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Data Sheet

August 3, 2026

ROHDE & SCHWARZ

Rohde and Schwarz SMBV100B Vector Signal Generator

Rohde and Schwarz SMBV100B Vector Signal Generator The R&S SMBV100B provides a mid-range vector signal generator with frequency coverage from 8 kHz to 3 GHz or 6 GHz, ultra-high output power, up to 1 GHz modulation bandwidth, internal digital-standard signal generation (5G NR, LTE, WLAN), and optional full-featured GNSS simulation. Receiver and component characterization for cellular and WLAN; 5G NR / LTE / WLAN signal generation; GNSS simulation (GPS, GLONASS, Galileo, BeiDou, QZSS/SBAS); production and R&D RF/envelope testing with high EVM and ACPR performance. The R&S SMBV100B provides a mid-range vector signal generator with frequency coverage from 8 kHz to 3 GHz or 6 GHz, ultra-high output power, up to 1 GHz modulation bandwidth, internal digital-standard signal generation (5G NR, LTE, WLAN), and optional full-featured GNSS simulation. Receiver and component characterization for cellular and WLAN; 5G NR / LTE / WLAN signal generation; GNSS simulation (GPS, GLONASS, Galileo, BeiDou, QZSS/SBAS); production and R&D RF/envelope testing with high EVM and ACPR performance.



MODEL

**Rohde & Schwarz
SMBV100B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

SMBV100B

LISTING

<https://aumictechlabs.com/products/smbv100b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Rohde & Schwarz SMBV100B is a vector signal generator engineered for R&D, production, and demanding wireless test environments. Operating from 8 kHz to either 3 GHz or 6 GHz, it delivers superior signal quality with output power reaching +34 dBm at 1 GHz and +31 dBm at 6 GHz. The instrument supports modulation bandwidths up to 500 MHz with <0.3 dB amplitude flatness, achieving exceptional EVM performance of 0.2% for LTE signals and 0.4% for 160 MHz 802.11ac signals. An integrated baseband enables 1 GHz modulation bandwidth with perfect accuracy, while very low phase noise of ≤ -134 dBc SSB at 1 GHz (20 kHz offset) ensures signal integrity. The SMBV100B includes native signal generation for 5G NR, LTE, and WLAN standards, full GNSS simulation capability (GPS, GLONASS, Galileo, BeiDou, QZSS/SBAS), and an intuitive 7" touchscreen interface. Superior signal quality at high output power eliminates the need for external amplifiers in many test setups.

Technical Specifications

Frequency range: 8 kHz to 3 GHz or 8 kHz to 6 GHz (selectable)
Output power: +34 dBm at 1 GHz; +31 dBm at 6 GHz; +25 dBm across nearly the entire frequency range
Modulation bandwidth: Up to 500 MHz; 1 GHz with perfect accuracy
Amplitude flatness: <0.3 dB across 500 MHz bandwidth with real-time frequency response correction
EVM (LTE): <0.2% for 20 MHz signals; <0.4% at +18 dBm RMS output power
EVM (802.11ac): <0.4% for 160 MHz signals
Phase noise: ≤ -134 dBc SSB at 1 GHz, 20 kHz offset
Phase noise (with R&S SMBVB-B1 OCXO): ≤ -50 dBc/Hz at 1 GHz, 1 Hz offset
Phase noise (with R&S SMBVB-B1H OCXO): 20 dB improvement

Key Features

- Internal signal generation for 5G NR, LTE, and WLAN
- Full-featured GNSS simulator supporting GPS, GLONASS, Galileo, BeiDou, and QZSS/SBAS
- Excellent ACPR performance at high power levels
- Real-time baseband processing
- 7" touchscreen display with customizable GUI
- Optional OCXO upgrades for reduced close-in phase noise

Typical Applications

- 5G NR, LTE, and WLAN receiver testing
- Aerospace & defense applications requiring complex pulsed signals
- GNSS receiver validation under controlled scenarios
- High-power, high-accuracy signal generation without external amplification

Compatibility & Integration

Signal generation supports all major digital communication standards with flexible modulation capabilities and internal real-time processing.

Features & description

From manufacturer datasheet

Features

- Frequency range 8 kHz to 3 GHz or 6 GHz (option)
- Ultra-high output power up to approximately +33/+34 dBm class
- Modulation bandwidth up to 1 GHz with calibrated wideband generation
- Internal signal generation for major digital communications standards
- Optional GNSS simulator (multi-constellation)
- Excellent EVM (e.g., approximately 0.2% class for LTE at high power)
- SSB phase noise < -134 dBc (measured) at 1 GHz, 20 kHz offset class
- 7-inch touchscreen; SCPI recording; USB, LAN, GPIB class connectivity
- Field-upgradeable software/hardware options

SMBV100B Characteristics / Specifications

PARAMETER	VALUE
Model	SMBV100B (R&S®SMBV100B)
Manufacturer	Rohde & Schwarz
Instrument Type	Vector Signal Generator
Frequency Range	8 kHz to 3 GHz or 6 GHz
Max Output Power	up to approximately +33 dBm (option-dependent)
Modulation Bandwidth	up to 1 GHz
Display	7-inch touchscreen
Alias	SMBV100B Standard Operating Conditions Configure frequency-range and power options before quoting capability. Observe maximum safe RF levels into DUTs. Allow warm-up for phase-noise and EVM-critical measurements. Operational Notes
Bandwidth	up to 1 GHz with calibrated wideband generation - Internal signal generation for major digital communications standards - Optional GNSS simulator (multi-constellation) - Excellent EVM (e.g., approximately 0.2% class for LTE at high power) - SSB phase

SMBV100B Specifications

PARAMETER	VALUE
Rohde and Schwarz SMBV100B Vector Signal Generator	Overview
Key Features	- Frequency range 8 kHz to 3 GHz or 6 GHz (option)
Technical Specifications	Model: SMBV100B (R&S®SMBV100B)
Operational Notes	Confirm installed frequency option (3 GHz vs 6 GHz) and baseband/GNSS licenses on the configuration label. Alias SMBV100B.

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.

performance.

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- Frequency range 8 kHz to 3 GHz or 6 GHz (option)
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Operational Notes

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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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<https://aumictechlabs.com>

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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.