

Calculo do filtro RLC:

Valores selecionados:

$$f = 700 \text{ kHz} \quad B = 16 \text{ KHz} \quad L = 90 \mu \text{ H}$$

Valores calculados:

$$R = B \cdot 2 \pi \cdot L = 9,0478 \Omega \quad \omega_o = 2 \pi f = 4398,2 \text{ k} \frac{\text{rad}}{\text{s}} \quad C = \frac{1}{L} \left(\frac{1}{\omega_o} \right)^2 = 574,383 \text{ pF}$$

$$\omega_{c1} = -\frac{R}{2L} + \sqrt{\frac{1}{L \cdot C} + \left(\frac{R}{2L} \right)^2} = 4348,3 \frac{\text{rad}}{\text{s}} \quad \omega_{c2} = \frac{R}{2L} + \sqrt{\frac{1}{L \cdot C} + \left(\frac{R}{2L} \right)^2} = 4448,8 \frac{\text{rad}}{\text{s}}$$

$$f_{c1} = \frac{\omega_{c1}}{2 \pi} = 692,046 \text{ kHz} \quad f_{c2} = \frac{\omega_{c2}}{2 \pi} = 708,046 \text{ kHz}$$