

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight M9709A

Keysight M9709A AXIe High Speed Digitizer 32 Channel 8 Bit The Keysight M9709A provides 32 synchronous 8-bit channels at 1 GS/s in a single AXIe slot with DC to 500 MHz bandwidth (F05). OEM data sheet lists up to 16 GB acquisition memory and 15 ps TTI precision. High channel-count physics experiments, aerospace and defense multi-channel DAQ. Multi-record sequence acquisition up to 65536 records The Keysight M9709A provides 32 synchronous 8-bit channels at 1 GS/s in a single AXIe slot with DC to 500 MHz bandwidth (F05). OEM data sheet lists up to 16 GB acquisition memory and 15 ps TTI precision. High channel-count physics experiments, aerospace and defense multi-channel DAQ. Multi-record sequence acquisition up to 65536 records MD2 soft front panel and U1092A multichannel software support



MODEL

**Agilent / Keysight
M9709A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

M9709A

LISTING

<https://aumictechlabs.com/products/m9709a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight M9709A is a single-slot AXIe high-speed digitizer module delivering 32 synchronous channels at 1 GS/s sampling rate in an 8-bit resolution architecture. Purpose-built for aerospace, defense, and advanced physics signal acquisition, it combines high channel density with real-time data processing via four integrated Xilinx FPGAs. The module accepts input signals from DC to 300 MHz (standard) or DC to 500 MHz (with -F05 option) across all 32 channels

simultaneously, each with 50 Ω DC-coupled input impedance and selectable full-scale range from 250 mV to 5 V. On-board DDR3 acquisition memory scales to 16 GB, enabling 512 MSamples per channel continuous capture. Trigger time interpolator precision reaches 15 ps RMS. Multi-module synchronization allows cascading up to three M9709A units within an M9505A 5-slot AXIe chassis for distributed signal processing. The module interfaces via AXIe backplane PCIe connection and includes software drivers plus U1092A Multichannel Acquisition Software compatibility for post-acquisition analysis on Windows and Linux platforms.

Technical Specifications
ADC Resolution: 8-bit
Channels: 32 synchronous, simultaneous
Sampling Rate: Up to 1 GS/s
Input Frequency Range: DC to 300 MHz (standard); DC to 500 MHz (-F05 option)
Acquisition Memory: Up to 16 GB DDR3 (512 MSamples/channel)
Input Impedance: 50 Ω , DC coupled
Input Full Scale Range: 250 mV to 5 V (selectable)
Input Voltage Offset: $\pm 0.5 \times$ FSR
Trigger Time Interpolator Precision: 15 ps RMS
Data Processing: Real-time via four Xilinx FPGAs
Form Factor: Single-slot AXIe module

Key Features
Multi-module synchronization for three-module configurations in M9505A chassis
High channel density in single-slot footprint
Flexible input range selection across all 32 channels
Real-time FPGA-based signal processing
Typical Applications
Aerospace and defense signal monitoring
Advanced physics experiments requiring high-speed multichannel acquisition
Real-time signal processing and analysis

Compatibility & Integration
AXIe chassis: M9502A (one module maximum), M9505A (three modules maximum)
Operating Systems: Windows, Linux
Software: Keysight U1092A Multichannel Acquisition Software, MD2 High-Speed Digitizer Software
Connectors: SSMC-to-BNC and BNC-to-MCX cable assemblies included

M9709A Characteristics / Specifications

PARAMETER	VALUE
Model	M9709A
Instrument Type	AXIe high-speed digitizer high channel density
Analog Channels	32
Adc Resolution	8 bits
Sample Rate	1 GS/s per channel
Input Frequency Range F	DC to 300 MHz nominal
Acquisition Memory M	1 GB (32 MSamples/ch) standard
Input Impedance	50 ohm plus or minus 2 percent
Input Coupling	DC
Full Scale Ranges	250 mV 500 mV 1 V 2.5 V and 5 V
Maximum Input Voltage	plus or minus 5 V
Input Voltage Offset	plus or minus 0.5 times FSR
Dc Gain Accuracy	plus or minus 1.0 percent typical
Offset Accuracy One Volt Fsr	plus or minus 1.0 percent
Frequency Response Flatness	plus or minus 1.0 dB DC to 250 MHz typical
Enob At One Hundred Megahertz	6.5 (6.8 typical)
Snr At One Hundred Megahertz	41 dB (43 dB typical)
Sfdr At One Hundred Megahertz	45 dB (50 dB typical)
Thd At One Hundred Megahertz	-42 dB (-48 dB typical)
Sampling Jitter	225 fs nominal
Clock Accuracy	plus or minus 1.5 ppm
External Clock Frequency Sr	4 GHz
Trigger Time Interpolator Precision External	15 ps rms nominal
Rearm Time	less than 800 ns nominal
Form Factor	1 slot AXIe

