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Data Sheet

August 13, 2026

ROHDE & SCHWARZ

Rohde & Schwarz SMW200A 3GHz Vector Signal Generator

Rohde & Schwarz SMW200A Vector Signal Generator (3 GHz path) The R&S SMW200A is a modular two path vector signal generator covering 100 kHz to 3/6/7.5/12.75/20/31.8/40/44/56/67 GHz depending on installed RF options. This file is the 3 GHz configuration: RF path A option SMW B1003 (legacy SMW B103) from 100 kHz to 3 GHz, with optional second path SMW B2003 to 3 GHz. Internal baseband, fading, and MIMO options turn one cabinet into a multichannel receiver tester. 3GPP/LTE/5G NR and WLAN vector stimulus; MIMO and fading (up to many fading channels with options); MSR and LTE Advanced; production ATE; radar and aerospace I/Q at 3 GHz class. The R&S SMW200A is a modular two path vector signal generator covering 100 kHz to 3/6/7.5/12.75/20/31.8/40/44/56/67 GHz depending on installed RF options. This file is the 3 GHz configuration: RF path A option SMW B1003 (legacy SMW B103) from 100 kHz to 3 GHz, with optional second path SMW B2003 to 3 GHz. Internal baseband, fading, and MIMO options turn one cabinet into a multichannel receiver tester. 3GPP/LTE/5G NR and WLAN vector stimulus; MIMO and fading (up to many fading channels with options); MSR and LTE Advanced; production ATE; radar and aerospace I/Q at 3 GHz class.



MODEL

**Rohde & Schwarz
SMW200A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

SMW200A

LISTING

<https://aumictechlabs.com/products/smw200a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Rohde & Schwarz SMW200A is a modular vector signal generator delivering RF output from 100 kHz to 3 GHz with dual-path architecture for complex signal scenarios. It generates digitally modulated signals across all major wireless standards - 5G NR, LTE Release 15, NB-IoT, eMTC, WLAN 802.11a/b/g/n/j/p/ac/ax/ad, DVB-S2/S2X, LoRa, and more - with I/Q modulation bandwidth to 2 GHz and internal baseband support up to 160 MHz.

Technical Specifications

Frequency Performance RF Path A: 100 kHz to 3 GHz RF Path B (optional): 100 kHz to 3 GHz I/Q modulation bandwidth: up to 2 GHz (RF); internal baseband up to 160 MHz

Baseband Architecture Two internal baseband modules with real-time coders

Arbitrary waveform generator: 1 Gsample maximum memory depth per module

Baseband signals support digital addition, frequency offset to ± 80 MHz, independent power and phase adjustment

MIMO & Multi-Channel Capability Supports 3x3, 4x4, 8x4, 4x8, 4x2x2 MIMO modes Up to eight signal sources and 64 logical fading channels

Optional fading simulator: 160 MHz bandwidth (standard) or 800 MHz bandwidth with 8x8 MIMO

Configurable up to four fading modules for 64 total logical faders

Signal Generation Digital standards: 5G NR, LTE/LTE-A (Release 15), NB-IoT, eMTC, 3GPP FDD/HSPA/HSPA+, GSM/EDGE, TD-SCDMA, WLAN 802.11 variants, DVB-S2/S2X, LoRa

Advanced waveforms: FBMC, UPMC, GFDM, f-OFDM, radar scenarios, GNSS simulation

Envelope tracking and AM/AM, AM/PM predistortion

Notched signal generation for noise power ratio measurement

Key Features Dual-path concept enables wanted signal + interferer, dual cell, and TX/RX diversity testing

Integrated test case wizards for LTE and 3GPP base station conformance validation

Flexible fading implementation across standard and extended bandwidth modules

Typical Applications Wireless communications development and verification, aerospace and defense signal testing, 5G and LTE base station characterization, MIMO receiver validation, radar and GNSS module testing.

Compatibility & Integration Up to 67 GHz operation available with higher-frequency SMW200A variants. Dual-path configuration supports simultaneous multi-signal generation with independent modulation control.

SMW200A Characteristics / Specifications

PARAMETER	VALUE
Model	SMW200A
Manufacturer	Rohde & Schwarz
Instrument Type	Vector Signal Generator
Alias	R&S SMW200A; SMW200A
Frequency Option This Listing	SMW B1003 100 kHz to 3 GHz (path A)
Frequency Setting Resolution	0.001 Hz
Synthesis Resolution at 1 GHz	0.053 nHz (nominal)
Specified Level 3 MHz to 3 GHz	minus 120 dBm to plus 18 dBm PEP
Setting Range 100 kHz to 1 MHz	minus 145 dBm to plus 8 dBm
Setting Range 1 MHz to 3 MHz	minus 145 dBm to plus 13 dBm
Setting Range 3 MHz to 67 GHz class	minus 145 dBm to plus 30 dBm
Level Setting Resolution	0.01 dB (nominal)
Level Settling No Relay	less than 1.2 ms, typically 1 ms (I/Q fast, after IEC delimiter)
List Mode Level Settling Typical	0.55 to 0.8 ms class
Harmonics less than or equal to 3.5 GHz level less than 10 dBm	less than minus 30 dBc
Nonharmonics 1.5 to 3 GHz	less than minus 79 dBc (CW, offset greater than 10 kHz)
Subharmonics less than or equal to 3 GHz Standard	less than minus 85 dBc
SSB Phase Noise 1 GHz 20 kHz Offset 1 Hz BW	less than minus 134 dBc, typically minus 140 dBc (standard)
SSB Phase Noise 3 GHz 20 kHz Offset	less than minus 124 dBc, typically minus 130 dBc
SSB Phase Noise 1 GHz 10 kHz Offset Typical Enhanced	minus 150 dBc class
Pulse Rise Fall Fast 3 GHz Options	less than 10 ns
AM Depth Resolution	0.1 percent
Internal LF Sine Range	0.1 Hz to 1 MHz

