

$RL := 4\Omega$ Speaker Impedance

$Fc := 30\text{KHz}$ Corner frequency

$$L := \frac{\sqrt{2} \cdot RL}{2 \cdot \pi \cdot Fc} = 30.011 \cdot \mu\text{H}$$

$$C := \frac{1}{2 \cdot \pi \cdot Fc \cdot RL} = 1.326 \cdot \mu\text{F}$$

$$L := 30.00\mu\text{H}$$

$$C := 1.326\mu\text{F}$$

$$Fc := \frac{1}{2 \cdot \pi \cdot \sqrt{L \cdot C}} = 25.234 \text{ KHz}$$

$$Q := RL \cdot \sqrt{\frac{C}{L}} = 0.841$$

$$Q := 2\pi Fc \cdot C \cdot RL = 0.841$$