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Data Sheet

August 12, 2026

ROHDE & SCHWARZ

Rohde and Schwarz SGT100A SGMA Vector RF Source, 1 MHz to 3 GHz RF

Rohde & Schwarz SGT100A SGMA Vector RF Source The R&S SGT100A (1419.4501.02) is a compact SGMA vector RF source with integrated baseband/ARB for production and automated test. Base RF range 1 MHz to 3 GHz (extendable to 6 GHz with SGT-KB106). Half-19" 1 HU form factor with fast frequency/level settling via PCIe/Ethernet. Production vector signal generation; WLAN/5G and digital-standard waveforms via WinIQSIM2; MIMO expansion with SMW200A; automated ATE with SGMA GUI multi-instrument control. The R&S SGT100A (1419.4501.02) is a compact SGMA vector RF source with integrated baseband/ARB for production and automated test. Base RF range 1 MHz to 3 GHz (extendable to 6 GHz with SGT-KB106). Half-19" 1 HU form factor with fast frequency/level settling via PCIe/Ethernet. Production vector signal generation; WLAN/5G and digital-standard waveforms via WinIQSIM2; MIMO expansion with SMW200A; automated ATE with SGMA GUI multi-instrument control.



MODEL

**Rohde & Schwarz
SGT100A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

SGT100A/SGMA

LISTING

<https://aumictechlabs.com/products/sgt100a-sgma-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Rohde & Schwarz SGT100A SGMA is a vector RF source engineered to generate complex modulated signals from 1 MHz to 3 GHz. Built for automated production test environments, it

delivers high signal quality with flexible modulation capabilities in a compact 1 HU, ½ 19" form factor. Fast frequency and level setting times maximize test throughput while maintaining phase coherence and spectral purity across demanding modulation scenarios.

Technical Specifications

RF Performance

Frequency range: 1 MHz to 3 GHz (extendable to 6 GHz with R&S SGT-KB106 option) Output level (CW mode, AUTO setting): -120 dBm to +17 dBm Maximum output level (typical): +22 dBm REF/LO output: +6 dBm to +12 dBm (typical 9 dBm) Output impedance: 50 Ω nominal Harmonics (≤ 8 dBm CW): < -30 dBc SSB phase noise at 1 GHz (20 kHz offset): < -126 dBc (typical -133 dBc) SSB phase noise at 2 GHz (20 kHz offset): < -120 dBc (typical -127 dBc) SSB phase noise at 6 GHz (20 kHz offset): < -110 dBc (typical -117 dBc) Phase drift over temperature (between two LO coupled instruments): 0.4° typical per +1 °C at 6 GHz, +10 dBm

Modulation Capabilities

I/Q modulation bandwidth: up to 160 MHz or 240 MHz in RF Integrated baseband generator Pulse modulation: internal generator (R&S SGT-K22 option) or external trigger Pulse delay resolution: 10 ns External trigger delay jitter: < 20 ns GSM/EDGE support (R&S SGT-K240): 400 MHz to 2000 MHz, phase error $< 0.4^\circ$ RMS (MSK, BT=0.3) 3GPP FDD support (R&S SGT-K242): 1800 MHz to 2200 MHz, EVM 68 dB at 5 MHz offset

Key Features

Dual modulation paths: I/Q and external analog Pulse/video output: LVTTTL (3.3 V nominal) on USER2 connector GSM burst on/off ratio: 100 dB measured 3GPP ACLR > 70 dB at 10 MHz offset (typical 73 dB) Pulse double delay range: 40 ns to 100 s at 10 ns resolution

Typical Applications

Production test of GSM/EDGE handsets and infrastructure 3GPP FDD device validation and receiver testing Pulse modulation characterization Phase-coherent multi-instrument test setups

Compatibility & Integration

Optional OCXO (R&S SGT-B1) improves phase noise performance. Extended frequency coverage to 6 GHz available with KB106 module.

