

# Passive 1x/10x Voltage Probe

## P2220 • P2221 Data Sheet



P2220

### Features & Benefits

- 1x/10x Attenuation
- 200 MHz Bandwidth
- 1.5 m Length
- UL3111-1, CSA1010.1, EN61010-1, EN61010-2-031, and IEC61010-2-031

### Applications

- Relative Low-frequency Measurements
- Low-frequency Computer and Telecom Measurements
- Power Supplies
- Low-frequency Amplifiers

### P2220, P2221 Passive Voltage Probes

The P2220 and P2221, 200 MHz passive voltage probes permit selection of 1x or 10x attenuation, using a switch located on the probe head.

The P2220 probe is compatible with TDS200, TDS1000, TDS1000B, TDS2000, TDS2000B, and TPS2000 Series oscilloscopes. The P2220 probe also provides floating measurement capability up to 30 V<sub>RMS</sub> with TPS2000 Series oscilloscopes only. (Note: Do not float with TDS2000, TDS2000B, TDS1000, TDS1000B, or TDS200 Series oscilloscopes.) The P2221 is compatible with MSO2000 and DPO2000 Series oscilloscopes.

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## Characteristics

### 10x Position

Bandwidth – DC to 200 MHz

Probe Length – 1.5 m

Attenuation Ratio – 10:1

Compensation Range –

P2220: 15 to 25 pF

P2221: 10 to 25 pF

Input Capacitance –

P2220: 17.0 pF (typ)

P2221: 17.0 pF (typ)

Input Resistance – 10 M $\Omega$ 

Maximum Input Voltage – 300 V CAT II

Maximum Voltage Between Reference Lead and Earth Ground – 30 V<sub>RMS</sub>\*1

### 1x Position

Bandwidth – DC to 6 MHz

Probe Length – 1.5 m

Attenuation Ratio – 1:1

Compensation Range – All oscilloscopes with 1 M $\Omega$  input

Input Capacitance –

P2220: 110 pF (typ)

P2221: 110 pF (typ)

Input Resistance – 1 M $\Omega$ 

Maximum Input Voltage – 150 V CATII

Maximum Voltage Between Reference Lead and Earth Ground – 30 V<sub>RMS</sub>\*1

\*1 The float voltage must be subtracted from the tip to earth ground voltage. For example, if the reference lead is floated to 30 V<sub>RMS</sub> while the probe is in the 10x position, the tip voltage to the reference lead is limited to 270 V<sub>RMS</sub>.

## Ordering Information

### P2220

Passive Probe, 1x/10x, 200 MHz Passive Voltage Probe.

**Includes:** Retractable hook tip (013-0107-xx), 6-inch ground lead (196-3466-xx), adjustment tool (003-1433-xx), marker band set (016-1315-xx), Instruction Manual (071-1464-xx).\*2

### P2221

Passive Probe, 1x/10x, 200 MHz Passive Voltage Probe for MSO/DPO2000 Series oscilloscopes.

**Includes:** Retractable hook tip (013-0107-xx), 6-inch ground lead (196-3466-xx), adjustment tool (003-1433-xx), marker band set (016-1315-xx), Instruction Manual (071-2335-xx).\*2

\*2 The accessory quantities may differ when multiple probes are shipped with an oscilloscope/probe system.



**For Further Information.** Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology. Please visit [www.tektronix.com](http://www.tektronix.com)



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