TEKTRONIX

P7330

The Tektronix P7330 is a high-performance 3.5 GHz active differential probe designed for use with oscilloscopes featuring the TekConnect interface. It provides high-bandwidth, low-loading differential measurements with excellent common-mode rejection, making it ideal for high-speed digital system design, debugging, and characterization.

SPECIFICATIONS

General

Interfaces	TekConnect

Physical

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

Electrical Performance Specifications

Bandwidth	3.5 GHz
Rise Time (10% to 90%)	< 140 ps
Attenuation Ratio	5:1
DC Attenuation Accuracy	±1%
Differential Input Resistance	100 kΩ
Single-Ended Input Resistance	50 kΩ
Differential Input Capacitance	< 0.3 pF (without tip accessories)
Differential Dynamic Range	±2.0 V
Common Mode Operating Range	±5.0 V
Maximum Non-Destructive Input Voltage	±15 V (DC + peak AC)
Offset Range	±1.25 V
System Noise (Referenced to Input)	< 3.0 mV RMS

Frequency Response & Rejection

Common Mode Rejection Ratio (CMRR) at 1 MHz	> 60 dB
Common Mode Rejection Ratio (CMRR) at 100 MHz	> 45 dB
Common Mode Rejection Ratio (CMRR) at 500 MHz	> 40 dB
Common Mode Rejection Ratio (CMRR) at 1 GHz	> 35 dB
Common Mode Rejection Ratio (CMRR) at 2 GHz	> 30 dB

Connectivity & Interface

Host Interface Type	TekConnect
Probe Cable Length	1.3 m

Environmental Specifications

Non-Operating Temperature Range	-55 °C to +75 °C
Operating Humidity	0% to 90% RH up to +30 °C, 0% to 75% RH above +30 °C to +40 °C
Operating Altitude	Up to 3,000 m
Non-Operating Altitude	Up to 15,240 m

Electrical Characteristics

Rise Time (20% to 80%)	< 90 ps (typical)
Propagation Delay	5.3 ns
Output Impedance	50 Ω

Reliability & Environmental

ESD Tolerance	> 8 kV

Compliance

Safety Certifications	UL3111-1, CAN/CSA C22.2 No. 1010.1, EN 61010-1

Performance

Single-Ended Input Capacitance	< 0.5 pF
Common Mode Rejection Ratio (CMRR) at 3 GHz	> 25 dB (typical)
Input Coupling	DC

TECHNOLOGY

Active Differential

APPLICATIONS

High-speed digital system design, differential signaling measurement, and debugging