Product name:	Product code:
Laser Diode Intensity Modulation and Demodulation Trainer	Fiber0005

Description

Laser Diode Intensity Modulation and Demodulation Trainer

Technical specification

Transmission of Laser through an Optical Fibre :

- To measure loss in dB of Step-index Multimode plastic Fibre Patchcord
- To measure loss in dB of Graded-Index, Multimode Glass Fibre Patchcord
- To measure loss in dB of Two Patchcords connected by the in-line Adaptor

Laser Free Space Communication :

- Analogue Free Space Communication System
- Digital Free Space Communication System

Determination of Numerical Aperature of PMMA Fibre Cable

The Trainer consists of the following built-in parts:

Laser Diode Transmitter unit having following built-in parts :

- Laser Diode Transmitter Module
- 6V DC at 100mA, IC Regulated Power Supply internally connected
- SPDT switch to select Automatic Current Control (ACC) or Automatic Power Control (APC)
- Potentiometer to set power output
- Adequate no.of other electronic components
- Mains ON/OFF switch, Fuse and Jewel light

Laser Diode Receiver unit having following built-in parts :

- Laser Diode Receiver Module
- PIN Diode for measuring power of Laser Diode
- Potentiometer to set voltage output
- Adequate no.of other Electronic Components
- 6V DC at 100mA, IC Regulated Power Supply internally connected

Special Feature :

- Two-metres PMMA Plastic Fibre Patchcord (Cable-1)
- Two-metres GI/mm Glass Fibre Patchcord (Cable-2)
- In-line SMA Adaptor
- Numerical Aperature measurement Jig
- Mandrel
- The units are operative on 230V ±10% at 50Hz A.C. Mains
- Adequate no. of Patch cords stackable 4mm spring loaded plug length ½ 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

- Weight : 4 Kg. (Approx)
- Dimension : W 340 x H 110 x D 210

Laser Diode Intensity Modulation and Demodulation Trainer

Laser Diode Intensity Modulation and Demodulation Trainer has been developed to conduct studies on laser Diode, optical fibres and optical communication methods, by signal transmission. Practical experience on this Trainer carries great educative value for Science & Engineering Students.

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Experiments:

Characterisation of a Laser Diode :

- Optical Power (Po) of a Laser Diode Vs Laser Diode Forward current (I).F
- Monitor Photodiode Current (I) Vs Laser Optical Power Output (Po). M

Design and Evaluation of an Laser Diode (LD) Analog I System M :

- Vo Vs Vin at Specified Optical Carrier Power Levels, Po
- Determination of Vin (max) at Specified Po for Distortion-free Vo

Design and Evaluation of Laser Diode LD Digital Transmission System :

- Risetime and Falltime Pulse width Distortions and Determination of Propogation Delay