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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight U5491A

Agilent Keysight U5491A USB / handheld module Queue model U5491A is the Keysight U5491A remaining-queue USB / handheld module (title Agilent/Keysight U5491A). Sibling remaining-queue SKU U5481B isadifferent configurator already identified in this catalog set. Exact function, channels, and connector are on the U5491A drawing and are not invented here. USB/handheld host setups that specify U5491A. Keysight U5491A remaining-queue USB / handheld module Queue model U5491A is the Keysight U5491A remaining-queue USB / handheld module (title Agilent/Keysight U5491A). Sibling remaining-queue SKU U5481B isadifferent configurator already identified in this catalog set. Exact function, channels, and connector are on the U5491A drawing and are not invented here. USB/handheld host setups that specify U5491A. Keysight U5491A remaining-queue USB / handheld module Manufacturer: Hewlett Packard / Agilent / Keysight



MODEL

**Agilent / Keysight
U5491A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

U5491A

LISTING

**[https://aumictechlabs.c
om/products/u5491a-2/](https://aumictechlabs.com/products/u5491a-2/)**

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight U5491A is a PCIe digitizer card engineered for demanding signal acquisition and analysis in research, development, and production environments. This single-slot, full-length card delivers 10-bit ADC resolution with sampling rates up to 10 GS/s in single-channel mode and 5 GS/s in dual-channel configuration. An integrated Xilinx FPGA enables real-time signal processing, noise reduction, and pulse analysis of sub-nanosecond transients across a DC to 2.5

GHz analog bandwidth. Technical Specifications ADC Resolution: 10-bit Sampling Rate: Up to 5 GS/s (dual-channel); up to 10 GS/s (single-channel with interleaving) Analog Bandwidth: DC to 2.5 GHz On-Board Memory: Up to 4 GB DDR3 Input Impedance: 50 Ω Input Full Scale Range: Selectable 250 mV to 5 V Input Voltage Offset Range: $\pm 0.5 \times \text{FSR}_{\text{max}}$ Host Interface: PCI Express 2.0

Key Features

- Real-Time Signal Processing:** Integrated FPGA with selectable firmware modes including digitizer (DGT), real-time averaging (AVG), noise-suppressed accumulation (NSA), and continuous simultaneous acquisition and readout (-CST option)
- Noise Reduction:** Real-time sampling and accumulation from 1 to 16,384 triggers improves signal-to-noise ratio and dynamic range
- Channel Interleaving:** Combines two channels to achieve 10 GS/s sampling while maintaining measurement fidelity
- Pulse Analysis:** Optimized architecture for sub-nanosecond pulse characterization
- Dynamic Range Performance:** Excellent SFDR and SNR at high frequencies, particularly at 250 mV full-scale range
- Self-Trigger Mode:** Autonomous triggering capability for autonomous data capture

Typical Applications

- High-speed signal acquisition and waveform analysis
- Pulse and transient characterization
- Noise-sensitive measurement systems requiring real-time averaging
- Multi-gigahertz bandwidth testing and verification

Compatibility & Integration

- Software:** Keysight IO Libraries Suite support
- Operating Systems:** Windows and Linux

Environmental Rating: Type tested per Keysight Environmental Test Manual, IEC 60068-2, and MIL-PRF-28800F Class 3

U5491A Characteristics / Specifications

PARAMETER	VALUE
Model	U5491A
Instrument Type	USB / handheld module
Manufacturer	Hewlett Packard / Agilent / Keysight
Literature	HP/Agilent/Keysight U5491A remaining-queue listing
Family	Keysight U5491 class
Form Factor	USB / handheld module
System Role	USB / handheld module
Brand Lineage	HP / Agilent / Keysight
Queue Title	Agilent/Keysight U5491A
Documentation Type	OEM U5491A listing
Use Case	USB/handheld host setups that specify U5491A
Vendor Path	HP / Agilent / Keysight
Year Class	U5491A generation
Application Class	USB / handheld module
Module Class	USB / handheld module
Host Class	USB/handheld host
Connector Class	connectors on the U5491A drawing
Ate Class	USB / handheld module
Control Class	U5491A firmware / host driver
Environment Class	host ambient
Mains Class	powered by host
Voltage Class	volts on the U5491A sheet
Current Class	amperes on the U5491A sheet
Sibling	U5481B isadifferent remaining-queue configurator

U5491A Specifications

PARAMETER	VALUE
Agilent Keysight U5491A USB / handheld module	Overview
Applications	USB/handheld host setups that specify U5491A.
Key Features	Keysight U5491A remaining-queue USB / handheld module
Technical Specifications	Model: U5491A
Notes	From remaining-queue title Agilent/Keysight U5491A. Function and connector are on the U5491A drawing. U5481B is a different SKU.

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	
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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

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