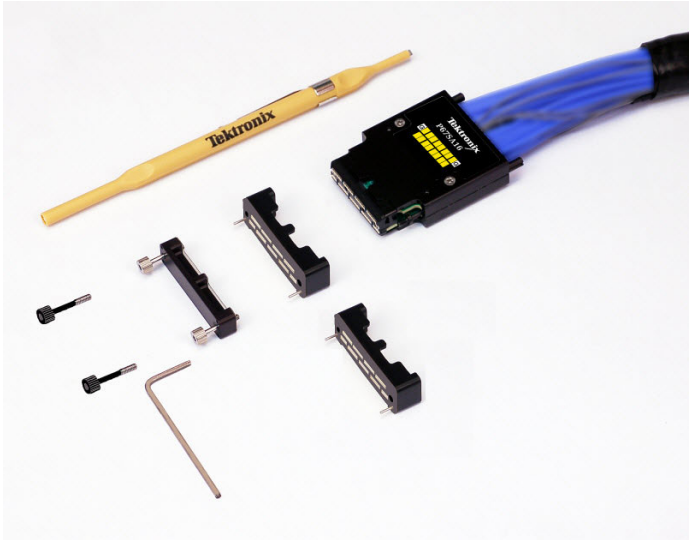


Tektronix Protocol Analyzer Probes

P67SA00 Series Data Sheet



Features & Benefits

- <math><0.7\text{ pF}</math> Total Capacitive Loading Minimizes Intrusion on Circuits
- 20 k Ω Input Resistance
- 6.5 V_{p-p} Dynamic Range Supports a Broad Range of Logic Families
- General-purpose Probing Allows Flexible Attachment to Industry-standard Connections
- Connectorless Probing System Eliminates Need for Onboard Connectors

Applications

- Hardware Debug and Verification
- Processor/Bus Debug and Verification
- Embedded Software Integration, Debug, and Verification

Leading Probing Solutions for Real-time Digital Systems Analysis

P67SA00 Series Probes for PCI Express

The P67SA00 Series probes provide validation engineers with a comprehensive set of PCI Express probing solutions, including midbus, slot interposer, and solder-down connectors. With support for PCI Express Gen3 channel lengths up to 24 in. with 2 connectors, these probes offer minimal electrical loading with the highest signal fidelity and active equalization to ensure accurate data recovery of closed eyes. All P67SA00 Series probes feature a graphical lane swizzling capability for maximum flexibility to accommodate unique circuit board layouts.

Characteristics

P67SA00 Series Probe Characteristics

General

Characteristic	P67SA08	P67SA16	P67SA16G2	P67SA01S	P67SA04S	P67SA08S	P67SA16S	P67SA01SD
Probe Type	PCI Express Midbus Differential Data	PCI Express Midbus Differential Data	PCI Express Midbus Differential Data	PCI Express Slot Interposer	PCI Express Slot Interposer	PCI Express Slot Interposer	PCI Express Slot Interposer	PCI Express Differential Solder-down Probe
Number of Differential Pairs	8	16	16	2	4	16	32	1
Recommended Use	Recommended where signal integrity is critical	Recommended where signal integrity is critical	Recommended for midbus probing of PCIe Gen2	Recommended for platforms with no midbus footprints and the PCI Express slot is the only probe access point	Recommended for platforms with no midbus footprints and the PCI Express slot is the only probe access point	Recommended for platforms with no midbus footprints and the PCI Express slot is the only probe access point	Recommended for platforms with no midbus footprints and the PCI Express slot is the only probe access point	Recommended for platforms with no midbus footprint, PCI Express slot; or where space is limited
Attachment to Target System	Compression cSpring	Compression cSpring		PCI Express Slot	PCI Express Slot	PCI Express Slot	PCI Express Slot	Solder Down
Probe Loading AC/DC	See P67SA00 Series Probe Manual							
Cable Length	1.8 m (6 ft.)							

