



**OMEGA TYPE FO-001** Fibre-Optic Simplex Analogue Transceiver Trainer has been designed specifically for the study of a typical linear intensity modulation system for analogue signal transmission. Practical experience on this board carries great educative value for Science & Engineering Students.

#### OBJECT

To study ac characteristics of a Linear Intensity Modulation system :

- 01 Gain characteristics of a fibre optic Linear Intensity Modulation System  $V_{in}(ac)$  Vs  $V_o(ac)$  for fixed carrier power  $P_o$  and signal frequency,  $f_o$
- 02 Frequency Response of ac fibre-Optic Linear Intensity Modulation System.  $V_{out}(ac)$  Vs  $f_o$  at fixed carrier power  $P_o$  and  $V_{in}(ac)$ .
- 03 Gain-Band width Product of a fibre Optic Linear Intensity Modulation Receiver. Gain Vs Bandwidth for fixed  $V_{in}$ .

#### FEATURES

The board consists of the following built-in parts:

- 01 IC Regulated D.C. Power Supply.
- 02 Fibre-Optic Transmitter
- 03 Fibre-Optic Receiver
- 04 One-metre PMMA fibre patchcord
- 05 Potentiometer to vary the current of LED in Transmitter and Photo transistor in receiver.

- 06 Adequate no of other electronic components.
- 07 Mains ON/OFF switch, Fuse and Jewel light.
- 08 The unit is operative on 230V  $\pm 10\%$  at 50Hz A.C. Mains.
- 09 Adequate no. of patch cords stackable 4mm spring loaded plug length 50cm.
- 10 Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections / observation of waveforms.
- 11 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

- 12 Weight : 3 Kg. (Approx)
- 13 Dimension : W 340 x H 125 x D 210

#### OTHER APPARATUS REQUIRED :

- 01 AF/RF Generator 10Hz to 1MHz OMEGA TYPE AO-309.
- 02 Digital Multimeter OMEGA TYPE DMM-201.
- 03 Cathode Ray Oscilloscope 20MHz

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

## OMEGA ELECTRONICS