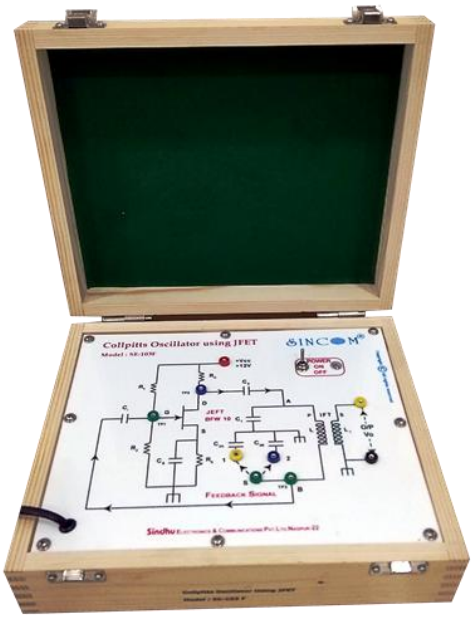
Colpitts Oscillator using JFET

Model : SE-143



SINCOM SE-143 Colpitts Oscillator using JFET is a useful trainer to study the concept and operation of Colpitts Oscillator with LC positive feedback to generate RF Output Frequency using JFET with facility to select multiple radio frequencies in a simple experimental way.

Features

- N Channel JFET circuit of voltage divider biased CS Amplifier with LC Feedback elements.
- N-Channel JFET of TO-72 package on board
- One Inductor and two Capacitors 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 ±10%, 50Hz
DC Power Supply	: IC Regulated Fixed +12V/300mA
Transistor Type and Package	: N-Channel JFET BFW10, TO-72 Package
Amplifier Type	: JFET CS Amplifier with voltage divider bias

- Feedback Type : Positive
- Feedback Elements : One Inductor and Two Capacitor
- Output Control : By two capacitors
- Output Frequencies : Two RF O/Ps in MHz
- Max. Drain Source 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^{0}C, 80% RH

Learning Scope

- To Study operation of Colpitts Oscillator using JFET 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.