Midbus Probe Recommended Configuration

X1	X4	X8	X16
1 P67SA08 1 TLA7SA08	1 P67SA08 1 TLA7SA08	1 P67SA16 1 TLA7SA16	2 P67SA16 2 TLA7SA16

Solder-down Probe Recommended Configurations

X1	X4	X8	X16
2 P67SA01SD 1 TLA7SA08	8 P67SA01SD 1 TLA7SA08	16 P67SA01SD 1 TLA7SA16	32 P67SA01SD 2 TLA7SA16

Slot Interposer Probe Recommended Configurations

X1	X4	X8	X16
1 P67SA01S 1 TLA7SA08	1 P67SA04S 1 TLA7SA08	1 P67SA08S 1 TLA7SA16	1 P67SA16S 2 TLA7SA16

Ordering Information

Tektronix Protocol Analyzer Probes

Models	Description
P67SA08	8 Differential Pairs PCI Express Midbus Probe and Accessories Includes: Statement of Compliance, (2) 8-channel Retention Mechanisms, Velcro Cable Managers, Probe Instruction Manual
P67SA16	16 Differential Pairs PCI Express Midbus Probe and Accessories Includes: Statement of Compliance, (2) 16-channel Retention Mechanisms, Velcro Cable Managers, Probe Instruction Manual
P67SA01S	x1 PCI Express Slot Interposer Includes: Statement of Compliance, Velcro Cable Managers, Probe Instruction Manual
P67SA04S	x4 PCI Express Slot Interposer Includes: Statement of Compliance, Velcro Cable Managers, Probe Instruction Manual
P67SA08S	x8 PCI Express Slot Interposer Includes: Statement of Compliance, Velcro Cable Managers, Probe Instruction Manual
P67SA16S	x16 PCI Express Slot Interposer Includes: Statement of Compliance, Velcro Cable Managers, Probe Instruction Manual
P67SA01SD	x1 PCI Express Differential Solder-down Probe Includes: Statement of Compliance, Velcro Cable Managers, Probe Instruction Manual Option 1P: Probe Power Adapter (1 required for every eight (8) P67SA01SD probes)

Language Options

Option	Description
Opt. L0	English Manuals
Opt. L99	No Manuals

Service Options

Please refer to the Service section at the rear of this document for information on Calibration and Repair options for these probes.

P67SA00 Series Midbus Standard Accessories

Description	P67SA08		P67SA16	
	Qty. per Probe	Part Number	Qty. per Probe	Part Number
Retention Mechanisms	1	020-4008-00	1	020-4016-00
Probe Adjustment Tool	1	003-1890-xx	1	003-1890-xx
Velcro Cable Manager (Bag of 2)	1	346-0300-xx	1	346-0300-xx

P67SA01SD Solder-down Standard Accessories

Description	Qty. per Probe	Part Number
TriMode™ Long Reach Solder Tip	1	P75TLRST
Storage Case	1	016-2009-xx
Solder Tip Tape (Strip of 10)	1	006-8237-xx
1 – .004 wire / 1 – .008 wire / 1 – SAC305 Solder (Package of 3 bobbins)	1	020-2754-xx
Hook and Loop fastening straps and dots	1	016-1953-xx
Installation Sheet	1	071-2503-xx

P67SA01SD Solder-down Required Accessories

Description	Qty.*4	Part Number
Power Adapter	1	870-0509-00

*4 See Solder-down Probe Configuration for Required Quantities.

P67SA01SD Solder-down Optional Accessories

Description	Qty.	Part Number
Bullet Removal Tool	1	003-1896-xx
Replacement Bullet Contacts	Pack of 4	003-0359-xx

ASEAN / Australasia (65) 6356 3900
 Austria 00800 2255 4835*
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 Belgium 00800 2255 4835*
 Brazil +55 (11) 3759 7627
 Canada 1 800 833 9200
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 Germany 00800 2255 4835*
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 India 000 800 650 1835
 Italy 00800 2255 4835*
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 Sweden 00800 2255 4835*
 Switzerland 00800 2255 4835*
 Taiwan 886 (2) 2722 9622
 United Kingdom & Ireland 00800 2255 4835*
 USA 1 800 833 9200

Service Options

Customers who choose a Tektronix product receive a support partnership focused on making the deployment and operation of their products successful. Tektronix support teams are committed to providing rapid response. A broad range of flexible services is available at the time of product purchase to meet customer service needs.

The following service options are offered for the P67SA00 Series protocol analyzer probes.

Option	Description
Opt. CA1	Single Calibration or Functional Verification
Opt. C3	Calibration Service 3 Years
Opt. C5	Calibration Service 5 Years
Opt. G3	Complete Care 3 Years (includes loaner, scheduled calibration and more). P6708, P6716, P6716S only
Opt. G5	Complete Care 5 Years (includes loaner, scheduled calibration and more). P6708, P6716, P6716S only
Opt. R3	Repair Service 3 Years
Opt. R5	Repair Service 5 Years
Opt. R1PW	Repair Service Coverage, 1-year Post Warranty
Opt. R2PW	Repair Service Coverage, 2-years Post Warranty
Opt. R3DW	Repair Service Coverage 3 Years (includes product warranty period). 3-year period starts at time of instrument purchase
Opt. R5DW	Repair Service Coverage 5 Years (includes product warranty period). 5-year period starts at time of instrument purchase



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

* European toll-free number. If not accessible, call: +41 52 675 3777

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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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