TEKTRONIX

# P6022

The Tektronix P6022 is a passive AC-only current probe designed for high-frequency measurements in compact, high-performance circuits. Providing a broad frequency response from 935 Hz to 120 MHz, it features a small split-core probe head that clips onto conductors up to 4.7 mm in diameter without breaking the circuit. The probe operates with a dedicated passive termination box to provide switchable sensitivities of 1 mA/mV and 10 mA/mV into 1 MΩ oscilloscope inputs.

## SPECIFICATIONS

### General

| | |
|---|---|
| Interfaces | BNC (via termination box) |

### Physical

| | |
|---|---|
| Power Supply | Passive (no power supply required) |
| Operating Temperature | 0 to +50 °C |
| Weight | 0.17 kg (with termination) kg |
| Probe Head Length | 80 mm (3.15 in) |
| Probe Weight (excluding cable) | 71 g (2.5 oz) |
| Termination Weight | 85 g (3 oz) |

### Electrical Performance

| | |
|---|---|
| Frequency Range | 935 Hz to 120 MHz |
| Rise Time | ≤ 3 ns |
| Maximum Peak Current | 6 A |
| Maximum Continuous RMS Current | 4 A |
| Amp-Second Product | 100 A-µs |
| Sensitivity / Transfer Impedance | 1 mA/mV or 10 mA/mV |
| Low-Frequency 3dB Point | 935 Hz |
| High-Frequency 3dB Point | 120 MHz |
| Coupling Type | AC Only |
| Maximum Voltage to Ground (Bare Conductor) | 200 V peak |
| Low-Frequency Decay (Tilt) | ≤ 8% / µs at 1 mA/mV, ≤ 0.6% / µs at 10 mA/mV |

### Mechanical & Physical Characteristics

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|---|---|
| Maximum Conductor Outer Diameter | 4.7 mm (0.185 in) |
| Cable Length | 1.5 m (5 ft) |
| Probe Head Width | 12 mm (0.47 in) |
| Probe Head Height | 6 mm (0.25 in) |
| Jaw Opening Mechanism Type | Split Core (Slide-to-open) |
| Probe Shielding | Shielded probe head |

### Termination & System Compatibility

| | |
|---|---|
| Required Instrument Input Impedance | 1 MΩ |
| Output Connector Type | BNC |

### Environmental & Safety Compliance

| | |
|---|---|
| Operating Temperature Range | 0 °C to +50 °C |
| Non-Operating (Storage) Temperature Range | -40 °C to +75 °C |

### Standard Accessories & Ordering Options

| | |
|---|---|
| Included Passive Termination Box Part Number | 011-0106-02 |

### Electrical Characteristics

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|---|---|
| Insertion Impedance (1 mA/mV, 1 MHz) | 0.04 Ω |
| Insertion Impedance (1 mA/mV, 10 MHz) | 0.12 Ω |
| Insertion Impedance (1 mA/mV, 100 MHz) | 0.35 Ω |
| Insertion Impedance (10 mA/mV, 1 MHz) | 0.01 Ω |
| Insertion Impedance (10 mA/mV, 10 MHz) | 0.03 Ω |
| Insertion Impedance (10 mA/mV, 100 MHz) | 0.08 Ω |

### Environmental

| | |
|---|---|
| Maximum Operating Altitude | 2,000 m (6,560 ft) |
| Maximum Non-Operating Altitude | 15,240 m (50,000 ft) |

### Electrical

| | |
|---|---|
| Insertion Inductance (1 mA/mV) | < 0.11 µH |
| Insertion Inductance (10 mA/mV) | < 0.015 µH |
| Maximum Voltage (Insulated Conductor) | Limited only by conductor insulation |

### Performance

| | |
|---|---|
| Propagation Delay | 16 ns |

## TECHNOLOGY

Passive AC Current Probe

## APPLICATIONS

Oscilloscope current measurement