

# CT4200 Series

## Passive Voltage Oscilloscope Probes

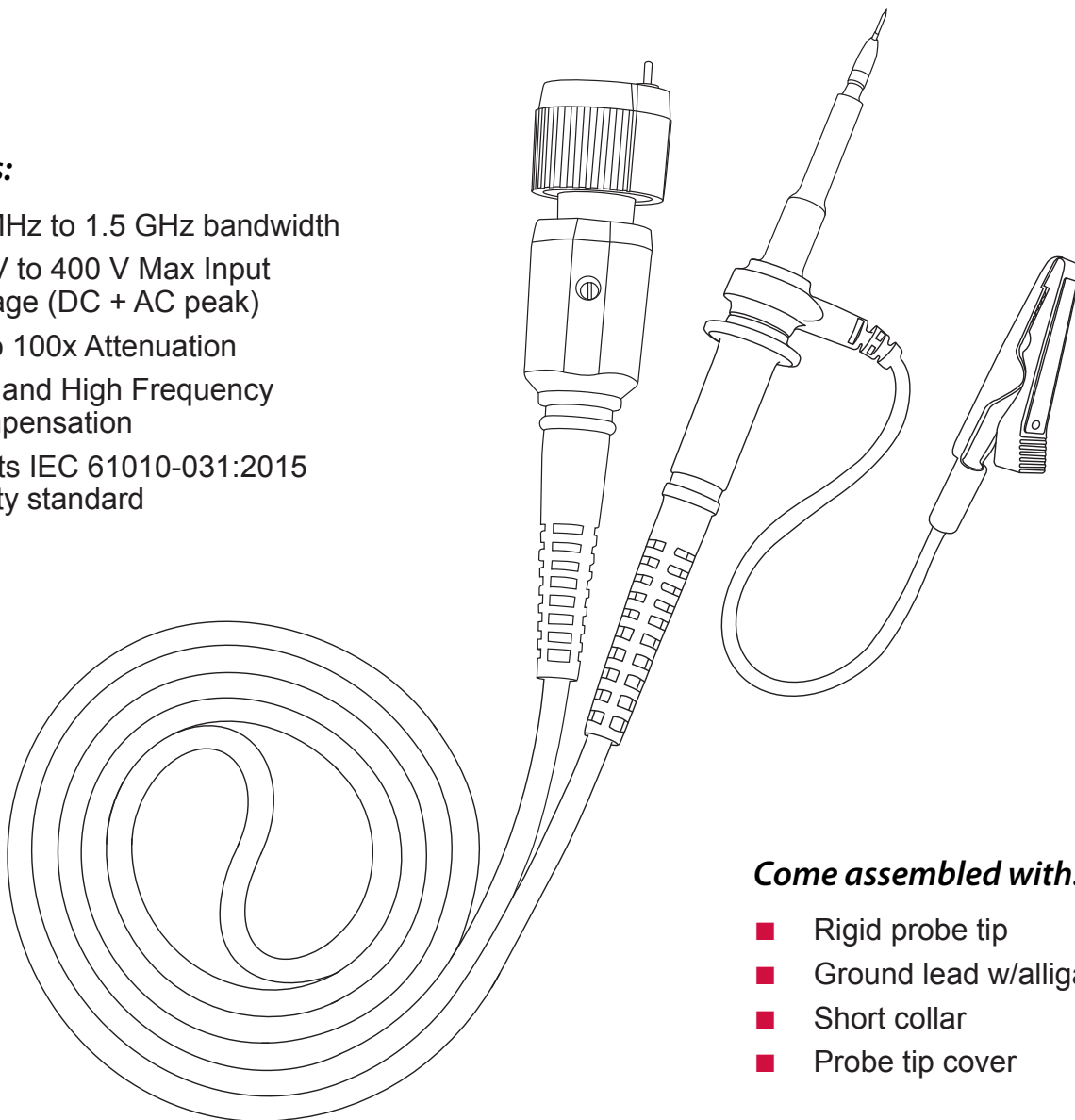
# Datasheet

### Overview:

The CT4200 Series of high impedance, passive voltage oscilloscope probes are designed for use with most general-purpose oscilloscopes. Their miniature 2.5 mm size provides easy probing of today's high density circuits. The series includes 1x, 10x, 20x, and 100x attenuation ratio models interfacing with scopes having either 1 M $\Omega$  or 50  $\Omega$  input impedances. Bandwidths range from 55 MHz up to 1.5 GHz. Each probe comes complete with a full range of performance accessories.

