Order Code - 40521
DSB/SSB AM Receiver Trainer

40521 DSB/SSB AM Receiver is a comprehensive learning solution specifically designed to study basic operation as well as to provide conceptual and step by step understanding of a superheterodyne receiver and DSB/SSB Amplitude demodulation system through measurement of voltages and observation of waveforms at various test points. Block wise modular organization of circuit function with supporting technical information makes it easy to understand the process of AM reception and demodulation. The exercises conceived to provide a practical approach to the subjects enable a deep analysis of the subjects and will guide the students to understand each function.

Features

- Easy to operate & understand
- Functional blocks with self explanatory waveforms and technical details indicated on board
- On board Tuner provided for tuning the transmitting station
- LED indication for signal flow and selection
- More than 30 nos. Test points for waveform observation and analysis
- 8 Switched faults for troubleshooting at different functional blocks
- Telescopic antenna for reception of AM signal
- On board audio jack provided for Earphone connection
- On board Speaker provided for audio communication

Experiments

1. Study of DSB AM reception and demodulation using Diode detector
2. Study of Automatic Gain Control circuit
3. Study of SSB AM reception and demodulation using Product detector
4. Study of Tuned RF Amplifier, Mixer, IF Amplifiers for AM reception
5. Study of Selectivity, Sensitivity and Fidelity of receiver

Technical Specifications

Construction	:	Superhetrodyne
Frequency Range	:	980 KHz to 2060 Khz
Intermediate Frequency	:	455 Khz
Input Circuits	:	1) RF Amplifier 2) Mixer 3) Local Oscillator 4) Beat Frequency Oscillator 5) IF Amplifier 1 6) IF Amplifier 2
Tuning	:	With variable capacitor (ganged) Dial marking on board
Receiving media	:	Telescopic antenna / Cable

Note: Specifications are subject to change.

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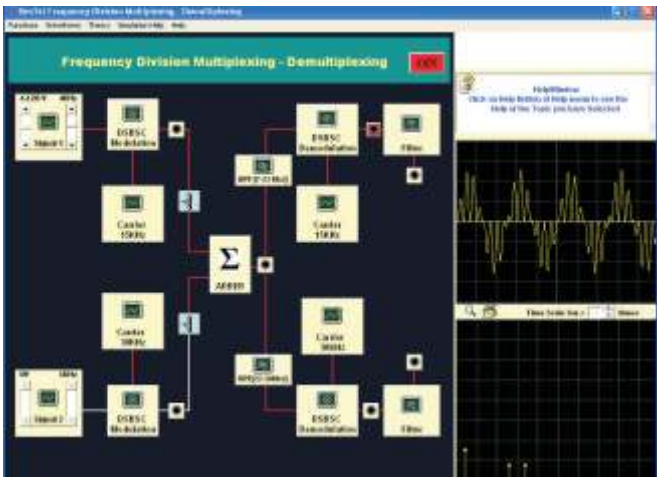
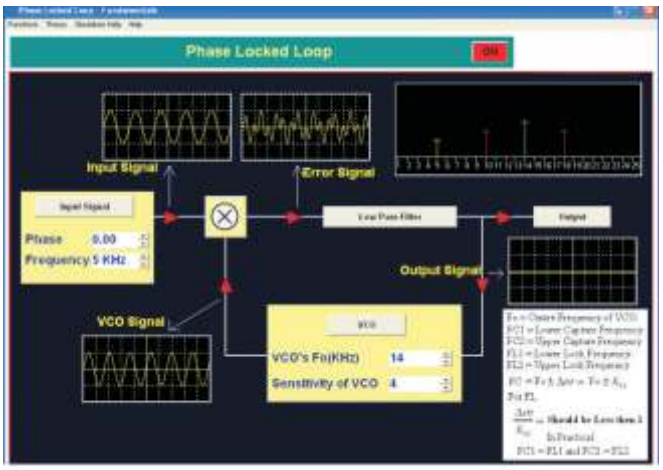
Detectors	:	1) Diode detector (for DSB) 2) Product detector (for SSB)
Audio Output	:	Amplifier with speaker
Automatic Gain Control	:	Switchable
Switched Faults	:	8 nos.
Interconnections	:	2 mm sockets
Test points	:	30 nos.
Power Supply	:	110-220 V AC ±10%, 50/60Hz
Power Consumption	:	3 VA approximately
Operating Conditions	:	0-40oC, 80% RH
Dimensions (mm)	:	W 326 × D 252 × H 52
Weight	:	2Kg approximately
Included Accessories	:	Patch cord 16"2nos, Mains cord-1 no.& Earphone : 1 no.

Analog Communication Interactive Software (optional)

Topics

- Fourier analysis
- Amplitude Modulation: Standard Amplitude Modulation, DSBSC Modulation, SSB Modulation
- Frequency Division Multiplexing
- Frequency Modulation: Direct Modulation, Indirect Modulation
- Pulse Modulation: Pulse Amplitude Modulation, Pulse Width Modulation, Pulse Position Modulation
- Phase Locked Loop
- Super Heterodyne Receiver





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