Filter Table: None

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1 Filter Summary

Filter Order	Z Combo	Transfer Function	Valid	Filter Type	Parameters
None	$\left(R_1, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	$\frac{L_{L}R_{1}R_{L}g_{m}s}{(R_{1}g_{m}+1)(C_{L}L_{L}R_{L}s^{2}+L_{L}s+R_{L})}$	Yes	BP	Q: $C_L R_L \sqrt{\frac{1}{C_L L_L}}$; wo: $\sqrt{\frac{1}{C_L L_L}}$; bandwidth: $\frac{1}{C_L R_L}$; K-LP: 0; K-HP: 0; 1
None	$\left(L_1 s, \infty, \infty, \infty, \infty, \frac{R_L}{C_L R_L s + 1}\right)$	$\frac{L_1R_Lg_ms}{(C_LR_Ls+1)(L_1g_ms+1)}$	Yes	BP	Q: $\frac{C_L L_1 R_L g_m \sqrt{\frac{1}{C_L L_1 R_L g_m}}}{C_L R_L + L_1 g_m}; \text{ wo: } \sqrt{\frac{1}{C_L L_1 R_L g_m}}; \text{ bandwidth: } \frac{C_L R_L + L_1 g_m}{C_L L_1 R_L g_m}; \text{ K-LP: 0; K-I}$
None	$\left(\frac{L_1s}{C_1L_1s^2+1}, \infty, \infty, \infty, \infty, R_L\right)$	$\frac{L_1 R_L g_m s}{C_1 L_1 s^2 + L_1 g_m s + 1}$	Yes	BP	$Q: \frac{C_L R_L + L_1 g_m}{g_m}; \text{ wo: } \sqrt{\frac{1}{C_1 L_1}}; \text{ bandwidth: } \frac{g_m}{C_1}; K-LP: 0; K-HP: 0; K-$
None	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L\right)$	$\frac{L_{1}R_{1}s^{2} + L_{1}g_{m}s + 1}{L_{1}R_{1}R_{2}g_{m}s}$ $\frac{L_{1}R_{1}R_{L}g_{m}s}{C_{1}L_{1}R_{1}s^{2} + L_{1}R_{1}g_{m}s + L_{1}s + R_{1}}$	Yes	BP	Q: $\frac{C_1R_1\sqrt{\frac{1}{C_1L_1}}}{R_1g_m+1}$; wo: $\sqrt{\frac{1}{C_1L_1}}$; bandwidth: $\frac{R_1g_m+1}{C_1R_1}$; K-LP: 0; K-HP: 0; K
None	$\left(\frac{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}{\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)}\right)$		Yes	LP	$Q: \frac{C_1C_LR_L\sqrt{\frac{g_m}{C_1C_LR_L}}}{C_1+C_LR_Lq_m}; \text{ wo: } \sqrt{\frac{g_m}{C_1C_LR_L}}; \text{ bandwidth: } \frac{C_1+C_LR_Lq_m}{C_1C_LR_L}; \text{ K-LP: } R_L; \text{ K-}$
		$\frac{R_L g_m}{(C_1 s + g_m)(C_L R_L s + 1)}$ $R_1 R_L g_m$			Q: $\frac{C_1 + C_L R_L g_m}{C_1 + C_L R_L g_m}$, wo: $\sqrt{\frac{C_1 C_L R_L}{C_1 C_L R_L}}$, bandwidth: $\frac{C_1 C_L R_L}{C_1 C_L R_L}$, K-LF: R_L , K-LP: Q: $\frac{C_1 C_L R_1 R_L \sqrt{\frac{R_1 g_m + 1}{C_1 C_L R_1 R_L}}}{C_1 R_1 + C_L R_1 R_L g_m + C_L R_L}$; wo: $\sqrt{\frac{R_1 g_m + 1}{C_1 C_L R_1 R_L}}$; bandwidth: $\frac{C_1 R_1 + C_L R_1 R_L g_m + C_L R_L}{C_1 C_L R_1 R_L}$; K-LP:
None	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \infty, \infty, \frac{R_L}{C_LR_Ls+1}\right)$	$\frac{R_1 R_L g_m}{(C_L R_L s + 1)(C_1 R_1 s + R_1 g_m + 1)}$	Yes	LP	
None	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls}\right)$	$\frac{L_1 g_m}{C_L(C_1 L_1 s^2 + L_1 g_m s + 1)}$	Yes	LP	Q: $\frac{C_1\sqrt{\frac{1}{C_1L_1}}}{g_m}$; wo: $\sqrt{\frac{1}{C_1L_1}}$; bandwidth: $\frac{g_m}{C_1}$; K-LP: $\frac{L_1g_m}{C_L}$; K-HP: 0; K
None	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$	$\frac{L_1R_1g_m}{C_L(C_1L_1R_1s^2{+}L_1R_1g_ms{+}L_1s{+}R_1)}$	Yes	LP	Q: $\frac{C_1 R_1 \sqrt{\frac{1}{C_1 L_1}}}{R_1 g_m + 1}$; wo: $\sqrt{\frac{1}{C_1 L_1}}$; bandwidth: $\frac{R_1 g_m + 1}{C_1 R_1}$; K-LP: $\frac{L_1 g_m}{C_L}$; K-HP: (
None	$\left(R_1, \infty, \infty, \infty, \infty, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	$\frac{R_1 R_L g_m \left(C_L L_L s^2 + 1\right)}{(R_1 g_m + 1) \left(C_L L_L s^2 + C_L R_L s + 1\right)}$	Yes	BS	Q: $\frac{L_L\sqrt{\frac{1}{C_LL_L}}}{R_L}$; wo: $\sqrt{\frac{1}{C_LL_L}}$; bandwidth: $\frac{R_L}{L_L}$; K-LP: $\frac{R_1R_Lg_m}{R_1g_m+1}$; K-HP: $\frac{R_1R_Lg_m}{R_1g_m+1}$
