

# CT4196

## 60 MHz Differential Probe

# Datasheet

### Overview:

The CT4196 differential probe allows safe, accurate measurement between two voltage points where neither point is referenced to ground. Designed for high sensitivity measurements, the probe offers up to 60 MHz bandwidth. Compatible with oscilloscopes from all major manufacturers, the probe is exclusively powered by the included 9 V power adapter.

### Features:

- 60 MHz bandwidth (-3 dB)
- Up to  $\pm 35$  V (DC + AC peak)
- Attenuation 1x/5x/10x
- High accuracy ( $\pm 2\%$ )
- Power indicator LED
- Meets IEC 61010-1 CAT II safety standard



### Kit Contents:

- Differential probe
- (2) Pincer clips
- (2) Alligator clips
- (2) Sheathed 4 mm banana plug test leads, silicone jacketed
- (1) Insulated BNC cable
- (1) 9 V power adapter

Technical data subject to change.

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All specifications apply to the unit after a temperature stabilization time of 20 minutes over an ambient temperature range of 25 °C ± 5 °C.

<b>Electrical Characteristics</b>	
Bandwidth	60 MHz (10x attenuation) 50 MHz (5x attenuation) 15 MHz (1x attenuation)
Rise Time	5.8 ns for 10x 7 ns for 5x 23 ns for 1x
Attenuation	1x, 5x, 10x
Accuracy	±2% *
AC CMRR	80 dB @ 60 Hz 60 dB @ 100 Hz 50 dB @ 1 MHz
Maximum Differential Input Voltage (1x) (DC + AC peak)	±3.5 V
Maximum Differential Input Voltage (5x) (DC + AC peak)	±18 V
Maximum Differential Input Voltage (10x) (DC + AC peak)	±35 V
Maximum Common Mode Input Voltage (1x, 5x, 10x) (DC + AC peak)	±35 V
Absolute Maximum Rated Input Voltage (each side to ground)	600 Vrms
Input Impedance (Differential)	1 MΩ // 2.5 pF
Input Impedance (each side to ground)	0.5 MΩ // 5 pF
Output Voltage Swing	±4 V (driving 1 MΩ oscilloscope input)
Offset (typical)	±5 mV
Noise (typical)	2 mVrms
Source Impedance	50 Ω
Power Supply	9 V power adapter (included)

<b>Mechanical Characteristics</b>	
Weight	250 g
Dimensions	195 x 55 x 30 mm
BNC Cable Length	100 cm
Input Leads Length	55 cm each

<b>Environmental Characteristics</b>	
Operating Temp/Humidity	0°C to 50°C / 10% to 85% RH
Storage Temp/Humidity	-30°C to 70°C / 10% to 90% RH
Pollution Degree	Pollution Degree 2

<b>Safety Specifications</b>	
IEC 61010-1 CAT II	

\* Accuracy based on DMM with 10 MΩ input impedance.

Specifications are subject to change without notice. To ensure the most current version of this manual, please download the current version from our website: [caltestelectronics.com](http://caltestelectronics.com)

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## Performance Data Plots

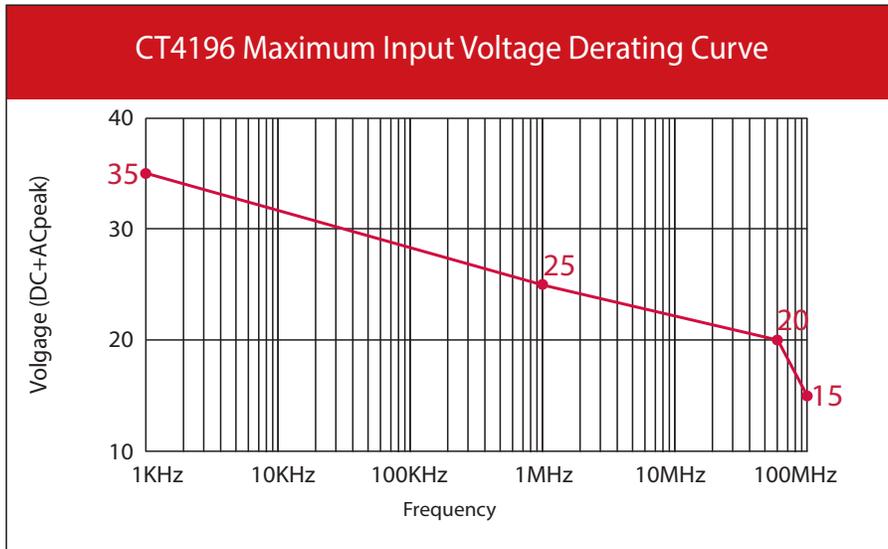


Figure 1 Derating Curve



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