

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

ROHDE & SCHWARZ

Rohde & Schwarz SMIQ03 300MHz to 3.3GHz Vector Signal Generator

Rohde & Schwarz SMIQ03 Vector Signal Generator 300 kHz to 3.3 GHz The R&S SMIQ03 is the 3.3 GHz development/type-approval vector signal generator in the original SMIQ family (order 1084.8004.03). Range is 300 kHz to 3.3 GHz with 0.1 Hz resolution. SMIQ02/03 offer maximum versatility for development; economyEmodels target production. Analog and digital modulation, optional fading, noise, BERT, data generator, and digital-standard options (IS-95, W-CDMA, and later) cover 2G/3G. Harmonics are less than minus 30 dBc at or below 10 dBm. Optional SM-B1 OCXO ages less than 1e-9 per day. The R&S SMIQ03 is the 3.3 GHz development/type-approval vector signal generator in the original SMIQ family (order 1084.8004.03). Range is 300 kHz to 3.3 GHz with 0.1 Hz resolution. SMIQ02/03 offer maximum versatility for development; economyEmodels target production. Analog and digital modulation, optional fading, noise, BERT, data generator, and digital-standard options (IS-95, W-CDMA, and later) cover 2G/3G. Harmonics are less than minus 30 dBc at or below 10 dBm. Optional SM-B1 OCXO ages less than 1e-9 per day.



MODEL

Rohde & Schwarz SMIQ03

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

SMIQ03

LISTING

<https://aumictechlabs.com/products/smiq03-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Rohde & Schwarz SMIQ03 is a vector signal generator designed for production of complex modulated signals across 300 kHz to 3.3 GHz. This instrument excels in research, development, and production testing of wireless communication systems, RF components, and modules. Built on advanced DSP technology with a high-grade I/Q modulator, the SMIQ03 delivers high-precision digital modulation at high bit rates with exceptional signal fidelity and low phase noise.

Technical Specifications

- Frequency Range: 300 kHz to 3.3 GHz (extended to 6.4 GHz with optional E6GHZ board)
- Output Power: Up to +16 dBm with precision better than 0.5 dB
- Setting Performance: Frequency setting time: <3 ms (without mechanical attenuator switching)
- Output level setting time: <2.5 ms
- Frequency hopping capability: within 500 μ s
- Spectral Purity: Phase noise: Typically -130 dBc/Hz at 1 GHz, 20 kHz offset
- Broadband noise: Typically -136 dBc/Hz (20 MHz to 450 MHz)
- Carrier leakage: Typically <-45 dBc at 0 V input
- Vector Accuracy: Static error vector magnitude (EVM): <0.5% for output levels $\leq$ 8 dBm PEP
- Adjacent channel leakage ratio (ACLR): Typically 70 dB for WCDMA signals

Key Features

- Digital Modulation: Supports GFSK, GMSK, $\pi/4$ DQPSK, TDMA, and CDMA formats for standards including PHS, NADC, PDC, GSM, and IS-95. High-precision I/Q modulation via internal baseband generation or external I/Q inputs. Optional internal data generator with up to 4 Mbit memory (Option SMIQB11). Optional fading simulator (1 channel/6 paths or 1 channel/12 paths) and Arbitrary Waveform Generator ARB SMIQB60 available.
- Analog Modulation: FM/ Φ M modulation support with simultaneous digital and analog modulation capability via Option R&S SM-B513.
- Integration: Accepts external I/Q inputs for custom waveforms. Broadband I/Q modulator ensures excellent vector accuracy and low intermodulation.

Typical Applications

- Wireless communication system testing
- RF component and module validation
- Digital and analog modulation research
- Production testing of mobile radio standards

Compatibility & Integration

Discontinued production; available on secondary market. Optional modules enhance fading simulation and arbitrary waveform generation for specialized test scenarios.

