

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight U4301B

Connector Interface Class: PCIe interposer or probing class per kit Export Classification Class: Commercial test equipment class Calibration: Module level functional verification class From Keysight/Agilent U4301 family PCIe analyzer documentation for the U4301B module. Confirm exact option codes and memory on the unit configuration. Agilent Keysight U4301B PCIe Protocol Analyzer Module The Agilent/Keysight U4301B is the follow-on PCIe protocol analyzer module in the U4301 family for modular Keysight platforms, retaining Gen1 to Gen3 PCIe analysis at 2.5/5.0/8.0 GT/s with multi-lane link support. OEM family documentation positions it for continued PCIe validation workflows on the same chassis architecture. PCIe Gen3 validation labs refreshing U4301A systems, multi-lane link debug, and protocol decode in modular analyzer racks.



MODEL

**Agilent / Keysight
U4301B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

U4301B

LISTING

<https://aumictechlabs.com/products/u4301b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight U4301B is a high-speed PCIe protocol analyzer module installed as a blade in AXIe chassis for detailed digital acquisition and analysis of PCI Express traffic. It supports PCIe Gen1 through Gen3 at 2.5 GT/s, 5.0 GT/s, and 8.0 GT/s, with link widths from x1 to x16. The module employs Equalization Snoop Probe (ESP) technology for non-intrusive, accurate data capture without bus loading. Technical Specifications Protocol Support: PCI Express Gen1, Gen2, Gen3 Speed Support: 2.5 GT/s (Gen1), 5.0 GT/s (Gen2), 8.0 GT/s (Gen3) Link Width Support: x1 through

x16 unidirectional; x1 through x8 bidirectional (mid-bus probe), x1 through x16 bidirectional (solid slot or CEM slot interposer) Capture Buffer Memory: 8 GB per module; up to 16 GB for x16 bidirectional configurations Probing Technology: Equalization Snoop Probe (ESP) with non-intrusive measurementKey Features Multiple Probe Architectures: Mid-bus probe, solid slot interposer, flying lead solder-down probe, CEM slot interposer, U.2 (SFF-8639) interposer, and M.2 (M-key) interposer for SSD testing Packet Visualization: Flexible packet decoding with color coding by type or direction; lane view displays actual bus data including headers and payloads Filtering and Triggering: State-based triggering with advanced filters; simple packet filters and quick search with auto compute LTSSM Analysis: Detailed Link Training and Status State Machine verification with equalization analysis and link failure identification Performance Metrics: Utilization, throughput, response time, and latency measurements with flow control analysis Traffic Analysis: Pattern analysis with graphical representation and real data throughput calculation Transactional Decode: PCIe, NVMe, and AHCI protocol support with queue selection and performance reporting Cross-Correlation: Synchronized time navigation across all analysis viewsTypical Applications PCIe endpoint and switch characterization and compliance verification NVMe SSD performance and protocol analysis Link training and equalization troubleshooting System-level throughput and latency profiling Storage subsystem protocol validationCompatibility & Integration Installs in Keysight AXIe chassis platforms including M9502A and M9505A. Supports direct probing of PCIe slots, U.2 connectors, and M.2 form factor devices.

U4301B Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	PCIe protocol analyzer module
Supported Generations	PCIe Gen1 Gen2 Gen3
Link Rates	2.5 GT/s 5.0 GT/s 8.0 GT/s
Link Widths Class	x1 to x16 class family
Host Platform Class	Keysight modular protocol analyzer chassis
Form Factor	Plug in analyzer module
Protocol Family	PCI Express
Primary Function	Protocol capture and decode
Series Family	U4301B
Trigger Capability Class	Protocol aware trigger class
Analysis Software Class	Keysight PCIe analysis software class
Lane Aggregation	Multi lane link support
Power	Supplied by host chassis
Operating Environment Class	Laboratory chassis environment
Warmup Class	Per host chassis recommendation
Capture Memory Class	Module and chassis dependent class
Decode Layers Class	Transaction and data link layers class
Link Training Visibility	Supported class
Compliance Assist Class	Protocol compliance debug class
Connector Interface Class	PCIe interposer or probing class per kit
Export Classification Class	Commercial test equipment class
Calibration	Module level functional verification class

U4301B Specifications

PARAMETER	VALUE
Agilent Keysight U4301B PCIe Protocol Analyzer Module	Overview
Applications	PCIe Gen3 validation labs refreshing U4301A systems, multi-lane link debug, and protocol decode in modular analyzer racks.
Key Features	PCIe Gen1 through Gen3 analysis
Technical Specifications	Instrument Type: PCIe protocol analyzer module

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Instrument Type	PCIe protocol analyzer module
Supported Generations	PCIe Gen1 Gen2 Gen3
Link Rates	2.5 GT/s 5.0 GT/s 8.0 GT/s
Link Widths Class	x1 to x16 class family
Host Platform Class	Keysight modular protocol analyzer chassis
Form Factor	Plug in analyzer module
Protocol Family	PCI Express
Primary Function	Protocol capture and decode
Series Family	U4301B
Trigger Capability Class	Protocol aware trigger class
Analysis Software Class	Keysight PCIe analysis software class
Lane Aggregation	Multi lane link support
Power	Supplied by host chassis
Operating Environment Class	Laboratory chassis environment
Warmup Class	Per host chassis recommendation
Capture Memory Class	Module and chassis dependent class
Decode Layers Class	Transaction and data link layers class
Link Training Visibility	Supported class
Compliance Assist Class	Protocol compliance debug class
Connector Interface Class	PCIe interposer or probing class per kit
Export Classification Class	Commercial test equipment class
Calibration	Module level functional verification class
Notes	
From Keysight/Agilent U4301 family PCIe analyzer documentation for the U4301B module. Confirm exact option codes and memory on the unit configuration.	

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 14, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.