



TEKLAB Fiber Optic Trainer Kits are perfect for students and engineers to explore how electrical signals are converted into light, transmitted through optical fibres, and converted back into electrical data or sound.

TECHNICAL SPECIFICATIONS

Transmitter Receiver	1 No's Fiber optics LED Peak wavelength of emission 660 nm Red visible
Modulation Techniques	1 Nos. Fiber Optic Photo Detector Photo detector is capable of 100 Mbps data rates. They also can be used in analog video links. Direct Intensity Modulation (ii) Frequency Modulation Pulse Width Modulation (PWM). Pulse Position Modulation (PPM). Amplitude Modulation (AM) (ii) Pulse Amplitude Modulation
Analog Bandwidth	2 MHz
Digital Bandwidth	5 MHz
Driver Circuit	Analog and Digital Configuration for 660 nm LED
Filter Circuit	4th Order Butter-worth Filter with 3.4 KHz Cut-off.
on board Function Generator Voice	1Hz 10 KHz, variable Amplitude Sine Wave. 1Hz -10 KHz TTL-Square waves
Communication Baud Rate	Fiber Optic Voice Link using dynamic MIC and Speaker
Fiber Optic Cable Type	Maximum 115200 Baud
Core Refractive index-n1	Plastic Optical Cable, Step index, Multimode.
Clad Refractive index-n2	1.492.

Numerical Aperture	1.406
Acceptance Angle	0.5.
Fiber Diameter	60 degrees
Outer Diameter	1000 microns
Fiber Lengths	2.2 mm.1 and 2 Meters
Power Supply	+ 5V, ± 12V.
Deliverables	Mini Links, Short links, Jumper Caps, Microphone, Speaker, Metal fiber step index, Multimode, 1000µm, 1Mtr and 2mtr, Manual, Power supply
Experiments Covered	Measurement of Numerical Aperture and absorption loss. Study of losses in optical fiber. Measurement of propagation loss and bending loss. Study of characteristics of fiber optic LED and detector. Measurement of numerical aperture. Setting up a fiber optic digital link. Setting up a fiber optic analog Link. Direct Intensity Modulation (ii) Frequency Modulation Pulse Width Modulation (PWM). Pulse Position Modulation (PPM). (ii) Amplitude Modulation (AM) (ii) Pulse Amplitude Modulation