Features & description

From manufacturer datasheet

Features

- Development sibling of SMIQ03E (same RF ceiling) • Optional SM-B5 FM/φM (standard on E models) • Optional SMIQB11 data generator and memory extension • Optional fading simulators B14/B15, noise B17, BERT B21 • Upgrade path in later B family to 4.4/6.4 GHz

Applications

- Development and type-approval of vector-modulated radios to 3.3 GHz • GSM, IS-95, W-CDMA, and other digital standards (options) • Fading and AWGN option benches • Analog AM/FM/φM (SM-B5 optional on non-E models) • Production ATE when fully optioned

SMIQ03 Characteristics / Specifications

PARAMETER	VALUE
Model	SMIQ03
Manufacturer	Rohde & Schwarz
Instrument Type	Vector signal generator
Alias	SMIQ 03; R&S SMIQ03
Order Number	1084.8004.03
Frequency Range	300 kHz to 3.3 GHz
Frequency Resolution	0.1 Hz
Reference Aging Standard	1e-6 per year (after 30 days)
OCXO SM B1 Aging	less than 1e-9 per day
Reference Temperature Effect Standard	2e-6 (0 C to 50 C)
Harmonics at 10 dBm	less than minus 30 dBc
FM PhiM Modulator	SM-B5 optional (1036.8489.02)
Intended Role	development and type-approval vector generator
Sibling SMIQ02 Range	300 kHz to 2.2 GHz
Sibling SMIQ03E Range	300 kHz to 3.3 GHz (economy)
Sibling SMIQ03A Range	300 kHz to 3.3 GHz (1084.8004.53)
Output Impedance	50 ohm
Modulation Analog	AM, FM, phiM, pulse (as fitted)
Modulation Digital	GMSK, PSK, QAM class per options
Baseband Filters	root-cos, cos, Gauss, Bessel class
Data Generator Option	SMIQB11
Fading Option	SMIQB14 (6 paths); B15 second simulator
Noise Option	SMIQB17
BERT Option	SMIQB21
Digital Standard IS	SMIQB42 class

PARAMETER	VALUE
Low ACP Option	SMIQB47
Remote Interface	IEC IEEE bus
Form Factor	SMIQ family benchtop
Calibration Cycle Class	three-year SMIQ family
RF Start	300 kHz
RF Stop	3.3 GHz
Level Class	SMIQ family high output with electronic attenuator Notes Specs from the R&S SMIQ02/03/02E/03E vector signal generator data sheet. Confirm SM-B1/B5 and digital-standard options. Do not confuse with SMIQ03B (laterBfamily, 1125.5555.03) or SMIQ03A/03E.

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	SMIQ03
Manufacturer	Rohde & Schwarz
Instrument Type	Vector signal generator
Alias	SMIQ 03; R&S SMIQ03
Order Number	1084.8004.03
Frequency Range	300 kHz to 3.3 GHz
Frequency Resolution	0.1 Hz
Reference Aging Standard	1e-6 per year (after 30 days)
OCXO SM B1 Aging	less than 1e-9 per day
Reference Temperature Effect Standard	2e-6 (0 C to 50 C)
Harmonics at 10 dBm	less than minus 30 dBc
FM PhiM Modulator	SM-B5 optional (1036.8489.02)
Intended Role	development and type-approval vector generator
Sibling SMIQ02 Range	300 kHz to 2.2 GHz
Sibling SMIQ03E Range	300 kHz to 3.3 GHz (economy)
Sibling SMIQ03A Range	300 kHz to 3.3 GHz (1084.8004.53)
Output Impedance	50 ohm
Modulation Analog	AM, FM, phiM, pulse (as fitted)
Modulation Digital	GMSK, PSK, QAM class per options
Baseband Filters	root-cos, cos, Gauss, Bessel class
Option SM B1: OCXO 1036.7599.02	
Specifications	
PARAMETER	VALUE
Data Generator Option	SMIQB11
Fading Option	SMIQB14 (6 paths); B15 second simulator

PARAMETER	VALUE
Noise Option	SMIQB17
BERT Option	SMIQB21
Digital Standard IS95	SMIQB42 class
Low ACP Option	SMIQB47
Remote Interface	IEC IEEE bus
Form Factor	SMIQ family benchtop
Calibration Cycle Class	three-year SMIQ family
RF Start	300 kHz
RF Stop	3.3 GHz
Level Class	SMIQ family high output with electronic attenuator

Notes

Specs from the R&S SMIQ02/03/02E/03E vector signal generator data sheet. Confirm SM-B1/B5 and digital-standard options. Do not confuse with SMIQ03B (laterBfamily, 1125.5555.03) or SMIQ03A/03E.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 13, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.