



**OMEGA TYPE ETB-221** Experimental Training Board has been designed specifically to study Differential Pulse Code Modulation & Demodulation. In the basic DPCM Modulator the base band analog signal is covered into 8 bit digital format using an ADC. The sampling rate is set at 2.5 KHz. The DPCM Demodulator receives the serial data, converts it into 8 bit parallel format. The Digital to Analog converter transforms the 8 bit parallel data into analog level. Thus the output of DAC is a stepped approximation of input signal. A low pass filter is used to recover the analog signal.

Practical experience on this board carries great educative value for Science and Engineering Students.

### OBJECT

01 To study Differential Pulse Code Modulation & Demodulation.

### FEATURES

The board consists of the following built-in parts :

- 01 5V D.C. at 100mA IC regulated power supply internally connected.
- 02  $\pm 12V$  D.C. at 100mA IC regulated power supply internally connected.
- 03 -5V D.C. to +5V D.C. Variable D.C. output.
- 04 Audio Frequency Oscillator 10Hz to 100Hz for modulation.
- 05 DPCM Modulator (DPCM ENCODER).
- 06 DPCM Demodulator (DPCM DECODER).
- 07 Adequate no. of other electronic components.
- 08 Mains ON/OFF switch, fuse and jewel light.
- 09 The unit is operative on 230V  $\pm 10\%$  at 50Hz A.C. Mains.
- 10 Adequate no. of patch cords stackable from rear both ends 4mm spring loaded plug length 50cm.
- 11 Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections /observation of waveforms.
- 12 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.
- 13 Weight : 2.200 Kg. (Approx.)
- 14 Dimension : W 340 x H 125 x D 210

### OTHER APPARATUS REQUIRED:

- 01 Dual trace CRO 20MHz OMEGA TYPE CRO-20

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

**OMEGA ELECTRONICS**