N5186A MXG
Vector Signal Generator

Introduction

This configuration guide contains information to help you configure your N5186A MXG vector signal generator to meet your requirements. Ordering optional capabilities at the time of purchase provides the lowest overall cost of ownership.

Configure Hardware

Select number of channels

Configuration	Required options	Descriptions	Additional information
One channel	N5186A-001	Add channel one	Required for all configurations
Four channels	N5186A-001 N5186A-002 N5186A-003 N5186A-004	Add channel one Add channel two Add channel three Add channel four	

Select connector configuration

Option	Description	Additional information
N5186A-1EM	Move all connectors to rear panel	

Select channel features (ordered once per channel)

Option	Description	Additional information
Frequency options (must select one; option will be duplicated on all channels)		
N5186A-503	Frequency range, 9 kHz to 3 GHz	
N5186A-506	Frequency range, 9 kHz to 6 GHz	
N5186A-508	Frequency range, 9 kHz to 8.5 GHz	
Bandwidth options (must select one; option may be different on each channel)		
N5186A-B2X	RF bandwidth, 250 MHz with 256 MSa	
N5186A-B5X	RF bandwidth, 500 MHz with 256 MSa	
N5186A-B9X	RF bandwidth, 960 MHz with 256 MSa	
Memory options (optionally select one; option may be different on each channel)		
N5186A-M05	Baseband generator memory upgrade to 512 MSa	
N5186A-M10	Baseband generator memory upgrade to 1 GSa	
N5186A-M20	Baseband generator memory upgrade to 2 GSa	
Phase noise options (optionally select one; option will be duplicated on all channels)		
N5186A-EP3	Low phase noise	Not compatible with EP4
N5186A-EP4	Enhanced low phase noise	Not compatible with EP3
High output power options (optionally select; option will be duplicated on all channels)		
N5186A-1EA	High output power from 9 kHz to 3, 6, or 8 GHz	
Vector system feature options (optionally select; option may be different on each channel)		
N5186A-403	AWGN and CW interferer	

Option	Description	Additional information
General performance feature options (optionally select; options will be duplicated on all channels)		
N5186A-099	Expanded license key upgradability	Option 099 is required for anyone considering future upgrades. Option 099 simplifies the upgrade process by enabling upgrades via a license key for options 1EA, 1EQ, and UNV.
N5186A-1EQ	Low specified power (< -110 dBm)	
N5186A-UNV	Enhanced dynamic range	
Embedded reflectometer options (optionally select; option will be duplicated on all channels)		
N5186A-V08	Embedded reflectometer from 9 kHz to 3, 6, or 8.5 GHz	E7653APPC is recommended with option V08.

Configure Software

Included software

The N5186A MXG base configuration includes the following software tools.

Description
Sample waveforms
PathWave General Purpose Signal Generation

Embedded PathWave software tools

Embedded PathWave software tools can be used to create and playback waveforms through the MXG touch-optimized graphical user interface. Optionally select any models. One software license per instrument is required.

Model	Description
E7608APPC	PathWave Signal Generation for custom IQ modulation
E7621APPC	PathWave Signal Generation for basic multitone
E7642APPC	PathWave Signal Generation for IQ based AM, FM, phase modulation
E7653APPC	PathWave automatic channel response correction and S-parameter de-embedding (includes instrument nonlinear correction)

Additional PathWave software tools and MATLAB

These PathWave software tools can be used to create and playback waveforms through file-export based waveform playback. Real-time signal creation is not supported. Only node-locked licenses are available. Optionally select any models. One software license per instrument is required. For additional information, see the PathWave Signal Generation Brochure.

Model	Description
Cellular communications	
N7600EMBC	PathWave Signal Generation for W-CDMA/HSPA+
N7601EMBC	PathWave Signal Generation for cdma2000/1xEV-DO
N7602EMBC	PathWave Signal Generation for GSM/EDGE/Evo
N7612EMBC	PathWave Signal Generation for TD-SCDMA/HSPA
N7624EMBC	PathWave Signal Generation for LTE/LTE-Advanced/LTE-A Pro FDD
N7625EMBC	PathWave Signal Generation for LTE/LTE-Advanced TDD
N7626EMBC	PathWave Signal Generation for V2X
N7631EMBC	PathWave Signal Generation for 5G NR
N7632EMBC	PathWave Signal Generation for NR-V2X
Wireless connectivity	
N7606EMBC	PathWave Signal Generation for Bluetooth
N7610EMBC	PathWave Signal Generation for IoT
N7615EMBC	PathWave Signal Generation for Mobile WiMAX
N7617EMBC	PathWave Signal Generation for WLAN 802.11
Audio/video broadcasting	
N7611EMBC	PathWave Signal Generation for broadcast radio
N7623EMBC	PathWave Signal Generation for digital video
N7640EMBC	PathWave Signal Generation for LMR
General RF and Microwave	
N7608EMBC	PathWave Signal Generation for custom modulation
N6171A	MATLAB software (for standalone PC use)

Select Accessories

Model	Description	Additional information
1CM110A	Rackmount flange kit	
1CN106A	Front handle kit	
1CP104A	Rackmount flange and front handle kit	

KeysightCare Coverage

One year of KeysightCare Assured is included with your new N5186A MXG Vector Signal Generator for priority access to technical experts and optimized uptime to mitigate project risk. Multiyear upgrade options to KeysightCare Enhanced add calibration coverage for full performance verification and accelerated turnaround times.

Obtain multi-year KeysightCare upfront to lock in the service pricing of today and operate with a planned spending profile and eliminate the need for yearly requests for maintenance budget. Plus, you benefit from secured service for 2, 3, or 5 years.

Service	Function
KeysightCare Enhanced [1]	**Includes tech support, warranty, and calibration**
R-55B-001-1	KeysightCare Enhanced – Upgrade 1 year
R-55B-001-2	KeysightCare Enhanced – Extend to 2 years
R-55B-001-3	KeysightCare Enhanced – Extend to 3 years (Recommended)
R-55B-001-5	KeysightCare Enhanced – Extend to 5 years (Recommended)
R-55B-001-3CC	KeysightCare Enhanced – Extend to 3 years (China only) [2]
R-55B-001-5CJ	KeysightCare Enhanced – Extend to 5 years (Japan only)
KeysightCare Assured	**Includes tech support and warranty**
R-55A-001-2	KeysightCare Assured – Extend to 2 years
R-55A-001-3	KeysightCare Assured – Extend to 3 years
R-55A-001-5	KeysightCare Assured – Extend to 5 years
R-55A-001-3CC	KeysightCare Assured – Extend to 3 years (China only)
R-55A-001-5CC	KeysightCare Assured – Extend to 5 years (China only)
R-55A-001-5CJ	KeysightCare Assured – Extend to 5 years (Japan only)
Start-Up Assistance	
PS-S20	Startup assistance, daily
PS-X10	Custom Services

---

[1] Available in select countries. R-55B-001-2/3/5 must be ordered with R-55B-001-1. For details, please view the KeysightCare datasheet.

[2] Contact Keysight for 5-year coverage.