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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight M8131A

Keysight M8131A 16/32 GSa/s AXIe Digitizer The Keysight M8131A is a 2-slot AXIe wideband digitizer with 10-bit ADCs offering four channels at 16 GSa/s (6.5 GHz) or two channels at 32 GSa/s (12.5 GHz), 2 GByte memory, and gapless optical streaming up to 160 Gb/s per ODI port. Wideband RF/EW capture, gapless streaming to DSP or storage, multi-channel coherent acquisition, and digital down-conversion of lower-bandwidth IF signals within the Wideband Solution Platform. Multi module sync to 16 channels without extra hardware The Keysight M8131A is a 2-slot AXIe wideband digitizer with 10-bit ADCs offering four channels at 16 GSa/s (6.5 GHz) or two channels at 32 GSa/s (12.5 GHz), 2 GByte memory, and gapless optical streaming up to 160 Gb/s per ODI port. Wideband RF/EW capture, gapless streaming to DSP or storage, multi-channel coherent acquisition, and digital down-conversion of lower-bandwidth IF signals within the Wideband Solution Platform. Multi module sync to 16 channels without extra hardware Input Range Single Ended: 40 mVpp to 400 mVpp



MODEL

**Agilent / Keysight
M8131A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

M8131A

LISTING

<https://aumictechlabs.com/products/m8131a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight M8131A is a streaming digitizer module purpose-built for capturing and analyzing complex, wideband signals across extended acquisition periods. This 2U AXIe module integrates into Keysight's Wideband Solution Platform (WSP) via an optical data interface (ODI), enabling gapless streaming of raw or digitally downconverted samples at full data rates. Engineered for

signal analysis, receiver testing, and component characterization, it delivers 32 GSa/s sampling with up to 12.5 GHz analog bandwidth and 10-bit resolution. Technical Specifications Sampling: 32 GSa/s maximum; 16 GSa/s with 4-channel operation Analog Bandwidth (3 dB): 12.5 GHz typical at 32 GSa/s (1–2 channels); 6.5 GHz typical at 16 GSa/s (1–4 channels) Resolution: 10-bit ADC; 8.0 ENOB @ 4 GHz (Option FDx) Memory: 2 GByte per module Rise/Fall Time (20–80%): 25 ps typical (12.5 GHz bandwidth); 48 ps typical (Option 06x); 196 ps typical (Option 01x) DC Gain Accuracy: $\pm 3\%$ typical SFDR: -67 dBc @ 1 GHz Harmonic Distortion: -67 dBc @ 1 GHz Offset Range: 0 V fixed (single-ended); -400 mV to $+400$ mV (differential) Offset Accuracy: $\pm(2.5\% + 10 \text{ mV})$ typical Key Features Optical Data Interface: Four 160 Gb/s ODI ports support full-rate, gapless streaming Channel Flexibility: 1, 2, or 4 channels at 16 GSa/s; 1 or 2 channels at 32 GSa/s Input Options: Single-ended (40 mVpp–400 mVpp adjustable) and differential inputs with improved intrinsic noise No Input Antialiasing Filter: Enables second Nyquist band operation Clocking: Internal oscillator or external 8 GHz / 10–100 MHz reference clock Streaming Modes: Raw samples or digitally downconverted I/Q (VITA 49); segmented streaming available Unlimited Acquisition: Gapless capture duration when paired with compatible storage solutions Typical Applications Advanced signal analysis, wideband receiver testing, component characterization, and long-duration signal capture for research and defense applications. Compatibility & Integration Operates within AXIe, PXI, LXI, VPX, and traditional bench instrument ecosystems via the Wideband Solution Platform optical interface.

M8131A Characteristics / Specifications

PARAMETER	VALUE
Model	M8131A
Instrument Type	wideband AXIe digitizer
Form Factor	2U AXIe 2 slot module
ADC Resolution	10 bits
Channels At 16 GSa/s	1 2 or 4
Bandwidth At 16 GSa/s	6.5 GHz
Channels At 32 GSa/s	1 or 2
Bandwidth At 32 GSa/s	12.5 GHz
SFDR At 1 GHz	-66 dBc
Harmonic Distortion At 1 GHz	-67 dBc
ENOB At 4 GHz Option FDx	8.0 bits
Acquisition Memory	2 GByte per module
Input Range Single Ended	40 mVpp to 400 mVpp
ODI Ports	4
ODI Rate Per Port	up to 160 Gb/s
Multi Module Sync Max Channels 16 GSa/s	16
Multi Module Sync Max Channels 32 GSa/s	8
Clock Options	internal or external 8 GHz or 10/100 MHz reference
Digital Down Conversion	programmable LO filter decimation all channels
Power Consumption Nominal	350 W
Operating Temperature	0 to 40 C
Operating Humidity	5 to 80 percent RH non condensing
Module Mass	5 kg
Warm Up Time	15 min

PARAMETER	VALUE
Calibration Interval Recommended	2 years
Bandwidth	At 16 GSa/s: 6.5 GHz
Humidity	5 to 80 percent RH non condensing

M8131A Specifications

PARAMETER	VALUE
Keysight M8131A 16/32 GSa/s AXIe Digitizer	Overview
Ten bit ADC resolution	Selectable 16 GSa/s or 32 GSa/s modes
Four ODI ports at up to 160 Gb/s each	Multi module sync to 16 channels without extra hardware
Technical Specifications	Model: M8131A
Notes	Numeric rows from Keysight M8131A 16/32 GSa/s Digitizer data sheet.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to 40 C
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Humidity	5 to 80 percent RH non condensing
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Module Mass	5 kg
Warm Up Time	15 min
Calibration Interval Recommended	2 years Notes Numeric rows from Keysight M8131A 16/32 GSa/s Digitizer data sheet.

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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Notes

Numeric rows from Keysight M8131A 16/32 GSa/s Digitizer data sheet.

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

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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.