

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.

Experiments:

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 : 50.
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.
- * Adequate no. of patch cords stackable from rear both ends 2mm spring loaded plug length 1/2 metre.
- * 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.

Note: Specifications are subject to change.

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