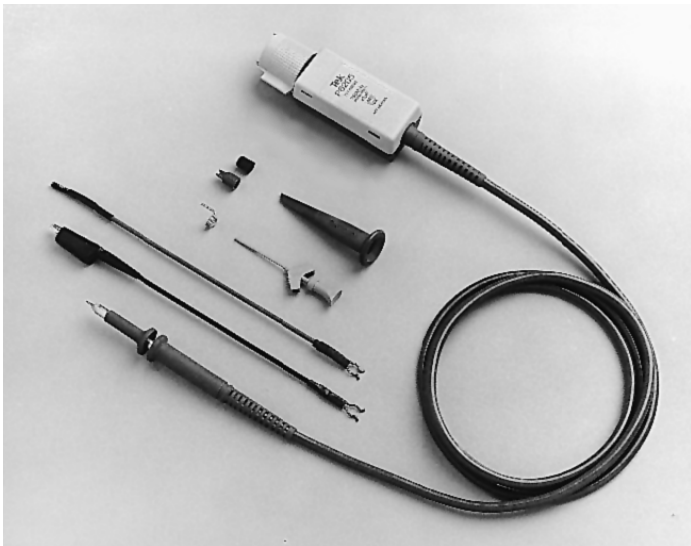# Active FET Probe

P6205 Datasheet

The P6205 probe is part of Tektronix' line of Low Circuit Loading Signal Acquisition probes for CSA (Communications Signal Analyzers), DSA (Digitizing Signal Analyzers), 11000 Series and the TDS family of oscilloscopes.

Key features

- DC to 750 MHz
- 2 pF Input C
- 1 MΩ Input R
- Integral Probe Power TekProbe™ BNC
- High-speed Digital Systems Design
  - ECL
  - GaAs
  - MOS: CMOS; FastCMOS; BiCMOS; TTL
- Component Design/Characterization
  - Amplitude Levels
  - Aberrations
  - Propagation Delay and Timing
  - Bandwidths and Rise Times

- Educational Research
- Manufacturing Engineering and Test

Active FET probes for TekProbe™ BNC interface

The P6205 is designed with FET devices for its inputs, which allows very high input resistance values and low input capacitances.

Both Active FET probes provide a wide linear dynamic input range for accessing most digital device families using today's logic voltage levels.

Power for the P6205 is supplied by the CSA, DSA, TDS and 11000 Series mainframes through the TekProbe BNC Interface, eliminating the need for extra cabling and/or external power supplies.

Probe information such as type, serial number, attenuation factor, offset scale factor, input resistance, and termination resistance required is communicated through the TekProbe interface between the Active Probe and the CSA, DSA, and 11000 Series mainframes. This information is used by these oscilloscope mainframes during the initialization sequence and measurement analysis.

Benefits

- Low Input C, High Input R - Minimizes circuit under test loading
- Probe Power Directly from CSA, DSA, TDS, or 11000 Series TekProbe™ BNC Interfaces - Means no additional cables or power supplies required
- Readout Coding for 10X Attenuation - Reduces confusion and errors in measurement readings
- Gold-plated Replaceable Probe Tips - Improved electrical connections and lower maintenance costs
- Miniature Size Accessories - Provides wide range of circuit attachments
- UL Listed - UL 1244

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Specifications

All specifications apply to all models unless noted otherwise.

Warranted electrical characteristics

Attenuation	10X

Nominal electrical characteristics

Cable length	1.5 m (60 in) tip to BNC
Bandwidth at -3 dB	750 MHz
Input capacitance	2 pF
Input resistance	1 MΩ
Linear dynamic range	±10 V
DC offset range	NA
Maximum input voltage	±40 V (DC + peak AC)
Interface/Readout/Identity	TekProbe™ BNC / Yes / No
Recommended instruments [1]	11000 [2], TDS400, TDS500, TDS600, TDS700, TDS3000, TDS5000, TDS7000

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[1]   The P6205 also works with other instruments with appropriate adapters. Please visit http://www.Tek.com/probes for more details.

[2]   1100 Series = 11A32/11A34/11A52/11A71/11A72/11A81

Ordering information

Standard accessories

P6205 10x, 750 MHz active FET probe

013-0107-xx	Retractable hook tip
196-3120-xx	6 in. ground lead with alligator
196-3198-xx	6 in. ground lead with square-pin receptacle
214-4125-xx	Ground contact, spring
206-0569-xx	SMT KlipChip™ adapter
166-0404-xx	Insulating ground cover
015-0201-xx	IC test tip
016-0156-xx	Carrying case
070-8202-xx	Instruction manual

Warranty

One-year warranty covering all parts and labor.

Recommended accessories

Please see 5 mm Probe Accessories (miniature) probe system at http://www.tek.com/datasheet/probe-accessories-2

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Tektronix is registered to ISO 9001 and ISO 14001 by SRI Quality System Registrar.

Datasheet

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.

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