

# CT3688

## High Voltage Differential Probe

### 200 MHz / $\pm 60$ V

# Datasheet

#### Overview:

Differential probes allow safe, accurate measurement between two voltage points where neither point is referenced to ground. The CT3688 offers 200 MHz bandwidth and can test up to  $\pm 60$  V (DC + AC peak). Compatible with oscilloscopes from all major manufacturers, the probe is powered by the included 9 VDC adapter.

#### Features:

- 200 MHz bandwidth (-3 dB)
- Up to  $\pm 60$  V (DC + AC peak) common mode
- Attenuation setting of 10x
- High accuracy ( $\pm 1\%$ )
- High CMRR
- Power indicator LED
- 9 VDC adapter, CT3723 (included)
- USB power lead, CT4122 (optional)
- Battery pack with 4 AA batteries, CT3729 (optional)



## Electrical Specifications

Electrical Specifications	
	<b>CT3688</b>
Bandwidth (-3dB)	200 MHz
Rise Time (10%-90%)	1.75 ns
Attenuation ratio	10x
Accuracy	±1%
CMRR (typical)	-80 dB @ 100 Hz -50 dB @ 10 MHz
Maximum Differential Input Voltage (DC + AC peak)	±20 V
Maximum Common Mode Input Voltage (DC + AC peak)	±60 V
Absolute Maximum Rated Input Voltage (each side to ground)	40 Vrms CAT I
Input Impedance	500 kΩ // 7 pF (each side to ground)
Output Voltage Swing	±2 V (driving 50 Ω oscilloscope input)
Offset (typical)	±2 mV
Noise (typical)	0.3 mVrms
Source Impedance	50 Ω
Power Supply	CT3723 power adapter (included) or 4 AA batteries (optional) CT4122 USB power lead (optional)

## Mechanical Characteristics

Weight	300 g
Dimensions	111 x 22 x 14 mm
BNC Cable Length	125 cm
Input Leads Length	15 cm each

## Environmental Characteristics

Operating Temp/Humidity	-10°C to 40°C / Up to 85% RH
Storage Temp/Humidity	-30°C to 70°C / Up to 85% RH
Pollution Degree	Pollution Degree 2
Altitude	Operating: 3,000 m Nonoperating: 15,300 m

## Safety Specifications

IEC 61010-031 CAT I