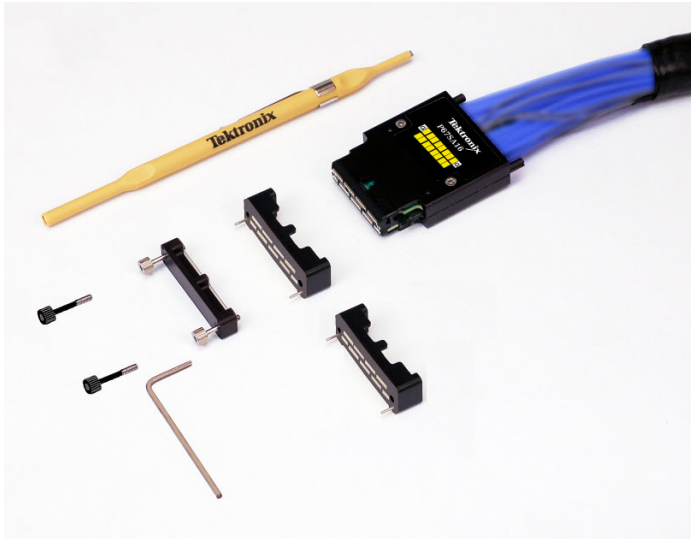


# Tektronix Protocol Analyzer Probes

## P67SA00 Series Datasheet



The P67SA00 Series probes provide validation engineers with a comprehensive set of PCI Express probing solutions, including midbus, slot interposer, and solder-down connectors.

### Notice to EU customers

This product is not updated to comply with the RoHS 2 Directive 2011/65/EU and will not be shipped to the EU. Customers may be able to purchase products from inventory that were placed on the EU market prior to July 22, 2017 until supplies are depleted. Tektronix is committed to helping you with your solution needs. Please contact your local sales representative for further assistance or to determine if alternative product(s) are available. Tektronix will continue service to the end of worldwide support life.

### Features and benefits

- <0.7 pF Total capacitive loading minimizes intrusion on circuits
- 20 k $\Omega$  Input resistance
- 6.5 V<sub>p-p</sub> 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.

## Specifications

All specifications are guaranteed unless noted otherwise. All specifications apply to all models unless noted otherwise.

### P67SA00 Series Probe characteristics

#### General characteristics

Characteristic	P67SA08	P67SA16	P67SA04S	P67SA08S	P67SA16S	P67SA01SD
Probe type	PCI Express Midbus Differential Data	PCI Express Midbus Differential Data	PCI Express Slot Interposer	PCI Express Slot Interposer	PCI Express Slot Interposer	PCI Express Differential Solder-down Probe
Number of differential pairs	8	16	4	16	32	1
Recommended use	Recommended where signal integrity is critical	Recommended where signal integrity is critical	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	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

#### Slot Interposer probe recommended configuration

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

#### Solder-down probe recommended configuration

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

## Ordering information

### Tektronix Protocol Analyzer probes

<b>P67SA08</b>	8 Differential pairs PCI Express Midbus probe and accessories Includes: Statement of Compliance, (2) 8-channel Retention Mechanisms, Velcro Cable Managers, Probe Instruction Manual
<b>P67SA16</b>	16 Differential pairs PCI Express Midbus probe and accessories Includes: Statement of Compliance, (2) 16-channel Retention Mechanisms, Velcro Cable Managers, Probe Instruction Manual
<b>P67SA04S</b>	x4 PCI Express Slot Interposer Includes: Statement of Compliance, Velcro Cable Managers, Probe Instruction Manual
<b>P67SA08S</b>	x8 PCI Express Slot Interposer Includes: Statement of Compliance, Velcro Cable Managers, Probe Instruction Manual
<b>P67SA16S</b>	x16 PCI Express Slot Interposer Includes: Statement of Compliance, Velcro Cable Managers, Probe Instruction Manual
<b>P67SA01SD</b>	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)

### Standard accessories

#### P67SA00 Series Midbus standard accessories

##### P67SA08

Description	Quantity per probe	Part number
Retention mechanisms	1	020-4008-00
Probe adjustment tool	1	003-1890-xx
Velcro cable manager (bag of 2)	1	346-0300-xx

##### P67SA16

Description	Quantity per probe	Part number
Retention mechanisms	1	020-4016-00
Probe adjustment tool	1	003-1890-xx
Velcro cable manager (bag of 2)	1	346-0300-xx

#### P67SA01SD Solder-Down standard accessories

Description	Quantity 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	Quantity <sup>1</sup>	Part number
Power adapter	1	870-0509-00

<sup>1</sup> See Solder-down Probe Configuration for Required Quantities.

## Optional accessories

### P67SA01SD Solder-Down optional accessories

Description	Quantity	Part number
Bullet removal tool	1	003-1896-xx
Replacement bullet contacts	Pack of 4	003-0359-xx

## Options

### Language options

Opt. L0	English manual
Opt. L99	No manual

### 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.

Opt. C3	Calibration Service 3 Years
Opt. C5	Calibration Service 5 Years
Opt. R3	Repair Service 3 Years (including warranty)
Opt. R3DW	Repair Service Coverage 3 Years (includes product warranty period). 3-year period starts at time of instrument purchase
Opt. R5	Repair Service 5 Years (including warranty)
Opt. R5DW	Repair Service Coverage 5 Years (includes product warranty period). 5-year period starts at time of instrument purchase



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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.tek.com](http://www.tek.com).

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