

# Passive 1X/10X Voltage Probe

P2220 • P2221



P2220 Passive Voltage Probe.

## 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  $30 V_{RMS}$  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.

## 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** –  $30 V_{RMS}^{*1}$ .

### 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 CAT II.

**Maximum Voltage Between Reference Lead and Earth Ground** –  $30 V_{RMS}^{*1}$ .

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

## Features & Benefits

1X/10X Attenuation

200-MHz Bandwidth

1.5-Meter 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

## 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).<sup>\*2</sup>

### 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).<sup>\*2</sup>

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