Phase Inverter Circuit

Model : SD-126

SINCOM SD-126 Phase Inverter is simply designed trainer for the purpose to study the concept, operation, Frequency response and determine the other operational parameters of a single stage CE Phase inverter Class-A Amplifier with inverted phase output at collector and in phase output at emitter in a simple experimental way.

Features

- User friendly Design
- BJT NPN BC548 with Self base biasing operates as a single stage CE Phase Inverter amplifier circuit
- Silicon NPN BJT of TO-92 package on board
- In phase and Out of Phase outputs
- Wide Bandwidth AF Amplifier
- Resistive Collector Load
- Input and Output Coupling Capacitors
- In-Built Fixed regulated DC Power Supply
- 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 Function Generator and Oscilloscope
- 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/500mA
Amplifier Type	: CE Phase Inverter Amplifier
Phase Outputs	: Inverted at Collector and In Phase at Emitter
Transistor Type and Package	: Bi-Polar Silicon-NPN, TO-92 Package
Transistor Used	: BC548
Transistor Configuration	: CE mode
Biasing Method	: Self Bias
BJT Junction Voltage	: 0.7V
Max. Collector Emitter Voltage	: 12 VDC
Emitter Base Voltage V_{BE}	: 5V
Base Resistors	: Two No.
Emitter Resistors	: One No. with bypass capacitor
Input Output Coupling Capacitors	: Two No. Electrolytic type
Collector Load	: 10KΩ Fixed Resistive Load
Input Signal Type	: Sine wave

- Max. Input Frequency Range : 60Hz-500KHz approx.
- Output Frequency Response : 100Hz-20KHz approx.
- 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 BJT Phase Inverter circuit.
- To Observe & Note Out of Phase output at Collector & In-Phase output at Emitter w.r.t. Input signal.
- To Plot the frequency response & To Determine Bandwidth.

Other Instruments Required : Oscilloscope, Function Generator 1MHz.

Accessories Included : Set of Patch Cord and Details Instruction Manual

Subject to Change