

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

Product Code :
ELB-COMS0001



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:

- ± 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