Active FET Probe
P6205 Data Sheet

Active FET Probes for TekProbe™ BNC Interface
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.

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 scope initialization sequence and measurement analysis.

Features & Benefits

P6205
- DC to 750 MHz
- 2 pF Input C
- 1 MΩ Input R
- Integral Probe Power TekProbe™ BNC

Applications
- 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

Benefit Highlights
- 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*1
- 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

*1 Interface/Readout/Identify Code: (TPB = TekProbe™ BNC) / (TPS = TekProbe™ SMA) / (BNC = CONVENTIONAL BNC) / (Y = Yes) / (N = No)

P6205 with Accessories.
Data Sheet

Characteristics

P6205

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Cable Length in Meters</td>
<td>1.5</td>
</tr>
<tr>
<td>Attenuation</td>
<td>10X</td>
</tr>
<tr>
<td>Bandwidth at ~3 dB in MHz</td>
<td>750</td>
</tr>
<tr>
<td>Input C in pF</td>
<td>2</td>
</tr>
<tr>
<td>Input R in Ω</td>
<td>1 M</td>
</tr>
<tr>
<td>Linear Dynamic Range in Volts</td>
<td>±10</td>
</tr>
<tr>
<td>DC Offset Range in Volts</td>
<td>NA</td>
</tr>
<tr>
<td>Max Voltage in Volts (DC + pk AC)</td>
<td>±40</td>
</tr>
<tr>
<td>Interface / Readout / Identify</td>
<td>TPB/YS</td>
</tr>
</tbody>
</table>

Recommended Instrument: 11000*, TDS400, TDS500, TDS600, TDS700, TDS3000, TDS5000, TDS7000

* Interface/Readout/Identify Code: (TPB = TekProbe™ BNC) / (TPS = TekProbe™ SMA) / (BNC = CONVENTIONAL BNC) / (Y = Yes) / (N = No).

Ordering Information

P6205

10X, 750 MHz Active FET Probe.

Includes: Retractable hook tip (013-0107-07); 6 in. ground lead with alligator (196-3120-01); 6 in. ground lead with square-pin receptacle (196-3198-01); ground contact, spring (214-4125-00) SMT KlipChip™ adapter (206-0364-01); insulating ground cover (166-0404-01); IC test tip; carrying case; Instruction Manual (070-8202-01).

Recommended Accessories

Please see 5 mm Probe Accessories (miniature) 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

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