

# Keysight M9420A VXT PXIe Vector Transceiver

## Product Description

The best solution for a specific problem is a focused tool you simply fine-tune. The Keysight VXT PXIe vector transceiver is purpose-built for rapid solution creation and faster throughput in manufacturing test of wireless components and IoT devices.

With FPGA-accelerated measurements and deep software, the ready-to-run VXT lets you start closer to your finish line. Check out the VXT and our other modular solutions: we can help you compress time and compress test.



## Industries and applications

- Power amplifier (PA) and front-end module (FEM) manufacturing test
- IoT device troubleshooting and manufacturing test

Product features	Your benefit
Vector signal generation and analysis in four slots	Increase test density and shrink system footprint with up to four VXT instruments in one 18-slot chassis
Ready-to-run software and open-source reference solutions	Reduce development time by leveraging proven configurations for PA and FEM testing
FPGA-accelerated measurements	Save test time and achieve faster test throughput with real-time FFTs and built-in servo routine
Integrated instrument module with full calibration	Get accurate, repeatable results that enable tighter test margins and better pass/fail results
Proven Signal Studio software for standard-specific signal creation	Simplify the creation of specific test signals needed on the production line
Proven X-Series measurement applications	Easily troubleshoot test setups using detailed displays and one-button measurements
Industry-standard 89600 VSA software for signal analysis	Understand complex signals using standards-specific demodulation analysis and advanced displays

## Specifications and characteristics

Hardware: Signal generation	
Frequency range	60 MHz to 6 GHz
Modulation bandwidth	160 MHz I/Q bandwidth
Phase noise	-112 dBc/Hz, nominal (900 MHz, 10 kHz offset)
Amplitude accuracy	± 0.20 dB, typical (1 GHz)
Output power	+16 dBm
ACLR	-65/-70 dBc, nominal (LTE/W-CDMA)
Chassis slot compatibility: PXIe Hybrid, PXIe	

Hardware: Signal analysis	
Frequency range	60 MHz to 6 GHz
Analysis bandwidth	160 MHz I/Q bandwidth
Phase noise	-111 dBc/Hz, typical (900 MHz, 10 kHz offset)
Amplitude Accuracy	± 0.20 dB, typical (1 GHz)
EVM	0.8/0.85%, typical (LTE/W-CDMA)
ACLR	-60/-65 dBc, typical (LTE/W-CDMA)
Chassis slot compatibility: PXIe Hybrid, PXIe	

## Software information

Operating system	Windows 7 (32 & 64-bit)
Standard compliant drivers	IVI-COM, IVI-C, LabVIEW, MATLAB
Application development environments (ADE)	Visual Studio (C/C++, C#, VB.NET), LabVIEW, LabWindows/CVI, MATLAB, VEE
Keysight IO libraries (recommended version 17.0 or newer)	Includes: VISA libraries, Keysight Connection Expert, IO monitor
89600 VSA software	89601B options: 200: Basic VSA software 300: Hardware connectivity AYA: Vector modulation analysis B7Z: WLAN 802.11n BHJ: WLAN 802.11ac BHD: LTE FDD BHG: LTE-Advanced FDD ... and more
X-Series measurement applications	N9064A Vector signal analysis N9071A GSM/EDGE/Evo N9072A cdma2000®/cdmaOne N9073A W-CDMA/HSPA+ N9075A Mobile WiMAX™ N9076A 1xEV-DO N9077A WLAN 802.11a/b/g/j/p/n/ac/ah N9079A TD-SCDMA/HSDPA N9081B Bluetooth® N9080B LTE/LTE-A FDD N9082B LTE/LTE-A TDD
Transportable or perpetual license	
Signal Studio software	N7650B Signal Studio waveform licenses N7600B W-CDMA/HSPA+ N7601B cdma2000/1xEV-DO N7602B GSM/EDGE/Evo N7606B Bluetooth N7608B Custom modulation N7609B Global navigation satellite system N7610B 802.15 4g / Wi-SUN N7612B TD-SCDMA/HSDPA N7615B Mobile WiMAX N7617B WLAN 802.11a/b/g/j/p/n/ac/ah N7624B LTE/LTE-A FDD N7625B LTE/LTE-A TDD
MATLAB software	N6171A options: M01 basic package M02 standard package M03 advanced package

## Ordering information

Model	Description
M9420A	PXIe vector signal generator and analyzer in one 4-slot module
M9300A	PXIe frequency reference, 10 MHz and 100 MHz (required for use of the M9420A); a single M9300A can support up to four M9420A modules in a single chassis
Options description	
Frequency	
M9420A-504	60 MHz to 3.8 GHz
M9420A-506	60 MHz to 6 GHz
RF modulation bandwidth	
M9420A-B40	40 MHz (standard)
M9420A-B85	80 MHz
M9420A-B1X	160 MHz
Memory	
M9420A-M02	256 MSa (standard)
M9420A-M05	512 MSa
Other	
M9420A-1EA	High output power
M9420A-FDX	Full-duplex port
M9420A-HDX	Half-duplex port
M9420A-UK6	Commercial calibration certificate with test data

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