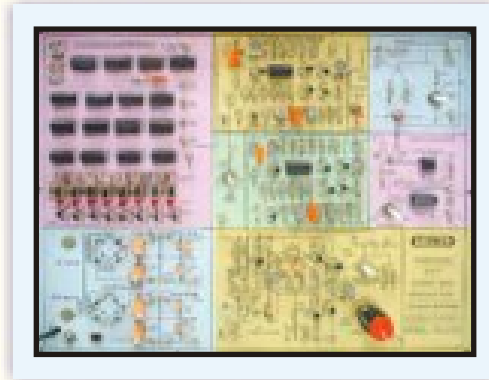# SIGMA

AMPLITUDE SHIFT KEYING MODULATION/ DEMODULATION SYSTEM TRAINER

MODEL-COM114K

This trainer has been designed with a view to provide practical/experimental knowledge of A.S.K. Modulation /Demodulation technique as practically implemented in Digital Communication systems on a SINGLE P.C.B.

SPECIFICATIONS

1. Power supply requirement   :   230V AC, 50 Hz.
2. Built in IC based power supply.
3. On Board Modulating Digital Data signal generator to generate any binary input word with Bit clock & Word clock.
    Word Length   :   8 Bits.
    Word Clock Frequency   :   8 KHz to 12 KHz.
    Data Format   :   NRZ & Bipolar NRZ.
4. On Board RF carrier signal generator.
    Frequency Range   :   200 KHz to 1 MHz.
    Amplitude   :   0 to 10 Vpp.
5. Modulator Type   :   Balanced modulator.
6. Demodulator Type   :   Diode detector, Product detector
7. All parts are soldered on single PCB with complete circuit diagram Screen-printed.
8. Standard Accessories   :   A Training Manual
                                                Connecting Patch cords.

EXPERIMENTS

1. To study theory of ASK Modulation & Demodulation.
2. To generate ASK signal and demodulate it in physical channel.
3. To observe ASK waveform on CRO.
4. To observe spectrum of ASK on spectrum analyser.
5. To determine essential bandwidth
6. To analyse reception quality by cross co-relation characteristics and measure bit error rate in presence of channel noise by Matlab Simulation.

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