TEKTRONIX

THDP0100

The Tektronix THDP0100 is a high-voltage active differential oscilloscope probe designed for safe, high-resolution measurements up to ±6000 V. Equipped with the TekVPI interface, it integrates seamlessly with compatible Tektronix oscilloscopes, providing automatic scaling, unit detection, and direct power without requiring an external power supply.

SPECIFICATIONS

General

Interfaces	TekVPI
Display	None (LED indicators for attenuation range and status)
Overrange Indicator	Audible alarm and visual LED
Host Compatibility	Tektronix oscilloscopes with TekVPI interface

Physical

Power Supply	Powered directly via TekVPI interface
Operating Temperature	0 °C to +50 °C °C
Dimensions (W×H×D)	207 mm × 38 mm × 22 mm (probe head) mm
Weight	0.362 kg

Electrical Performance

Bandwidth	100 MHz
Rise Time (10% to 90%)	< 3.5 ns
Attenuation Ratios	100x / 1000x
DC Attenuation Accuracy	±2%
Input Resistance (Differential Mode)	40 MΩ
Input Resistance (Common Mode)	20 MΩ
Input Capacitance (Differential Mode)	< 2.5 pF
Input Capacitance (Common Mode)	< 5 pF
Propagation Delay	18.5 ns

Voltage Range and Signal Limits

Differential Dynamic Range (1000x)	±6000 V
Differential Dynamic Range (100x)	±600 V
Common Mode Operating Range	±6000 V
Maximum Non-Destructive Input Voltage	2300 V CAT I / 1000 V CAT III

Common Mode Rejection Ratio (CMRR)

CMRR at DC	> 80 dB
CMRR at 100 kHz	> 60 dB
CMRR at 3.2 MHz	> 30 dB
CMRR at 100 MHz	> 26 dB

Connectivity and Interfaces

Input Connection Type	Shrouded banana plugs
Input Lead Length	1.5 m
Output Cable Length	1.2 m

Environmental and Safety Compliance

Storage Temperature Range	-40 °C to +75 °C
Operating Humidity Range	5% to 85% RH (at or below +30 °C, non-condensing)
Operating Altitude	Up to 3000 m
Non-Operating Altitude	Up to 15240 m
Safety Standards	UL61010-031, CAN/CSA-C22.2 No. 61010-031, EN61010-031, IEC61010-031

Performance

Bandwidth Limit Filter	5 MHz (selectable)
Noise (100X)	< 30 mVrms (referred to input)
Noise (1000X)	< 300 mVrms (referred to input)

Inputs & Outputs

Output Interface / Connector	TekVPI

User Interface

Overrange Indicator Type	Audible and visual (LED)

Environmental

Pollution Degree	2

TECHNOLOGY

Active Differential

APPLICATIONS

High Voltage Power Analysis, Power Supply Design, Motor Drive Testing

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