

Product Name :

Physics of Fiber Optics Trainer for Vocational Training and Didactic Labs

Product Code :

FBRO-0008

**Description :**

Equipment for Education, Engineering and Vocational Training - Physics of Fiber Optics Trainer - PHYSICS OF FIBER OPTICS TRAINER is designed to learn basic physics of fiber optics including fiber end preparation. Students can also study the construction of transmitter & receiver to form analog & digital link. Ample number of experiments can be performed with this kit by referring to the exhaustive manuals provided with the kit.

List of Experiments:

- Light traveling around corners in an Optical Fiber
- Coloured light traveling down an Optical Fiber
- Photo detector detecting light
- LED output as a function of a current
- LED shining light into
- Transmission of light between two fibers
- Transmission through a gap between fibers
- Fiber Optic transmission sensor
- Fiber Optic reflection sensor
- Measuring Losses in the fiber
- Measurement of propagation loss in the Fiber
- Measurement of connector loss
- Fiber bending loss
- Measurement of Numerical Aperture of Optical Fiber
- Setting up of Fiber Optic Analog Link
- Setting up of Fiber Optic Digital Link
- Setting of Fiber Optic Voice Link.
- Switch Faults Study
- Effect of switch fault 1 in function generator section
- Effect of switch fault 2 in audio pre amplifier section
- Effect of switch fault 3 in signal strength section
- 15.4 Effect of switch fault 4 in audio amplifier section

Features:

- On-board Function Generator.
- Transmitter : 1 No.
- Receiver : 2 Nos
- Fiber Optic Analog Link.

Fiber Optic Digital Link.
Signal strength indicator.
Technical Specifications:
Transmitter : 1 No. LED. Peak wavelength of emission
635 nm Red visible.
Receiver : 2 Nos. silicon photo detectors
Modulation : Intensity modulation.
Driver Circuit : Analog and digital configuration for 635 nm LED
Analog Bandwidth : 35KHz.
Digital Bandwidth : 50KHz.
On-Board Function Generator :
Sine Wave & TTL Square Wave :
Frequency Range : 1Hz to 10Hz, 10Hz to 100Hz, 100Hz to 1 K H z , 1 K H z t o 10KHz
Amplitude : 0 to 4Vpp. (Except Square)
Voice Communication : Fiber Optic voice link using dynamic MIC & SPEAKER
Signal strength indicator : 8 LED's provided to m e a s u r e o p t i c a l power.
Fiber Optic Cable :
Type : 1000 micron Step Index, Multimode Plastic Fiber
Fiber Lengths : 1&5 Meter.
Power Supply : GND, +5V, +12V, -12V at 100mA INT.
Accessories:
Red Short Links : 10 Nos.
Crocodile Links : 02 Nos.
Plastic Fiber 1 Meter (with connector) : 01 No.
Plastic Fiber 5 Meter (with connector) : 01 No.
N.A. Jig & N.A. Scale : 01 No. Each
Connection Sleeves (Splicing unit) : 01 No.
Microphone : 01 No.
Speaker : 01 No.
Experimental Manual : 01 No.
Mandrel : 01 No.
Other Apparatus Required:
Cathode Ray Oscilloscope 20MHz

Naugra Export

Website: www.naugraexport.com, **Email:** sales@naugraexport.com

Address: 6148/6, Guru Nanak Marg, Ambala Cantt, Haryana, India, **Phone:** +91-0171-2643080, 2601773