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Data Sheet
August 13, 2026

ROHDE & SCHWARZ

Rohde & Schwarz SMT03 5kHz to 3GHz Signal Generator

Rohde & Schwarz SMT03 Signal Generator 5 kHz to 3 GHz The R&S SMT03 is the 3 GHz member of the SMT analog signal generator family (SMT02 to 1.5 GHz, SMT03 to 3 GHz, SMT06 to 6 GHz). It is specified from 5 kHz for receiver and electromagnetic susceptibility (EMS) work, with AM, FM, phase, and optional pulse modulation, RF/LF/level sweep, and programmable external frequency response correction. Order number 1039.2000.03. Receiver sensitivity, squelch, and blocking tests; EMS stimulus from 5 kHz; FM broadcast and stereo measurements with SM B6; VOR/ILS avionics generation with SM B6; production ATE via IEC 625/IEEE 488. The R&S SMT03 is the 3 GHz member of the SMT analog signal generator family (SMT02 to 1.5 GHz, SMT03 to 3 GHz, SMT06 to 6 GHz). It is specified from 5 kHz for receiver and electromagnetic susceptibility (EMS) work, with AM, FM, phase, and optional pulse modulation, RF/LF/level sweep, and programmable external frequency response correction. Order number 1039.2000.03. Receiver sensitivity, squelch, and blocking tests; EMS stimulus from 5 kHz; FM broadcast and stereo measurements with SM B6; VOR/ILS avionics generation with SM B6; production ATE via IEC 625/IEEE 488.

MODEL Rohde & Schwarz SMT03	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU SMT03	LISTING https://aumictechlabs.com/products/smt03-2/

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Rohde & Schwarz SMT03 is a benchtop RF signal generator spanning 5 kHz to 3 GHz, engineered for receiver development, production, and repair workflows as well as electromagnetic susceptibility testing. It delivers high signal quality with output levels from -144 dBm to +13 dBm and exceptional frequency resolution of 0.1 Hz. The instrument combines low phase noise, precise level accuracy, and flexible modulation capabilities - including AM, FM, and phase modulation with optional pulse and specialized generator modules.Programmable sweep functions, external level correction, and multiple interface options (IEEE 488, RS-232, SCPI 1993.0) enable integration into automated test systems. Field-upgradeable architecture supports VOR/ILS generation, stereo FM measurement, and advanced pulse generation through optional modules.Technical Specifications Frequency Range: 5 kHz to 3 GHz Frequency Resolution: 0.1 Hz Output Level Range: -144 dBm to +13 dBm (up to +16 dBm in limited range) Output Level Accuracy: ±1.5 dB; ±2 dB for frequencies above 3 GHz Timebase Stability: 0.000001 /yr Frequency Switching Time: 25 ms SSB Phase Noise: -109 dBc/Hz (typical -116 dBc/Hz at 20 kHz offset, 1 GHz) Programmable Interface Phase Noise: -120 dBc/Hz RF Leakage: 50 dB separation and >76 dB unweighted S/N ratio Optional pulse generator and modulator (20 ns to 1 s pulse width, up to 10 MHz pulse frequency, >80 dB on/off ratio)Typical Applications Radio equipment development and manufacturing Receiver characterization and production testing Electromagnetic susceptibility (EMS) measurements FM broadcast transmitter and receiver verification Avionics navigation system testing (VOR/ILS option)Compatibility & Integration Remote control via IEEE 488 (IEC 625) and RS-232 SCPI 1993.0 command set for standardized instrument control Large backlit LCD display Optional rear panel RF and LF connectors (SMT-B19)

