

TEKTRONIX

P7506

The Tektronix P7506 is a 6 GHz TriMode™ differential probe designed for high-speed signaling measurements. It features TriMode technology, allowing users to seamlessly switch between differential, single-ended, and common-mode measurements without moving the probe connection, enhancing measurement efficiency and accuracy.

SPECIFICATIONS

General

Interfaces	TekConnect
Calibration Data Storage	Internal EEPROM stores factory calibration and DSP filter coefficients

Physical

Power Supply	Powered by host oscilloscope via TekConnect interface
Operating Temperature	0 °C to +40 °C °C

General Classifications

Probe Type	TriMode™ Differential Probe
Signal Type	Differential, Single-Ended, Common Mode
Compatible Host Instruments	Tektronix oscilloscopes with TekConnect interface
Compatible Probe Heads & Tips	P7500 Series TriMode probe tips (e.g., P75A18, P75TLR, P75TC)

Electrical Performance

Bandwidth (-3 dB)	≥ 6.0 GHz
Rise Time (10% to 90%)	≤ 75 ps
Rise Time (20% to 80%)	≤ 50 ps
Attenuation Settings	5x, 12.5x
DC Input Resistance (Differential)	100 kΩ
DC Input Resistance (Single-Ended)	50 kΩ
Input Capacitance (Differential)	< 0.22 pF (with P75A18 tip)
Input Capacitance (Single-Ended)	< 0.33 pF (with P75A18 tip)
Dynamic Range (5x setting)	0.75 Vp-p
Dynamic Range (12.5x setting)	2.5 Vp-p
DC Voltage Offset Range	+2.5 V to -2.5 V
Operating Common Mode Voltage Range	+2.5 V to -2.5 V
Non-destructive Max Voltage (DC + peak AC)	±15 V
CMRR at DC	> 60 dB
CMRR at 50 Hz	> 60 dB

Physical and Connectivity

Output Connector / Host Interface	TekConnect®
Cable Length	1.3 m

Environmental

Storage Temperature Range	-56 °C to +75 °C
Operating Humidity	0% to 90% RH (at up to +30 °C), 0% to 75% RH (+30 °C to +40 °C)
Storage Humidity	0% to 90% RH (at up to +30 °C), 0% to 75% RH (+30 °C to +75 °C)
Operating Altitude	Up to 3000 m
Storage Altitude	Up to 15240 m

Performance

DC Gain Accuracy	±2%
DC Offset Accuracy (5x)	±(2.0% of setting + 10 mV)
DC Offset Accuracy (12.5x)	±(2.0% of setting + 25 mV)
CMRR at 1 GHz	>34 dB

Features

TriMode Acquisition Modes	Differential (A-B), Single-Ended A (A-GND), Single-Ended B (B-GND), Common Mode ((A+B)/2)
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Inputs & Outputs

Output Impedance	50 Ω
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Control & Connectivity

TriMode Control	Probe control button or host oscilloscope software interface
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TECHNOLOGY

TriMode Active Differential

APPLICATIONS

High-speed serial bus design, debugging, and characterization

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