

ROHDE & SCHWARZ

SMBV100A

The Rohde & Schwarz SMBV100A is a versatile vector signal generator designed to cover a frequency range from 9 kHz up to 6 GHz. It offers exceptional RF performance, including a fast setting time and high output level, combined with a highly capable internal baseband generator. With an I/Q modulator bandwidth exceeding 500 MHz and up to 120 MHz of internal baseband generation bandwidth, it is well-suited for testing advanced digital modulation standards such as LTE, HSPA+, WiMAX, and WLAN IEEE 802.11n.

SPECIFICATIONS

Frequency

Minimum Frequency	9 kHz Hz
Maximum Frequency	6 GHz (with hardware option) Hz
Frequency Resolution	0.001 Hz

Output

Maximum Output Power	+18 dBm (standard configuration, $f \leq 3$ GHz) dBm
Output Power Range	-120 dBm to +18 dBm (standard configuration)
Phase Noise	< -122 dBc/Hz, typ. -128 dBc/Hz (at 1 GHz carrier, 20 kHz offset)

Modulation

Modulation	AM, FM, Phase, Pulse, I/Q, Digital Baseband
Sweep Modes	Step, List

General

Reference Oscillator	10 MHz (OCXO optional)
Interfaces	LAN, USB, GPIB

Physical

Power Supply	100 V to 240 V AC, 50/60 Hz; 100 V to 120 V AC, 400 Hz
RF Output Connector	N female

Frequency Characteristics

Frequency Options	9 kHz to 3.2 GHz or 9 kHz to 6 GHz (hardware option dependent)
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I/Q Modulation and RF Performance

Maximum RF Bandwidth of I/Q Modulator	> 500 MHz
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Internal Baseband Generator

Baseband RF Modulation Bandwidth	Up to 120 MHz (with internal signal generation)
Waveform Mode	Multisegment waveform mode for fast switchover
Built-in Simulation	CW interference and AWGN simulation

Supported Digital Standards (Options)

Cellular Standards	2G, 3G, LTE, HSPA+ (with options)
Wireless Connectivity	WLAN IEEE 802.11n, Mobile WiMAX (with options)

RF Output

Output Impedance	50 Ω
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Baseband Generator

Baseband ARB Memory	32 MSa (standard), up to 1 GSa (configuration dependent)
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Spectral Purity

Harmonics	< -30 dBc (CW, level ≤ 8 dBm)
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TECHNOLOGY

Vector Signal Generation

APPLICATIONS

Component testing, receiver verification, mobile radio standards generation (2G/3G/4G), wireless communications test

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.