

M9384B VXG

Microwave Signal Generator

This configuration guide contains information to help you configure your M9384B VXG 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 microwave signal generator channel 1

Step 1. Add first channel (required)	
M9384B-001	Add channel 1
Requires the following options: M9384B-F44 M9384B-D21 M9384B-600 M9384B-ST6 M9384B-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)	
M9384B-M05	Baseband generator memory upgrade to 512 MSa
M9384B-M10	Baseband generator memory upgrade to 1024 MSa
M9384B-EXT	Wideband differential external IQ inputs
M9384B-DIQ	Differential IQ outputs
Step 3. Select general performance features on channel 1 (optional)	
M9384B-PCH	Phase coherency for N channels
Step 4. Select analog modulation on channel 1 (optional)	
M9384B-PMR	Pulse modulation

Select options for VXG microwave signal generator channel 2

Step 1. Add second channel (optional)	
M9384B-002	Add channel 2
Requires the following options: M9384B-F44 M9384B-D21 M9384B-600 M9384B-ST6 M9384B-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)	
M9384B-M05	Baseband generator memory upgrade to 512 MSa
M9384B-M10	Baseband generator memory upgrade to 1024 MSa
Step 3. Select analog modulation on channel 2 (optional)	
M9384B-PMR	Pulse modulation

Select Accessories

Select accessories (optional)	
Y1164A	Rack mount kit for M9384B
11900B ¹	Adapter, 2.4 mm (f) to 2.4 mm (f), DC to 50 GHz
11904B ¹	Adapter, 2.4 mm (f) to 2.9 mm (f), DC to 40 GHz

1. Each channel of the M9384B VXG includes one 11900B adapter and one 11904B adapter to help interface with the 2.4 mm (m) RF output. Additional adapters of interest can be found [here](#).

Software

Included software

Step 1. Start with the M9384B VXG base configuration
The VXG base configuration includes the following software: <ul style="list-style-type: none">• 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 ^{2,3} (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 Studio ⁴ 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

Step 3 (continued): Add Signal Studio⁴ 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
N7637EMBC	Signal Studio for mmWave WLAN, 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 ⁵
General RF & Microwave	
N7608EMBC	Signal Studio Pro for Custom Modulation, waveform playback
N7650B	Signal Studio Waveform License (5-, 50-pack license)
N6171A	MATLAB software

2. For more information, see Signal Studio brochure, literature number [5989-6448EN](#).
3. PathWave software tools can be used to create, download, and playback waveforms through the VXG touch-optimized graphical user interface.
4. Signal Studio licenses can be used to playback exported waveforms offline.
5. Real-time signal generation is not supported.

Services

Select KeysightCare, warranty, and start-up assistance (optional)	
The base configuration includes the following services:	
<ul style="list-style-type: none">• One day of start-up assistance• 1-year return to Keysight warranty• KeysightCare Assured first year support	
KeysightCare Upgrades	
R-55A-001-2	KeysightCare – Extend to 2 years KeysightCare Assured
R-55A-001-3	KeysightCare – Extend to 3 years KeysightCare Assured
R-55A-001-5	KeysightCare – Extend to 5 years KeysightCare Assured
R-55B-001-1	Upgrade to 1-year KeysightCare Enhanced
R-55B-001-2	Upgrade to 2 years KeysightCare Enhanced
R-55B-001-3	Upgrade to 3 years KeysightCare Enhanced
R-55B-001-5	Upgrade to 5 years KeysightCare Enhanced
R-55C-001-1	Upgrade to 1-year KeysightCare Performance
R-55C-001-2	Upgrade to 2 years KeysightCare Performance
R-55C-001-3	Upgrade to 2 years KeysightCare Performance
R-55C-001-5	Upgrade to 2 years KeysightCare Performance
Warranty	
R-51B-001-3C	Extended Warranty – Return to Keysight – 3 years
R-51B-001-5C	Extended Warranty – Return to Keysight – 5 years

KeysightCare

KeysightCare offers the industry's first cloud-based customer experience with dedicated, proactive support through a single point of contact for instruments, software, and solutions. Get faster response times, faster access to specialized experts and faster time to resolution.

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

