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Data Sheet

August 13, 2026

AGILENT / HP / KEYSIGHT

Agilent HP Keysight M8195A 65 GSa/s Arbitrary Waveform Generator

Keysight M8195A 65 GSa/s Arbitrary Waveform Generator The Keysight M8195A is a high-speed AXIe arbitrary waveform generator with sample rates to 65 GSa/s, up to 4 differential channels per 1-slot module, 25 GHz analog bandwidth, and up to 16 GSa waveform memory. Embedded DSP, sequencing, and multi-module synchronization enable multi-level and multi-channel high-speed digital and RF stimulus. The Keysight M8195A is a high-speed AXIe arbitrary waveform generator with sample rates to 65 GSa/s, up to 4 differential channels per 1-slot module, 25 GHz analog bandwidth, and up to 16 GSa waveform memory. Embedded DSP, sequencing, and multi-module synchronization enable multi-level and multi-channel high-speed digital and RF stimulus.



MODEL

**Agilent / HP /
Keysight M8195A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

M8195A

LISTING

[https://aumictechlabs.c
om/products/m8195a-
2/](https://aumictechlabs.com/products/m8195a-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight M8195A is a arbitrary waveform generator delivering sample rates to 65 GSa/s and 25 GHz analog bandwidth for advanced signal creation in communications, radar, and satellite testing. This AXIe module generates complex waveforms including sinewaves, PAM4, PAM8, OFDM, and user-defined arbitrary signals with 8-bit vertical resolution and up to 1 Vpp(se) output

amplitude. Real-time impairment injection - jitter, ISI, noise, and distortions - combined with digital pre-distortion and advanced 3-level sequencing enables demanding validation scenarios. Modular architecture supports up to 4 channels per module with synchronization across 16 channels using the M8197A module. Trigger input delay accuracy reaches ± 20 ps, while phase noise measures -115 to -95 dBc/Hz and SFDR spans -80 to -40 dBc. Standard 2 GSa memory expands to 16 GSa with Option 16G for extended waveform duration. Technical Specifications Sample rate: 53.76 to 65.00 GSa/s Analog bandwidth: 25 GHz Vertical resolution: 8 bits Output amplitude: Up to 1 Vpp(se) or 2 Vpp(diff) Jitter: 6 ps Rise/fall time: ~ 18 ps (typ.) SFDR: -80 to -40 dBc Harmonic distortion: -45 to -30 dBc IMD: -45 dBc Phase noise: -115 to -95 dBc/Hz Trigger input delay accuracy: ± 20 ps (with M8197A) Standard memory: 2 GSa per module Extended memory: 16 GSa per module (Option 16G) Key Features Waveform types: Sinewave, square, triangle, sinc, Gaussian noise, arbitrary, ultra-short pulses, wideband chirps, NRZ, PAM4, PAM8, DMT, I/Q baseband Modulation support: nPSK, nQAM, OFDM, QPSK Real-time signal and impairment generation with embedded DSP Advanced 3-level sequencing for extended scenarios Built-in frequency and phase response calibration via digital pre-distortion Channel embedding/de-embedding and jitter/noise injection Typical Applications High-speed digital communication testing Optical and electrical signal generation Wideband radar signal synthesis Satellite communications validation Compatibility & Integration Form factor: AXIe 1-slot module Multi-module synchronization: Up to 16 channels across modules Synchronization module: M8197A Real-time generation: Compatible with 81195A optical modulation generator software

Features & description

From manufacturer datasheet

Features

- Sample rate up to 65 GSa/s on up to 4 channels
- Analog bandwidth 25 GHz typical
- 8 bit vertical DAC resolution
- Up to 16 GSa waveform memory per AXIe module
- 1 2 or 4 differential channels software upgradeable
- Multi-module sync up to 16 channels in 5-slot AXIe

Applications

- Multi-level SERDES and optical transceiver stimulus
- Coherent optical dual-polarization I/Q generation
- Multi-channel MIMO and phased-array baseband/RF
- High-speed ATE and R&D waveform playback with deep memory

M8195A Characteristics / Specifications

PARAMETER	VALUE
Model	M8195A
Manufacturer	Keysight
Instrument Type	Arbitrary Waveform Generator
Alias	M8195A; Keysight M8195A AWG
Maximum sample rate	65 GSa/s
Sample rate range divider	53.76 to 65.00 GSa/s
DAC resolution	8 bits
Channels per module	1 2 or 4 Opt 001 002 004
Analog bandwidth typical 3 dB	25 GHz
Maximum waveform memory	16 GSa per module
Amplitude single ended	up to 1 Vpp se
Amplitude differential	up to 2 Vpp diff
Voltage window	-1.0 to plus 3.3 V
Rise fall 20 to 80 percent typical	18 ps
Rise fall with predistortion typical	12 ps
Intrinsic jitter RJrms	less than 200 fs
FIR filter taps hardware	up to 64
Markers	up to 2 with 1 sample resolution
Sequencing	advanced 3 level with external dynamic control
Memory ping pong	load new waveforms without interrupting playback
Form factor	1 slot AXIe
Related sync module	M8197A Multi Channel Synchronization
Channels per 5 slot chassis	up to 16
Publication	Keysight 5992-0014 M8195A datasheet
Embedded DSP	real-time waveform and impairment generation

PARAMETER	VALUE
Output type	differential channels Notes Specs from Keysight M8195A 65 GSa/s AWG datasheet 5992-0014. Confirm channel option (001/002/004), memory option, and M8197A sync presence on the system.
Bandwidth	25 GHz typical - 8 bit vertical DAC resolution - Up to 16 GSa waveform memory per AXIe module - 1 2 or 4 differential channels software upgradeable - Multi-module sync up to 16 channels in 5-slot AXIe

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	M8195A
Manufacturer	Keysight
Instrument Type	Arbitrary Waveform Generator
Alias	M8195A; Keysight M8195A AWG
Maximum sample rate	65 GSa/s
Sample rate range divider 1	53.76 to 65.00 GSa/s
Sample rate range divider 2	26.88 to 32.50 GSa/s
Sample rate range divider 4	13.44 to 16.25 GSa/s
DAC resolution	8 bits
Channels per module	1 2 or 4 Opt 001 002 004
Analog bandwidth typical 3 dB	25 GHz
Maximum waveform memory	16 GSa per module
Amplitude single ended	up to 1 Vpp se
Amplitude differential	up to 2 Vpp diff
Voltage window	-1.0 to plus 3.3 V
Rise fall 20 to 80 percent typical	18 ps
Rise fall with predistortion typical	12 ps
Intrinsic jitter RJrms	less than 200 fs
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PARAMETER	VALUE
Embedded DSP	real-time waveform and impairment generation
Output type	differential channels

Notes

Specs from Keysight M8195A 65 GSa/s AWG datasheet 5992-0014. Confirm channel option (001/002/004), memory option, and M8197A sync presence on the system.

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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.