SMT03 Characteristics / Specifications

PARAMETER	VALUE
Model	SMT03
Manufacturer	Rohde & Schwarz
Instrument Type	Analog RF Signal Generator
Alias	R&S SMT03; SMT03; 1039.2000.03
Frequency Range	5 kHz to 3 GHz
Frequency Resolution	0.1 Hz
Phase Offset Step	1 degree
Frequency Switching Time	25 ms class
Level Range	minus 144 dBm to plus 13 dBm (OEM table; some listings quote plus 16 dBm overrange)
Level Resolution	0.1 dB
Level Accuracyfless than 1.5 GHz	plus/minus 1 dB (levels greater than minus 127 dBm)
Level Accuracyfgreater than 1.5 GHz	plus/minus 1.5 dB (levels greater than minus 127 dBm)
Level Frequency Response at 0 dBm	1 dB, typically 0.3 dB
Harmonics	less than minus 30 dBc (less than minus 26 dBc with SM B8)
Nonharmonicsfless than 1.5 GHz	less than minus 80 dBc
Nonharmonicsfgreater than 1.5 GHz	less than minus 74 dBc
SSB Phase Noise 1 GHz 20 kHz Offset 1 Hz BW	less than minus 116 dBc
SSB Phase Noise 2 GHz 20 kHz Offset 1 Hz BW	less than minus 110 dBc
SSB Phase Noise 3 GHz 20 kHz Offset 1 Hz BW	less than minus 109 dBc
Residual FM rmsfequals 1 GHz CCITT 0.3 to 3 kHz	less than 8 Hz
Residual FM rms 0.03 to 20 kHz	less than 20 Hz
AM Depth Range Resolution	0 to 100 percent / 0.1 percent

PARAMETER	VALUE
AM Distortion 1 kHzmequals 30 percent	less than 1 percent
AM Distortion 1 kHzmequals 80 percent	less than 2 percent
FM Distortion 1 kHz 50 percent max deviation	less than 0.2 percent, typically 0.1 percent
Pulse On Off Ratio with SM B	greater than 80 dB
Pulse Rise Fall Time with SM B	less than 10 ns
Overload Protection RF DC	less than or equal to 50 W / 35 V (50 ohm source)
Output Impedance	50 ohm
Mains	90 to 132 V or 180 to 265 V, 47 to 440 Hz, 300 VA
Dimensions	435 mm x 192 mm x 350 mm
Weight Fully Equipped	20 kg
Reference Aging Standard	1e-6 per year
OCXO Option SM B1 Aging	less than 1e-9 per day
Remote Control	IEC 625 (IEEE 488), SCPI 1993.0
Family Siblings	SMT02 5 kHz to 1.5 GHz (1039.2000.02); SMT06 5 kHz to 6 GHz (1039.2000.06) Notes Specs from the Rohde & Schwarz SMT family data sheet (SMT02/SMT03/SMT06). Confirm installed options (SM B1 OCXO, SM B2 LF generator, SM B8 pulse modulator, SM B4 pulse generator, SM B6 multifunction/VOR/ILS/stereo, SMT B19 rear connectors) on the unit. Do not confuse SMT03 with SMT06 (6 GHz) or later SMB/SMW families.

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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Specifications

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AM Distortion 1 kHzmequals 80 percent	less than 2 percent

FM Distortion 1 kHz 50 percent max deviation: less than 0.2 percent, typically 0.1 percent

Specifications

PARAMETER	VALUE
Pulse On Off Ratio with SM B8	greater than 80 dB
Pulse Rise Fall Time with SM B8	less than 10 ns
Overload Protection RF DC	less than or equal to 50 W / 35 V (50 ohm source)
Output Impedance	50 ohm
Mains	90 to 132 V or 180 to 265 V, 47 to 440 Hz, 300 VA
Dimensions	435 mm x 192 mm x 350 mm
Weight Fully Equipped	20 kg
Reference Aging Standard	1e-6 per year
OCXO Option SM B1 Aging	less than 1e-9 per day
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Family Siblings	SMT02 5 kHz to 1.5 GHz (1039.2000.02); SMT06 5 kHz to 6 GHz (1039.2000.06)

Notes
Specs from the Rohde & Schwarz SMT family data sheet (SMT02/SMT03/SMT06). Confirm installed options (SM B1 OCXO, SM B2 LF generator, SM B8 pulse modulator, SM B4 pulse generator, SM B6 multifunction/VOR/ILS/stereo, SMT B19 rear connectors) on the unit. Do not confuse SMT03 with SMT06 (6 GHz) or later SMB/SMW families.

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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