

# RC Differentiating and Integrating Circuit

## (Low Pass & High Pass Filter)

### Model : SE-137

**SINCOM SE-137 RC Differentiating and Integrating (Low Pass & High Pass Filter) Circuit** is a combined useful trainer to study the operation, characteristics and frequency response of RC Differentiator/ High Pass filter circuit and RC Integrator/Low Pass filter with facility to vary cutt-off frequency.

### Features

- ❖ Separate modules of RC LPF and HPF
- ❖ RC Network as LPF and HPF
- ❖ RC components bank
- ❖ Facility to select multiple cutt-off frequency
- ❖ 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

▪ Filter type	: Passive LPF and HPF
▪ RC Networks	: 3 for Each filter
▪ Resistors Used	: 1KΩ, 5.6KΩ, 10KΩ
▪ Capacitor Used	: 0.1uf,1uf, 10uf
▪ Cutt-Off frequencies	: Multiple (9)
▪ Input Signal	: Sine and Square @ 50Hz-200KHz, 10Vpp
▪ Output Signal	: LPF / Integrator and HPF / Differentiator output
▪ 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 RC Differentiator circuit. To observe & Note the O/P for the different applied Inputs.
- To Study response of RC high pass filter w.r.t. change in I/P Signal frequency. To determine cut-off frequency.
- To observe the change in O/P w.r.t change in square & sine wave I/P in Pass & block band.

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

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