



OMEGA TYPE ETB –232 DSB/SSB-SC Amplitude Modulation & Demodulation 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 300x400mm.

OBJECT

To Study of

01 Amplitude Modulation & Demodulation.

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

02 DSB-SC Amplitude Modulation & Demodulation.

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

03 SSB-SC Amplitude Modulation & Demodulation

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

FEATURE

The board consists of the following built-in parts:

- 01 IC REGULATED POWER SUPPLY : ± 15 DC and +5V DC at 100mA.
- 02 AF Modulation signal generator : Sine wave
Frequency Range : 300 Hz to 3.4 KHz
Amplitude : 0 to 5 Vpp.

03 RF carrier signal oscillator.

Frequency Range : 100 KHz to 1 MHz.
Amplitude : 0 to 10 Vpp.

04 Local Oscillator

400 KHz to 500 KHz.

05 Band Pass Filter

452 KHz to 458 KHz.

06 DC Source Variable power supply to

see the effect of DC on the output waveform : - 5 to + 5 VDC

07 Output Audio amplifier with Volume Control.

08 Input Audio amplifier for modulating external signal from Mike or Tape recorder.

09 Duple Balanced Amplitude modulator

10 Diode detector.

11 Product detector

12 Low pass filter.

13 Power supply requirement 230V AC, 50 Hz.

14 Mains ON/OFF switch, fuse and jewel light.

15 Dynamic Microphone with 4mm Jack Pin.

16 Loud Speaker with baffle fitted in a box with two meter wire and 2mm Banana pins for connections.

17 Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections/ observation of waveforms.

18 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design Procedures, Report Suggestions and Book References.

19 Weight : 4.900 Kg. (Approx.)

20 Dimension : W 415 x H 165 x D 315

OTHER APPARATUS REQUIRED:

- 01 Dual trace CRO 20MHz OMEGA TYPE CRO-20

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

OMEGA ELECTRONICS

Works:

28E & F, Malviya Industrial Area,
Jaipur-302 017 (INDIA)
Phone: 0141-2751559

E-mail : info@omegaelectronics.net
: omegajaipur62@gmail.com

www.omegaelectronics.net

Marketing Division:

B-28, Fateh Singh Scheme, Opp. Rajputana
Palace Sheraton, Jaipur-302006 (INDIA)
Phone : 091-141-2375647, 2379223