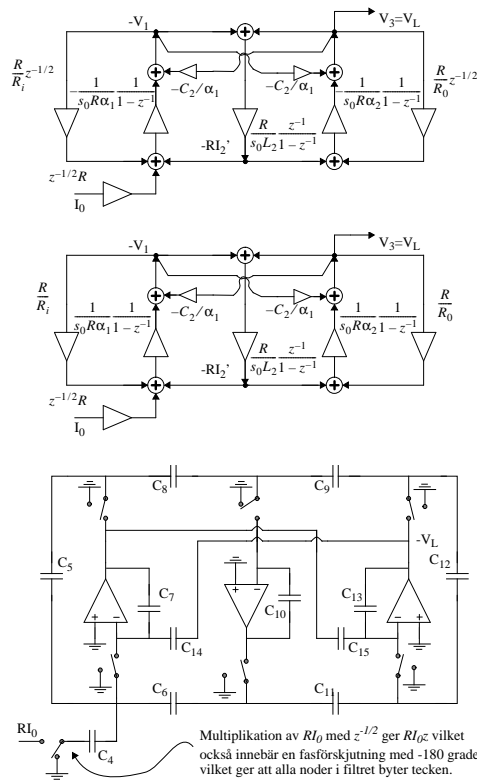
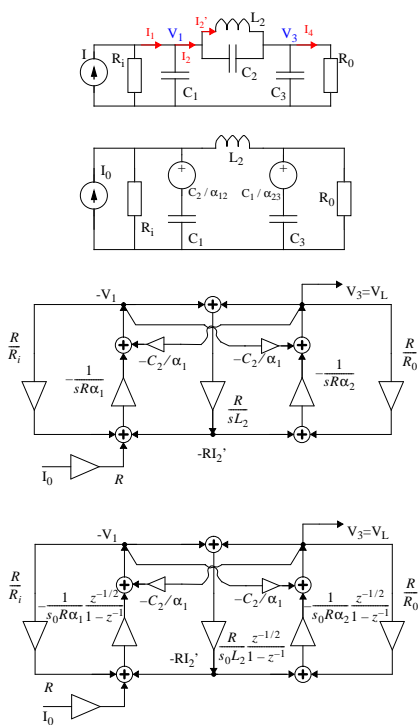


Lektion 9 – OH



SC-filtrer

$$[-V_1]_E = \frac{C_4 z^{-1/2}}{C_7 1 - z^{-1}}$$

$$[-V_1]_{-RL_2} = \frac{C_6}{C_7 1 - z^{-1}}$$

$$[-V_1]_{-V_1} = \frac{C_5}{C_7} \frac{1}{1 - z^{-1}}$$

$$[-RL_2]_{-V_1} = \frac{C_8 z^{-1}}{C_{10} 1 - z^{-1}}$$

$$[-RL_2]_{V_3} = \frac{C_9 z^{-1}}{C_{10} 1 - z^{-1}}$$

$$[V_3]_{-RL_2} = \frac{C_{11}}{C_{13}} \frac{1}{1 - z^{-1}}$$

$$[V_3]_{V_3} = \frac{C_{12}}{C_{13}} \frac{1}{1 - z^{-1}}$$

Signallöflesschema

$$[-V_1]_E = -\frac{1}{s_0 R \alpha_1} \frac{z^{-1/2}}{1 - z^{-1}}$$

$$[-V_1]_{-RL_2} = \frac{1}{s_0 R \alpha_1}$$

$$[-V_1]_{-V_1} = \frac{1}{s_0 R \alpha_1} \frac{R}{R} = -\frac{1}{s_0 R \alpha_1}$$

$$[-RL_2]_{-V_1} = \frac{R z^{-1}}{s_0 L_2 1 - z^{-1}}$$

$$[-RL_2]_{V_3} = \frac{R z^{-1}}{s_0 L_2 1 - z^{-1}}$$

$$[V_3]_{-RL_2} = \frac{R}{R_L} \frac{1}{s_0 R C_3} \frac{1}{1 - z^{-1}}$$

$$[V_3]_{V_3} = \frac{R}{R_L} \frac{1}{s_0 R C_3} \frac{1}{1 - z^{-1}}$$

Resultat

$$\frac{C_4}{C_7} = \frac{1}{s_0 R \alpha_1}$$

$$\frac{C_6}{C_7} = \frac{1}{s_0 R \alpha_1}$$

$$\frac{C_5}{C_7} = \frac{1}{s_0 R \alpha_1}$$

$$\frac{C_8}{C_{10}} = \frac{R}{s_0 L_2}$$

$$\frac{C_9}{C_{10}} = \frac{R}{s_0 L_2}$$

$$\frac{C_{11}}{C_{13}} = \frac{1}{s_0 R_L \alpha_3}$$

$$\frac{C_{12}}{C_{13}} = \frac{1}{s_0 R_L \alpha_3}$$

För återkopplingarna gäller att:

$$[-V_1]_{V_3} = -\frac{C_{14}}{C_7} \quad [-V_1]_{V_3} = \frac{C_2}{\alpha_1} \quad \frac{C_{14}}{C_7} = \frac{C_2}{\alpha_1}$$

$$[V_3]_{-V_1} = \frac{C_{15}}{C_{13}} \quad [V_3]_{-V_1} = \frac{C_2}{\alpha_3} \quad \frac{C_{15}}{C_{13}} = \frac{C_2}{\alpha_3}$$

Dessutom kan antas att  $R_i = R_L = R$

Skalning:

