



OMEGA TYPE ETB –234 DSB / SSB AM Receiver trainer this trainer has been designed with a view to provide practical and experimental knowledge of DSB / SSB AM Receiver technique as practically implemented in Analog Communication system on a signal P.C.B. of size 300x400mm

OBJECT

- 01 Study of DSB & SSB AM reception & detection by diode / product detectors.
- 02 Study of AGC.
- 03 Study of receiver tuned circuits.
- 04 Study of Sensitivity, Selectivity & Fidelity of Receiver.

OBJECTS:

- 01 Study of double sideband AM reception using envelope detector via cable.
- 02 Study of double sideband AM reception using envelope detector via Antenna.
- 03 Study of sensitivity, selectivity, of a radio receiver.
- 04 Study of single sideband AM reception using product detector.
- 05 Study of Image frequencies.
- 06 Voice transmission with DSB AM transmission / reception.

FEATURE

- The board consists of the following built-in parts:
- 01 **POWER SUPPLY** : ± 12 DC and +5V DC IC Regulated power supply.
 - 02 **Detectors/ Demodulator** : 1 Diode Detector (For DSB)
: 2 Product Detector (For SSB)
 - 03 **Frequency Range** : 980KHz to 1650 KHz.

- 04 **Intermediate frequency** : 455 KHz.
 - 05 **Input Circuits** : 1. RF Amplifier
: 2 Mixer
: 3 1st Amplifier
: 4 2nd Amplifier
: 5 Local oscillator
: 6 Envelope Detector (AGC)
: 7 Switch Fault
: 8 Product Detector
: 9 IC Regulated Power Supply
: 10. Beat frequency oscillator / 455 KHz Crystal oscillator
: 11. Output Audio Amplifier
 - 06 **Receiving media** : Telescopic Antenna / cable.
 - 07 **Tuning** : with variable capacitor.
 - 08 **Switched faults** : 8Nos.
 - 09 **Test points** : 14.
 - 10 **Power supply requirement:** 230V AC, 50 Hz.
 - 11 **Mains ON/OFF switch, fuse and LED.**
 - 12 **Audio Output amplifier with Volume Control.**
 - 13 **Loud Speaker with baffle fitted in a box with two metre wire and 2mm Banana pins for connections.**
 - 14 **Adequate no. of patch cords stackable from rear both ends 2mm spring loaded plug length 50cm.**
 - 15 **Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections/ observation of waveforms.**
 - 16 **Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design Procedures, Report Suggestions and Book References.**
 - 17 **Weight** : 4.800 Kg. (Approx.)
 - 18 **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