None	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L\right)$	$\frac{R_L g_m \left(C_1 L_1 s^2 + 1\right)}{C_1 L_1 g_m s^2 + C_1 s + g_m}$	Yes	BS	Q: $L_1 g_m \sqrt{\frac{1}{C_1 L_1}}$; wo: $\sqrt{\frac{1}{C_1 L_1}}$; bandwidth: $\frac{1}{L_1 g_m}$; K-LP: R_L ; K-HP: R_L ;
None	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L\right)$	$\frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1\right)}{C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1}$	Yes	BS	Q: $\frac{L_1\sqrt{\frac{1}{C_1L_1}}(R_1g_m+1)}{R_1}$; wo: $\sqrt{\frac{1}{C_1L_1}}$; bandwidth: $\frac{R_1}{L_1(R_1g_m+1)}$; K-LP: $\frac{R_1R_Lg_m}{R_1g_m+1}$; K-HP
None	$\left(L_1s + R_1 + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L\right)$	$\frac{R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m}$	Yes	GE	Q: $\frac{L_1g_m\sqrt{\frac{1}{C_1L_1}}}{R_1g_m+1}$; wo: $\sqrt{\frac{1}{C_1L_1}}$; bandwidth: $\frac{R_1g_m+1}{L_1g_m}$; K-LP: R_L ; K-HP: R_L ; K-B
None	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1,\ \infty,\ \infty,\ \infty,\ \infty,\ R_L\right)$	$\frac{R_L g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1}$	Yes	GE	Q: $\frac{C_1\sqrt{\frac{1}{C_1L_1}}(R_1g_m+1)}{g_m}$; wo: $\sqrt{\frac{1}{C_1L_1}}$; bandwidth: $\frac{g_m}{C_1(R_1g_m+1)}$; K-LP: $\frac{R_1R_Lg_m}{R_1g_m+1}$; K-HP: $\frac{R_1R_Lg_m}{R_1g_m+1}$;
None	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$	$\frac{R_L g_m(C_1 R_1 s + 1)}{(C_L R_L s + 1)(C_1 R_1 g_m s + C_1 s + g_m)}$	Yes	INVALID-NUMER	$C_1C_1B_1\sqrt{\frac{g_m}{g_m}}(B_1g_m+1)$
None	$\left(\frac{L_1s}{C_1L_1s^2+1}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$	$\frac{L_1 g_m(C_L R_L s + 1)}{C_L(C_1 L_1 s^2 + L_1 g_m s + 1)}$	Yes	INVALID-NUMER	Q: $\frac{C_1\sqrt{\frac{1}{C_1L_1}}}{g_m}$; wo: $\sqrt{\frac{1}{C_1L_1}}$; bandwidth: $\frac{g_m}{C_1}$; K-LP: $\frac{L_1g_m}{C_L}$; K-HP: 0; I
None	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$	$\frac{L_1 R_1 g_m (C_L R_L s + 1)}{C_L (C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1)}$	Yes	INVALID-NUMER	Q: $\frac{C_1 R_1 \sqrt{\frac{1}{C_1 L_1}}}{R_1 g_m + 1}$; wo: $\sqrt{\frac{1}{C_1 L_1}}$; bandwidth: $\frac{R_1 g_m + 1}{C_1 R_1}$; K-LP: $\frac{L_1 g_m}{C_L}$; K-HP: 0;
None	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \ \infty, \ \infty, \ L_Ls + \frac{1}{C_Ls}\right)$	$\frac{L_1 g_m \left(C_L L_L s^2 + 1\right)}{C_L \left(C_1 L_1 s^2 + L_1 g_m s + 1\right)}$	No	INVALID-WZ	Q: $\frac{C_1\sqrt{\frac{1}{C_1L_1}}}{g_m}$; wo: $\sqrt{\frac{1}{C_1L_1}}$; bandwidth: $\frac{g_m}{C_1}$; K-LP: $\frac{L_1g_m}{C_L}$; K-HP: $\frac{L_Lg_m}{C_1}$; I
None	$\left(\frac{L_1s}{C_1L_1s^2+1}, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$	$\frac{L_1 g_m \left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_L \left(C_1 L_1 s^2 + L_1 g_m s + 1\right)}$	No	INVALID-WZ	Q: $\frac{C_1\sqrt{\frac{1}{C_1L_1}}}{g_m}$; wo: $\sqrt{\frac{1}{C_1L_1}}$; bandwidth: $\frac{g_m}{C_1}$; K-LP: $\frac{L_1g_m}{C_L}$; K-HP: $\frac{L_Lg_m}{C_1}$; K-F
None	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$	$\frac{L_1 R_1 g_m \left(C_L L_L s^2 + 1\right)}{C_L \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$	No	INVALID-WZ	Q: $\frac{C_1 R_1 \sqrt{\frac{1}{C_1 L_1}}}{R_1 g_m + 1}$; wo: $\sqrt{\frac{1}{C_1 L_1}}$; bandwidth: $\frac{R_1 g_m + 1}{C_1 R_1}$; K-LP: $\frac{L_1 g_m}{C_L}$; K-HP: $\frac{L_L g_m}{C_1}$