### Features:

- 55 MHz to 1.5 GHz bandwidth
- 8.5 V to 400 V Max Input Voltage (DC + AC peak)
- 1x to 100x Attenuation
- Low and High Frequency Compensation
- Meets IEC 61010-031:2015 safety standard



### Come assembled with:

- Rigid probe tip
- Ground lead w/alligator clip
- Short collar
- Probe tip cover

## Specifications

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

Model	Attn.	Input Impedance		B/W	Rise Time	Max Input Voltage (AC RMS)	Scope Input	Comp.range
		R	C					
CT4200	1x	1 MΩ	39 pF	55 MHz	6.36 ns	55 V CAT II <sup>b</sup>	1 MΩ	- <sup>e</sup>
CT4201	10x	10 MΩ	10 pF	200 MHz	1.75 ns	400 V CAT (0) <sup>a</sup> 300 V CAT II <sup>b</sup>	1 MΩ	10-25 pF
CT4202	10x	10 MΩ	10 pF	350 MHz	1.0 ns	400 V CAT (0) <sup>a</sup> 300 V CAT II <sup>b</sup>	1 MΩ	10-25 pF
CT4203	10x	10 MΩ	10 pF	500 MHz	0.7 ns	400 V CAT (0) <sup>a</sup> 300 V CAT II <sup>b</sup>	1 MΩ	10-25 pF
CT4204	10x	500 Ω	1.8 pF	1.5 GHz	0.24 ns	8.5 V CAT (0) <sup>c</sup>	50 Ω	-
CT4205	20x	20 MΩ	7.6 pF	500 MHz	0.7 ns	400 V CAT (0) <sup>a</sup> 300 V CAT II <sup>b</sup>	1 MΩ	7-25 pF
CT4206	100x	5 kΩ	2.2 pF	1.5 GHz	0.24 ns	21 V CAT (0) <sup>c</sup>	50 Ω	-
CT4207 <sup>d</sup>	10x	10 MΩ	10 pF	700 MHz	0.5 ns	400 V CAT (0) <sup>a</sup> 300 V CAT II <sup>b</sup>	1 MΩ	10-25 pF

a: Without a Measurement Category; 1250 V transient overvoltage

b: Measurement Category II

c: Without a Measurement Category; 0 V transient overvoltage

d: This probe is specifically designed to operate with the Keysight InfiniiVision\* X Series oscilloscopes with 1 MΩ impedance

e: This probe is designed to work with oscilloscopes with an input capacitance around 15 pF

\*Keysight and InfiniiVision are trademarks of Keysight Technologies, inc.

### Mechanical Characteristics

Weight	250 g
Length	100 cm

### Safety Specifications

IEC 61010-031:2015

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)

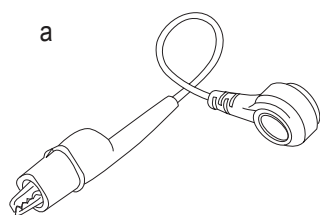
Technical data subject to change.

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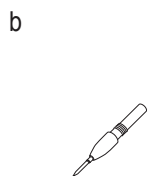
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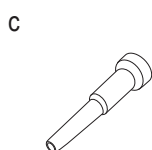
## Accessories



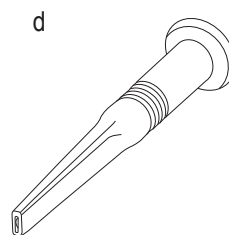
Ground Lead with Alligator Clip



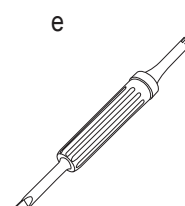
Rigid Probe Tip, 2.5mm



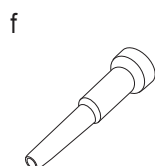
Short Collar, 2.5mm  
(installed standard)



