

**Aumictech**

Test &amp; measurement • bought, sold, repaired, calibrated

**Data Sheet**

August 14, 2026

AGILENT / KEYSIGHT

# Agilent / Keysight N5193A UXG X-Series Agile Signal Generator

Agilent Keysight N5193A UXG Agile Signal Generator The Keysight N5193A UXG is an agile signal generator covering 10 MHz to 20 GHz or 40 GHz. OEM N5193A data sheet/brochure 5992-0092 lists 180 ns list-mode update of frequency, amplitude, and phase; 370 ns fast-CW switching; 10 ns minimum pulse width; 90 dB pulse on/off ratio; and minus 126 dBc phase noise at 10 GHz, 10 kHz offset. EW and radar threat simulation; antenna-range agile CW; multi-emitter scenarios with PDW streaming; phase-coherent multi-UXG AoA setups. The Keysight N5193A UXG is an agile signal generator covering 10 MHz to 20 GHz or 40 GHz. OEM N5193A data sheet/brochure 5992-0092 lists 180 ns list-mode update of frequency, amplitude, and phase; 370 ns fast-CW switching; 10 ns minimum pulse width; 90 dB pulse on/off ratio; and minus 126 dBc phase noise at 10 GHz, 10 kHz offset. EW and radar threat simulation; antenna-range agile CW; multi-emitter scenarios with PDW streaming; phase-coherent multi-UXG AoA setups. List-mode update of frequency, amplitude, and phase in less than 180 ns



MODEL

**Agilent / Keysight  
N5193A**

CALIBRATION

**Available on  
request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**N5193A**

LISTING

<https://aumictechlabs.com/products/n5193a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

## This unit

The Keysight N5193A UXG X-Series Agile Signal Generator is a signal source engineered for aerospace, defense, and wireless communications testing. It delivers rapid frequency, amplitude,

and phase switching across 10 MHz to 20 GHz (Option 520) or 10 MHz to 40 GHz (Option 540), enabling real-time simulation of complex radar, electronic warfare, and communication signal environments. The instrument supports phase-continuous and phase-coherent switching modes to minimize spectral splatter and maintain phase trajectory consistency during rapid transitions.

**Technical Specifications**

**Frequency and Switching** Frequency range: 10 MHz to 20 GHz (Option 520); 10 MHz to 40 GHz (Option 540) CW frequency resolution: 10 kHz standard; 0.001 Hz with Option FR1 Frequency switching speed: 100  $\mu$ s Phase offset adjustment: 0.1° increments (nominal) Dual frequency band modes (A/B) optimize for low harmonics or extended low-frequency bandwidth

**Frequency Reference** Internal timebase:  $\pm 5 \times 10^{-8}$  initial accuracy;  $\pm 3 \times 10^{-8}$ /year aging;  $\pm 4.5 \times 10^{-9}$  (nominal) temperature coefficient 0–55 °C External 10 MHz input:  $\pm 1.0$  ppm lock range (nominal); 6 dBm  $\pm$  6 dB input amplitude; 50  $\Omega$  impedance Reference output: Selectable 10 MHz or 100 MHz; 7 dBm (nominal) into 50  $\Omega$

**Amplitude and Noise** Amplitude range: +10 dBm to –10 dBm Phase noise: –117 dBc/Hz (typical) at 20 kHz offset, 10 GHz carrier Enhanced phase noise available (Option EP1)

**Key Features** Phase-continuous switching minimizes spectral splatter within frequency bands Phase-coherent switching maintains repeatable phase relationships for sequential frequency visits Dual-mode frequency bands support narrowband precision or wideband chirp and FM applications Electronic Frequency Control (EFC) enables dynamic frequency modulation at –0.04 ppm/V sensitivity System sync and 6 GHz input/output interfaces for external timing and reference integration

**Typical Applications** Radar system validation and electronic warfare signal simulation Advanced modulation scheme testing in communication systems Complex signal environment reproduction for receiver qualification Early-stage validation of frequency-agile and phase-coherent systems

**Compatibility & Integration** The N5193A supports external 10 MHz frequency references and provides system sync I/O for multi-instrument coordination. Reference outputs (10/100 MHz) enable clock distribution to dependent test systems.

## N5193A Characteristics / Specifications

| PARAMETER                        | VALUE                                                               |
|----------------------------------|---------------------------------------------------------------------|
| Model                            | N5193A                                                              |
| Instrument Type                  | Agile signal generator                                              |
| Series Family                    | Keysight UXG                                                        |
| Frequency Range                  | 10 MHz to 20 GHz or 40 GHz by option                                |
| Phase Noise 10 Ghz 10 Khz Offset | minus 126 dBc at 10 GHz, 10 kHz offset                              |
| Nonharmonic Spurious At 18 Ghz   | minus 70 dBc at 18 GHz                                              |
| Output Power Standard            | +10 dBm                                                             |
| Output Power Optional Attenuator | minus 130 dBm to +10 dBm                                            |
| List Update Rate                 | less than 180 ns in list mode (frequency, amplitude, phase)         |
| Fast Cw Frequency Switching      | 370 ns                                                              |
| Minimum Pulse Width              | 10 ns                                                               |
| Pulse Rise Fall Time             | 3 ns                                                                |
| Pulse On Off Ratio               | 90 dB                                                               |
| Linear Chirp Width               | 10 to 25 percent of carrier frequency                               |
| Form Factor                      | 3 rack units (3U)                                                   |
| Operating Temperature            | 0 C to 55 C for warranted specs after 1 hour warm-up                |
| Warm Up Time                     | 1 hour                                                              |
| Storage Before Operate           | minimum 2 hours within operating temperature range                  |
| Reference Impedance              | 50 ohm                                                              |
| Modes                            | Normal, Fast CW, and PDW Streaming                                  |
| PdW Streaming Requirement        | Option PM1 required to stream                                       |
| Synchronization                  | multiple UXG units phase-coherent outputs                           |
| Compatibility Mode               | Aeroflex class compatibility mode                                   |
| Pulse Descriptor Words           | frequency, amplitude, phase, pulse, chirp or phase coding, FM or PM |

