

**Product Name :**  
DSB and SSB-SC Amplitude Modulation and Demodulation

**Product Code :**  
ELB-COMS001



### **Description :**

DSB and SSB-SC Amplitude Modulation and Demodulation

### **Technical Specification :**

Trainer has been designed with a view to provide practical and experimental knowledge of Amplitude Modulation / Demodulation technique as practically implemented in Analog Communication system on a SINGLE P.C.B. of size 300 x 400mm.

### **Amplitude Modulation & Demodulation:**

- Generate AM signal by modulation with audio signal generator
- Measure modulation index of A.M. signal
- Demodulate AM signal using diode detector(envelope detector)
- Generate voice signal AM modulation and demodulation using Mic.
- Observe the effect of DC signal input on AM output
- Demodulate AM signal by square law detection

### **DSB-SC Amplitude Modulation & Demodulation:**

- Generate DSB-SC AM signal
- Demodulate DSB-SC signal using product detector

### **SSB-SC Amplitude Modulation & Demodulation:**

- 
- Generate SSB-SC AM signal
  - Demodulate SSB-SC signal using product detector

**Feature:**

**The board consists of the following built-in parts:**

**IC Regulated Power Supply:**

- $\pm 15$  DC and +5V DC at 100mA.

**AF Modulation signal generator:**

- Sine wave

**Frequency Range:**

- 300 Hz to 3.4 KHz

**Amplitude:**

- 0 to 5 Vpp.
- RF carrier signal oscillator.

**Frequency Range:**

- 100 KHz to 1 MHz.

**Amplitude:**

- 0 to 10 Vpp.

**Local Oscillator:**

- 400 KHz to 500 KHz.

**Band Pass Filter:**

- 452 KHz to 458 KHz.

**DC Source Variable power supply to see the effect of DC on the output waveform:**

- -5 to + 5 VDC
- Output Audio amplifier with Volume Control.
- Input Audio amplifier for modulating external signal from Mike or Tape recorder.
- Double Balanced Amplitude modulator
- Diode detector.
- Product detector
- Low pass filter.
- Power supply requirement 230V AC, 50 Hz.
- Mains ON/OFF switch, fuse and jewel light.
- Dynamic Microphone with 4mm Jack Pin.
- Loud Speaker with baffle fitted in a box with two metre wire and 2mm Banana pins for connections.

- 
- Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections/ observation of waveforms.
  - Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design Procedures, Report Suggestions and Book References

**Other Apparatus Required:**

- Cathode Ray Oscilloscope 20MHz

We are well-known manufacturers, OEM suppliers of DSB and SSB-SC Amplitude Modulation and Demodulation for Communication Trainer. Contact us for high quality DSB and SSB-SC Amplitude Modulation and Demodulation for Communication Trainer for schools lab, college lab, universities, research labs, various teaching and workshop training laboratories and industries in India.

 **LAB ENGINEERING**

**Elab Engineering Equipments Manufacturers**