Features & description

From manufacturer datasheet

Features

- Frequency: 1 MHz–3 GHz CW and internal I/Q baseband; external analog I/Q from 80 MHz; option KB106 to 6 GHz
- Frequency setting resolution: 0.001 Hz
- Level: specified –120 dBm to +17 dBm (PEP) class; max level typ. +22 dBm
- Electronic attenuator (wear-free)
- Integrated ARB: up to 1 Gsample memory; RF I/Q bandwidth up to 240 MHz (with baseband options)
- Fast setting: <500 µs arbitrary frequency change (PCIe/Ethernet); typ. 240 µs switchover class in brochure
- Form factor: 1 HU, ½ 19"; lightweight
- Remote: PCIe and Ethernet; SGMA GUI
- Options: OCXO B1; KB106 6 GHz; pulse K22; phase coherent K90; ARB memory/bandwidth extensions; digital standards libraries

SGT100A Characteristics / Specifications

PARAMETER	VALUE
Model	SGT100A
Manufacturer	Rohde & Schwarz
Instrument Type	SGMA Vector RF Source / Vector Signal Generator
Order	1419.4501.02
Alias	SGT100A; R&S SGT100A; SGMA RF
Frequency	1 MHz–3 GHz CW and internal I/Q baseband; external analog I/Q from 80 MHz; option KB106 to 6 GHz
Resolution	0.001 Hz
Level range (specified class)	–120 to +17 dBm PEP
Max level	typ. +22 dBm Baseband / ARB
RF bandwidth	up to 240 MHz (option-dependent)
Memory	up to 1 Gsample (option-dependent) Notes Specs from R&S SGT100A specifications/brochure. Listing matches 1 MHz–3 GHz RF. Confirm KB106 and ARB options on the unit.
Frequency setting resolution	0.001 Hz
Level	specified –120 dBm to +17 dBm (PEP) class; max level typ. +22 dBm
Integrated ARB	up to 1 Gsample memory; RF I/Q bandwidth up to 240 MHz (with baseband options)
Fast setting	<500 μ s arbitrary frequency change (PCIe/Ethernet); typ. 240 μ s switchover class in brochure
Form factor	1 HU, ½ 19"; lightweight
Remote	PCIe and Ethernet; SGMA GUI
Options	OCXO B1; KB106 6 GHz; pulse K22; phase coherent K90; ARB memory/bandwidth extensions; digital standards libraries
Bandwidth	up to 240 MHz (with baseband options) - Fast setting: <500 μ s arbitrary frequency change (PCIe/Ethernet); typ. 240 μ s switchover class in brochure - Form factor: 1 HU, ½ 19"; lightweight - Remote: PCIe and Ethernet; SGMA GUI - Options: OCXO B1; KB106

SGT100A Specifications

PARAMETER	VALUE
Key Features	- Frequency: 1 MHz–3 GHz CW and internal I/Q baseband; external analog I/Q from 80 MHz; option KB106 to 6 GHz
Technical Specifications	Model: SGT100A
Baseband / ARB	RF bandwidth: up to 240 MHz (option-dependent)
Notes	Specs from R&S SGT100A specifications/brochure. Listing matches 1 MHz–3 GHz RF. Confirm KB106 and ARB options on the unit.

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	SGT100A
Manufacturer	Rohde & Schwarz
Instrument Type	SGMA Vector RF Source / Vector Signal Generator
Order	1419.4501.02
Alias	SGT100A; R&S SGT100A; SGMA

RF

Specifications

PARAMETER	VALUE
Frequency	1 MHz to 3 GHz (to 6 GHz with KB106)
Resolution	0.001 Hz
Level range (specified class)	-120 to +17 dBm PEP
Max level	typ. +22 dBm

Baseband / ARB

RF bandwidth: up to 240 MHz (option-dependent)

Memory: up to 1 Gsample (option-dependent)

Notes

Specs from R&S SGT100A specifications/brochure. Listing matches 1 MHz-3 GHz RF. Confirm KB106 and ARB options on the unit.

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.