None	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$	$\frac{L_1 R_1 g_m \left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_L \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$	No	INVALID-WZ	Q: $\frac{C_1 R_1 \sqrt{\frac{1}{C_1 L_1}}}{R_1 g_m + 1}$; wo: $\sqrt{\frac{1}{C_1 L_1}}$; bandwidth: $\frac{R_1 g_m + 1}{C_1 R_1}$; K-LP: $\frac{L_1 g_m}{C_L}$; K-HP: $\frac{L_L g_m}{C_1}$; K-
None	$(R_1, \infty, \infty, \infty, \infty, R_L)$	$rac{R_1R_Lg_m}{R_1g_m+1}$	No	INVALID-ORDER	NONE
None	$\left(R_1, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$	$\frac{R_1g_m}{C_Ls(R_1g_m+1)}$	No	INVALID-ORDER	NONE
None	$\left(R_1, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$	$rac{R_1 R_L g_m}{(R_1 g_m + 1)(C_L R_L s + 1)}$	No	INVALID-ORDER	NONE
None	$\left(R_1, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$	$rac{R_{1}g_{m}(C_{L}R_{L}s+1)}{C_{L}s(R_{1}g_{m}+1)}$	No	INVALID-ORDER	NONE
None	$\left(R_1, \infty, \infty, \infty, \infty, L_L s + \frac{1}{C_L s}\right)$	$\frac{R_1g_m\left(C_LL_Ls^2+1\right)}{C_Ls(R_1g_m+1)}$	No	INVALID-ORDER	NONE
None	$\left(R_1, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$	$\frac{L_L R_1 g_m s}{(R_1 g_m + 1)(C_L L_L s^2 + 1)}$	No	INVALID-ORDER	NONE
None	$\left(R_1, \infty, \infty, \infty, \infty, L_L s + R_L + \frac{1}{C_L s}\right)$	$\frac{R_{1}g_{m}\left(C_{L}L_{L}s^{2}+C_{L}R_{L}s+1\right)}{C_{L}s(R_{1}g_{m}+1)}$	No	INVALID-ORDER	NONE
None	$\left(R_1, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	$\frac{R_{1}g_{m}\left(C_{L}L_{L}R_{L}s^{2}+L_{L}s+R_{L}\right)}{\left(R_{1}g_{m}+1\right)\left(C_{L}L_{L}s^{2}+1\right)}$	No	INVALID – ORDER	NONE
None	$(L_1s, \infty, \infty, \infty, \infty, R_L)$	$\frac{L_1R_Lg_ms}{L_1g_ms+1}$	No	INVALID – ORDER	NONE
None	$\left(L_1 s, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$	$\frac{L_{1gm}}{C_L(L_{1gm}s+1)}$	No	INVALID-ORDER	NONE
None	$\left(L_1 s, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_L s}\right)$	$\frac{L_1g_m(C_LR_Ls+1)}{C_L(L_1g_ms+1)}$	No	INVALID-ORDER	NONE
None	$\left(L_1 s, \ \infty, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$	$\frac{L_1g_m\big(C_LL_Ls^2+1\big)}{C_L(L_1g_ms+1)}$	No	INVALID – ORDER	NONE
None	$\left(L_1 s, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1}\right)$	$\frac{L_1 L_L g_m s^2}{(C_L L_L s^2 + 1)(L_1 g_m s + 1)}$	No	INVALID-ORDER	NONE

None	$\left(L_1 s, \ \infty, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$	$\frac{L_1g_m\left(C_LL_Ls^2+C_LR_Ls+1\right)}{C_L(L_1g_ms+1)}$	No	INVALID - ORDER	NONE
None	$\left(L_1 s, \infty, \infty, \infty, \infty, \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	$\frac{L_{1}L_{L}R_{L}g_{m}s^{2}}{(L_{1}g_{m}s+1)(C_{L}L_{L}R_{L}s^{2}+L_{L}s+R_{L})}$	No	INVALID – ORDER	NONE
None	$\left(L_1 s, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	$\frac{L_{1}g_{m}s\left(C_{L}L_{L}R_{L}s^{2}+L_{L}s+R_{L}\right)}{(C_{L}L_{L}s^{2}+1)(L_{1}g_{m}s+1)}$	No	INVALID – ORDER	NONE
None	$\left(L_1 s, \infty, \infty, \infty, \infty, \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	$\frac{L_1 R_L g_m s \left(C_L L_L s^2 + 1\right)}{(L_1 g_m s + 1) \left(C_L L_L s^2 + C_L R_L s + 1\right)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{1}{C_1s}, \infty, \infty, \infty, \infty, R_L\right)$	$rac{R_L g_m}{C_1 s + g_m}$	No	INVALID – ORDER	NONE
None	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$	$rac{g_m}{C_L s(C_1 s + g_m)}$	No	INVALID - ORDER	NONE
