



# Agilent M8190A Arbitrary Waveform Generator

**DISCOVER** the Alternatives...

## Industries and Applications

- Aerospace and defense
- Radar and satellite testing
- Wideband signal generation
- Wireless communications
- Consumer and computation
- Education and research

## Product Description

From low-observable systems to high-density communications, testing is more realistic with precision arbitrary waveform generation. Now you can take reality to the extreme. An Agilent AWG is the source of greater fidelity, delivering high resolution and wide bandwidth—simultaneously. This unique combination lets you create signal scenarios that push your designs to the limit and bring new insights to your analysis. Get bits and bandwidth—enhance your reality.



... Agilent **Modular** Products

### Models

M8190A AXIe Modular Arbitrary Waveform Generator Module

## Main Features and Benefits

Product features	Your benefits
5 GHz analog bandwidth	The modulation bandwidth meets market requirements today and tomorrow
14 bit with 8 GSa/s	Best SFDR in the market
Switchable between 12 bit, 12 GSa/s and 14 bit and 8 GSa/s	Adopt the application to your needs
2 GSa memory	Test your application with realistic scenarios over long periods of time

## Specifications and Characteristics

### Hardware

Size	2-slot AXIe module
Sample rate	125 MSa/s to 12 GSa/s
Resolution	12 bits up to 12 GSa/s 14 bits up to 8 GSa/s
Analog Bandwidth	5 GHz
Spurious-free-dynamic range (SFDR)	Up to 80 dBc typical
Harmonic distortion (HD)	Up to -72 dBc typical
Transition times	50 ps (20/80)
Memory depth	2 GSa
Type of output	Single-ended or differential, DC-coupled
Impedance	50 Ω (nom)

Chassis compatibility: AXIe



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## Software Information

The M8190A can be controlled via SCPI commands or through IVI drivers.

Supported operating systems	Microsoft Windows® XP (32-bit) Microsoft Windows® Vista (32/64-bit) Microsoft Windows® 7 (32/64-bit)
Standard compliant drivers	IVI-COM, IVI-C, LabVIEW, MATLAB
Supported application development environments (ADE)	Agilent Benchlink Waveform Editor, Agilent Signal Studio, Agilent SystemVue, Agilent Wideband Waveform Center VisualStudio® (VB.NET, C#, C/C++), VEE, LabVIEW, LabWindows/CVI, MATLAB
Agilent IO Libraries	Includes: VISA Libraries, Agilent Connection Expert, IO Monitor

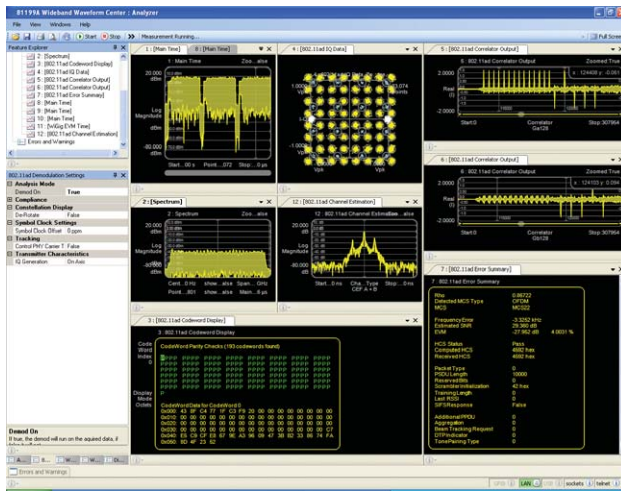


Figure 1. Agilent Wideband Signal Creator for waveform generation.

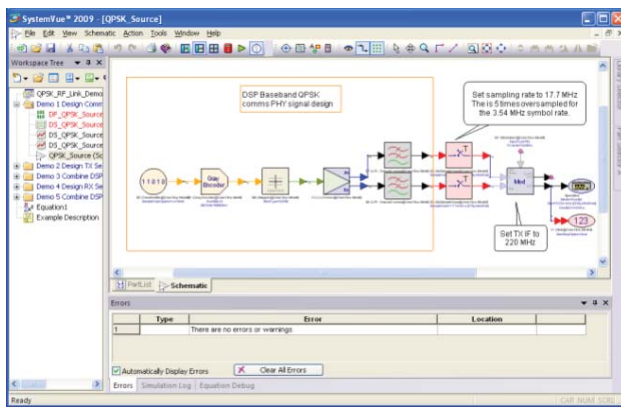


Figure 2. M8190A integration into SystemVue.

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## Ordering Information

### Typical Product Configuration

Model	Description
M8190A <sup>1</sup>	Product only with required accessories
M8190A-001	1 channel
M8190A-002	2 channel
M8190A-14B	14 bit, 8 GSa/s
M8190A-12G	12 GSa/s, 12 bit
M8190A-02G	2048 MSa per channel

1. Product requires 2-slot or 5-slot chassis with PCIe card adaptor and cable

### Related products

M9045B	PCIe ExpressCard adaptor
M9047A	PCIe desktop adaptor
M9502A	2-slot AXIe chassis
M9505A	5-slot AXIe chassis
M9536A	AXIe controller

### Advantage Services: Warranty

Agilent Advantage Services is committed to your success throughout your equipment's lifetime.

M8190A-Cal	Annual calibration
R-50C-011-3 QC	Agilent Calibration - 3 years
R-50C-011-5 QC	Agilent Calibration - 5 years

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