Agilent M9331A PXI-H Arbitrary Waveform Generator

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Product Description

The M9331A is a wide-bandwidth arbitrary waveform generator (AWG) capable of creating the ideal waveforms for compliance testing of digital radios targeted for use with communication standards such as MB-OFDM ultra wideband, 802.11n, MIMO, and proprietary wideband formats.

Models	
M9331A	10-bit, 1.25 GS/s arbitrary waveform generator

Main Features and Benefits

Product features	Your benefit
1.25 GS/s and 10 bits of vertical resolution per channel	Provides wideband waveforms with high signal quality
Dual output channels	Can generate the I and Q components for wideband signal modulation
Extended memory and advanced sequencing engine	Allows for extended simulations of complex waveform propagation models
Multiple module synchronization	Provides multi-emitter simulations suitable for MIMO applications
Multiple programmatic interfaces	Enable easy integration into existing test environments

Chassis slot compatibility: cPCI(J1/J2), PXI-1, PXIe Hybrid

Specifications and Characteristics

Hardware	
Size	4 slots, 3U
Resolution	10 bits
Maximum sample rate	1.25 GS/s
Bandwidth	500 MHz per channel, 1 GHz modulated *(nominal)*
Impedance	50 Ω *(nominal)*
Output spectral purity	Harmonic distortion –50 dBc for DC to 500 MHz *(nominal)* Non-harmonic spurious –75 dBc for 1 kHz to 500 MHz *(nominal)*
Phase noise	1 kHz: –95 dBc/Hz *(nominal)* 10 kHz: –115 dBc/Hz *(nominal)* 100 kHz: –138 dBc/Hz *(nominal)* 1 MHz: –150 dBc/Hz *(nominal)*
Noise floor	–150 dBc/Hz *(nominal)*
Sample clock	Internal or external

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Software

The M9331A Arbitrary Waveform Generator is supplied with a comprehensive portfolio of module drivers, documentation, examples, and a Soft Front Panel (SFP) graphical user interface to help you quickly develop test systems with your software platform of choice. The SFP graphical interface, named M933x Control Utility, guides developers through module setup and waveform file transfers. Users can quickly configure the instrument's signal conditioning paths, marker and trigger lines, sample and reference clock sources, and simple sequencing functions. More sophisticated sequencing functions are available through the instrument's numerous programmatic interfaces.

Software 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)	VisualStudio® (VB.NET, C#, C/C++), VEE, LabVIEW, LabWindows/CVI, MATLAB
Agilent IO Libraries	Includes: VISA Libraries, Agilent Connection Expert, IO Monitor

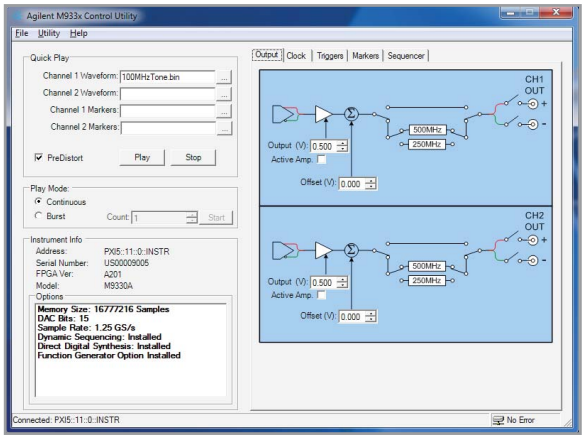

Figure 1. The Agilent M933x Control Utility soft front panel software.

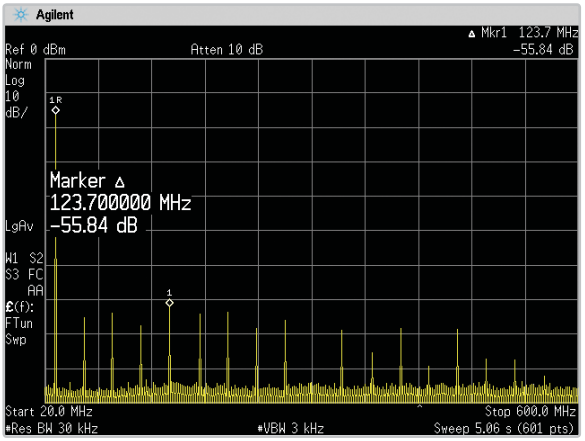

Figure 2. Excellent harmonic and spurious performance are available across the full bandwidth of each channel.

Ordering Information

Typical Product Configuration

Model	Description
M9331A	PXI-H arbitrary waveform generator: 1.25 GS/s, 10-bit
M9331A-M08[1]	Memory: 8 MS per channel
M9331A-125[1]	Clock operation, 1.25 GS/s
M9331A-200[1]	Arbitrary waveform generator software

1. *These options show a typical M9331A product configuration. For other available options, please refer to the brochure.*

Related products

E8267D	PSG vector signal generator
M9330A	PXI-H Arbitrary Waveform Generator: 15-bit, 1.25 GS/s
M9392A	PXI Vector Signal Analyzer
M9202A	PXIe IF Digitizer: 12-bit, 2 GS/s, 1 GHz
M9018A	18-slot PXIe Chassis
M9021A	PXIe System Interface
N7509A	Waveform Generation Toolbox for Wideband Signal Simulation
N7619A	Signal Studio for Multiband OFDM UWB
N7620A	Signal Studio for Pulse Building

Accessories

Y1176A	Kit to synchronize two M933XA series AWG

Advantage Services: Calibration and Warranty

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

R1280A	Return-to-Agilent - warranty and service plan

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