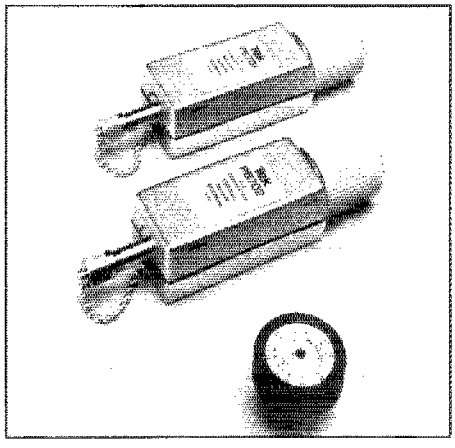
OPTICAL-TO-ELECTRICAL CONVERTERS

NEW P6701
450 to 1050 nm, DC to 700 MHz

NEW P6702
1000 to 1700 nm, DC to 500 MHz

NEW P6751
Spatial Input Head

- **Optical Oscilloscope**
- **Average and Pulse Power Meter**



The Tektronix P6701/P6702 are optical probes that allow the user to receive optical signals and convert them to electrical signals for convenient analysis on Tektronix oscilloscopes equipped with the TEKPROBE™*[1] interface or any other oscilloscope when used in conjunction with a Tektronix power supply/TEKPROBE interface adapter. The conversion is linear, DC coupled, calibrated, and of high bandwidth.

Use of the TEKPROBE™ interface allows the oscilloscope to supply power to the probe, automatically determine and display the proper scale factor (in milliwatts of optical power) and set the input termination to the required 50 ohms. An oscilloscope-controlled calibrated offset of 0 to 1 mW is also available through this interface.

The P6701/P6702 provides a calibrated means of analog analysis of optical signals in the wavelength range 450 to 1050 nm (P6701) and 1000 to 1700 nm (P6702) thus combining the functions of an optical power meter with the high-speed analog waveform analysis capability of an oscilloscope in one instrument. The user has the capability of acquiring, displaying and analyzing mixed analog and digital, optical and electrical signals simultaneously.

Each probe is contained in an oscilloscope probe-size compensation box and mounts directly to an 11000 series oscilloscope plug-in, thus requiring no bench space. Optical signal input is through a standard SMA or optional FC fiber optic cable connector mounted on the front of the converter.

The P6751 Spatial Input Head is a turnable lens system for sampling optical energy from any source and delivering it via a fiber optic cable to the P6701/P6702 optical to electrical converter. The P6751 is easily mounted using standard optical bench fixtures. The Spatial Input Head can be adjusted (500 to 1500 nm) by the user to optimize the amount of optical energy sampled and delivered to the P6701/P6702. The P6751 has a standard SMA fiber optic cable connector. Also available are a series of fiber optic jumper cables for interfacing the P6701, P6702, and P6751 with other industry standard optical fiber connectors.

[1] Tektronix 11000-Series Oscilloscopes.

TEKPROBE is a trademark of Tektronix, Inc.

TYPICAL APPLICATIONS

Applications range from measuring the transient optical properties of lasers, LEDs, electro-optic modulators, flashlamps, etc., to the development, manufacturing, and maintenance of fiber optic control networks, local area networks (LANs), optical disk devices, and high-speed fiber optic communications systems. As an example, eight P6701s/P6702s coupled with two 11A34 amplifier plug-ins and an 11000-series oscilloscope can be configured as an 8-channel optical oscilloscope!

ORDERING INFORMATION

P6701 Optical-to-electrical converter $1,800
Includes: Standard SMA input connector; carrying case (016-0156-03); instruction manual (070-6465-00).
Option 01—FC input connector NC
P6702 Optical-to-electrical converter $1,995
Includes: Standard SMA input connector; carrying case (016-0156-03); and instruction manual (070-6465-00).
Option 01—FC input connector NC
P6751 Spatial Input Head $295
Includes: Adjustment tool and instruction sheet.

OPTIONAL ACCESSORIES

Optical Cables—2 meters, 100/140 micron
SMA to SMA Order 174-0879-00 $250
SMA to Diamond 3.5 Order 174-0877-00 $330
SMA to FC Order 174-0878-00 $295
SMA to Biconic Order 174-0880-00 $250
SMA to ST Order 174-0876-00 $250

Tektronix power supply/TEKPROBE interface adapter available the first quarter of 1988.

CHARACTERISTICS

	P6701	P6702
Wavelength response	450 to 1050 nm	1000 to 1700 nm
Bandwidth	DC to 700 MHz	DC to 500 MHz
Risetime	≤0.7 ns	≤1.0 ns
Conversion Gain	1 V/mW at 850 nm	1 V/mW at 1300 nm
Calibrated Offset	0-1 mW	0-1 mW
Max Input Optical Power	10 mW	10 mW
Power Requirements	TekPROBE™ Interface	TekPROBE™ Interface