

TEKTRONIX

P6703B

The Tektronix P6703B is an Optical-to-Electrical (O/E) converter probe designed for use with Tektronix oscilloscopes equipped with the TekProbe interface. It is optimized for high-speed telecom and datacom testing in the 1100 nm to 1650 nm single-mode wavelength range.

SPECIFICATIONS

General

Interfaces	TekProbe BNC (Level II)
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Physical

Power Supply	Powered by host instrument via TekProbe BNC interface
Operating Temperature	0 to +50 °C °C
Minimum Fiber Bend Radius	3.0 cm (1.18 in)

Optical Input Characteristics

Wavelength Range	1100 nm to 1650 nm
Fiber Type	Single-mode (9/125 μm)
Core/Cladding Diameter	9 μm / 125 μm
Standard Optical Connector	FC/PC (interchangeable)
Maximum Safe Average Power	10 mW
Maximum Peak Power	20 mW
Optical Return Loss	> 30 dB

Electro-Optical Performance

Bandwidth (-3 dB)	DC to 1.2 GHz
Rise Time (10% to 90%)	< 300 ps
Conversion Gain / Responsivity	1 V/mW (at 1310 nm)

Electrical Output Specifications

Output Impedance	50 Ω
Output Coupling	DC
Output Connector	TekProbe BNC

Host Instrument Interface & Compatibility

Host Interface Type	TekProbe BNC (Level II)
Automatic Scaling Support	Yes (converts oscilloscope display vertical scale to mW/μW units)
Compatible Oscilloscopes	Tektronix TDS3000, TDS5000, TDS7000, TDS600, TDS700, CSA series, or others via 1103 power supply

Physical & Mechanical Properties

Fiber Cable Length	1 m
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Environmental Parameters

Storage Temperature	-40 °C to +71 °C
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Optical Characteristics

Detector Type	InGaAs PIN photodiode
Calibrated Wavelengths	1310 nm, 1550 nm

Performance

Responsivity Accuracy	±10% (at calibrated wavelengths)
System Noise	< 2.5 µW RMS
Linear Input Range	Up to 1 mW peak
Aberrations	< 10% p-p

Environmental

Maximum Operating Altitude	2000 m
Maximum Non-Operating Altitude	15240 m
Operating Humidity	0% to 90% RH (at up to +40 °C), 0% to 60% RH (from +40 °C to +50 °C)
Non-Operating Humidity	0% to 90% RH (at up to +40 °C), 0% to 60% RH (from +40 °C to +60 °C)

TECHNOLOGY

InGaAs Photodetector

APPLICATIONS

Optical-to-electrical signal conversion for oscilloscope-based telecom and datacom waveform analysis

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.