None	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$	$\frac{g_m(C_LR_Ls+1)}{C_Ls(C_1s+g_m)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{1}{C_{1s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_{Ls}}\right)$	$rac{g_mig(C_LL_Ls^2+1ig)}{C_Ls(C_1s+g_m)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1}\right)$	$\frac{L_L g_m s}{(C_1 s + g_m)(C_L L_L s^2 + 1)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ L_Ls + R_L + \frac{1}{C_Ls}\right)$	$\frac{g_m\left(C_LL_Ls^2+C_LR_Ls+1\right)}{C_Ls(C_1s+g_m)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	$\frac{L_L R_L g_m s}{(C_1 s + g_m)(C_L L_L R_L s^2 + L_L s + R_L)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	$rac{g_mig(C_LL_LR_Ls^2 + L_Ls + R_Lig)}{(C_1s + g_m)(C_LL_Ls^2 + 1)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{1}{C_1 s}, \infty, \infty, \infty, \infty, \infty, \frac{R_L\left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	$\frac{R_L g_m \left(C_L L_L s^2 + 1\right)}{(C_1 s + g_m) \left(C_L L_L s^2 + C_L R_L s + 1\right)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{R_1}{C_1R_1s+1}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L\right)$	$rac{R_{1}R_{L}g_{m}}{C_{1}R_{1}s+R_{1}g_{m}+1}$	No	INVALID – ORDER	NONE
None	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \infty, \infty, \frac{1}{C_Ls}\right)$	$\frac{R_1g_m}{C_Ls(C_1R_1s+R_1g_m+1)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \infty, \infty, R_L + \frac{1}{C_Ls}\right)$	$\frac{R_1 g_m(C_L R_L s + 1)}{C_L s(C_1 R_1 s + R_1 g_m + 1)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \infty, \infty, L_Ls + \frac{1}{C_Ls}\right)$	$rac{R_{1}g_{m}ig(C_{L}L_{L}s^{2}+1ig)}{C_{L}sig(C_{1}R_{1}s+R_{1}g_{m}+1ig)}$	No	INVALID - ORDER	NONE
None	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}\right)$	$\frac{L_L R_1 g_m s}{(C_L L_L s^2 + 1)(C_1 R_1 s + R_1 g_m + 1)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \infty, \infty, L_Ls + R_L + \frac{1}{C_Ls}\right)$	$rac{R_1g_m\Big(C_LL_Ls^2+C_LR_Ls+1\Big)}{C_Ls(C_1R_1s+R_1g_m+1)}$	No	INVALID - ORDER	NONE
None	$\left(\frac{R_1}{C_1R_1s+1}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls+\frac{1}{R_L}+\frac{1}{L_Ls}}\right)$	$\frac{L_L R_1 R_L g_m s}{(C_1 R_1 s + R_1 g_m + 1)(C_L L_L R_L s^2 + L_L s + R_L)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{R_1}{C_1R_1s+1}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$	$\frac{R_1g_m \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_L L_L s^2 + 1\right) \left(C_1 R_1 s + R_1 g_m + 1\right)}$	No	INVALID - ORDER	NONE
None	$\left(\frac{R_1}{C_1R_1s+1}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls+\frac{1}{C_Ls}\right)}{L_Ls+R_L+\frac{1}{C_Ls}}\right)$	$\frac{R_1 R_L g_m \left(C_L L_L s^2 + 1\right)}{(C_1 R_1 s + R_1 g_m + 1)(C_L L_L s^2 + C_L R_L s + 1)}$	No	INVALID – ORDER	NONE
None	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L\right)$	$\frac{R_L g_m(C_1 R_1 s + 1)}{C_1 R_1 g_m s + C_1 s + g_m}$	No	INVALID - ORDER	NONE
None	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s}\right)$	$\frac{g_m(C_1R_1s+1)}{C_Ls(C_1R_1g_ms+C_1s+g_m)}$	No	INVALID - ORDER	NONE
None	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$	$\frac{g_m(C_1R_1s+1)(C_LR_Ls+1)}{C_Ls(C_1R_1g_ms+C_1s+g_m)}$	No	INVALID - ORDER	NONE
None	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$	$\frac{g_m(C_1R_1s+1)\big(C_LL_Ls^2+1\big)}{C_Ls(C_1R_1g_ms+C_1s+g_m)}$	No	INVALID – ORDER	NONE
