

Tektronix Logic Analyzer Probes

► P6810 • P6860 • P6864 • P6880 • P6960 • P6964 • P6980 • P6982



► Features & Benefits

7.5 V_{p-p} Dynamic Range Supports a Broad Range of Logic Families

Connectorless Probing System Eliminates Need for On-board Connectors and is Ideal for Differential Signal Applications

0.5 pF Input Capacitance Minimizes the Intrusion on Signals

► Applications

Hardware Debug and Verification

Processor/Bus Debug and Verification

Embedded Software Integration, Debug and Verification

Breakthrough Probing Solutions for Real-time Digital Systems Analysis

No test and measurement solution is complete without probing and considering its impact on your system and your measurement time. With the industry's lowest capacitance, the P6800 and P6900 Series logic analyzer probes protect the integrity of your signal – critical for connecting to fast buses like DDRII or Hypertransport where low intrusion is key to the proper operation of your design. Select from single-ended and differential probes and a variety of attachment mechanisms, including the “connectorless” compression connection that eliminates the need for on-board connectors. For applications where circuit board space is at a premium, the high-density P6900 Series with D-Max™ Probing Technology offers the industry's smallest available footprint.

For debugging the signal integrity glitches common on fast buses such as RapidIO and SPI4.2, the P6900 Series works with the TLA7Axx module and its iLink™ Tool Set capability to provide iCapture™ simultaneous digital-analog acquisition. This allows you to clearly see the time-correlated digital and analog behavior of your design, without the extra capacitance and setup time of double-probing. For differential signaling applications where signal integrity is critical, the high-fidelity P6980 and P6982 are perfect for those applications where noise performance is critical. In addition, the P6980 and P6982 can support the small voltage swings that differential signaling often requires. For board designs that do not include high-density probe footprints, the P6960 with its companion flying leadset provides the flexibility required to meet many different debug needs.

Tektronix Logic Analyzer Probes

► P6810 • P6860 • P6864 • P6880 • P6960 • P6964 • P6980 • P6982

► Characteristics

	P6810	P6860	P6864	P6880	P6960	P6964	P6980	P6982
Probe Type	Differential Data Differential Clock (general purpose)	Single-ended Data Differential Clock (17-ch per probe head)	Single-ended Data Differential Clock 4X Demux (17-ch per probe head)	Differential Data Differential Clock (8/9-ch per probe head)	Single-ended Data Differential Clock (34-ch per probe head)	Single-ended Data Differential Clock 4X Demux (34-ch in one probe head)	Differential Data Differential Clock (17-ch per probe head)	Differential Data Differential Clock 2X Demux (17-ch in one probe head)
Number of Channels	34	34	17	34	34	34	34	17
Recommended Use	Recommended for most general-purpose applications where signal integrity is critical	Recommended for applications requiring good signal density and quick, reliable attachment.	Recommended for high data rate (>450 MHz) applications that require 4X demultiplexing and good signal density in a quick, reliable attachment	Recommended for applications requiring full differential probing with good signal density and a quick, reliable attachment	Recommended for applications requiring the best signal density and quick, reliable attachment or for general-purpose probing with flying leads	Recommended for applications requiring the best signal density with data rates in excess of 450 MHz and the LA is acquiring with 4X demux requiring quick connect to a small footprint	Recommended for applications requiring full differential probing with the best signal density and a quick, reliable attachment	Recommended for applications requiring full differential with the best signal density with data rates in excess of 450 MHz and the LA is acquiring with 2X demux requiring quick connect to a small footprint
Attachment to Target System	Fits both 0.100 in. and 2 mm square pin configurations	Compression Elastomer			D-Max™ probing technology compression cLGA with optional flying lead set	D-Max™ probing technology compression cLGA		
Probe Loading AC/DC	<0.7 pF/20 kΩ to Ground				0.5 pF/20 kΩ to Ground, typical			
Analog Bandwidth	2 GHz through iCapture™ to analog out BNCs				2 GHz through iCapture to analog out BNCs (Less with flying lead set attached)	2 GHz through iCapture to analog out BNCs		
Input Range	-2.5 V to 5.0 V							
Max Voltage (non-destruct)	±15 V							
Cable Length	1.8 m (6 ft.)							

