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Data Sheet

August 13, 2026

ROHDE & SCHWARZ

Rohde & Schwarz SMC100A 9kHz to 1.1GHz Signal Generator

Rohde & Schwarz SMC100A Signal Generator 9 kHz to 3.2 GHz The R&S SMC100A is a compact analog signal generator (base 1411.6005.02 class) with RF path SMC-B101 (9 kHz to 1.1 GHz) or SMC-B103 (9 kHz to 3.2 GHz). Specified level is minus 120 dBm to +13 dBm PEP from 200 kHz to 3.2 GHz; setting range is minus 120 dBm to +19 dBm. Typical maximum level exceeds +17 dBm. Wear-free electronic attenuator, AM/FM/φM/pulse as standard, 0.001 Hz setting resolution, and optional SMC-B1 OCXO plus SMC-K4 GPIB cover education, service, and production. Overvoltage protection is integrated. The R&S SMC100A is a compact analog signal generator (base 1411.6005.02 class) with RF path SMC-B101 (9 kHz to 1.1 GHz) or SMC-B103 (9 kHz to 3.2 GHz). Specified level is minus 120 dBm to +13 dBm PEP from 200 kHz to 3.2 GHz; setting range is minus 120 dBm to +19 dBm. Typical maximum level exceeds +17 dBm. Wear-free electronic attenuator, AM/FM/φM/pulse as standard, 0.001 Hz setting resolution, and optional SMC-B1 OCXO plus SMC-K4 GPIB cover education, service, and production. Overvoltage protection is integrated.



MODEL

Rohde & Schwarz SMC100A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

SMC100A

LISTING

<https://aumictechlabs.com/products/smc100a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Rohde & Schwarz SMC100A is a compact analog signal generator delivering high-quality RF signal generation from 9 kHz to 1.1 GHz. Built for research, development, and production environments, it combines excellent phase noise performance, integrated modulation capabilities, and a .Technical Specifications Frequency Range: 9 kHz to 1.1 GHz (expandable to 3.2 GHz with optional frequency modules) Output Power: Typical maximum output power greater than +17 dBm; +13 dBm to +17 dBm typical from 200 kHz to 3.2 GHz. Electronic attenuator with wear-free operation. Signal Quality: SSB phase noise: Typically -111 dBc at 1 GHz (20 kHz carrier offset, 1 Hz measurement bandwidth) Wideband noise: Typically less than -146 dBc ($f > 1$ MHz, carrier offset > 10 MHz, 1 Hz BW); CW typically 10 kHz) Level error: Less than 0.9 dB Modulation: AM, FM, phase modulation, and pulse modulation included as standard. Maximum FM deviation 4 MHz ($f > 1.6$ GHz); maximum phase deviation 40 rad ($f > 1.6$ GHz); minimum pulse width 1 μ s from integrated pulse generator. Setting Times: Frequency and level adjustments complete in less than 5 ms (typ. < 3 ms with optional IEC/IEEE bus in ALC OFF mode). Reference Frequency: 10 MHz REF OUT (+6 dBm to +12 dBm, +9 dBm typical, 50 Ω source impedance); 10 MHz REF IN (50 Ω input impedance, $\pm 3 \times 10^{-6}$ locking range, 0 dBm to +16 dBm input level range). Optional high-stability reference oscillator available.Key Features Compact form factor: $\frac{1}{2} \times 19$ " width, 2 rack units, 3.9 kg Power-efficient operation suitable for lab and field deployment Integrated overvoltage protectionInterfaces Ethernet (TCP/IP), USB, and optional IEC/IEEE bus (R&S®SMC-K4) and GPIB connectivity.