None	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$	$\frac{L_L g_m s(C_1 R_1 s + 1)}{(C_L L_L s^2 + 1)(C_1 R_1 g_m s + C_1 s + g_m)}$	No	INVALID – ORDER	NONE
None	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ L_L s + R_L + \frac{1}{C_L s}\right)$	$\frac{g_m(C_1R_1s+1)\left(C_LL_Ls^2+C_LR_Ls+1\right)}{C_Ls(C_1R_1g_ms+C_1s+g_m)}$	No	INVALID - ORDER	NONE
None	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	$\frac{L_L R_L g_m s(C_1 R_1 s + 1)}{(C_1 R_1 g_m s + C_1 s + g_m)(C_L L_L R_L s^2 + L_L s + R_L)}$	No	INVALID - ORDER	NONE
None	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	$\frac{g_m(C_1R_1s+1)\left(C_LL_LR_Ls^2+L_Ls+R_L\right)}{(C_LL_Ls^2+1)(C_1R_1g_ms+C_1s+g_m)}$	No	INVALID - ORDER	NONE
None	$\left(R_1 + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	$\frac{R_L g_m (C_1 R_1 s + 1) \left(C_L L_L s^2 + 1 \right)}{(C_L L_L s^2 + C_L R_L s + 1) \left(C_1 R_1 g_m s + C_1 s + g_m \right)}$	No	INVALID - ORDER	NONE
None	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls}\right)$	$\frac{g_m(C_1L_1s^2+1)}{C_Ls(C_1L_1g_ms^2+C_1s+g_m)}$	No	INVALID – ORDER	NONE
None	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_LR_Ls+1}\right)$	$\frac{R_L g_m \left(C_1 L_1 s^2 + 1\right)}{(C_L R_L s + 1)(C_1 L_1 g_m s^2 + C_1 s + g_m)}$	No	INVALID – ORDER	NONE
None	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_Ls}\right)$	$\frac{g_m(C_1L_1s^2+1)(C_LR_Ls+1)}{C_Ls(C_1L_1g_ms^2+C_1s+g_m)}$	No	INVALID – ORDER	NONE
None	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ L_Ls + \frac{1}{C_Ls}\right)$	$\frac{g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{C_L s \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right)}$	No	INVALID – ORDER	NONE
None	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$	$\frac{L_L g_m s \left(C_1 L_1 s^2 + 1\right)}{(C_L L_L s^2 + 1) \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right)}$	No	INVALID - ORDER	NONE
None	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ L_Ls + R_L + \frac{1}{C_Ls}\right)$	$\frac{g_m(C_1L_1s^2+1)(C_LL_Ls^2+C_LR_Ls+1)}{C_Ls(C_1L_1g_ms^2+C_1s+g_m)}$	No	INVALID – ORDER	NONE
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None	$\left(L_1 s + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	$\frac{L_L R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_1 L_1 g_m s^2 + C_1 s + g_m\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}$	No	INVALID – ORDER	NONE
None	$\left(L_1 s + \frac{1}{C_1 s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	$\frac{g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_L L_L s^2 + 1\right) \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right)}$	No	INVALID-ORDER	NONE
None	$\left(L_1s + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$	$\frac{R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_1 L_1 g_m s^2 + C_1 s + g_m\right)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_LR_Ls+1}\right)$	$\frac{L_{1}R_{L}g_{m}s}{(C_{L}R_{L}s+1)(C_{1}L_{1}s^{2}+L_{1}g_{m}s+1)}$	No	INVALID-ORDER	NONE
None	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1}\right)$	$\frac{L_1 L_L g_m s^2}{(C_L L_L s^2 + 1)(C_1 L_1 s^2 + L_1 g_m s + 1)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	$\frac{L_{1}L_{L}R_{L}g_{m}s^{2}}{(C_{1}L_{1}s^{2}+L_{1}g_{m}s+1)(C_{L}L_{L}R_{L}s^{2}+L_{L}s+R_{L})}$	No	INVALID – ORDER	NONE
