



An ISO 9001:2015 Co.

## Miller Integrator (Sweep Generator)

### Model : SE-123

**SINCOM SE-123 Miller Integrator (Sweep Generator)** is a useful trainer with two CE mode NPN Transistors and RC positive feedback to provide Miller Sweep/Integrator Output for the applied trigger Input signals in a simple experimental way.

### Features

- ❖ Silicon NPN BJT of TO-92 package on board
- ❖ Two NPN Transistor as CE amplifier with Resistive Capacitive feedback elements.
- ❖ Resistive collector load
- ❖ Wide range of Miller Sweep output
- ❖ Facility to connect square wave Input signal
- ❖ 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 acrylic board
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ Facility to connect external function generator, 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	: Two BJT Silicon NPN BC548, TO-92 Package
▪ Amplifier Type	: CE Switching Amplifier
▪ Feedback Elements	: Resistor and Capacitor
▪ External Trigger Input	: Square Input @ 500Hz-10KHz, 5Vpp
▪ Collector load	: Resistive load of 10K $\Omega$
▪ Output waveform	: Miller Sweep signal
▪ 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 $^{\circ}$ C, 80% RH

### Learning Scope

- To Study operation of Miller Sweep or Miller Integrator using Transistor.
- To Observe & Note Sweep Time (Ts) & Flyback time (Tr).
- To Observe & Note the change in Ts & Tr w.r.t. change in applied Trigger I/P.

**Other Instruments Required :** Oscilloscope, Function Generator 1MHz and Digital Multimeter.

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