Features & description

From manufacturer datasheet

Features

- Frequency setting 0.001 Hz; synthesis 4.71 μ Hz nom. at 1 GHz
- Setting time less than 5 ms, typically less than 2 ms (IEC delimiter)
- Typical SSB phase noise minus 111 dBc at 1 GHz, 20 kHz offset
- Level error less than 0.9 dB; additional 0.5 dB with ALC OFF S&H
- Compact two-height-unit chassis

Applications

- Analog receiver sensitivity and squelch
- Production ATE with sub-5 ms frequency setting
- LO substitution to 1.1 or 3.2 GHz
- AM/FM/ ϕ M/pulse modulation benches
- Teaching labs (nine GUI languages)

SMC100A Characteristics / Specifications

PARAMETER	VALUE
Model	SMC100A
Manufacturer	Rohde & Schwarz
Instrument Type	Analog RF signal generator
Alias	SMC 100A; R&S SMC100A
Frequency Range B1	9 kHz to 1.1 GHz
Frequency Setting Resolution	0.001 Hz
Synthesis Resolution at 1 GHz	4.71 μ Hz (nom.)
Frequency Settling	less than 5 ms, typically less than 2 ms
Frequency Settling ALC OFF	less than 7 ms, typically less than 3 ms (with K4)
Specified Level 200 kHz to 3.2 GHz	minus 120 dBm to +13 dBm PEP
Setting Level Range	minus 120 dBm to +19 dBm
Level Resolution	0.01 dB
Level Error	less than 0.9 dB (+18 C to +33 C, specified range)
Additional Level Error ALC OFF	less than 0.5 dB
Typical Max Level	greater than +17 dBm
Harmonics above 1 MHz at 8 dBm	less than minus 30 dBc
Nonharmonics to 1600 MHz	less than minus 60 dBc, typ. minus 72 dBc (offset greater than 10 kHz)
SSB Phase Noise Typical at 1 GHz	minus 111 dBc (1 Hz) at 20 kHz
Attenuator	wear-free electronic
Overvoltage Protection	integrated
Modulation Standard	AM, FM, phiM, pulse
OCXO Option	SMC-B1 1411.6705.02
GPIOB Option	SMC-K4 1411.3506.02
RF Option 1.1 GHz	SMC-B101 1411.6505.02
RF Option 3.2 GHz	SMC-B103 1411.6605.02

PARAMETER	VALUE
Remote Compatibility	SCPI compatible with other R&S generators
GUI Languages	nine
Form Factor	compact benchtop SMC family Notes Specs from the R&S SMC100A Signal Generator specifications. Confirm B101 versus B103 and B1 OCXO. This is SMC100A, not SMC100B.

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	SMC100A
Manufacturer	Rohde & Schwarz
Instrument Type	Analog RF signal generator
Alias	SMC 100A; R&S SMC100A
Frequency Range B101	9 kHz to 1.1 GHz
Frequency Range B103	9 kHz to 3.2 GHz
Frequency Setting Resolution	0.001 Hz
Synthesis Resolution at 1 GHz	4.71 μHz (nom.)
Frequency Settling	less than 5 ms, typically less than 2 ms
Frequency Settling ALC OFF	less than 7 ms, typically less than 3 ms (with K4)
Specified Level 200 kHz to 3.2 GHz	minus 120 dBm to +13 dBm PEP
Setting Level Range	minus 120 dBm to +19 dBm
Level Resolution	0.01 dB
Level Error	less than 0.9 dB (+18 C to +33 C, specified range)
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SSB Phase Noise Typical at 1 GHz	minus 111 dBc (1 Hz) at 20 kHz
Attenuator	wear-free electronic
Overvoltage Protection	integrated
Modulation Standard	AM, FM, phiM, pulse
OCXO Option	SMC-B1 1411.6705.02
GPIB Option	SMC-K4 1411.3506.02
RF Option 1.1 GHz	SMC-B101 1411.6505.02

PARAMETER	VALUE
RF Option 3.2 GHz	SMC-B103 1411.6605.02
Remote Compatibility	SCPI compatible with other R&S generators
GUI Languages	nine
Form Factor	compact benchtop SMC family

Notes

Specs from the R&S SMC100A Signal Generator specifications. Confirm B101 versus B103 and B1 OCX0. This is SMC100A, not SMC100B.

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.