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Data Sheet
August 13, 2026

ROHDE & SCHWARZ

Rohde & Schwarz SMT02 5KHz-1.5GHz Signal Generator

Rohde & Schwarz SMT02 Signal Generator 5 kHz to 1.5 GHz The R&S SMT02 is the 1.5 GHz member of the SMT analog signal generator family (SMT03 to 3 GHz, SMT06 to 6 GHz). Range is 5 kHz to 1.5 GHz with 0.1 Hz resolution. Level is minus 144 dBm to +13 dBm (overrange toward +16 dBm). Typical SSB phase noise is minus 116 dBc (1 Hz) at 1 GHz, 20 kHz offset. Broadband FM runs DC to 8 MHz; phase modulation DC to 2 MHz. Optional pulse modulator SM-B3 provides greater than 80 dB on/off and less than 10 ns edges. The R&S SMT02 is the 1.5 GHz member of the SMT analog signal generator family (SMT03 to 3 GHz, SMT06 to 6 GHz). Range is 5 kHz to 1.5 GHz with 0.1 Hz resolution. Level is minus 144 dBm to +13 dBm (overrange toward +16 dBm). Typical SSB phase noise is minus 116 dBc (1 Hz) at 1 GHz, 20 kHz offset. Broadband FM runs DC to 8 MHz; phase modulation DC to 2 MHz. Optional pulse modulator SM-B3 provides greater than 80 dB on/off and less than 10 ns edges.

MODEL Rohde & Schwarz SMT02	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU SMT02	LISTING https://aumictechlabs.com/products/smt02-2/

NIST-traceable cal · SAM registered · 30-day returns · NAICS 423690 · 811210 · 541380

This unit

The Rohde & Schwarz SMT02 is a benchtop signal generator covering 5 kHz to 1.5 GHz with output power from −144 dBm to +16 dBm (±1 dB accuracy). It delivers high signal purity, programmable sweep functions, and multiple modulation modesAM, FM, phase, and pulse -

making it ideal for RF component development, receiver measurements, and EMC testing. The instrument features 0.1 Hz frequency resolution, 25 ms switching time, and optional OCXO time base stability below 1×10^{-9}/day.A large backlit LCD display and IEEE 488 SCPI interface enable straightforward benchtop operation and automated test sequences.Technical Specifications Frequency Range: 5 kHz to 1.5 GHz Frequency Resolution: 0.1 Hz or 100.0 mHz Frequency Switching Time: 25 ms Output Power: −144 dBm to +16 dBm; power resolution 0.1 dB; accuracy ±1 dB Output Impedance: 50 Ω Signal Purity: SSB noise −116 dBc/Hz; harmonics −30 dBc; non-harmonics −80 dBc Time Base Stability (OCXO option): $<1 \times 10^{-9}$/day; aging 0.000001/yr Modulation Frequency Response: 80 dB on/off ratio, <10 ns rise/fall time OCXO reference oscillator option (SM-B1) for enhanced frequency stability Multifunction generator option (SM-B6) supporting stereo multiplex and VOR/ILS signal generation IEEE 488 interface with SCPI 1993.0 programming support Minimal RF leakage through specialized shielding Three-year calibration intervalTypical Applications RF and microwave component testing and characterization Analog receiver measurements and validation Electromagnetic compatibility (EMC) testing Pulse and modulation analysis Navigation signal simulation (VOR/ILS)Compatibility & Integration Universal AC input (90–132 V / 180–265 V; 47–440 Hz) IEEE 488 (IEC 625) interface for remote control and data acquisition SCPI command set for standardized instrument programming Rear connector option (SMT-B19) for RF and LF connections CE compliant

Features & description

From manufacturer datasheet

Features

• FM DC with high carrier-frequency accuracy for FSK • Optional SM-B1 OCXO, aging less than 1e-9 per day • Optional SM-B2 LF generator (sine/noise 0.1 Hz to 500 kHz) • Optional SM-B4 pulse generator (single, delayed, double) with B3 • Three-year calibration interval; IEC IEEE / SCPI

Applications

• Conventional analog receiver measurements • EMS / EMC stimulus with programmable RF, LF, and level sweep plus user frequency-response correction • VOR/ILS and stereo multiplex (option SM-B6) • Production and service RF generation • High-sensitivity pager tests (ultra-low RF leakage)

SMT02 Characteristics / Specifications

PARAMETER	VALUE
Model	SMT02
Manufacturer	Rohde & Schwarz
Instrument Type	Analog signal generator
Alias	SMT 02; R&S SMT02
Frequency Range	5 kHz to 1.5 GHz
Frequency Resolution	0.1 Hz
Frequency Switching Time	25 ms class
Level Range	minus 144 dBm to +13 dBm
Level Overrange	up to +16 dBm class
Level Resolution	0.1 dB
Level Accuracy Class	1 dB class
SSB Phase Noise at 1 GHz	typ. minus 116 dBc (1 Hz) at 20 kHz offset
Harmonics	minus 30 dBc class
Nonharmonics	minus 80 dBc class
Output Impedance	50 ohm
AM Modulation	standard
FM Bandwidth	DC to 8 MHz
Phase Modulation Bandwidth	DC to 2 MHz
Pulse On Off Ratio	greater than 80 dB (SM-B3)
Pulse Rise Fall	less than 10 ns (SM-B3)
Timebase Stability	1e-6 per year class
OCXO SM B1 Aging	less than 1e-9 per day
Sweep Modes	auto, digital, log, manual
VOR ILS Phase Resolution	0.01 degree (SM-B6)
VOR ILS DDM Resolution	0.0001 (SM-B6)

PARAMETER	VALUE
Remote Interface	IEEE 488, SCPI
Form Factor	benchtop
Calibration Interval	3 years
LF Generator Option	SM-B2
Multifunction Generator Option	SM-B6 (stereo MPX, VOR/ILS)
Rear RF LF Option	SMT-B19
Sibling SMT03 Range	5 kHz to 3 GHz
Sibling SMT06 Range	5 kHz to 6 GHz Notes Specs from R&S SMT family data sheet / SMT02 product descriptions. This file is the 1.5 GHz SMT02. Confirm SM-B1, B2, B3/B4, B6, and B19 on the option label.
Bandwidth	DC to 8 MHz

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

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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

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Generated August 13, 2026