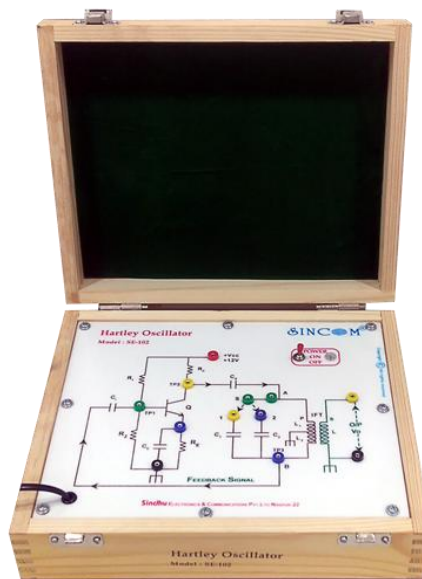


## Hartley Oscillator

**Model : SE-102**



**SINCOM SE-102 Hartley Oscillator** is a useful trainer to study the concept and operation of Hartley Oscillator with LC positive feedback to generate RF Output Frequency using BJT with facility to select multiple radio frequencies in a simple experimental way.

### Features

- ❖ BJT Transistor circuit of a self bias CE Amplifier mode with LC Feedback elements.
- ❖ Two Inductors and one Capacitor Feedback components
- ❖ Capacitor Bank to provide Two output frequency in RF range.
- ❖ Facility to select the two output frequencies.
- ❖ In-Built Fixed regulated DC Power Supply
- ❖ User friendly Design
- ❖ Very Easy for Operation
- ❖ Multi color Circuit Diagram is printed on the front panel of the white board
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ Facility to connect external Oscilloscope and Digital Meters.
- ❖ Interconnections by 2mm high quality banana sockets and pins
- ❖ Maximum Test points to explore all the corners of experiment
- ❖ 1 Year Warranty

### Technical Specifications

- |                               |   |
|-------------------------------|---|
| ▪ AC Mains Power Supply       | : 230V $\pm$ 10%, 50Hz                              |
| ▪ DC Power Supply             | : IC Regulated Fixed +12V/300mA                     |
| ▪ Transistor Type and Package | : BJT Silicon-NPN BC548, TO-92 Package              |
| ▪ Amplifier Type              | : BJT Single Stage CE Amplifier in a Self Bias mode |
| ▪ Feedback Type               | : Positive  |



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- |                                  |                                   |
|----------------------------------|-----------------------------------|
| ▪ Feedback Elements              | : Two Inductors and One Capacitor |
| ▪ Output Control                 | : By two capacitors               |
| ▪ Output Frequencies             | : Two RF O/Ps in MHz              |
| ▪ Max. Collector Emitter Voltage | : 12 VDC                          |
| ▪ Weight                         | : 2.0 kg (approx)                 |
| ▪ Dimensions (mm)                | : L 220 x W 270 x H 110           |
| ▪ Interconnections               | : 2mm Banana sockets              |
| ▪ Operating Temperature          | : 0-50°C, 80% RH                  |

### Learning Scope

- To Study operation of Hartley Oscillator Circuit.
- To Determine the Quiescent Operating Point of Transistor.
- To Observe & Note Change in Frequency of Oscillation w.r.t. change in feedback elements.
- Compare the Theoretical & Practical values.

**Other Instruments Required :** Digital Multimeter and Oscilloscope

**Accessories Included :** Set of Patch Cord and Details Instruction Manual.