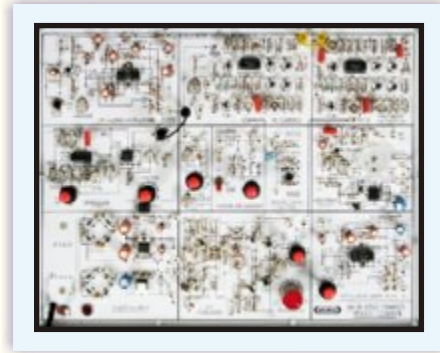




SSB-SC AMPLITUDE MODULATION/ DEMODULATION SYSTEM TRAINER

MODEL - COM103

This trainer has been designed with a view to provide practical & experimental Knowledge of Single sideband Suppressed carrier 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 : 300Hz to 3.4 KHz
Amplitude : 0 to 5 Vpp.
4. On Board RF carrier signal generator.
Frequency Range : 200 KHz to 1 MHz.
Amplitude : 0 to 10 Vpp.
5. On Board variable DC power supply to see the effect of DC on the output waveform: -8 to ++8 VDC
6. On Board Input Audio amplifier with Volume control for modulating external signal from Mike or Tape Recorder.
7. On Board Output Audio amplifier with speaker & Volume Control.
8. On Board Band Pass Filter : (452-458 KHz).
9. Modulator Type : Balanced modulator.
10. Demodulator Type : Product detector with Local oscillator, Low pass Filter
Low Pass Filter : Cut off Freq.- 3.4 KHz.
Local Oscillators : (a) Synchronized (b) Unsynchronized
11. All parts are soldered on single PCB of size 14" x11" with complete circuit diagram Screen-printed.
12. Standard Accessories : 1. A Training Manual.
2. Connecting Patch cords.

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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Dealer:-

EXPERIMENTS

1. To generate SSB-SC AM signal using Double Balanced Modulator and low pass filter.
2. To see the effect of DC signal on modulation.
3. To generate Voice signal SSB-SC AM modulation and demodulation using mike.
4. To observe & measure Side band frequencies of SSB-SC signal.
5. To demodulate SSB-SC signal using Product detector (i.e. coherent detection).
6. To demodulate SSB-SC signal using Product detector Non-coherently with the help of Local Oscillator.
7. To see the effect of Low Pass filter on demodulated output.
8. To see the effect on SSB-SC AM modulated output by varying the amplitude and frequency of modulating signal.