

Product Name :
Advance Fiber Optic Trainer

Product Code :
NLAB-ELECTRONICSAB240002

Description :

Advance Fiber Optic Trainer

Technical Specification :

Single board Fiber Optic Trainer Kit to study the characteristics of Fiber using Digital and Analog techniques. This kit also facilitates with digital and analog Modulation & Demodulation communication techniques.

SPECIFICATIONS:

Two Transmitter Fiber Optics LED having peak wavelength of emission 660nm & 950nm.

Two Receiver Fiber Optic photo detector.

Modulation & Demodulation Techniques using Direct AM, FM, PPM, PWM.

On-board Analog & Digital Drivers.

On-board AC Amplifiers.

On-board PLL Detector

Analog Band Width 350 Khz.

Digital Band Width 2.5 Khz.

4th order Butter worth 3.4KHz Low Pass Filter.

On-board 1Hz. To 10 KHz sine wave (amplitude adjustable),

Square wave (TTL)

FO voice link using microphone & speaker

RS-232C PC to PC Serial link using 9 Pin D -type.

Four Switched Faults for transmitter & receiver.

Fiber Optics Cable Connector type Standard SMA .

Duly polished fiber at both end for Numerical Aperture Measurement.

Step indexed multimode PMMA plastic cable.

Core Refractive Index 1.492.

Clad Refractive Index 1.406.

Numerical aperture Better than 0.5.

Acceptance Angle Better than 60o

Fiber Diameter 1000 microns.

Outer Diameter 2.2mm.

Fiber Length 5m & 1m.

In-Built Power Supply +5V/1.5A, $\pm 12V/250mA$.

Interconnections 2 mm Banana Sockets

Attractive Wooden enclosures of Light weight Australian Pine Wood.

User's Manual with set of Patch Chords.

230mm x 140mm x 80mm (L x W x H)

Weight 2 Kgs.

FEATURE

660nm and 950nm Transmitter.

Two Nos. Of Photo Detector.

On-board Sine & Square wave generator.

O n - b o a r d F M M o d u l a t i o n & Demodulation

On-board PWM Modulation & demodulation.

On-board PPM Modulation & Demodulation.

On-board 4th Order Low Pass Filer.

On-board Fault Switch.

In-Built Power Supply

OBJECT:

Setting up Fiber Optic Analog Link

Setting up Fiber Optic Digital Link

Study of Intensity Modulation Technique using Analog Input Signal

Study of Intensity Modulation Technique using Digital Input Signal

Setting up of Propagation Loss in Fiber Optic

Study of Bending Loss.

Measurement of Optical Power using Optical Power Meter

Measurement of Propagation loss using Optical Power Meter

Measurement of Numerical Aperture

Characteristics of F-O Converter using OPM

Characteristics of Fiber Optic communication Link

Setting up of Fiber Voice Link using Intensity Mode

Study of Frequency Modulation and Demodulation

Study of Pulse Width Modulation and Demodulation

Study of Pulse Position Modulation and Demodulation

Study of PC to PC Communication using Fiber Optics Digital Link

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