► Ordering Information

P6810

34-channel general-purpose probe with Differential Clock, Differential Data and Accessories.

Includes: Podlet holders, 1-channel leadset, 8-channel single-ended leadset, 8-channel differential leadset, SMT KlipChip™ grabber tips, probe labels, TLA Documentation CD, probe instruction manual.

P6860

34-channel High-density Compression Probe with Differential Clock, Single-ended Data and accessories.

Includes: Nut bars, elastomer holder (thin PCBs), elastomer holder (thick PCBs), probe labels, probe instruction manual.

P6864

17-channel (optimized for 4X demux) High-density Compression Probe with Differential Clock, Single-ended Data and accessories.

Includes: Nut bars, elastomer holder (thin PCBs), elastomer holder (thick PCBs), probe labels, probe instruction manual.

P6880

34-channel High-density Compression Probe with Differential Clock, Differential Data and accessories.

Includes: Nut bars, elastomer holder (thin PCBs), elastomer holder (thick PCBs), probe labels, probe instruction manual.

P6960

34-channel Single-ended High-density Compression Probe with D-Max™ Probing Technology with Differential Clock, Single-ended Data and accessories.

Opt. 01 – 34-channel general purpose flying lead set.
Includes: Probe Attachment Kit for D-Max™ Probing Technology, probe labels, Velcro cable manager, probe adjustment tool, TLA documentation CD, probe reference card.

P6964

34-channel (optimized for 4X demux) Single-ended High-Density Compression Probe with D-Max™ Probing Technology with Differential Clock, Single-ended Data and accessories.

Includes: Probe Attachment Kit for D-Max™ Probing Technology, probe labels, Velcro cable manager, probe adjustment tool, TLA documentation CD, probe reference card.

P6980

34-channel Differential High-density Compression Probe with D-Max™ Probing Technology with Differential Clock, Differential Data and accessories.

Includes: Probe attachment kit for D-Max™ Probing Technology, probe labels, Velcro cable manager, probe adjustment tool, TLA Documentation CD, probe reference card.

P6982

17-channel (optimized for 2X demux), Differential High-density Compression Probe with D-Max™ Probing Technology with Differential Clock, Differential Data and accessories.

Includes: Probe attachment kit for D-Max™ Probing Technology, probe labels, Velcro cable manager, probe adjustment tool, TLA documentation CD, probe reference card.

Language Options

Opt. L0 – English Manuals.

Opt. L99 – No Manuals.

Service Options

Opt. R3 – Repair Service 3 Years.

Opt. R5 – Repair Service 5 Years.

Accessories

► P68xx Accessories

Description	P6810		P6860 ^{*1}		P6864 ^{*1}		P6880 ^{*1}	
	Qty Per Probe	Part Number	Qty Per Probe	Part Number	Qty Per Probe	Part Number	Qty Per Probe	Part Number
Podlet Holders, Bag of 4	1	352-1097-00	–	–	–	–	–	–
1-ch Leadset, Single-ended and Differential	2	196-3471-01	–	–	–	–	–	–
8-ch Leadset, Single-ended	4	196-3470-01	–	–	–	–	–	–
8-ch leadset, Differential	4	196-3472-01	–	–	–	–	–	–
SMT KlipChip™ Grabber Tips, Bag of 20	2	SMG50	–	–	–	–	–	–
High-resistance Adapter, 18 channel, for Use with General-purpose Probes	1	TLAHR	–	–	–	–	–	–
Nut bar (used on <0.093 in. thick PCB), Bag of 2	–	–	1	020-2453-00	1	020-2453-00	2	020-2453-00
Elastomer Holder Assembly, Thin (used on <0.093 in. thick PCB), Bag of 2	–	–	2	020-2451-00	1	020-2451-00	4	020-2451-00
Elastomer Holder Assembly, Thick (used on >0.093 in. thick PCB), Bag of 2	–	–	2	020-2452-00	1	020-2452-00	4	020-2452-00
Sheet of Probe Labels	1	335-0345-00	1	335-0346-00	1	335-1017-00	1	335-0697-0
(Optional) Mictor-on-PCB to P6860 Probe Adapter	–	–	1	020-2457-00	–	–	–	–
(Optional) Compression-on-PCB to Mictor Adapter, 17 channel	–	–	1	020-2455-00	–	–	–	–
(Optional) Compression-on-PCB to Mictor Adapter, 34 channel	–	–	1	020-2456-00	–	–	–	–

