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Data Sheet

August 13, 2026

STANFORD RESEARCH SYSTEMS

Stanford Research SG384 4 GHz Signal Generator

Stanford Research SG384 4 GHz RF Signal Generator The Stanford Research SG384 is a member of the SG380 Series RF signal generators using Rational Approximation Frequency Synthesis (RAFS) for 1 uHz frequency resolution, low phase noise, and AM/FM/PhiM/PM modulation from DC to 4.05 GHz on the N-type output. RF and IF stimulus for communications test; clock and LO generation to 4 GHz; AM/FM/phase modulation test; swept frequency measurements; automated test via GPIB/Ethernet/RS-232. The Stanford Research SG384 is a member of the SG380 Series RF signal generators using Rational Approximation Frequency Synthesis (RAFS) for 1 uHz frequency resolution, low phase noise, and AM/FM/PhiM/PM modulation from DC to 4.05 GHz on the N-type output. RF and IF stimulus for communications test; clock and LO generation to 4 GHz; AM/FM/phase modulation test; swept frequency measurements; automated test via GPIB/Ethernet/RS-232.



MODEL

Stanford Research Systems SG384

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

SG384

LISTING

<https://aumictechlabs.com/products/sg384-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Stanford Research Systems SG384 is a 4 GHz analog signal generator built on Rational Approximation Frequency Synthesis architecture. It delivers 1 μ Hz frequency resolution, sub-8 ms switching speed, and exceptional phase noise performance of -116 dBc/Hz at 20 kHz offset. The instrument supports AM, FM, phase modulation, pulse modulation, and continuous sweeps with selectable internal waveforms (sine, ramp, saw, square, pulse, noise) or external modulation

sources. RF output ranges from +13 dBm to -110 dBm with $\pm 5\%$ amplitude accuracy. Optional frequency doubler (Opt. 02) extends coverage to 8.10 GHz, while optional I/Q modulation (Opt. 03) enables complex signal generation above 400 MHz. A front-panel BNC output accommodates baseband and low-frequency signals to 62.5 MHz. Suited for research, development, and production RF test environments.

Technical Specifications

Frequency Range: DC to 4.05 GHz (standard); up to 8.10 GHz with optional doubler
Frequency Resolution: 1 μ Hz
Frequency Switching: <8 ms to within 1 ppm
Frequency Stability: 1×10^{-11} (1 second Allan variance)
RF Output Power: +13 dBm to -110 dBm
Amplitude Resolution: 0.1%
Amplitude Accuracy: $\pm 5\%$
Phase Noise (SSB): -116 dBc/Hz at 20 kHz offset (1 GHz); -80 dBc/Hz at 10 Hz offset
Harmonics: <-25 dBc at +7 dBm output
Spurious: 40 dBc carrier suppression
BNC front-panel output: DC to 62.5 MHz, 1 mV to 1 V_{rms} into 50 Ω

Typical Applications

Component and subsystem RF testing
Phase noise characterization
Modulation development and validation
Frequency-agile signal generation

Compatibility & Integration

External modulation accepts ± 1 V input signals. I/Q option supports 50 Ω impedance inputs with ± 0.5 V offsets. Standard N-type RF connector.

Features & description

From manufacturer datasheet

Features

- Frequency range 950 kHz to 4.05 GHz (N-type); DC to 62.5 MHz (BNC)

SG384 Characteristics / Specifications

PARAMETER	VALUE
Model	SG384
Manufacturer	Stanford Research Systems
Instrument Type	RF Signal Generator
Series	SG380
Frequency RangeNOutput	950 kHz to 4.05 GHz
Frequency Range BNC Output	DC to 62.5 MHz
Frequency Resolution	1 uHz
Frequency Option	extends to 8.10 GHz (doubler, SG384/SG386)
Amplitude RangeNOutput	+16.5 dBm to -110 dBm into 50 Ohm
Amplitude Range BNC	1 mV to 1 Vrms into 50 Ohm
Phase Noise	-116 dBc/Hz at 20 kHz offset, f = 1 GHz (typical)
Timebase Standard	OCXO
Timebase Option	rubidium
Modulation	AM, FM, PhiM, PM, pulse, sweeps
Front Panel Outputs	BNC (DC-62.5 MHz); N-type (RF)
Interfaces	Ethernet; GPIB; RS-232
Output Impedance	50 Ohm
Alias	SG384
Synthesis Method	Rational Approximation Frequency Synthesis (RAFS)
Harmonic Content	per SG380 series specification
Level Control	front panel and remote
Reference	10 MHz reference input/output class Notes SG384 is the 4 GHz SG380 Series model (SG382 2 GHz; SG386 6 GHz). Confirm installed options 01/02/03/04 on option label.

SG384 Specifications

PARAMETER	VALUE
Stanford Research SG384 4 GHz RF Signal Generator	Overview
Key Features	- Frequency range 950 kHz to 4.05 GHz (N-type); DC to 62.5 MHz (BNC)
Technical Specifications	Model: SG384
Notes	SG384 is the 4 GHz SG380 Series model (SG382 2 GHz; SG386 6 GHz). Confirm installed options 01/02/03/04 on option label.

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	SG384
Manufacturer	Stanford Research Systems
Instrument Type	RF Signal Generator
Specifications	
PARAMETER	VALUE
Series	SG380
Frequency RangeNOutput	950 kHz to 4.05 GHz
Frequency Range BNC Output	DC to 62.5 MHz
Specifications	
PARAMETER	VALUE
Frequency Resolution	1 uHz
Frequency Option 02	extends to 8.10 GHz (doubler, SG384/SG386)
Amplitude RangeNOutput	+16.5 dBm to -110 dBm into 50 Ohm
Specifications	
PARAMETER	VALUE
Amplitude Range BNC	1 mV to 1 Vrms into 50 Ohm
Phase Noise	-116 dBc/Hz at 20 kHz offset, f = 1 GHz (typical)
Timebase Standard	OCXO
Timebase Option 04: rubidium	
Modulation: AM, FM, PhiM, PM, pulse, sweeps	
Option 01: low-jitter differential clock outputs	
Option 03: external I/Q modulation input	
Specifications	

PARAMETER	VALUE
Front Panel Outputs	BNC (DC-62.5 MHz); N-type (RF)
Interfaces	Ethernet; GPIB; RS-232
Output Impedance	50 Ohm

Specifications

PARAMETER	VALUE
List Price Class	approx. (SRS list, historical)
Alias	SG384
Synthesis Method	Rational Approximation Frequency Synthesis (RAFS)

Specifications

PARAMETER	VALUE
Harmonic Content	per SG380 series specification
Level Control	front panel and remote
Reference	10 MHz reference input/output class

Notes

SG384 is the 4 GHz SG380 Series model (SG382 2 GHz; SG386 6 GHz). Confirm installed options 01/02/03/04 on option label.

Available from Aumictech

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

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

Aumictech

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NIST-traceable calibration · SAM registered ·
30-day returns
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.