

10.804 INVALID-ORDER-804
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_1 R_1 s^5 + C_1 C_$$

10.805 INVALID-ORDER-805
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1}{s\left(C_1C_2C_LL_1L_2R_1g_ms^4 + C_1C_2C_LL_1L_2s^4 + C_1C_2C_LL_1L_Ls^4 + C_1C_2C_LL_1R_1R_2g_ms^3 + C_1C_2C_LL_1R_1s^3 + C_1C_2C_LL_1R_2s^3 +$$

10.806 INVALID-ORDER-806
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.807 INVALID-ORDER-807
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_L R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_1 L_L R_2 s^5 + C_1 C_2 C_L L_1 L_L R_1 s^5 + C_1 C_2 C_L L_1 L_1 R_1 s^5 + C_1 C_$$

10.808 INVALID-ORDER-808
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 s^5 + C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 s^5$$

10.809 INVALID-ORDER-809
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L\right)$$

10.810 INVALID-ORDER-810
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 s^5 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_2 C_L L_2 R_1 R_2 s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_2 R_1 s^3 + C_1 C_L L_1 L_2 R_1 g_m s^4 + C_1 C_L L_1 L_2 s^4 + C_1 C_L L_1 L_2 R_1 R_2 s^4 + C_1$$

10.811 INVALID-ORDER-811
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 R_L s^5 + C_1 C_2 C_L L_1 L_2 R_2 R_L s^5 + C_1 C_2 C_L L_2 R_1 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_1 R_2 g_m s^4 + C_1 C_2 L_1 L_2 R_1 s^4 + C_1 C_2$$

10.812 INVALID-ORDER-812
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 s^5 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_2 R_1 R_2 s^4 + C_1 C_2 C_L L_2 R_1 R_2 s^4 + C_1 C_2 L_1 L_2 R_1 s^3 + C_1 C_2 C_L L_2 R_1 R_2 s^4 + C_1 C_2 C_L L_2 R_2 R_2 s^4 + C_1 C_2 C_L L_2 R_$$

10.813 INVALID-ORDER-813
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$$

10.814 INVALID-ORDER-814
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + C_1 C_2 C_L L_1 L_2 L_L R_2 s^6 + C_1 C_2 C_L L_2 L_L R_1 R_2 s^5 + C_1 C_2 L_1 L_2 L_L s^5 + C_1 C_2 L_1 L_2 R_1 R_2 g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 s^6 + C_1 C_2 L_1 L_2 L_1 R_1 R_2 s^6 + C_1 L_2 L_1 R_2 s^6 + C_1 L_2 L_1 R_2 s^6 + C_1 L_2 L_1 R_2 s^6$$

10.815 INVALID-ORDER-815
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 s^5 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_2 C_L L_2 L_2 R_1 s^5 + C_1 C_2 C_L L_2 R_1 R_2 s^4 + C_1 C_2 C_L L_2 R_1 R_2 s^4 + C_1 C_2 C_L L_2 R_1 R_2 s^6 + C_1 C_2 C_L R_1 R_2 s^6 + C_1 C_2 C_L R_2 R_2 s^6 + C_1 C_2 C_L R_2 R_2 r_2 R_2 r_2 R_2 r_2 R_2 r_2 R_2$$

10.816 INVALID-ORDER-816
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 R_L g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L R_1 R_L s^6 + C_1 C_2 C_L L_1 L_2 L_L R_2 R_L s^6 + C_1 C_2 C_L L_2 L_L R_1 R_2 R_L s^5 + C_1 C_2 L_1 L_2 L_L R_1 R_2 g_m s^5 + C_1 C_2 L_1 L_2 L_L R_1 R_2 R_L s^6 + C_1 C_2 L_1 L_2 L_2 R_1 R_2 R_$$

10.817 INVALID-ORDER-817
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$$

10.818 INVALID-ORDER-818
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + C_1 C_2 C_L L_1 L_2 L_L R_2 s^6 + C_1 C_2 C_L L_1 L_2 L_1 R_2 s^6 + C_1 C_2 C_L L_1 L_2 L_1 R_2 s^6 + C_1 C_2 C_L L_1 L_2 L_1 R_2 s^6 + C_1 C_2 C_L L_1 L_$$

10.819 INVALID-ORDER-819
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L\right)$$

10.820 INVALID-ORDER-820
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s}\right)$$

$$H(s) = \frac{R_1 \left(C_1 - C_2 C_2 L_1 L_2 R_1 R_2 g_m s^5 + C_1 C_2 C_2 L_1 L_2 R_1 s^5 + C_1 C_2 C_2 L_1 L_2 R_2 s^5 + C_1 C_2 C_2 L_1 R_1 R_2 s^4 + C_1 C_2 C_2 L_2 R_1 R_2 s^4 + C_1 C_2 L_1 L_2 s^4 + C_1 C_2 L_1 R_2 s^3 + C_1 C_2 L_2 R_1 s^3 + C_1 C_2 R_1 R_2 s^4 + C_1 C_2 L_1 L_2 R_2 s^4 + C_1 C_2 L_2 L_2 R_2 s^4 + C_1 C_2 L_2 L_2 R_2 s^4 + C_1 C_2 L_2 L_2$$

10.821 INVALID-ORDER-821
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_2 R_L g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 R_L s^5 + C_1 C_2 C_L L_1 L_2 R_2 R_L s^5 + C_1 C_2 C_L L_1 R_1 R_2 R_L s^4 + C_1 C_2 C_L L_2 R_1 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_1 R_2 g_m s^4 + C_1 C_2 L_1 L_2 R_1 R_2 R_L s^4 + C_1 C_2 L_1 L_2 R_$$

10.822 INVALID-ORDER-822
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 s^5 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_2 C_L L_1 L_2 R_L s^5 + C_1 C_2 C_L L_1 R_1 R_2 s^4 + C_1 C_2 C_L L_1 R_2 R_L s^4 + C_1 C_2 C_L L_2 R_1 R_2 s^4 + C_1 C_2 C_L L_2 R_2 R_2 s^4 + C_1 C_2 C_L L_$$

10.823 INVALID-ORDER-823
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$$

10.824 INVALID-ORDER-824
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$$

10.825 INVALID-ORDER-825
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$$

$$H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L s^6 + C_1 C_2 C_L L_1 L_2 R_1 R_2 g_m s^5 + C_1 C_2 C_L L_1 L_2 R_1 s^5 + C_1 C_2 C_L L_1 L_2 R_2 s^5 + C_1 C_2 C_L L_$$

10.826 INVALID-ORDER-826
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$$

10.827 INVALID-ORDER-827 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$

 $H(s) = \frac{1}{C_1 C_2 C_L L_1 L_2 L_L R_1 R_2 g_m s^6 + C_1 C_2 C_L L_1 L_2 L_L R_1 s^6 + C_1 C_2 C_L L_1 L_2 L_L R_2 s^6 + C_1 C_2 C_L L_1 L_2 L_L R_2 s^6 + C_1 C_2 C_L L_1 L_1 R_2 s^6$

10.828 INVALID-ORDER-828
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$$