# N5193A Specifications

| PARAMETER                                          | VALUE                                                                                                                                    |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Agilent Keysight N5193A UXG Agile Signal Generator | Overview                                                                                                                                 |
| Applications                                       | EW and radar threat simulation; antenna-range agile CW; multi-emitter scenarios with PDW streaming; phase-coherent multi-UXG AoA setups. |
| Key Features                                       | List-mode update of frequency, amplitude, and phase in less than 180 ns                                                                  |
| Linear chirp 10 to 25 percent of carrier frequency | Pulse 10 ns minimum width with 3 ns rise/fall                                                                                            |
| Fast Control Port PDW streaming options            | 3U rack-height agile source                                                                                                              |
| Technical Specifications                           | Model: N5193A                                                                                                                            |

# General Specifications & Supplementary Characteristics

| PARAMETER                 | VALUE                                                                                                                                                                                                                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating temperature     | 0 C to 55 C for warranted specs after 1 hour warm-up                                                                                                                                                                                                                                            |
| Operating Temperature     | 0 C to 55 C for warranted specs after 1 hour warm-up                                                                                                                                                                                                                                            |
| Warm Up Time              | 1 hour                                                                                                                                                                                                                                                                                          |
| Storage Before Operate    | minimum 2 hours within operating temperature range                                                                                                                                                                                                                                              |
| Reference Impedance       | 50 ohm                                                                                                                                                                                                                                                                                          |
| Modes                     | Normal, Fast CW, and PDW Streaming                                                                                                                                                                                                                                                              |
| PdW Streaming Requirement | Option PM1 required to stream                                                                                                                                                                                                                                                                   |
| Synchronization           | multiple UXG units phase-coherent outputs                                                                                                                                                                                                                                                       |
| Compatibility Mode        | Aeroflex class compatibility mode                                                                                                                                                                                                                                                               |
| Pulse Descriptor Words    | frequency, amplitude, phase, pulse, chirp or phase coding, FM or PM<br>Notes Numeric rows from Keysight N5193A UXG Agile Signal Generator data sheet 5992-0092 and UXG brochure summary of key specifications. Applies to serials ending 5646xxxx or greater and firmware A.01.86 unless noted. |

# Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

| Specifications                   |                                                                     |
|----------------------------------|---------------------------------------------------------------------|
| Specifications                   |                                                                     |
| PARAMETER                        | VALUE                                                               |
| Model                            | N5193A                                                              |
| Instrument Type                  | Agile signal generator                                              |
| Series Family                    | Keysight UXG                                                        |
| Frequency Range                  | 10 MHz to 20 GHz or 40 GHz by option                                |
| Phase Noise 10 Ghz 10 Khz Offset | minus 126 dBc at 10 GHz, 10 kHz offset                              |
| Nonharmonic Spurious At 18 Ghz   | minus 70 dBc at 18 GHz                                              |
| Output Power Standard            | +10 dBm                                                             |
| Output Power Optional Attenuator | minus 130 dBm to +10 dBm                                            |
| List Update Rate                 | less than 180 ns in list mode (frequency, amplitude, phase)         |
| Fast Cw Frequency Switching      | 370 ns                                                              |
| Minimum Pulse Width              | 10 ns                                                               |
| Pulse Rise Fall Time             | 3 ns                                                                |
| Pulse On Off Ratio               | 90 dB                                                               |
| Linear Chirp Width               | 10 to 25 percent of carrier frequency                               |
| Form Factor                      | 3 rack units (3U)                                                   |
| Operating Temperature            | 0 C to 55 C for warranted specs after 1 hour warm-up                |
| Warm Up Time                     | 1 hour                                                              |
| Storage Before Operate           | minimum 2 hours within operating temperature range                  |
| Reference Impedance              | 50 ohm                                                              |
| Modes                            | Normal, Fast CW, and PDW Streaming                                  |
| PdW Streaming Requirement        | Option PM1 required to stream                                       |
| Synchronization                  | multiple UXG units phase-coherent outputs                           |
| Compatibility Mode               | Aeroflex class compatibility mode                                   |
| Pulse Descriptor Words           | frequency, amplitude, phase, pulse, chirp or phase coding, FM or PM |

#### Notes

Numeric rows from Keysight N5193A UXG Agile Signal Generator data sheet 5992-0092 and UXG brochure summary of key specifications. Applies to serials ending 5646xxxx or greater and firmware A.01.86 unless noted.

### Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: [sales@aumictech.com](mailto:sales@aumictech.com) · +1 (484) 841-9341

#### Aumictech

788 S 500 E, Pleasant Grove, UT 84062  
[sales@aumictech.com](mailto:sales@aumictech.com) · +1 (484) 841-9341  
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·  
30-day returns  
NAICS 423690 · 811210 · 541380  
Generated August 14, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.