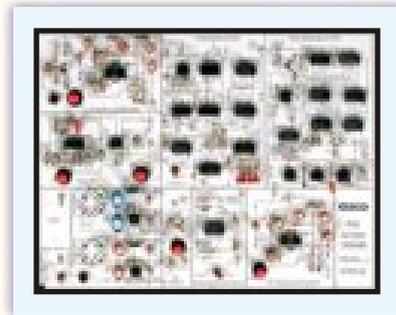




# ADPCM MODULATION/ DEMODULATION SYSTEM TRAINER

MODEL - ADPCM100

This trainer has been designed with a view to provide practical and experimental knowledge of Differential Pulse Code Amplitude Modulation/Demodulation technique as practically implemented in Digital Communication systems 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 10 Vpp.
4. On Board Sampling Pulse signal generator.  
Frequency Range : 10 KHz to 1 MHz.
5. Built in variable DC power supply (0 to+ 5V) to see the effect of DC on the output waveform.
6. On Board Input Audio amplifier with Volume control for modulating external signal from Mike (Speech signal) or Tape recorder.
7. On Board Output Audio amplifier with speaker & Volume Control.
8. Modulator Sections : Diff. Amplifier, Sample and Hold, Quantizer, Encoder, Parallel to serial converter, Predictor
9. Demodulator Sections : Predictor, Serial to parallel converter, Latch, D/A converter and Low Pass Filter
10. All are soldered on single PCB with complete circuit diagram screen-printed.
11. Standard Accessories :
  1. A Training Manual
  2. Connecting Patch cords.

## EXPERIMENTS

1. To understand Block diagram and working principle
2. To study theory of Adaptive Differential Pulse Code Modulation
3. To study of Theory of Adaptive Differential Pulse Code Demodulation
4. To generate ADPCM signal
5. To demodulate ADPCM signal.
6. To see the effect on ADPCM modulated output by varying the amplitude and frequency of modulating signal.

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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