

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight E8491B

Keysight / Agilent E8491B IEEE 1394 PC Link to VXI The Keysight/Agilent E8491B is an IEEE-1394 (FireWire) PC link to VXI interface providing a high-speed connection between a host PC and a VXI mainframe. OEM VXI interface literature positions the E8491B as a successor-class link to earlier E8491A FireWire VXI interfaces for instrument control and data transfer. PC-controlled VXI systems, high-speed VXI data movement, and FireWire-linked automated test racks. Instrument Type: IEEE 1394 PC to VXI interface The Keysight/Agilent E8491B is an IEEE-1394 (FireWire) PC link to VXI interface providing a high-speed connection between a host PC and a VXI mainframe. OEM VXI interface literature positions the E8491B as a successor-class link to earlier E8491A FireWire VXI interfaces for instrument control and data transfer. PC-controlled VXI systems, high-speed VXI data movement, and FireWire-linked automated test racks. Instrument Type: IEEE 1394 PC to VXI interface Module Size Class: C-size VXI interface module



MODEL

**Agilent / Keysight
E8491B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E8491B

LISTING

<https://aumictechlabs.com/products/e8491b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight E8491B is a C-size, 1-slot message-based VXI module that establishes direct PC-to-mainframe connectivity via IEEE-1394 (FireWire) bus. Designed as a high-speed controller for data acquisition involving large block transfers, the E8491B integrates Resource Manager and Slot 0 capabilities and operates as the mainframe's primary resource manager. The module

leverages small differential signals (200 mV) transmitted over controlled-impedance twisted-pair wiring, delivering high-noise immunity and sustained data transfer rates to 14 MB/sec (16-bit and 32-bit modes) with backplane burst rates reaching 53 MB/sec (64-bit). Communication occurs via IEEE-1394.1995 at up to 400 Mbits/second, supporting SCPI (32-bit I-SCPI) and SICL/VISA I/O libraries. Technical Specifications Interface: IEEE-1394 (FireWire), IEEE-1394.1995 standard Data Transfer Rate: Up to 400 Mbits/second Sustained Transfer: 14 MB/sec (16-bit and 32-bit modes) Backplane Burst Rates: 13 MB/sec (16-bit), 27 MB/sec (32-bit), 53 MB/sec (64-bit) Signaling: 200 mV differential signals over twisted-pair, controlled-impedance wiring VXI Configuration: C-size, 1-slot, Slot 0 module with logical address 0 Protocol Support: SCPI (32-bit I-SCPI), SICL/VISA PC Interface: OHCI-based IEEE-1394/PCI host adapter card; PCI 2.1 compliant Operating Systems: Windows 95/98/Me/NT 4.0/2000 Power: Requires connection to PC 12V disk drive power bus Physical: 2 × 9 × 15 inches; 6 lbs Key Features Hot plug-in capability with automatic device recognition without PC power-down Integrated Resource Manager and Slot 0 functionality High-noise immunity via small differential signaling Supports multiple mainframes with single PC Clock and triggering capabilities for external timing distribution Included 4.5-meter IEEE-1394 cable and power adapter cable Typical Applications High-speed data acquisition with large block transfers VXI mainframe control and instrumentation via FireWire Multi-mainframe systems requiring centralized PC control Compatibility & Integration Compatible with Agilent E84XX mainframe series. Requires OHCI-based IEEE-1394/PCI Card (Option E8491B 001) and PCI 2.1-compliant motherboard with current BIOS.

E8491B Characteristics / Specifications

PARAMETER	VALUE
Model	E8491B
Instrument Type	IEEE 1394 PC to VXI interface
Host Link	IEEE 1394 (FireWire)
Target Bus	VXI
Module Size Class	C-size VXI interface module
Related Predecessor	E8491A
Brand Lineage	Keysight / Agilent
Primary Use	PC control of VXI instruments
Data Path	FireWire to VXI translation
Chassis Form	VXI interface module
Software Class	VISA / SICL class VXI I/O libraries
Operating System Class	Supported Windows hosts per sheet
Power	VXI backplane powered
Operating Temperature Spec Class	Follow VXI interface sheet
Documentation Scope	OEM E8491B interface documentation
Installed Options	Cable and host adapter configurations
Throughput Class	FireWire VXI link throughput class
Slot Requirements	Interface slot in VXI mainframe
Mainframe Compatibility	E1401 and compatible VXI mainframes
Warmup Spec Class	Not applicable beyond host link ready
Safety Class	Follow VXI mainframe safety ratings
Cable Class	IEEE 1394 cable per kit
Operating temperature	Spec Class: Follow VXI interface sheet

E8491B Specifications

PARAMETER	VALUE
Keysight / Agilent E8491B IEEE 1394 PC Link to VXI	Overview
Key Features	IEEE 1394 FireWire host link
Technical Specifications	Model: E8491B

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Spec Class: Follow VXI interface sheet
Operating Temperature	Spec Class: Follow VXI interface sheet
Operating Temperature Spec Class	Follow VXI interface sheet
Documentation Scope	OEM E8491B interface documentation
Installed Options	Cable and host adapter configurations
Throughput Class	FireWire VXI link throughput class
Slot Requirements	Interface slot in VXI mainframe
Mainframe Compatibility	E1401 and compatible VXI mainframes
Warmup Spec Class	Not applicable beyond host link ready
Safety Class	Follow VXI mainframe safety ratings
Cable Class	IEEE 1394 cable per kit Notes From Keysight/Agilent E8491B IEEE 1394 PC Link to VXI documentation. Host software stack and cable length limits follow the E8491B install guide.

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
Model	E8491B
Instrument Type	IEEE 1394 PC to VXI interface
Host Link	IEEE 1394 (FireWire)
Target Bus	VXI
Module Size Class	C-size VXI interface module
Related Predecessor	E8491A
Brand Lineage	Keysight / Agilent
Primary Use	PC control of VXI instruments
Data Path	FireWire to VXI translation
Chassis Form	VXI interface module
Software Class	VISA / SIDL class VXI I/O libraries
Operating System Class	Supported Windows hosts per sheet
Power	VXI backplane powered
Operating Temperature Spec Class	Follow VXI interface sheet
Documentation Scope	OEM E8491B interface documentation
Installed Options	Cable and host adapter configurations
Throughput Class	FireWire VXI link throughput class
Slot Requirements	Interface slot in VXI mainframe
Mainframe Compatibility	E1401 and compatible VXI mainframes
Warmup Spec Class	Not applicable beyond host link ready
Safety Class	Follow VXI mainframe safety ratings
Cable Class	IEEE 1394 cable per kit
Notes	
From Keysight/Agilent E8491B IEEE 1394 PC Link to VXI documentation. Host software stack and cable length limits follow the E8491B install guide.	

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 15, 2026

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