

Keysight Technologies

UXG Agile Signal Generator, Modified Version N5191A

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.

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 μ s switching speed up to 31.6 GHz, 500 μ s to 40 GHz
- Amplitude range of +10 to -10 dBm
- Phase noise of -117 dBc/Hz (typ) at 20 kHz offset for a 10 GHz carrier frequency
- 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 | N5191A-52E | Not compatible with Option 54E Includes standard adapter 3.5 mm female to 3.5 mm female |
| Frequency range from 10 MHz to 40 GHz | N5191A-54E | Not compatible with Option 52E 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 0.001 Hz | N5191A-FR1 | |

Step 3. Choose switching speed options

| Description | Option number | Additional information |
|-----------------------------|---------------|---|
| Switching speed 100 μ s | Standard | List update rate 100 μ s up to 31.6 GHz, 500 μ s to 40 GHz |
| Switching speed 370 ns | N5191A-SS3 | List update rate < 180 ns; switching speed of 370 ns applies in fast CW mode up to 6.89 GHz |

Step 4. Choose amplitude range

| Description | Option number | Additional information |
|---------------------------------------|---------------|---|
| Amplitude range +10 to -10 dBm | Standard | |
| Mechanical and solid-state attenuator | N5191A-AT1 | 80 dB agile range and 120 dB overall range; not upgradeable |

Step 5. Choose modulation options

| Description | Option number | Additional information |
|---|---------------|------------------------|
| AM, FM, phase modulation, narrowband chirp, and LF output | N5191A-UT1 | |
| Wideband chirp | N5191A-WC2 | Requires UT1 |
| Pulse modulation | N5191A-PM2 | |

Step 6. Choose connector configuration

| Description | Option number | Additional information |
|-----------------------------------|---------------|---|
| Move all connectors to rear panel | N5191A-1EM | Not upgradable |
| Type-N (f) RF output connector | N5191A-1ED | Only available on 52E units Includes standard adapter Type-N male to 3.5 mm female |
| 100-pin LVDS I/O interface | N5191A-CC1 | Must select CC1 or CC2 |
| 50-pin BCD I/O interface | N5191A-CC2 | Must select CC1 or CC2 |

Step 7. Choose signal creation software

| Description | Option number | Additional information |
|--|---------------|------------------------|
| Signal Studio for multi-emitter scenario generation (MESG) | N7660B | |

Step 8. Choose accessory and documentation options

| Description | Option number |
|---|---------------|
| Additional LVDS I/O interface | N5191AU-CC1 |
| Additional BCD I/O interface | N5191AU-CC2 |
| Additional removable solid-state drive | N5191AU-SSD |
| Front handle kit | 1CN007A |
| Rack mount flange kit | 34192A |
| Rack mount flange kit with front handles | 1CP008A |
| CD-ROM containing English documentation set | N5191A-CD1 |
| 100-pin LVDS cable, 1.5m length | N5191A-CA1 |
| 50-pin BCD cable, 1.5m length | N5191A-CA2 |
| Hard transit case | N5191A-AXT |

Step 9. Choose calibration options

| Description | Option number |
|---|---------------|
| Commercial calibration certificate with test data | N5191A-UK6 |
| UXG Keysight calibration + uncertainties + guardbanding (compliant calibration) | N5191A-1A7 |
| UXG ANSI Z540-1-1994 calibration | N5191A-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/N5191A-upgrades

You Can Upgrade!

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

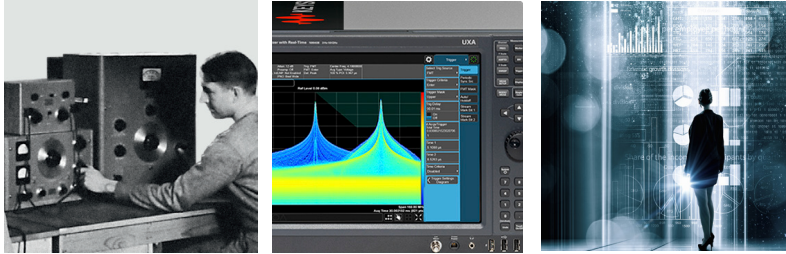


| Description | Upgrade number | Requirements | Additional information |
|---|----------------|--------------|--|
| Switching speed 370 ns up to 6.89 GHz | N5191AU-SS3 | None | Customer installable – software, license key |
| Frequency resolution 0.001 Hz | N5191AU-FR1 | None | Customer installable – software, license key |
| CD-ROM containing English documentation set | N5191AU-CD1 | None | |
| Commercial calibration certificate with test data | N5191AU-UK6 | None | |
| AM, FM, phase modulation, narrowband chirp, and LF output | N5191AU-UT1 | None | Customer installable – software, license key |
| Add wideband chirp | N5191AU-WC2 | UNT | Customer-installable - software, license key |
| Pulse modulation | N5191AU-PM2 | 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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For other unlisted countries:

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