PARAMETER	VALUE
Internal LF Resolution	0.1 Hz
I/Q Modes	external wideband I/Q; internal baseband I/Q RF Modulation Bandwidth Internal Standard Baseband Wideband Onfgreater than 2.5 GHz: plus/minus 1 GHz class (option dependent)
RF Modulation Bandwidth External Widebandfgreater than 2.5 GHz	plus/minus 1 GHz class
Attenuator Type	electronic (3 GHz options)
Reference Output	10 MHz class
Remote Control	IEC/IEEE, LAN, USB (SCPI)
Form	19 inch, 4 HU class two path chassis
PathAFrequency Family	B1003/B1006/B1007/B1012/B1020/B1031/B1040/B1044/B1056/B1067
Baseband Routing Options	SMW B13 (one I/Q to RF); B13T (two I/Q); B13XT wideband Notes Specs from the R&S SMW200A specifications document. This listing is the 3 GHz path (B1003/B103). Installed frequency, baseband (B13/B13T/B13XT), fading, and phase noise options change bandwidth, PEP, and SSB numbers. Read the option label before quoting 6 GHz or mmWave limits.
Bandwidth	up to 2 GHz in RF with internal baseband (option dependent; 160 MHz class on earlier baseband)

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	SMW200A
Manufacturer	Rohde & Schwarz
Instrument Type	Vector Signal Generator
Alias	R&S SMW200A; SMW200A
Frequency Option This Listing	SMW B1003 100 kHz to 3 GHz (path A)

Optional Path B 3 GHz: SMW B2003 100 kHz to 3 GHz

Specifications

PARAMETER	VALUE
Frequency Setting Resolution	0.001 Hz
Synthesis Resolution at 1 GHz	0.053 nHz (nominal)
Specified Level 3 MHz to 3 GHz	minus 120 dBm to plus 18 dBm PEP
Setting Range 100 kHz to 1 MHz	minus 145 dBm to plus 8 dBm
Setting Range 1 MHz to 3 MHz	minus 145 dBm to plus 13 dBm

Setting Range 3 MHz to 67 GHz class: minus 145 dBm to plus 30 dBm

Specifications

PARAMETER	VALUE
Level Setting Resolution	0.01 dB (nominal)
Level Settling No Relay	less than 1.2 ms, typically 1 ms (I/Q fast, after IEC delimiter)
List Mode Level Settling Typical	0.55 to 0.8 ms class

Harmonicsfless than or equal to 3.5 GHz level less than 10 dBm: less than minus 30 dBc
Nonharmonics 1.5 to 3 GHz: less than minus 79 dBc (CW, offset greater than 10 kHz)
Subharmonicsfless than or equal to 3 GHz Standard: less than minus 85 dBc
SSB Phase Noise 1 GHz 20 kHz Offset 1 Hz BW: less than minus 134 dBc, typically minus 140 dBc (standard)
SSB Phase Noise 3 GHz 20 kHz Offset: less than minus 124 dBc, typically minus 130 dBc
SSB Phase Noise 1 GHz 10 kHz Offset Typical Enhanced: minus 150 dBc class

Specifications

PARAMETER	VALUE
Pulse Rise Fall Fast 3 GHz Options	less than 10 ns
AM Depth Resolution	0.1 percent
Internal LF Sine Range	0.1 Hz to 1 MHz
Internal LF Resolution	0.1 Hz
I/Q Modes	external wideband I/Q; internal baseband I/Q

RF Modulation Bandwidth Internal Standard Baseband Wideband Onfgreater than 2.5 GHz: plus/minus 1 GHz class (option dependent)

RF Modulation Bandwidth External Widebandfgreater than 2.5 GHz: plus/minus 1 GHz class

Specifications

PARAMETER	VALUE
Attenuator Type	electronic (3 GHz options)
Reference Output	10 MHz class
Remote Control	IEC/IEEE, LAN, USB (SCPI)
Form	19 inch, 4 HU class two path chassis
PathAFrequency Family	B1003/B1006/B1007/B1012/B1020/B1031/B1040/B1044/B1056/B1067
Baseband Routing Options	SMW B13 (one I/Q to RF); B13T (two I/Q); B13XT wideband

Notes

Specs from the R&S SMW200A specifications document. This listing is the 3 GHz path (B1003/B103). Installed frequency, baseband (B13/B13T/B13XT), fading, and phase noise options change bandwidth, PEP, and SSB numbers. Read the option label before quoting 6 GHz or mmWave limits.

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.