

Product Name :

Laser Fibre Optic Trainer for Vocational Training and Didactic Labs

Product Code :

ETKN-0005



Description :

Equipment for Education, Engineering and Vocational Training - Laser Diode Intensity Modulation and Demodulation Trainer have been developed to conduct studies on laser diode, optical Fibres and optical communication methods, by signal transmission.

Technical Specification :

Practical experience on this Trainer carries great educative value for Science & Engineering Students.

EXPERIMENTS

1. Characterization of a Laser Diode.

1.1 Optical Power (P_o) of a Laser Diode Vs Laser Diode Forward current (I_f).

1.2 Monitor Photodiode Current (I_M) Vs Laser Optical Power Output (P_o).

2. Study of Automatic Current Control (ACC) or Automatic Power Control (APC) Modes of Operation

2.1 Comparison of ACC and APC Modes of Operation.

3. Design and Evaluation of an Laser Diode (LD) Analog IM System

3.1 V_o Vs V_{in} at Specified Optical Carrier Power Levels, P_o .

3.2 Determination of V_{in} (max) at Specified P_o for Distortion-free V_o .

4. Design and Evaluation of Laser Diode LD Digital Transmission System

4.1 Risetime and Falltime Pulsewidth Distortions and Determination of Propogation Delay.

5. Transmission of Laser Through an Optical Fibre

5.1 To measure loss in dB of Step-index Multimode plastic Fibre Patchcord.

5.2 To measure loss in dB of Graded-Index, Multimode Glass Fibre Patchcord.

5.3 To measure loss in dB of Two Patch cords connected by the in-line adaptor.

6. Laser Free Space Communication

6.1 Analogue Free Space Communication System.

6.2 Digital Free Space Communication System.

7. Determination of Numerical Aperature of PMMA Fiber Cable

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