None	$\left(\frac{L_1s}{C_1L_1s^2+1}, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$	$\frac{L_{1}g_{m}s\left(C_{L}L_{L}R_{L}s^{2}+L_{L}s+R_{L}\right)}{\left(C_{L}L_{L}s^{2}+1\right)\left(C_{1}L_{1}s^{2}+L_{1}g_{m}s+1\right)}$	No	INVALID-ORDER	NONE
None	$\left(\frac{L_1s}{C_1L_1s^2+1}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls+\frac{1}{C_Ls}\right)}{L_Ls+R_L+\frac{1}{C_Ls}}\right)$	$\frac{L_{1}R_{L}g_{m}s\left(C_{L}L_{L}s^{2}+1\right)}{\left(C_{1}L_{1}s^{2}+L_{1}g_{m}s+1\right)\left(C_{L}L_{L}s^{2}+C_{L}R_{L}s+1\right)}$	No	INVALID – ORDER	NONE
None	$\left(L_1s + R_1 + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls}\right)$	$\frac{g_m(C_1L_1s^2 + C_1R_1s + 1)}{C_Ls(C_1L_1g_ms^2 + C_1R_1g_ms + C_1s + g_m)}$	No	INVALID-ORDER	NONE
None	$\left(L_1s + R_1 + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_LR_Ls+1}\right)$	$\frac{R_L g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_L R_L s + 1\right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$	No	INVALID-ORDER	NONE
None	$\left(L_1s + R_1 + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_Ls}\right)$	$\frac{g_m(C_L R_L s + 1) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{C_L s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$	No	INVALID-ORDER	NONE
None	$\left(L_1s + R_1 + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ L_Ls + \frac{1}{C_Ls}\right)$	$\frac{g_m(C_L L_L s^2 + 1)(C_1 L_1 s^2 + C_1 R_1 s + 1)}{C_L s(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m)}$	No	INVALID-ORDER	NONE
None	$\left(L_1s + R_1 + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$	$\frac{L_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_L L_L s^2 + 1\right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$	No	INVALID-ORDER	NONE
None	$\left(L_1s + R_1 + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ L_Ls + R_L + \frac{1}{C_Ls}\right)$	$\frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right) \left(C_L L_L s^2 + C_L R_L s + 1\right)}{C_L s \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$	No	INVALID-ORDER	NONE
None	$\left(L_1s + R_1 + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$	$\frac{L_L R_L g_m s \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{(C_L L_L R_L s^2 + L_L s + R_L) (C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m)}$	No	INVALID – ORDER	NONE
None	$\left(L_1s + R_1 + \frac{1}{C_1s}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1} + R_L\right)$	$\frac{g_m \left(C_1 L_1 s^2 + C_1 R_1 s + 1 \right) \left(C_L L_L R_L s^2 + L_L s + R_L \right)}{\left(C_L L_L s^2 + 1 \right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m \right)}$	No	INVALID-ORDER	NONE
None	$\left(L_{1}s + R_{1} + \frac{1}{C_{1}s}, \ \infty, \ \infty, \ \infty, \ \frac{R_{L}\left(L_{L}s + \frac{1}{C_{L}s}\right)}{L_{L}s + R_{L} + \frac{1}{C_{L}s}}\right)$	$\frac{R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 s^2 + C_1 R_1 s + 1\right)}{\left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_1 L_1 g_m s^2 + C_1 R_1 g_m s + C_1 s + g_m\right)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$	$\frac{L_1R_1R_Lg_ms}{(C_LR_Ls+1)(C_1L_1R_1s^2+L_1R_1g_ms+L_1s+R_1)}$	No	INVALID-ORDER	NONE
None	$\left(\frac{1}{C_1s + \frac{1}{R_1} + \frac{1}{L_1s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2 + 1}\right)$	$\frac{L_{1}L_{L}R_{1}g_{m}s^{2}}{(C_{L}L_{L}s^{2}+1)(C_{1}L_{1}R_{1}s^{2}+L_{1}R_{1}g_{m}s+L_{1}s+R_{1})}$	No	INVALID-ORDER	NONE
