

# High-performance Differential Probes

► P7350 • P7330 • P6330



Tektronix' proven expertise in probes brings you the highest fidelity in high-speed differential probing. The P7350, P7330 and P6330 high-bandwidth differential probes offer excellent signal fidelity, meeting the needs of engineers in design and debug of technologies with very fast clock speeds and edge rates. They provide high-bandwidth, low circuit loading, low noise differential probing solutions for high-speed circuit designers.

## **P7350**

The P7350 improves usability with variable spacing and solder-down capability, and a small form factor for ease-of-use on densely packed circuit boards with difficult-to-reach probe points. It employs the patented TekConnect® Interface, which preserves signal integrity to 10 GHz and beyond to meet present and future bandwidth needs.

## **P7330 and P6330**

The P7330 and P6330 enable users to make time domain or frequency domain measurements on high-bandwidth signals commonly found in digital IC designs, communication applications and disk drive applications. The P7330 and P6330 provide high-bandwidth, low circuit loading and low noise differential probing solutions. The small probe head geometry and assorted probe tip accessories allow these probes to easily accommodate manual probing of surface mount devices.

## ► Features & Benefits

<100 ps Rise Time  
(P7350 Guaranteed)

5 GHz to 3.5 GHz Bandwidths  
(Typical)

Low Input Capacitance:

<0.3 pF Differential  
(P7350 Typical)

≥60 dB (1000:1) Common Mode  
Rejection Ratio (CMRR) at 1 MHz  
(P7330, P6330 Typical)

Small Probe Head Allows Easy  
Probing of SMDs

## ► Applications

Communications (Gigabit  
Ethernet, Fibre Channel,  
InfiniBand)

Semiconductor Characterization  
and Validation (PCI-Express,  
Serial ATA, IEEE 1394, USB 2.0,  
RAMBUS, DDR)

Disk Drive Design

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### ► Characteristics

	P7350	P7330	P6330
Rise Time	<100 ps (guaranteed)	<140 ps (guaranteed)	<140 ps (guaranteed)
Bandwidth	5.0 GHz	3.5 GHz	3.5 GHz
Attenuation	6.25X	5X	5X
Differential Input C		<0.3 pF (typical)	
Differential Input Resistance	100 k $\Omega$	100 k $\Omega$	100 k $\Omega$
Differential Input Range	$\pm 2.5$ V (20 °C to 30 °C)	$\pm 2$ V (20 °C to 30 °C)	$\pm 2$ V (20 °C to 30 °C)
Common Mode Input Range	+6.25 V to -5 V	+5 V to -4 V	+5 V to -4 V
Max Voltage (Non-destruct)	$\pm 25$ V (DC plus peak AC)	$\pm 25$ V (DC plus peak AC)	$\pm 25$ V (DC plus peak AC)
CMRR	>45 dB at 1 MHz (typical)	>60 dB at 1 MHz (typical)	>60 dB at 1 MHz (typical)
Noise	Approx. 46 nV/root Hz	Approx. 35 nV/root Hz	Approx. 35 nV/root Hz
Interface	TekConnect®	TekConnect	TEKPROBE II BNC
Cable Length	1.3 m	1.3 m	1.3 m

## ► Ordering Information

### P7350

5.0 GHz Differential Probe for TekConnect® Interface.

Supports CSA/TDS8200, CSA/TDS8000, TDS/CSA7000/B and TDS6000/B/C Series.<sup>1</sup>

**Includes:** See accessories table below.

### P7330

3.5 GHz Differential Probe for TekConnect Interface.

Supports CSA/TDS8200, CSA/TDS8000, TDS/CSA7000/B and TDS6000/B/C Series.<sup>1</sup>

**Includes:** See accessories table below.

### P6330

3.5 GHz Differential Probe for TEKPROBE® BNC Interface.

Supports TDS/CSA7000/B, TDS6000/B/C, TDS700 and TDS600 Series.<sup>2</sup>

**Includes:** See accessories table below.

## ► Accessories

	P7350		P7330		P6330	
	Part No.	Quantity	Part No.	Quantity	Part No.	Quantity
Y Lead Adapter	196-3434-00	2 each	196-3434-00	2 each	196-3434-00	2 each
3" Ground Lead	196-3469-00	2 each	196-3469-00	2 each	196-3469-00	2 each
SMT KlipChip™ Adapter	206-0364-00	2 each	206-0364-00	2 each	206-0364-00	2 each
TwinFoot™ Adapter (Pkg of 2)	016-1785-00	1 pkg	016-1785-00	1 pkg	016-1785-00	1 pkg
Square Pin Adapter (Pkg of 4)	016-1884-00	1 pkg	016-1884-00	1 pkg	016-1884-00	1 pkg
Plastic Accessory Box	006-7164-00	1	006-7164-00	1	006-7164-00	1
Coding Color Marker Kit	016-1886-00	1	---	---	---	---
Color Coding Clips	---	---	016-1315-00	1 set	016-1315-00	1 set
Variable Spacing Adapter (Pkg of 4)	016-1885-00	1 pkg	016-1885-00	1 pkg	016-1885-00	1 pkg
Probe Carrying Case	016-1879-00	1	016-1879-00	1	016-1879-00	1
Instruction Manual	071-1238-xx	1	071-0758-xx	1	071-0757-xx	1
Certificate of Traceable Calibration	---	1	---	1	---	1
Anti-static Wrist Strap	006-3415-04	1	006-3415-04	1	006-3415-04	1
Pin Jumper Lead	196-3473-00	2	196-3473-00	2	196-3473-00	2
Solder In Kit	020-2505-00	1	---	---	---	---

### Service

**Opt. C3** – Calibration Service 3 years.

**Opt. C5** – Calibration Service 5 years.

**Opt. D1** – Calibration Data Report.

**Opt. D3** – Calibration Data Report 3 years (requires Opt. C3).

**Opt. D5** – Calibration Data Report 5 years (requires Opt. C5).

**Opt. R3** – Repair Service 3 years.

**Opt. R5** – Repair Service 5 years.

### Recommended Accessories

**IEEE 1394 Breakout Connector** – Order 679-5027-00.

**IC Grabber** – Order 013-0309-00 (Pkg. of 2).

### Related Products

**1103** – TEKPROBE® II power supply for interfacing with other BNC instruments.

**80A03** – TekConnect probe interface module for TDS/CSA8000 Series oscilloscopes.

### Power Plug Options for 1103

**A0** – North America power.

**A1** – Universal Euro power.

**A2** – United Kingdom power.

**A3** – Australia power.

**A4** – 240 V, North America power.

**A5** – Switzerland power.

<sup>1</sup> CSA/TDS8200, CSA/TDS8000 Series requires the use of the 80A03 TekConnect Interface Adapter.

<sup>2</sup> TDS6000/B/C or TekConnect TDS7000/B Series oscilloscopes require a TCA-BNC adapter.

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Updated 28 February 2006

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[www.tektronix.com](http://www.tektronix.com)

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3/06 HB/WOW

60W-13756-7

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