



# Agilent M9211A PXI-H 10-bit UWB IF Digitizer

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## Industries and Applications

- Aerospace and defense
- Wireless communications
- Radar and wideband signal capture

## Product Description

The M9211A is a single-slot 3U PXI-Hybrid single-channel ultra-wideband IF Digitizer able to capture signals of up to 3 GHz and running at up to 4 GS/s. The M9211A comes with on-board memory of up to 512 MSamples.



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### Models

M9211A PXI-H high-speed UWB IF Digitizer  
10-bit, 4 GS/s, 3 GHz

## Main Features and Benefits

Product features	Your benefit
Up to 4 GS/s real-time sampling rate	Fastest IF Digitizer
3 GHz analog bandwidth	Measure the fastest signals
512 MSamples 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 4 GS/s
Bandwidth	> 3 GHz
Impedance	50 $\Omega$ (nominal)
Coupling	DC
Full scale (FS) range	+4 dBm (1 V pk-pk in 50 $\Omega$ )
Spurious-Free Dynamic Range (SFDR)	53 dB



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## Software

The M9211A, 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 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

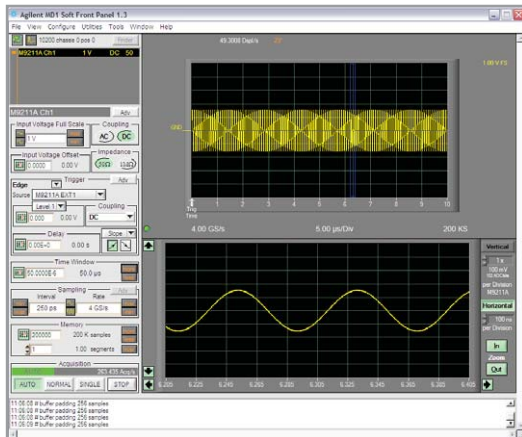


Figure 1. The Agilent MD1 soft front panel software has two main windows, the acquisition parameters to control the module and the acquired waveform display.

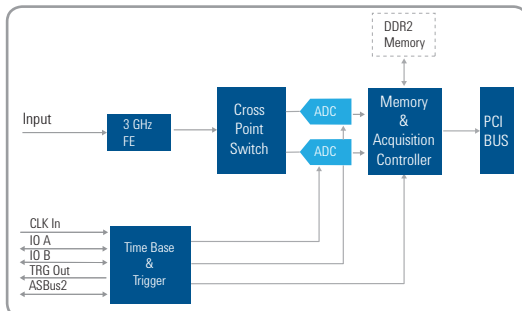


Figure 2. Simplified block diagram of the M9211A PXI-H UWB Digitizer.

## Ordering Information

### Typical Product Configuration

Model	Description
M9211A	PXI-H high-speed UWB IF Digitizer: 10-bit, 4 GS/s, 3 GHz
M9211A-M51 <sup>1</sup>	M51 Memory, 512 Msample acquisition

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

### Related products

M9302A	PXI Local Oscillator: 3 GHz to 10 GHz
M9361A	PXI Downconverter: 2.75 GHz to 26.5 GHz
M9360A	PXI Attenuator/Preselector: 100 kHz to 26.5 GHz
M9202A	PXIe IF Digitizer: 12-bit, 1 GHz
M9210A	PXI-H Digitizing Scope: 10-bit, 2-4 GS/s
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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#### Advantage Services: Calibration and Warranty

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

M9211A-UK6	Calibration certificate and cal data
R-51B-001-3C	1 year return-to-Agilent warranty extended to 3 years
R-51B-001-5C	1 year return-to-Agilent warranty extended to 5 years

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