Analyzer Probes

MAx100 Series | Passive | Dynamic Termination

OVERVIEW

THE following probes are available for the MA51x0 and MA41x0 series analyzers. These probes are designed for low voltage and high speed midbus probing or probing with an interposer. The following JEDEC memory standards are widely used by these probes: DDR5 (JESD79-5), DDR4 (JESD79-4), DDR3 (JESD79-3), LPDDR5 & LPDDR5X (JESD209-5), LPDDR4 & LPDDR4X (JESD209-4), and LPDDR3 (JESD209-3).

PRB-HD Series

The PRB-HD series are passive, high-density probes with dynamic termination settings. These probes are popular for use with DDR5 main memory and LPDDR5(X)/LPDDR4(X) mobile memory. Single memory channel and dual memory channel probes are available as well as horizontal and vertical probe heads. All probes have one differential channel dedicated to probing the clock. The single memory channel probes have 10 single-ended channels for data. The dual memory channel probe has an extra 10 single-ended channels on a second probe head for probing a second memory channel (for use only when both memory channels share a clock).

PRB-HD IMAGES

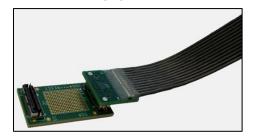


Figure 1 PRB-HD-H-1



Figure 2 PRB-HD-V-1



Figure 3 PRB-HD-H-2

PRB-HD SUPPORTS

- DDR5
- LPDDR5X
- LPDDR5

- LPDDR4X
- LPDDR4
- LPDDR3



PRB-HD CONFIGURATIONS

Product Name	DDR Channels Supported	Channels Probed	Connection	Nexus Order Number
NEX-PRB-HD-H-1	1	1 diff. clock 10 channels	Single, Horizontal	NEX-PRB-MAPSV1
NEX-PRB-HD-V-1	1	1 diff. clock 10 channels	Single, Vertical	NEX-PRB-MAPSV1-RAV
NEX-PRB-HD-H-2	2	1 diff. clock 20 channels	Dual, Horizontal	NEX-PRBMAPSV2

PRB-FL SERIES

The PRB-FL series are passive, flying-lead probes with dynamic termination settings. These probes are popular for use with oscilloscope optimized interposers (EdgeProbe™, Direct Attach and Socketed interposers) for DDR5/DDR4 main memory and LPDDR5(X)/LPDDR4(X) mobile memory. Each probe has one differential channel dedicated to probing the clock and 20 single-ended channels for data.

PRB-FL IMAGES



Figure 4 PRB-FL-20

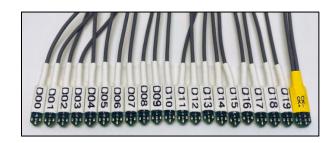


Figure 5 PRB-FL-20 Probe Heads

PRB-FL SUPPORTS

DDR5DDR4LPDDR5X

- LPDDR5

- LPDDR4X

- LPDDR4

- LPDDR3

PRB-FL CONFIGURATIONS

Product Name	DDR Channels Supported	Channels Probed	Nexus Order Number
PRB-FL-20	1 or 2	1 diff. clock 20 channels	NEX-PRB-FL

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PRB-69 SERIES

The PRB-69 series are passive, medium-density probes with dynamic termination settings. These probes are popular for midbus probing main and mobile memory. All probes have one differential channel dedicated to probing the clock and 32 single-ended channels for data (only 20 channels are available when used with a MA51x0 series analyzer).

PRB-69 SUPPORTS

- DDR5
- DDR4
- DDR3
- LPDDR5X

- LPDDR5
- LPDDR4X
- LPDDR4
- LPDDR3

PRB-69 IMAGES

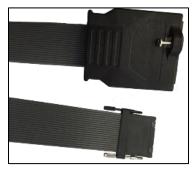


Figure 6 PRB-P69-165

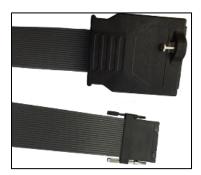


Figure 7 PRB-P69-0

PRB-P69 CONFIGURATIONS

Product Name	Tap Resistor	DDR Channels Supported	Channels Probed	Nexus Order Number
PRB-P69-165	165-ohm	1 or 2	1 diff. clock 32 channels	NEX-PRB-P69PSV-165
PRB-P69-0	0-ohm (none)	1 or 2	1 diff. clock 32 channels	NEX-PRB-P69PSV

PRB-XL SERIES

The PRB-XL series are passive, low-density probes with dynamic termination settings. These probes are popular for DIMM and SODIMM probing of main and mobile memory. All probes have one differential channel dedicated to probing the clock and 33 single-ended channels for data (only 20 channels are available when used with a MA51x0 series analyzer).

PRB-XL SUPPORTS

- DDR5 - DDR4

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- DDR3
- LPDDR5X
- LPDDR5

- LPDDR4X
- LPDDR4
- LPDDR3

PRB-XL IMAGE



Figure 8 PRB-XL-1

PRB-XL CONFIGURATIONS

Product Name	DDR Channels Supported	Channels Probed	Nexus Order Number
PRB-XL-1	1 or 2	1 diff. clock 33 channels	NEX-PRB1-XL

ANALYZER PROBES CONFIGURATIONS

Product	DDR	Channels	Connection	JEDEC Memory Supported					
Name	Channels Supported	Probed		DDR5	LPDDR5	DDR4	LPDDR4	DDR3	LPDDR3
PRB-HD-H-1	1	1 diff. clock 10 channels	HD, Horiz.	X	Х		X		X
PRB-HD-H-2	1	1 diff. clock 20 channels	HD, Horiz.	X	Х		X		X
PRB-HD-V-1	1	1 diff. clock 10 channels	HD, Vert.	Х	Х		X		X
PRB-FL	1 or 2	1 diff. clock 20 channels	Flying-Lead	X	Х	Х	X	X	X
PRB-P69	1 or 2	1 diff. clock 32 channels	Soft Touch Pro / Midbus	Х	X	Х	X	х	X
PRB-XL-1	1 or 2	1 diff. clock 33 channels	DIMM / SOIMM	X	Х	X	X	X	X



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