

M9383B VXG-m

Microwave Signal Generator

This configuration guide contains information to help you configure your M9383B VXG-m microwave signal generator to meet your requirements. Ordering optional capabilities at the time of purchase provides the lowest overall cost.



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Hardware

Select options for VXG-m microwave signal generator channel 1

Step 1. Add first channel (required)	
M9383B-001	Add channel 1
Requires the following options: M9383B-F44 M9383B-D21 M9383B-600 M9383B-ST6 M9383B-1EB	Frequency range, 1 MHz to 44 GHz RF bandwidth, 2 GHz with 256 MSa memory Enhanced high performance reference Enhanced low phase noise High output power from 20 GHz to 44 GHz
Step 2. Select vector system features on channel 1 (optional)	
M9383B-M05	Baseband generator memory upgrade to 512 MSa
M9383B-M10	Baseband generator memory upgrade to 1024 MSa
M9383B-EXT	Wideband differential external IQ inputs
M9383B-DIQ	Differential IQ outputs
Step 3. Select general performance features on channel 1 (optional)	
M9383B-PCH	Phase coherency for N channels
Step 4. Select analog modulation on channel 1 (optional)	
M9383B-PMR	Pulse modulation

Select options for VXG-m microwave signal generator channel 2

Step 1. Add second channel (optional)	
M9383B-002	Add channel 2
Requires the following options: M9383B-F44 M9383B-D21 M9383B-600 M9383B-ST6 M9383B-1EB	Frequency range, 1 MHz to 44 GHz RF bandwidth, 2 GHz with 256 MSa memory Enhanced high performance reference Enhanced low phase noise High output power from 20 GHz to 44 GHz
Step 2. Select vector system features on channel 2 (optional)	
M9383B-M05	Baseband generator memory upgrade to 512 MSa
M9383B-M10	Baseband generator memory upgrade to 1024 MSa
M9383B-EXT	Wideband differential external IQ inputs
M9383B-DIQ	Differential IQ outputs
Step 3. Select analog modulation on channel 2 (optional)	
M9383B-PMR	Pulse modulation

Select Controller

Step 1. Select embedded controller (required)	
M9037A	High-performance embedded controller, Gen3
Step 2. Upgrade from standard memory size (required)	
M9037A-M16	Memory upgrade from 4 GB to 16 GB RAM
Step 3. Select an operating system (required)	
M9037A-W16	Windows 10 (64-bit)

Select Chassis and Accessories

Step 1. Select a chassis ¹ (required)	
M9043A ²	18-slot PXIe chassis with integrated high performance reference
Step 2. Choose a rack mount kit (optional)	
Y1215C	Flush mount adapter
Y1216B	Recess mount adapter kit
Step 3. Choose an air inlet kit ³ (optional)	
Y1214B	Air inlet kit (recommended for rack mounted systems with less than 1U space below chassis)
Step 4. Select other accessories for the M9383B VXG-m (optional)	
11904C ⁴	Adapter, 2.4 mm (m) to 2.92 mm (f), DC to 40 GHz

¹ An appropriate number of slot blockers and EMC filler panels will be included with your order.

² Only available as part of a fully assembled M9383B.

³ Available in 1-slot, 2-slot or 3-slot options depending on the chassis configuration

⁴ One 11904C adapter is included with each channel of your M9383B VXG-m order to help interface with the 2.4 mm (f) RF output. Additional adapters of interest can be found [here](#).

Software

Included software

Step 1. Start with the M9383B VXG-m base configuration

The VXG-m base configuration includes the following software:

- PathWave General Purpose Signal Generation
- Keysight IO Libraries Suite including Connection Expert
- Sample waveforms and programming examples

PathWave Software Tools

Step 2: Add PathWave Software Tools^{5,6} (optional)

N7631APPC	PathWave Signal Generation for 5G NR
N7621APPC	PathWave Signal Generation for basic multitone
N7642APPC	PathWave Signal Generation for IQ based AM, FM, phase modulation
N7653APPC	PathWave automatic channel response correction and S-parameter de-embedding

Signal Studio and MATLAB

Step 3: Add Signal Studio⁷ and MATLAB Software (optional)

Cellular Communications	
N7600EMBC	Signal Studio for W-CDMA/HSPA+, waveform playback
N7601EMBC	Signal Studio for cdma2000/1xEV-DO, waveform playback
N7602EMBC	Signal Studio for GSM/EDGE/Evo, waveform playback
N7612EMBC	Signal Studio for TD-SCDMA/HSPA, waveform playback
N7624EMBC	Signal Studio for LTE/LTE-Advanced/LTE-A Pro FDD, waveform playback
N7625EMBC	Signal Studio for LTE/LTE-Advanced TDD, waveform playback
N7630EMBC	Signal Studio Pro for Pre-5G, waveform playback
N7631EMBC	Signal Studio Pro for 5G NR, waveform playback

⁵ For more information, see Signal Studio brochure, literature number [5989-6448EN](#).

⁶ PathWave software tools can be used to create, download, and playback waveforms through the VXG-m graphical user interface.

⁷ Signal Studio license can be used to playback exported waveforms offline.

Step 3 (continued): Add Signal Studio ³ and MATLAB Software (optional)	
Wireless Connectivity	
N7606EMBC	Signal Studio for Bluetooth, waveform playback
N7610EMBC	Signal Studio for IoT, waveform playback
N7615EMBC	Signal Studio for mobile WiMAX, waveform playback
N7617EMBC	Signal Studio for WLAN 802.11, waveform playback
Audio/Video Broadcasting, Public Safety	
N7611EMBC	Signal Studio for broadcast radio, waveform playback
N7623EMBC	Signal Studio for digital video, waveform playback
N7640EMBC	Signal Studio for LMR, waveform playback
Detection, Positioning, Tracking & Navigation	
N7609EMBC	Signal Studio for Global Navigation Satellite System (GNSS), waveform playback ⁸
General RF & Microwave	
N7608EMBC	Signal Studio Pro for Custom Modulation, waveform playback
N7650B	Signal Studio Waveform License (5-, 50-pack license)
N6171A	MATLAB software

Services

Select warranty, calibration, and start-up assistance (optional)	
The base VXG-m configuration includes the following services:	
• One day of start-up assistance • 1-year return to Keysight warranty	
Warranty	
R-51B-001-3C	Extended Warranty – Return to Keysight – 3 years
R-51B-001-5C	Extended Warranty – Return to Keysight – 5 years

⁸ Real-time signal generation is not supported.

Global Warranty

Keysight provides the peace of mind that today's high-tech industry requires. Your investment is protected by Keysight's global reach in more than 100 countries (either directly or through distributors). The warranty gives you convenient standard coverage for the country in which the product is used, eliminating the need to ship equipment back to the country of purchase. Keysight's warranty service provides:

- All parts and labor necessary to return your investment to full specified performance
- Recalibration for products supplied originally with a calibration certificate
- Return shipment

One Day Start-up Assistance

To give you the most value from your investment, your Keysight purchase includes Startup Assistance, a service that includes consultation from an expert application engineer. He or she will help you configure the system and offer training on topics most beneficial to you, anything from theory and basic usage to new features and benefits or even more advanced training specific to your application. Startup Assistance provides a customized consultation, getting you to the results you need more quickly.

Related Literature

For more detailed product and specification information, refer to the following literature and web pages:

Description	Publication Number
Simplify Signal Creation with Signal Studio Software, Brochure	5989-6448EN

Learn more at: www.keysight.com

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: www.keysight.com/find/contactus

