TEKTRONIX

TCP202

The Tektronix TCP202 is a high-performance, easy-to-use AC/DC active current probe designed for use with oscilloscopes featuring the TekProbe BNC interface. It provides a wide 50 MHz bandwidth with a maximum continuous current capability of 15 A, enabling precise measurements of low-to-medium level analog and digital currents.

SPECIFICATIONS

General

Interfaces	TekProbe BNC
Compatibility	Tektronix oscilloscopes with TekProbe II BNC interface, or other instruments via 1103 power supply
Probe Type	AC/DC Current Probe

Physical

Power Supply	Powered directly by host instrument via TekProbe BNC interface, or via Tektronix 1103 external power supply
Operating Temperature	0 °C to +50 °C °C
Dimensions (W×H×D)	16 mm × 32 mm × 200 mm (probe head) mm
Weight	0.19 kg kg

Electrical Performance

Bandwidth (-3 dB)	DC to 50 MHz
Rise Time (10% to 90%)	≤ 7 ns
Maximum Continuous Current	15 A (DC + peak AC)
Maximum Peak Pulse Current	50 A
Amp-Second Product	100 A·µs
Nominal Sensitivity / Transfer Impedance	100 mV/A (into 50 Ω)
DC Gain Accuracy	±1% (with external calibrator), ±3% (typical)
Maximum Bare Wire Voltage	300 V RMS CAT I
Insertion Impedance at 1 MHz	0.1 Ω
Insertion Impedance at 10 MHz	0.5 Ω
Insertion Impedance at 50 MHz	1.0 Ω

Physical and Mechanical

Maximum Conductor Size	3.8 mm (0.15 inches)

Connectivity and Interface

Cable Length	2.0 m (6.6 ft)

Environmental and Safety

Storage Temperature Range	-40 °C to +75 °C
Operating Humidity Range	Up to 95% RH at ≤ +30 °C, up to 75% RH from +30 °C to +50 °C
Maximum Operating Altitude	2,000 m (6,562 ft)
Maximum Storage Altitude	12,190 m (40,000 ft)

Performance

Propagation Delay	17 ns (typical)
Low-level Noise	≤ 2.5 mArms (typical)

Controls

Balance Control	Manual balance adjustment via thumbwheel on compensation box

Connectivity

Output Connector	TekProbe BNC

Compliance

Safety Certifications	UL3111-2-032, CSA1010.2.032, EN61010-2-032, IEC61010-2-032

Electrical

Insertion Impedance at 10 kHz	0.002 Ω
Insertion Impedance at 100 kHz	0.02 Ω
Input Coupling	DC

Standards & Compliance

EMC Compliance	EN 55011 Class A, EN 50082-1

TECHNOLOGY

Active AC/DC Hall Effect and Transformer

APPLICATIONS

Current measurement for power supplies, motor drives, and semiconductor devices