

4 GHz Active Probes

► P7240 • P6249 • P6209



P7240 Active Probe for TekConnect Interface

The P7240 with TekConnect interface is Tektronix' highest-performance active probe, designed for use with the new TDS7404 oscilloscope. High bandwidth and low capacitive loading make this the probe of choice for demanding design applications, such as Rambus, DDR DRAM, and AGP. This probe and the others in its family are also suited for applications in the communication industry, for measurements on FibreChannel and Gigabit Ethernet. The P7240 features the new TekConnect interface which preserves signal integrity to 10 GHz and beyond to meet present and future bandwidth needs.



P6249 Active Probe for TEKPROBE BNC Interface

The P6249 has similar performance to the P7240 above. Primarily used for the TDS694C and TDS794D high performance scopes, the P6249 may also be used with conventional BNC interfaces via the Tektronix 1103 TEKPROBE Power Supply. A full complement of versatile probe tip accessories helps users connect to the wide range of devices faced by digital designers.

► Features & Benefits

- 4 GHz Bandwidth
- <120 ps Rise Time
- Small Form Factor Probe Head
- Full Set of SMD Connection Accessories
- Direct Access to SMDs as Small as .010" Pitch
- Oscilloscopes Supported
 - P7240 TDS7404 with TekConnect™ Interface
 - P6249 TDS Oscilloscopes with TEKPROBE2® Interface
 - P6209 TDS8000/800 Series, CSA8000
- Probe Interfaces
 - P6209 TEKPROBE® SMA Interface
 - P6249 TEKPROBE2 BNC Interface
 - P7240 TekConnect Interface

► Applications

High-speed Digital Systems Design

Component Design/Characterization

Manufacturing Engineering & Test

Measures 3.0 V Logic, Rambus Data Lines, Gigabit Ethernet

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P6209 Active Probe for SMA Interface/Sampling Oscilloscopes

The P6209 provides a high-bandwidth, low circuit loading probing solution for the TDS8000 and TDS 800 Series sampling oscilloscopes with TEKPROBE SMA input connection. Based on the P6249 probe design, the P6209 has similar performance and a similar small probe head for access to today's fine-pitch SMDs and connection points.

► Characteristics

Bandwidth – DC to 4.0 GHz at -3 dB (typical, probe only).
Rise Time – <120 ps (guaranteed, 20°C to 30°C).
Dynamic Range – ± 1.75 V.
Attenuation – 5x.
Input Resistance – 20 kΩ (typical).
DC Offset Range – ± 5 Vdc.
Input Capacitance – <1 pF (typical).
Max Voltage (Nondestruct) – ± 30 V (DC plus peak AC).
Cable Length – P6209: 1.37 m (includes output SMA cable).
P7240, P6249: 1.4 m.
Output Load Requirement – 50 Ω.

P7240/P6209/P6249 Included Accessories

Product Name/Description	Part Number	Quantity
50 mil SureFoot®	SF501	12 Each
25 mil SureFoot	SF502	12 Each
0.5 mm SureFoot	SF503	12 Each
3-inch Ground Leads and 2 Y Lead Adapters	196-3456-00	3 Each
SMK4 (Pkg of 4)	SMK4	4 Each
SMT KlipChip™	206-0364-00	2 Each
Cable Markers	016-1315-00	5 Each
Pogo Pin Grounds	016-1772-00	15 Each
Square Pin Sockets	016-1773-00	15 Each
Right Angle Square Pin Adapters	016-1774-00	10 Each
Probe Tips	131-5638-30	30 Each
0.010 inch SureToe	ST501	12 Each
Anti-static Wrist Strap	006-3415-04	1 Each
Storage Case		1 Each
Certificate of Traceable Calibration		1 Each

Linearity – ± 0.1% at DC.

Output Offset – Probe Only: ± 7.5 mV or less (20°C to 30°C).

DC Offset Drift –

150 μ V/°C or less (probe only).
System on-screen display w/TEKPROBE or TekConnect interface: 0.75 mV/°C or less.

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