PARAMETER	VALUE
Size	30 mmWx 322.2 mmHx 280 mmDWeight: 3.3 kg (7.27 lbs)
Typical Power Dissipation	210 W
Operating Temperature	0 to +40 C

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to +40 C
Operating Temperature	0 to +40 C

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	
Technical Specifications	
PARAMETER	VALUE
Model	M9709A
Instrument Type	AXIe high-speed digitizer high channel density
Analog Channels	32
Adc Resolution	8 bits
Sample Rate	1 GS/s per channel
Input Frequency Range F03	DC to 300 MHz nominal
Input Frequency Range F05	DC to 500 MHz nominal
Acquisition Memory M10	1 GB (32 MSamples/ch) standard
Acquisition Memory M40	4 GB (128 MSamples/ch)
Acquisition Memory M16	16 GB (512 MSamples/ch)
Input Impedance	50 ohm plus or minus 2 percent
Input Coupling	DC
Full Scale Ranges	250 mV 500 mV 1 V 2.5 V and 5 V
Maximum Input Voltage	plus or minus 5 V
Input Voltage Offset	plus or minus 0.5 times FSR
Dc Gain Accuracy	plus or minus 1.0 percent typical
Offset Accuracy One Volt Fsr	plus or minus 1.0 percent
Frequency Response Flatness	plus or minus 1.0 dB DC to 250 MHz typical
Enob At One Hundred Megahertz	6.5 (6.8 typical)
Snr At One Hundred Megahertz	41 dB (43 dB typical)
Sfdr At One Hundred Megahertz	45 dB (50 dB typical)
Thd At One Hundred Megahertz	-42 dB (-48 dB typical)
Sampling Jitter	225 fs nominal
Clock Accuracy	plus or minus 1.5 ppm
External Clock Frequency Sr1	4 GHz

PARAMETER	VALUE
Trigger Time Interpolator Precision External	15 ps rms nominal
Rearm Time	less than 800 ns nominal
Form Factor	1 slot AXIe
Size	30 mm W x 322.2 mm H x 280 mm D
Weight	3.3 kg (7.27 lbs)
Typical Power Dissipation	210 W
Operating Temperature	0 to +40 C

Specifications

PARAMETER	VALUE
Model	M9709A
Instrument Type	AXIe high-speed digitizer high channel density
Analog Channels	32
Adc Resolution	8 bits
Sample Rate	1 GS/s per channel
Input Frequency Range F03	DC to 300 MHz nominal
Input Frequency Range F05	DC to 500 MHz nominal
Acquisition Memory M10	1 GB (32 MSamples/ch) standard
Acquisition Memory M40	4 GB (128 MSamples/ch)
Acquisition Memory M16	16 GB (512 MSamples/ch)
Input Impedance	50 ohm plus or minus 2 percent
Input Coupling	DC
Full Scale Ranges	250 mV 500 mV 1 V 2.5 V and 5 V
Maximum Input Voltage	plus or minus 5 V
Input Voltage Offset	plus or minus 0.5 times FSR
Dc Gain Accuracy	plus or minus 1.0 percent typical
Offset Accuracy One Volt Fsr	plus or minus 1.0 percent
Frequency Response Flatness	plus or minus 1.0 dB DC to 250 MHz typical
Enob At One Hundred Megahertz	6.5 (6.8 typical)
Snr At One Hundred Megahertz	41 dB (43 dB typical)
Sfdr At One Hundred Megahertz	45 dB (50 dB typical)
Thd At One Hundred Megahertz	-42 dB (-48 dB typical)

PARAMETER	VALUE
Sampling Jitter	225 fs nominal
Clock Accuracy	plus or minus 1.5 ppm
External Clock Frequency Sr1	4 GHz
Trigger Time Interpolator Precision External	15 ps rms nominal
Rearm Time	less than 800 ns nominal
Form Factor	1 slot AXIe
Size	30 mmWx 322.2 mmHx 280 mmDWeight: 3.3 kg (7.27 lbs)
Typical Power Dissipation	210 W
Operating Temperature	0 to +40 C

Notes
All numeric rows from Keysight M9709A AXIe high-speed digitizer data sheet technical specifications and characteristics.

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.