



Agilent M9210A PXI-H 10-bit Digitizing Scope

Industries and Applications

- Aerospace/defense
- Wireless communication
- UWB applications (e.g. radar)
- Semiconductor testing

Product Description

The M9210A is a single-slot 3U PXI-Hybrid high-speed Digitizing Scope featuring 2 channels with 1.4 GHz/300 MHz (50 Ω/1 MΩ input) analog bandwidth and up to 4 GS/s real-time sampling rate. The M9210A Digitizing Scope comes with on-board memory of up to 512 MSamples. Making it the best alternative to the Agilent VXI E1428.



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Main Features and Benefits

Product features	Your benefit
10-bit resolution	Best accuracy measurements
Up to 2-4 GS/s real-time sampling rate	Fastest digitizing scope rate
> 1.4 GHz bandwidth in 50 Ω	Measure the fastest signals
> 300 MHz bandwidth in 1 MΩ	
Selectable 50 Ω/1 MΩ input	Scope-like input feature
256 MSamples/channel memory	Large on-board memory
Auto-synchronous bus system with picoseconds-level accuracy	Multi-module synchronization
Software support for easy integration	Reduced development time

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

Specifications and Characteristics

Hardware	
Size	1 slot 3U
Resolution	10 bits
Sample rate	10 MS/s to 2 GS/s (4 GS/s interleaving)
Bandwidth	50 Ω : DC to 1.5 GHz (<i>typical</i>) 1 MΩ: DC to 300 MHz (<i>typical</i>)
Impedance	Selectable 50 Ω/1 MΩ (<i>nominal</i>)
Coupling	Selectable AC/DC
Full scale (FS) range	0.05, 0.1, 0.2, 0.5, 1, 2, 5 V peak-peak in 50 Ω 0.5, 1, 2, 5, 10, 20, 50 V peak-peak in 1 MΩ
Offset range	± 2 V for ≤ 500 mV full scale ranges 50 Ω: ± 5 V for 1 to 5 V full scale ranges 1 MΩ: ± 20 V for 1 to 5 V full scale ranges 1 MΩ: ± 200 V for 10 to 50 V full scale ranges
DC accuracy	± 2.5% FS in 50 mV full scale range ± 2% FS in full scale ranges ≥ 100 mV
Effective Number Of Bits (ENOB)	7.2 in 50 Ω (<i>typical</i>) 7.0 in 1 MΩ (<i>typical</i>)



Software

The M9210A, as all Agilent high-speed digitizers, includes the Agilent MD1 soft front panel (SFP) graphical interface. This simple software application can be used to control, verify the functionality and explore the capabilities of your high-speed digitizers.

The MD1 SFP contains two main windows, a control window and a display window. The control window, which may be set in either Oscilloscope mode or in Transient Recorder mode, and contains functions that allow you to manipulate the acquisition parameters of the card. The display window shows the full acquisition in the top window, and the lower window may be configured to show either a zoom on part of the waveform or the FFT of the acquired data. In addition, the Agilent MD1 SFP implements several different display settings and standard pre-configured measurements, like standard deviation, peak-peak/RMS value, overshoot, etc.

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 MD1 soft front panel software has two main windows, the acquisition parameters to control the module and the acquired waveform display.

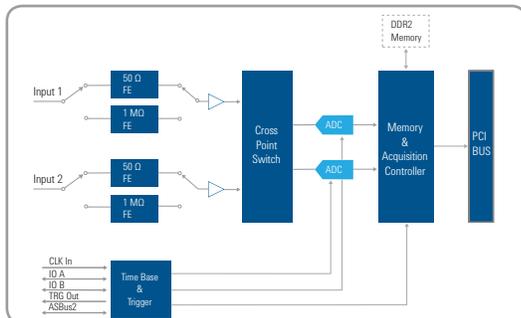


Figure 2. Simplified block diagram of the M9210A PXI-H Digitizing Scope.

Ordering Information

Model	Description
M9210A	PXI-H high-speed Digitizing Scope: 10-bit, 2.4 GS/s
M9210A-M06 ¹	Memory: 64 Msample acquisition

- ¹ For other options and a complete product configuration description, please refer to the data sheet.

Related products	
M9211A	PXI-H UWB IF Digitizer: 10-bit, 4 GS/s, 3 GHz
M9362A-D01	PXIe Microwave Quad Downconverter: 10 MHz to 26.5 GHz
M9018A	18-slot PXIe Chassis
M9021A	PCIe Cable Interface

Accessories	
Software and product information on CD (included)	
U1093A-AS5	AS bus 2 connector



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