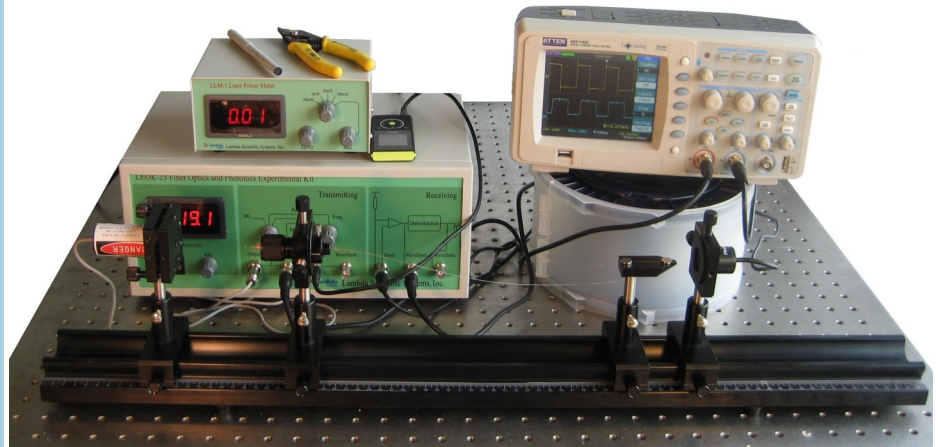


LEOK-23 Fiber Optics and Photonics Experimental Kit

- *Serial experiments of fiber optics & semiconductor laser*
- *Flexible solution for different levels of students*
- *Detailed instruction manual*
- *Innovative design with quality components*



Note: oscilloscope not included

Optical fiber has increased signal transmission bandwidth over longer distance. As the importance of fiber rises, numerous colleges and universities worldwide introduce more courses in optoelectronics and optical communications. This kit is designed to meet the increasing demand for learning of fiber optic fundamentals and semiconductor laser characteristics. This Fiber Optic Experimental kit is a sister kit to LEOK-22, and is revised to include new experiments such as to characterize the parameters of semiconductor laser and measure the speed of light in optical fiber.

Experimental Contents

1. Stripping and scribing of glass fiber
2. Laser-fiber coupling to determine coupling efficiency
3. Threshold current and gain slope characterization of semiconductor laser
4. Influence of fiber bending on mode and polarization of optical fiber
5. Speed of light in optical fiber with refractive index estimation of fiber material
6. Fiber optical communication with audio signal modulating, transmitting, receiving & demodulating
7. Numerical aperture of optical fiber

Specifications

Description	Specifications	Qty
Optical bench	Length: 0.8 m	1
Main unit	Laser driver with modulation/demodulation ports	1
Semiconductor laser	10 mW at 650 nm with 2-D adjustable holder	1
Fiber holder	3-D adjustable	1
Glass fiber	Core: 9.2 μm ; length: 200 m	1
Fiber support	V-groove with magnets for bare fiber mounting	1
Photodiode detector	Incl X-Y adjustable stage ± 2.5 mm	1
Laser power meter	3-1/2 digits Scale: 200 μW , 2 mW, 20 mW, 200 mW Resolution: 0.1 μW	1
Fiber stripper		1
Fiber scribe		1
Polarizer	Diameter: 27 mm	1
White screen	100 mm $\times$ 80 mm	1
Slide		4
Signal cable	BNC cables (3) and audio cable (1)	4
Audio signal source	MP3 with USB cable	1
Bending loss altering device	$\Phi 4$, $\Phi 6$, $\Phi 8$, $\Phi 10$, $\Phi 12$	1
Large 1-D translation stage	Range: 90 mm; resolution: 0.1 mm	Optional
12-aperture photodetector probe	Aperture: 0.5, 1, 2, 3, 4, 6 mm Slit width: 0.2, 0.3, 0.4, 0.8, 1.2 mm	Optional
Power cord		1
Instruction manual		1

Note: above product information is subject to change without notice.