

FIBER OPTICS

LINK-E FIBER OPTIC TRAINER KIT BASED ON LASER DIODE AND GLASS FIBER



LINK-E Fiber Optic Trainer Kit is designed to learn the fundamentals of Fiber Optics, based on LASER DIODE, which includes properties of LASER DIODE, multimode & single mode glass fiber.

LINK-E can be used to study VI characteristics of Laser Diode, Current v/s Optical Power of Laser Diode, Construction of Laser Transmitter with Automatic Power Control etc.

FEATURES:

Laser Diode Characteristics like VI characteristics & Current versus Optical Power in APC Mode.

Measurement of Lasing Threshold.

Driver circuit for Analog and Digital Configuration.

Receiver construction.

Laser Diode based Analog Intensity Modulation System.

Laser Diode based Digital Intensity Modulation System.

PC-to-PC Communication.

TECHNICAL SPECIFICATIONS:

Transmitter :

Laser Diode	: 1 No.
Adapter	: ST
Wave Length	: 1310 nm.
Fiber Output	: 0.8 mW.
Spectral Width	: 2 nm.
Threshold Current	: 12 mA.
PD Monitor Current	: 100mA.

Analog & Digital Configuration driver circuit with APC.

Laser Power Supply Circuit with Soft Start Facility.

Receiver :

Photodetector	: 01 No.
Adapter	: ST.
Operating Wave Length	: 1100 - 1650 nm.
Band Width	: 155 MHz.
Optical Sensitivity	: -38 dBm.
Optical Saturation Power	: -3 dBm.

PC to PC Communication using RS-232.

Baud Rate : Maximum 96 Kbps Baud.

FIBER OPTIC CABLE:

Type	: Glass Fiber, Multimode & Singlemode
Length of Fiber	: 01 Meter each.

Power Supply	: GND, +5V, +12V, -12V
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LIST OF EXPERIMENTS:

Principles of Semiconductor Laser Diode.

Study of characteristics of Laser Diode.

Measurement of VI Characteristic of Laser Diode.

Measurement of Lasing Threshold using Current versus Optical Power Characteristic (Requires M-100 Optical Power Meter).

Study of construction of Transmitter.

Study of construction of Receiver.

Setting up Fiber Optic Analog Link.

Voice Communication through Laser Transmitter & Receiver (Requires Audio I/O kit).

Setting up Fiber Optic Digital Link.

Forming PC to PC Communication Link using Optical Glass Fiber & RS-232 Interface.

ACCESSORIES:

Red Short Links	: 05 Nos.
Crocodile Links	: 02 Nos.
Jumper to Crocodile With 2 wire	: 01 No.
Jumper to Crocodile With 1 wire	: 02 Nos.
RS 232 CABLE	: 02 Nos.
Glass Fiber Cable Multimode with ST connector	: 01 Meter.
Glass Fiber Cable Singlemode with ST connector	: 01 Meter.
Experimental Manual	: 01 No.
Circuit Description Manual	: 01 No.
Power Supply	: 01 No.

Optional:

M100 Fiber Optic Power meter

A-I/O Audio Input/Output Card

e-Manual Interactive Multimedia Software & Manual



FALCON

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