

STUDY OF RESONANCE IN LCR CIRCUIT AND DAMPING EFFECT OMEGA TYPE ES-215

OMEGA TYPE ES-215 Experimental Set Up has been designed specifically to study series and parallel resonance in an LCR circuit (air core Inductance, Two Decade condensers and resistance, Function Generator) and damping effect by using resistances and air core Inductance with metal (ferromagnetic) plate (i) at fixed frequency by varying condenser (C) and (ii) by varying frequency.

Practical experience on this set up carries great educative value for Science and Engineering Students.

OBJECT

- 01 To plot the series resonance curve in LCR circuit (air core inductance, two decade condensers and circuit resistance) at fixed frequency by varying condenser (C). Observe damping by a metal (ferromagnetic) plate along with air core Induct ance, find out new resonance curve by varying condenser (C)
- 02 To plot the series resonance curve in LCR circuit by varying frequency. Observe damping by a metal plate along with air core Inductance, find out new resonance curve by varying frequency (f).
- 03 To plot the parallel resonance curve in LCR circuit (air core Inductance, two decade condensers and circuit resistance) at fixed frequency by varying condenser (C). Observe damping by a metal (ferromagnetic) plate along with air core Inductance, find out new resonance curve by varying condenser (C).
- 04 To plot the parallel resonance curve in LCR circuit by varying frequency. Observe damping by a metal plate along with air core Inductance, find out new resonance curve by varying frequency (f).
- 05 To plot the series resonance curve in LCR circuit by varying frequency. Observe damping effect by using resistances.



FEATURES

The Set up consists of the following :

- 01 Two decades in steps of 10pF & 100pF total steps are 20 and total capacitance is 1100 pF.
- 02 AF milliammeter having three steps of 1mA, 2mA and 5mA.
- 03 Four resistances are provided for observing damping effect by resistances.
- 04 Frequency Generator Range 20Hz to 200KHz with Frequency and Amplitude Control Pot.
- 05 Heavy duty air core inductance coil of 6" diameter with metal (ferromagnetic) plate fitted in sunmica polished wooden box with terminals.
- 06 Weight : 4.2 Kg. (Approx.)
- 07 Dimension : W 340 x H 125 x D 210
- 08 Adequate no. of patch cords stackable 4mm spring loaded plug length ½ metre.

ITY PRODUCT

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

OMEGA ELECTRONICS

Works: 28E & F, Malviya Industrial Area, Jaipur-302 017 (INDIA) Phone: 0141-2751559

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E-mail : info@omegaelectronics.net : omegajaipur62@gmail.com

www.omegaelectronics.net

Marketing Division: B-28, Fateh Singh Scheme, Opp. Rajputana Palace Sheraton, Jaipur-302006 (INDIA) Phone : 091-141-2375647, 2379223