

Date _____ Temp _____ Pressure _____ Class _____ Group _____ No. _____ Name _____ Grade _____

Lab 35 *RLC* Series Resonance

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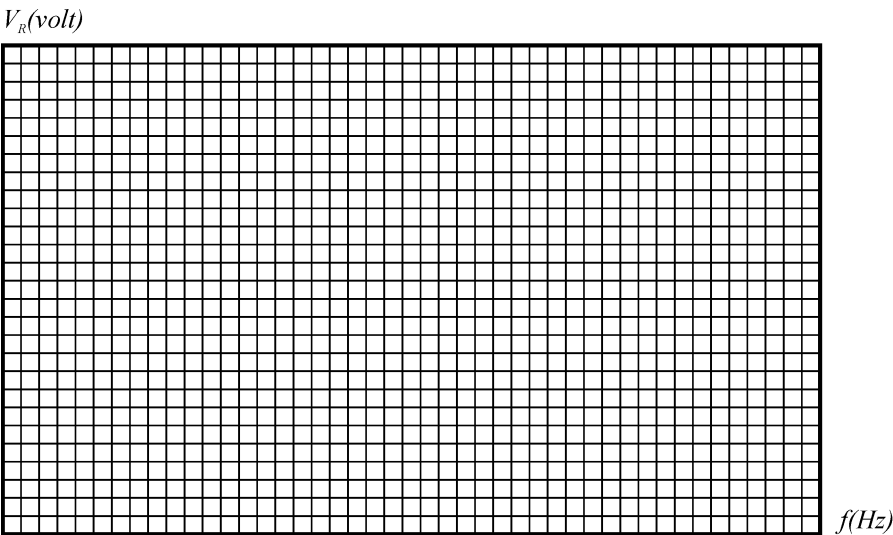
Lab 35 RLC Series Resonance

$R = 100\ \Omega$, $C = 0.047\ \mu F$, $L = 10\ \text{mH}$

Resonance Frequency f_0	Measurement Value	Theoretical Value	Percentage Error

f	f_0	-500	-1000	-1500	-2000	-2500	-3000	-3500	-4000	-4500	-5000
V_R											

f	f_0	+500	+1000	+1500	+2000	+2500	+3000	+3500	+4000	+4500	+5000
V_R											



V_{\max}	$V_{\max} / \sqrt{2}$	f_1	f_2	Δf	Q_0		Percentage Error
					Measurement Value	Theoretical Value	

Theoretical Value $Q_0 = \frac{1}{R} \sqrt{\frac{L}{C}}$

Measurement Value $Q_0 = \frac{f_0}{\Delta f}$