^{*1} Recommend PEM KFS-256 or equivalent for >0.093 in. thick PCB.

► P69xx Accessories

Description	P6960		P6964		P6980		P6982	
	Qty Per Probe	Part Number	Qty Per Probe	Part Number	Qty Per Probe	Part Number	Qty Per Probe	Part Number
Sheet of Probe Labels	1	335-1208-00	1	335-1315-00	1	335-1209-00	1	335-1313-00
Probe Attachment Kit for D-Max™ Probing Technology	1	020-2539-00	1	020-2539-00	2	020-2539-00	1	020-2539-00
Probe Adjustment Tool	1	003-1890-00	1	003-1890-00	1	003-1890-00	1	003-1890-00
Velcro Cable Manager (Bag of 2)	1	346-0300-00	1	346-0300-00	1	346-0300-00	1	346-0300-00
34-ch Leadset, Single-ended	1	196-3494-00	–	–	–	–	–	–

Tektronix Logic Analyzer Probes

► P6810 • P6860 • P6864 • P6880 • P6960 • P6964 • P6980 • P6982



► TLAHRA Adapter.

Contact Tektronix:

ASEAN / Australasia / Pakistan (65) 6356 3900

Austria +41 52 675 3777

Balkan, Israel, South Africa and other ISE Countries +41 52 675 3777

Belgium 07 81 60166

Brazil & South America 55 (11) 3741-8360

Canada 1 (800) 661-5625

Central East Europe, Ukraine and Baltics +41 52 675 3777

Central Europe & Greece +41 52 675 3777

Denmark +45 80 88 1401

Finland +41 52 675 3777

France & North Africa +33 (0) 1 69 81 81

Germany +49 (221) 94 77 400

Hong Kong (852) 2585-6688

India (91) 80-22275577

Italy +39 (02) 25086 1

Japan 81 (3) 6714-3010

Luxembourg +44 (0) 1344 392400

Mexico, Central America & Caribbean 52 (55) 56666-333

Middle East, Asia and North Africa +41 52 675 3777

The Netherlands 090 02 021797

Norway 800 16098

People's Republic of China 86 (10) 6235 1230

Poland +41 52 675 3777

Portugal 80 08 12370

Republic of Korea 82 (2) 528-5299

Russia & CIS 7 095 775 1064

South Africa +27 11 254 8360

Spain (+34) 901 988 054

Sweden 020 08 80371

Switzerland +41 52 675 3777

Taiwan 886 (2) 2722-9622

United Kingdom & Eire +44 (0) 1344 392400

USA 1 (800) 426-2200

USA (Export Sales) 1 (503) 627-1916

For other areas contact Tektronix, Inc. at: 1 (503) 627-7111

Updated 6 April 2005

Our most up-to-date product information is available at:
www.tektronix.com

Product(s) are manufactured
in ISO registered facilities.



Copyright © 2005, Tektronix, Inc. All rights reserved. Tektronix products are covered by U.S. and foreign patents, issued and pending. Information in this publication supersedes that in all previously published material. Specification and price change privileges reserved. TEKTRONIX and TEK are registered trademarks of Tektronix, Inc. All other trade names referenced are the service marks, trademarks or registered trademarks of their respective companies.

4/05 HB/WOW

52W-17702-1

Tektronix
Enabling Innovation