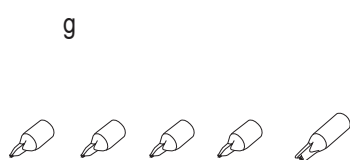
Sprung Hook, 2.5mm



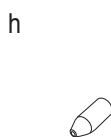
Trimmer Tool



Long Collar, 2.5mm



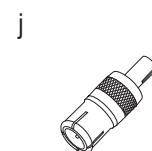
IC Tip Insulators QTY 5, 2.5mm



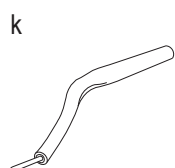
Tip Insulator 2.5mm



Probe Tip Cover, 2.5mm



BNC Adapter, 2.5mm



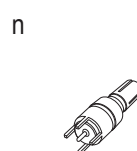
Swivel Ground Lead



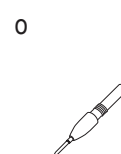
Swivel Ground Lead Adapter



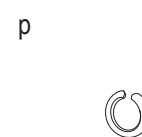
Ground Spring, 2.5mm



PCB Adapter, 2.5mm



Spring Tip, 2.5mm



Color Coding Rings 2 each

Item	CT Part #	Description	Quantity	CT4200 CT4204 CT4206	CT4201 CT 4202 CT4203 CT4205 CT4207
a	CT4208-10-8	Ground Lead w/ Alligator Clip	1	✓	✓
b	CT4209-0	Rigid Probe Tip	2	✓	✓
c	CT4208-8	Short Collar, 2.5 mm	1	✓	✓
d	CT4211-8	Sprung Hook, 2.5 mm	1	✓	✓
e	CT4212	Trimmer Tool	1	-	✓
f	CT4213-8	Long Collar, 2.5 mm	1	✓	✓
g	CT4214	IC Tip Insulators, 2.5 mm	5	✓	✓
h	CT4215-0	Tip insulator, 2.5 mm	1	✓	✓
i	CT4216-8	Probe Tip Cover, 2.5 mm	1	✓	✓
j	CT4217	BNC Adapter, 2.5 mm	1	✓	✓
k	CT3649	Swivel Ground Lead	1	✓	✓
l	CT4218-8	Swivel Ground Lead Adapter	1	✓	✓
m	CT4219	Ground Spring, 2.5 mm	1	✓	✓
n	CT4220	PCB Adapter, 2.5 mm	1	✓	✓
o	CT4221-0	Spring Tip, 2.5 mm	1	✓	✓
p	CT4222	Color Coding Rings (Blue, Green, Red, Yellow)	2 each	✓	✓

Technical data subject to change.

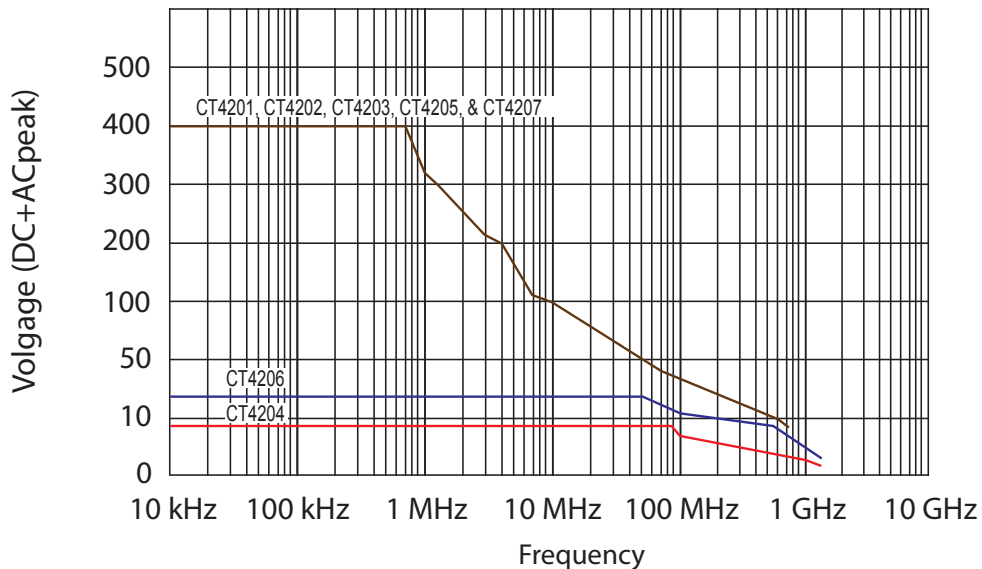
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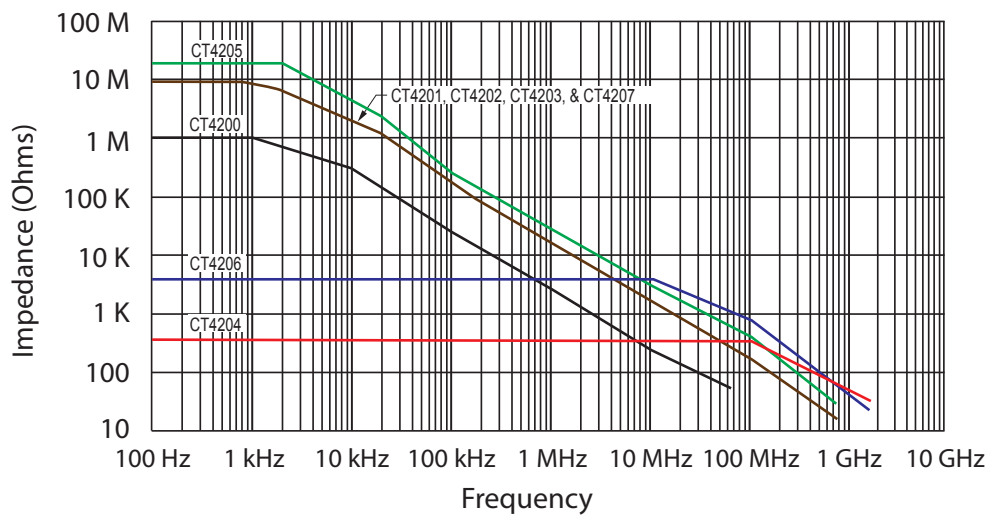


## Performance Data Plots

### Maximum Input Voltage Derating Curve



### Input Impedance Curve



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