# 60 MHz, 40 kVp-p High-Voltage Differential Probe

### CT4525



#### Features:

- Up to 40 kVp-p High-Voltage Operation
- Bandwidth to 60 MHz
- 1,000 V CAT III rated
- · Voltage over range indicator
- · Switchable attenuation
- · Mains power operations
- · Insulated BNC connection cable
- · Two-year warranty

#### Description:

Oscilloscope users are often faced with the need to make measurements between two voltages, both of which are not at earth ground. Differential probes allow earth grounded oscilloscope to make safe, accurate floating measurements between these two points.

The CT4525 High-Voltage differential probe allows differential voltage measurement s up to 40 kV peak to peak, one of the highest measuring probes available on the market. The probe convert these floating signals to low-voltage ground-referenced signal that can be displayed safely on any ground-referenced oscilloscope.

Compatible with oscilloscope from all major manufacturers, the CT4525 connects to high-voltage signals with a full range of included accessories, unique high-voltage hook clips.

For added safety, probe kit also includes a special grounding banana connection to alligator clip lead when measuring voltages greater than 10 kV DC or 5 kVrms.

Powered by an included mains adapter, the probe is easy to setup and use.

For additional product information, cross-references, or other test accessory information, visit www.caltestelectronics.com.

WARNING

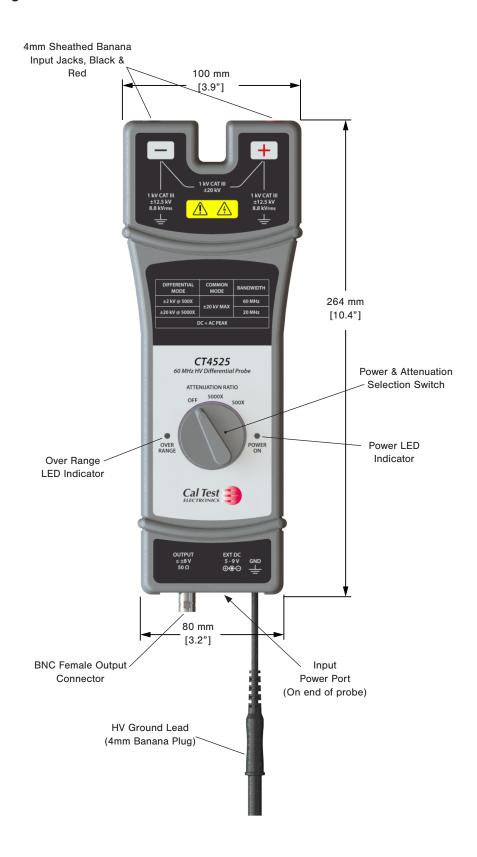
As with all high-voltage test accessories, please read and follow all recommended safety instructions.

#### Applications:

- · Precision power semiconductors
- · Switchable power supply design
- · Floating measurements
- · Power converter measurements
- · Precision motor drive measurements



### Diagram:





# Specifications: (continued)

## **Electrical (Not Warranted)**

Parameter	CT4525
Bandwidth (-3 dB)	60 MHz @ 500x 20 MHz @ 5000x
Gain Accuracy	±2%
Attenuation Ratio	500x / 5000x
Rise Time	17 ns @ 500x 50 ns @ 5000x
Absolute Maximum Rated Input Voltage (each side to ground)	1000 V CAT III ±12.5 kV DC ±8.8 kVrms
Maximum Differential Input Voltage (DC + AC Peak)	1000 V CAT III ±2 kV @ 500x ±20 kV @ 5000x
Maximum Common Mode Input Voltage (DC + AC Peak)	±2 kV @ 500x ±20 kV @ 5000x
Input Impedance	140 MΩ // 3 pF (Differential) 280 MΩ // 1.5 pF (each side to ground)
Output Voltage	±5 V (driving 1 MΩ load)
Offset (typical)	±20 mV
Output Impedance	50 Ω
Noise (typical)	0.7 mVrms
CMRR	60 Hz: >80 dB 100 Hz: >60 dB 1 MHz: >50 dB
Power Supply - Mains Adapter (NA Plugs)	Input: 110 V AC 50 Hz Output: 9 V DC, 300 mA
Power consumption	120 mA max. (1.1 W)

#### **Environmental**

Parameter	Characteristic
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-30°C to 70°C (-22°F to 158°F)
Humidity	≤ 80% RH @ 25°C to 35°C (77°F to 95°F)
Altitude	Operating: 2000 m Non-operating: 15000 m
Pollution Degree	P2



#### Ordering Information:

### CT4525

60 MHz, 40 kVp-p, 500x/5000x

#### Contact Info:

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### Supplied Accessories:

Accessory	Model No.
Insulated BNC Output Cable, 100 cm	CT3955-100
Insulated HV Sprung Hook Probe, 8 kV, 3 A, Pair (B/R)	CT4402
Alligator Ground Clip Lead, 1 m	CT4494-85
Power Adapter, NA Plugs to 5.5 m Plug	CT4526
Alligator Clip Pair (B/R)	CT4527
4mm HV Input Leads, Banana Plug to Banana Plug, 60 cm, Pair (B/R)	CT4528-60
4mm HV Extension Leads, Banana Plug to Banana Jack, 100 cm, Pair (B/R)	CT4529-100

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