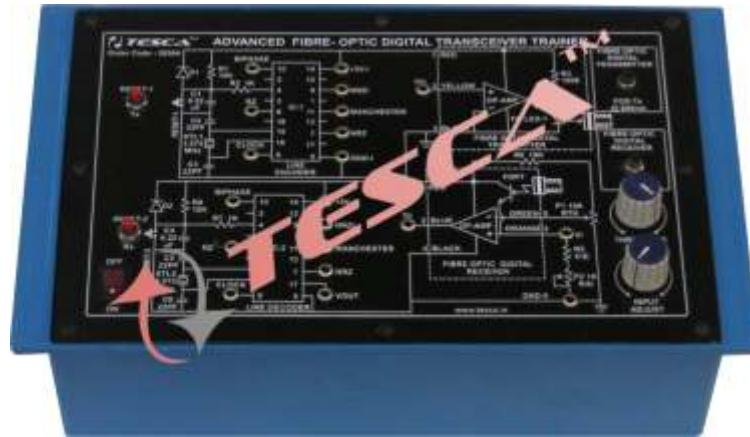


Fibre-Optic Digital Transceiver Trainer has been designed specifically for the study of encoding methods used in digital fibre Optic. transmission system.

Practical experience on this board carries great educative value for science & eng. Students.



#### Object:

01. Design and study of a Fibre-optic digital link.
02. Study of rise-time and fall-time distortions
03. Study of propagation delay.
04. Encoding methods for fibre-optic digital transmission
  - \* Base band or Non Return to Zero (NRZ) Transmission.
  - \* Return to Zero coding (RZ)
  - \* Non Return to zero inverted coding (NRZI)
  - \* Biphase Coding
  - \* Manchester Coding.

#### Features

The board consists of the following built-in parts:

01. Two Isolated IC regulated D.C. power supplies.
02. Fibre-Optic digital transmitter @ 660nm
03. Fibre-Optic digital receiver.
04. Two potentiometers to vary,  $R_{IN}$  (input resistance) of receiver and  $R_{TH}$  (Threshold resistance) of receiver.
05. Encoder IC
06. Decoder IC
07. Two crystals
08. Two reset switches resetting encoder and decoder.
09. Adequate no of other electronic component.
10. Mains ON/OFF switch, Fuse and Jewel light.
  - \* The unit is operative on  $230V \pm 10\%$  at 50Hz A.C. Mains.
  - \* Adequate no. of patch cords stackable 4mm spring loaded plug length  $\frac{1}{2}$  metre.
  - \* Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections / observation of waveforms.
  - \* Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

#### Other Apparatus Required:

- \* Cathode Ray Oscilloscope 20MHz.

Note: Specifications are subject to change.

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