None	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_L s + \frac{1}{R_L} + \frac{1}{L_L s}}\right)$	$\frac{L_{1}L_{L}R_{1}R_{L}g_{m}s^{2}}{(C_{L}L_{L}R_{L}s^{2}+L_{L}s+R_{L})(C_{1}L_{1}R_{1}s^{2}+L_{1}R_{1}g_{m}s+L_{1}s+R_{1})}$	No	INVALID-ORDER	NONE
None	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \infty, \infty, \infty, \infty, \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	$\frac{L_1 R_1 g_m s \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$	No	INVALID-ORDER	NONE
None	$\left(\frac{1}{C_1 s + \frac{1}{R_1} + \frac{1}{L_1 s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L \left(L_L s + \frac{1}{C_L s}\right)}{L_L s + R_L + \frac{1}{C_L s}}\right)$	$\frac{L_1 R_1 R_L g_m s \left(C_L L_L s^2 + 1\right)}{(C_L L_L s^2 + C_L R_L s + 1) \left(C_1 L_1 R_1 s^2 + L_1 R_1 g_m s + L_1 s + R_1\right)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1,\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{1}{C_Ls}\right)$	$\frac{g_m\left(C_1L_1R_1s^2 + L_1s + R_1\right)}{C_Ls(C_1L_1R_1g_ms^2 + C_1L_1s^2 + L_1g_ms + R_1g_m + 1)}$	No	INVALID-ORDER	NONE
None	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1,\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_L}{C_LR_Ls+1}\right)$	$\frac{R_L g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_L R_L s + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$	No	INVALID-ORDER	NONE
None	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1,\ \infty,\ \infty,\ \infty,\ \infty,\ R_L+\frac{1}{C_Ls}\right)$	$\frac{g_m(C_LR_Ls+1)\left(C_1L_1R_1s^2+L_1s+R_1\right)}{C_Ls(C_1L_1R_1g_ms^2+C_1L_1s^2+L_1g_ms+R_1g_m+1)}$	No	INVALID-ORDER	NONE
None	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \infty, \ \infty, \ \infty, \ \infty, \ L_Ls + \frac{1}{C_Ls}\right)$	$\frac{g_m(C_LL_Ls^2+1)(C_1L_1R_1s^2+L_1s+R_1)}{C_Ls(C_1L_1R_1g_ms^2+C_1L_1s^2+L_1g_ms+R_1g_m+1)}$	No	INVALID-ORDER	NONE
None	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1}\right)$	$\frac{L_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$	No	INVALID-ORDER	NONE
None	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \infty, \ \infty, \ \infty, \ \infty, \ L_Ls + R_L + \frac{1}{C_Ls}\right)$	$\frac{g_m(C_L L_L s^2 + C_L R_L s + 1)(C_1 L_1 R_1 s^2 + L_1 s + R_1)}{C_L s(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1)}$	No	INVALID-ORDER	NONE
None	$\left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}+R_{1}, \infty, \infty, \infty, \infty, \frac{1}{C_{L}s+\frac{1}{R_{L}}+\frac{1}{L_{L}s}}\right)$	$\frac{L_L R_L g_m s \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_L L_L R_L s^2 + L_L s + R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$	No	INVALID-ORDER	NONE
None	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{L_Ls}{C_LL_Ls^2+1} + R_L\right)$	$\frac{g_m \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$	No	INVALID-ORDER	NONE
None	$\left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}+R_{1},\ \infty,\ \infty,\ \infty,\ \infty,\ \frac{R_{L}\left(L_{L}s+\frac{1}{C_{L}s}\right)}{L_{L}s+R_{L}+\frac{1}{C_{L}s}}\right)$	$\frac{R_L g_m \left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 s^2 + L_1 s + R_1\right)}{\left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + L_1 g_m s + R_1 g_m + 1\right)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls}\right)$	$\frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right)}{C_L s \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L}{C_L R_L s + 1}\right)$	$\frac{R_1R_Lg_m\left(C_1L_1s^2+1\right)}{(C_LR_Ls+1)(C_1L_1R_1g_ms^2+C_1L_1s^2+C_1R_1s+R_1g_m+1)}$	No	INVALID – ORDER	NONE
