BJT RC Phase Shift and Wein Bridge (AF) Oscillator

Model : SE-114

SINCOM SE-114 BJT RC Phase Shift and Wein Bridge (AF) Oscillator is a Two-In-One Trainer to study the concept and operation of RC Phase Shift and Wein Bridge Oscillator using BJT with RC positive feedback to generate AF Output Frequency with facility to select multiple audio frequencies in a simple experimental way.

Features

- Separate modules of RC Phase Shift and Wein Bridge Oscillator
- BJT RC Phase shift Oscillator consists of a Fixed base bias CE Amplifier with three RC network as Feedback elements.
- BJT Wein Bridge Oscillator consists of a two stage RC Coupled self bias CE Amplifier with RC lead-lag feedback network.
- RC Network Bank to provide Two output frequency in AF range.
- Two sets of RC lead-lag Network to provide Two output frequency in AF 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
Oscillator Types	: RC Phase Shift and Wein Bridge Oscillator
Transistor Type and Package	: Three BJT Silicon-NPN BC548, TO-92 Package
Amplifier Type	: Single Stage CE fixed base bias for RC Phase Shift Two stage RC coupled CE Self Bias for Wein Bridge
Feedback Type	: Positive
Feedback Elements	: RC Phase Shift- RC Network of 3 Resistors and 3 Capacitors Wein Bridge - RC lead lag network
Output Control	: By two RC Networks
Output Frequencies	: Two Audio Frequency output in Hz.
Max. Collector Emitter Voltage	: 12 VDC
Weight	: 3.0 kg (approx)
Dimensions (mm)	: L 245 x W 320 x H 115
Interconnections	: 2mm Banana sockets
Operating Temperature	: 0-50^{0}C, 80% RH

Learning Scope

- To Study operation of RC Phase Shift Oscillator Circuit.
- To Study operation of Wein Bridge 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.