TEKTRONIX

P6330

The Tektronix P6330 is a high-performance 3.5 GHz active differential oscilloscope probe designed for high-speed digital system design, characterization, and differential signaling measurements. Featuring the TekConnect interface, it provides high-bandwidth, low-loading differential measurements with excellent common-mode rejection.

SPECIFICATIONS

General

Interfaces	TekConnect

Physical

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

Electrical Performance Specifications

Bandwidth	3.5 GHz
Rise Time (10% to 90%)	< 140 ps
Attenuation Ratios	5X
DC Attenuation Accuracy	±2%
Input Resistance (Differential Mode)	100 kΩ
Input Resistance (Common Mode)	50 kΩ
Input Capacitance (Differential Mode)	< 0.3 pF (0.27 pF typical)
Propagation Delay	5.3 ns (typical)

Voltage Range and Signal Limits

Differential Dynamic Range	±2.0 V
Common Mode Operating Range	±5.0 V
Maximum Non-Destructive Input Voltage (DC + Peak AC)	±15 V

Common Mode Rejection Ratio (CMRR)

CMRR at 100 MHz	> 40 dB
CMRR at 1 GHz	> 30 dB
CMRR at Rated Bandwidth	> 18 dB (at 3.5 GHz)

Connectivity and Interfaces

Output Connection Interface Type	TekConnect
Cable Length	1.3 m

Environmental and Safety Compliance

Non-Operating/Storage Temperature Range	-55 °C to +75 °C
Operating Altitude	Up to 3,000 m (10,000 ft)
Non-Operating Altitude	Up to 15,240 m (50,000 ft)

Performance

Offset Range	±5 V
Output Impedance	50 Ω

Power

Power Source	TekConnect interface (powered by host instrument)

Environmental

Operating Humidity	8% to 80% RH (at or below +32 °C); 8% to 45% RH (above +32 °C to +40 °C)
Non-Operating Humidity	5% to 95% RH (at or below +30 °C); 5% to 45% RH (above +30 °C to +60 °C)

Input Characteristics

Input Capacitance (Common Mode)	< 0.5 pF (typical 0.4 pF)

Signal Fidelity & Performance

System Noise	< 4 mV RMS (referred to input)
DC Offset Drift	≤ 150 µV/°C
Offset Zero Error	≤ 10 mV (after auto-zero)
CMRR at 500 MHz	typical 45 dB

TECHNOLOGY

Active Differential

APPLICATIONS

High-Speed Serial Bus Measurements

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