None	$\left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ R_L + \frac{1}{C_L s}\right)$	$\frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L R_L s + 1\right)}{C_L s \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$	No	INVALID – ORDER	NONE
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None	None	$\left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ L_L s + \frac{1}{C_L s}\right)$	$\frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{C_L s \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$	No	INVALID-ORDER	NONE
None $ \begin{pmatrix} \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+\frac{1}{R_L}+\frac{1}{L_Ls}} \end{pmatrix} & \frac{L_LR_1R_Lg_ms\left(C_1L_1s^2+1\right)}{(C_LL_LR_Ls^2+L_Ls+R_L)(C_1L_1R_1g_ms^2+C_1L_1s^2+C_1R_1s+R_1g_m+1)} & \text{No} & INVALID - ORDER $ $ \text{None} & \begin{pmatrix} \frac{R_1\left(L_1s+\frac{1}{C_1s}\right)}{L_1s+R_1+\frac{1}{C_1s}}, & \infty, & \infty, & \infty, & \infty, & \infty, & \infty, & \frac{L_Ls}{C_LL_Ls^2+1} + R_L \end{pmatrix} & \frac{R_1g_m\left(C_1L_1s^2+1\right)\left(C_LL_RL_s^2+L_Ls+R_L\right)}{(C_LL_Ls^2+1)\left(C_LL_RL_s^2+L_Ls+R_1g_m+1\right)} & \text{No} & INVALID - ORDER $ $ \text{NONE} $	None	$\left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1}\right)$		No	INVALID-ORDER	NONE
None $\left(\frac{R_1\left(L_1s+\frac{1}{C_1s}\right)}{L_1s+R_1+\frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \infty, \frac{L_Ls}{C_LL_Ls^2+1}+R_L\right) \qquad \frac{R_1g_m\left(C_1L_1s^2+1\right)\left(C_LL_RLs^2+L_Ls+R_L\right)}{(C_LL_Ls^2+1)\left(C_1L_Rg_ms^2+C_1L_1s^2+C_1R_1s+R_1g_m+1\right)} \qquad \text{No} INVALID-ORDER$	None	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ L_Ls + R_L + \frac{1}{C_Ls}\right)$		No	INVALID-ORDER	NONE
	None	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{1}{C_Ls + \frac{1}{R_L} + \frac{1}{L_Ls}}\right)$	$\frac{L_L R_1 R_L g_m s \left(C_1 L_1 s^2 + 1\right)}{\left(C_L L_L R_L s^2 + L_L s + R_L\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$	No	INVALID-ORDER	NONE
None $\left(\frac{R_1\left(L_1s+\frac{1}{C_1s}\right)}{L_1s+R_1+\frac{1}{C_1s}}, \infty, \infty, \infty, \infty, \infty, \frac{R_L\left(L_Ls+\frac{1}{C_Ls}\right)}{L_Ls+R_L+\frac{1}{C_Ls}}\right) \qquad \frac{R_1R_Lg_m\left(C_1L_1s^2+1\right)\left(C_LL_Ls^2+1\right)}{\left(C_LL_Ls^2+C_LR_Ls+1\right)\left(C_1L_1R_1g_ms^2+C_1L_1s^2+C_1R_1s+R_1g_m+1\right)} \qquad \text{No} \qquad INVALID-ORDER$	None	$\left(\frac{R_1\left(L_1 s + \frac{1}{C_1 s}\right)}{L_1 s + R_1 + \frac{1}{C_1 s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{L_L s}{C_L L_L s^2 + 1} + R_L\right)$	$\frac{R_1 g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L R_L s^2 + L_L s + R_L\right)}{\left(C_L L_L s^2 + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$	No	INVALID-ORDER	NONE
	None	$\left(\frac{R_1\left(L_1s + \frac{1}{C_1s}\right)}{L_1s + R_1 + \frac{1}{C_1s}}, \ \infty, \ \infty, \ \infty, \ \infty, \ \frac{R_L\left(L_Ls + \frac{1}{C_Ls}\right)}{L_Ls + R_L + \frac{1}{C_Ls}}\right)$	$\frac{R_1 R_L g_m \left(C_1 L_1 s^2 + 1\right) \left(C_L L_L s^2 + 1\right)}{\left(C_L L_L s^2 + C_L R_L s + 1\right) \left(C_1 L_1 R_1 g_m s^2 + C_1 L_1 s^2 + C_1 R_1 s + R_1 g_m + 1\right)}$	No	INVALID – ORDER	NONE