LINK-C BASIC FIBER OPTIC TRAINER KIT

LINK-C is a low cost fiber optics trainer kit designed to perform some basic fiber optic experiments & experimentally measure the speed of light . The phase delay between transmitter and receiver pulse will determine the speed of light through the fiber. A 20MHz dual trace oscilloscope (not included in the kit) is required to make the measurements.

FEATURES:

- Fiber Optic Transmitter : 1 No.
- Fiber Optic Receiver : 1 No.
- On-board Function Generator
- Speed of light detection.
- EMI Comparison.
- Numerical Aperture Measurement.

TECHNICAL SPECIFICATIONS:

Transmitter	: Siemens Fiber Optics LED. Peak wavelength of emission 660 nm Red visible (SFH 756V).
Receiver	: Siemens Fiber Optic Photo Detector PIN Photo diode with responsivity of 0.3 micro Amp/ micro Watt (SFH 250V).
Analog Bandwidth	: 1MHz.

On-Board Signal Generator :

Sine Wave:

Frequency Range	: 1Hz to 10Hz, 10Hz to 100Hz, 100Hz to 1KHz, 1KHz to 10KHz
Amplitude	: 0 to 4Vpp.
Reference Pulse	: 660 KHz, 3.2V

Fiber Optic Cable:

Type	:1000 micron Step Index, Multimode Plastic Fiber
Fiber Lengths	: 15 cm, 3 Meter & 20 Meter.

SWITCH FAULTS: 4 Switch Faults are provided on board to study different effects on circuit.

TEST POINTS: 13 Nos. test points are provided on board to observe intermediate signals.

Interconnections : 2mm Banana Sockets.

Power Supply : GND,+5V,+12V, -12V.

LIST OF EXPERIMENTS:

- Measurement of Speed of Light.
- Setting up a Fiber Optic Analog Link.
- Study of Losses in Optical Fiber :
  - Measurement of Propagation Loss.
  - Measurement of Bending Loss.
- Measurement of Numerical Aperture.
- Characteristics study of Fiber Optic LED.
- To study comparison of effect of EMI interference on Copper medium & Optical Fiber Medium.

ACCESSORIES:

Red Short Links	: 10 Nos.
Crocodile Links (4 Big, 2 Small)	: 06 Nos .
Jumper to crocodile	: 02 Nos.
N.A. Jig & Steel Ruler	: 01 No. Each
Fiber	: 15 cm, 3 Meter, 20 Meter each.
Extra Jumper Caps	: 05 Nos.
Copper Cable	: 01 No.
EMI Coil Jig	: 01 No.
Experimental Manual	: 01 No.
Circuit Description Manual	: 01 No.
Power Supply	: 01 No.

OPTIONAL:

e-Manual Interactive Multimedia Software & Manual

FALCON

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