

## AMPLITUDE MODULATION / DEMODULATION TRAINER

MODEL - COM101P

This trainer has been designed with a view to provide practical and experimental knowledge of Amplitude Modulation /Demodulation technique on a SINGLE PCB.



## **SPECIFICATIONS**

1. Power supply requirement : 230V AC, 50 Hz.

2. Built in IC based power supply.

3. On Board AF Modulating signal generator - Sine wave Frequency Range : 1KHz to 10KHz Amplitude : 0 to 15Vpp.

4. On Board RF carrier signal generator.

Frequency Range : 400KHz to 1000KHz.

Amplitude : 0 to 10 pp.

5. On Board Output Audio amplifier with speaker & Volume Control.

6. On Board Band Pass Filter (452-458 KHz).

7. Modulator Type : Balanced modulator.8. Demodulator Type : Diode detector.

- Product detector

- Square Law demodulator.

9. Standard Accessories : 1. A Training Manual

2. Connecting Patch cords.

## **EXPERIMENTS**

- 1. To generate AM signal by modulating with Audio signal generator
- 2. To measure modulation index of A.M. signal
- 3. To observe the effect of DC signal input on AM output
- 4. To demodulate AM signal using Diode detector (Envelope detector) and to see the effect of different RC Time constant on demodulated output i.e. Diagonal clipping and negative clipping
- 5. To generate Voice signal AM modulation and demodulation using mike
- 6. To demodulate AM signal by Square Law detection
- 7. To generate Double side band suppressed carrier (DSB-SC) AM signal
- 8. To demodulate DSB-SC signal using Product detector

In keeping view of SIGMA policy of continuous development and improvement, the Specifications may be changed without prior notice or obligation.

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