Keysight Technologies
UXG Agile Signal Generator
N5193A

Configuration Guide

This configuration guide will help you determine which performance options, accessories, and services to include with your new UXG or to add as upgrades to an existing UXG.

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Configure Your New UXG

This step-by-step process will help you configure your UXG agile signal generator. Tailor the performance to meet your requirements.

Included in base product

Standard options and accessories come with the UXG base model at no additional charge and do not need to be ordered. They include:

– 10 kHz frequency resolution
– 100 µs switching speed
– Amplitude range of +10 to -10 dBm
– Standard phase noise of -116 dBc/Hz (typ) at 20 kHz offset for a 10 GHz carrier frequency
– 3-year return-to-Keysight warranty
– One day of on-site Startup Assistance

Step 1. Select frequency range (required option; frequency range not upgradeable)		
Description	**Option number**	**Additional information**
Frequency range from 10 MHz to 20 GHz	N5193A-520	Not compatible with Option 540 Includes standard adapter 3.5 mm female to 3.5 mm female
Frequency range from 10 MHz to 40 GHz	N5193A-540	Not compatible with Option 520 Includes standard adapter set, 2.4 mm female-female and 2.4 mm female - 2.9 mm female

Step 2. Choose frequency resolution		
Description	**Option number**	**Additional information**
Frequency resolution 10 kHz	Standard	
Frequency resolution 1 Hz	N5193A-FR1	

Step 3. Choose switching speed options		
Description	**Option number**	**Additional information**
Switching speed 100 µs	Standard	List update rate 100 µs
Switching speed 1 µs	N5193A-SS1	List update rate 1 µs; not compatible with Option SS2
Switching speed 250 ns	N5193A-SS2	List update rate < 100 ns; switching speed of 250 ns applies in fast CW mode; not compatible with Option SS1

Step 4. Choose amplitude range		
Description	**Option number**	**Additional information**
Amplitude range +10 to -10 dBm	Standard	
Mechanical and solid-state attenuator	N5193A-AT1	80 dB agile range and 120 dB overall range; not upgradable

Step 5. Choose spectral purity options		
Description	**Option number**	**Additional information**
Standard phase noise	Standard	-116 dBc/Hz (typ) at 20 kHz offset for a 10 GHz carrier frequency
Enhanced phase noise	N5193A-EP1	-126 dBc/Hz (typ) at 20 kHz offset for a 10 GHz carrier frequency; not upgradable

Step 6. Choose modulation options		
Description	**Option number**	**Additional information**
AM, FM, phase modulation, narrowband chirp, and LF output	N5193A-UNT	
Wideband chirp (min 10%)	N5193A-WC1	Requires UNT
Pulse modulation	N5193A-PM1	

Step 7. Choose connector configuration		
Description	**Option number**	**Additional information**
Move all connectors to rear panel	N5193A-1EM	Not upgradable
Type-N (f) RF output connector	N5193A-1ED	Only available on 520 units Includes standard adapter Type-N male to 3.5 mm female
100-pin LVDS I/O interface	N5193A-CC1	Must select CC1 or CC2
50-pin BCD I/O interface	N5193A-CC2	Must select CC1 or CC2

Step 8. Choose accessory and documentation options	
Description	**Option number**
Additional LVDS I/O interface	N5193AU-CC1
Additional BCD I/O interface	N5193AU-CC2
Additional removable solid-state drive	N5193AU-SSD
Front handle kit	1CN007A
Rack mount flange kit	34192A
Rack mount flange kit with front handles	1CP008A
CD-ROM containing English documentation set	N5193A-CD1

Step 9. Choose warranty and calibration options	
Description	**Option number**
Return-to-Keysight warranty, 3 years	Standard
Return-to-Keysight warranty, 5 years	R-51B-001-5C
Commercial calibration certificate with test data	N5193A-UK6
UXG Keysight calibration + uncertainties + guardbanding (compliant calibration)	N5193A-1A7
UXG ANSI Z540-1-1994 calibration	N5193A-A6J
Calibration assurance plan, Return-to-Keysight, 5 years	R-50C-011-5

Step 10. Choose startup assistance service options	
Description	**Option number**
Remote scheduled assistance 1- 999 hours	PS-S10
Startup assistance (one-day included standard)	PS-S20-UXG
Signal generator and source basics; half-day, maximum of eight students on site	PS-T10-ASG
Custom services to be qualified by Keysight	PS-X10

Upgrade Your Existing UXG

Fast license-key upgrades for options that do not require additional hardware:

1. Place an order for the upgrade with Keysight and request to receive the software entitlement certificate through email
2. Redeem the certificate through the Web by following the instructions on the certificate
3. Install the license file using Keysight License Manager
4. Begin using the new capability

Installation, calibration, and verification information is available at:

www.keysight.com/find/UXG_upgrades

You can upgrade!

UP GRADE Options can be added after your initial purchase. Most UXG options are license-key upgradeable.

Description	Upgrade number	Requirements	Additional information
Switching speed 1 µs	N5193AU-SS1	None	Customer installable – software, license key
Switching speed 250 ns	N5193AU-SS2	None	Customer installable – software, license key
Frequency resolution 1 Hz	N5193AU-FR1	None	Customer installable – software, license key
CD-ROM containing English documentation set	N5193A-CD1	None	
Commercial calibration certificate with test data	N5193AU-UK6	None	
AM, FM, phase modulation, narrowband chirp, and LF output	N5193AU-UNT	None	Customer installable – software, license key
Add wideband chirp (min 10%)	N5193AU-WC1	UNT	Customer-installable - software, license key
Pulse modulation	N5193AU-PM1	None	Customer installable – software, license key
Front handle kit, 3U	1CN007A	None	Hardware
Rack mount flange kit, 3U	34192A	None	Hardware
Rack mount flange kit with front handles, 3U	1CP008A	None	Hardware

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