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Data Sheet

August 13, 2026

ROHDE & SCHWARZ

Rohde & Schwarz AMIQ03 I/Q Modulation Generator

Rohde & Schwarz AMIQ03 I/Q Modulation Generator 4 Msamples The R&S AMIQ03 is the 4 Msample I/Q modulation generator (order 1110.2003.03). Two synchronous 14-bit analog and Q outputs (16 bit at the digital output) and clock rates from 10 Hz to 100 MHz (setting to 105 MHz) generate complex baseband signals for vector RF generators and I/Q modules. Waveform memory is 4 000 000 samples (AMIQ04 is 16 000 000). WinIQSIM software, four marker channels, up to 30 multisegment waveforms, and options for BER (B1), differential I/Q (B2), digital I/Q (B3), and rear I/Q (B19) support 2G/3G baseband. AMIQ-B3 is available on models 03 and 04. The R&S AMIQ03 is the 4 Msample I/Q modulation generator (order 1110.2003.03). Two synchronous 14-bit analog and Q outputs (16 bit at the digital output) and clock rates from 10 Hz to 100 MHz (setting to 105 MHz) generate complex baseband signals for vector RF generators and I/Q modules. Waveform memory is 4 000 000 samples (AMIQ04 is 16 000 000). WinIQSIM software, four marker channels, up to 30 multisegment waveforms, and options for BER (B1), differential I/Q (B2), digital I/Q (B3), and rear I/Q (B19) support 2G/3G baseband. AMIQ-B3 is available on models 03 and 04.



MODEL

Rohde & Schwarz AMIQ03

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

AMIQ03

LISTING

<https://aumictechlabs.com/products/amiq03-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Rohde & Schwarz AMIQ03 is a dual-channel I/Q modulation generator engineered to produce complex baseband and intermediate frequency signals for wireless communication and aerospace testing. It generates I/Q baseband signals up to 25 MHz IF with sample rates reaching 100 Msample/s per channel, supported by 4,000,000 samples of memory depth per channel. The instrument delivers 14-bit amplitude resolution, expandable to 16-bit with optional digital I/Q output, and achieves Adjacent Channel Power of typically -78 dBc for WCDMA 3GPP FDD configurations. Automatic amplitude/offset alignment and fine skew adjustment minimize error vectors and ensure excellent channel symmetry. The AMIQ03 integrates with Rohde & Schwarz WinIQSIM™ software and vector signal generators like the SMIQ, offering direct baseband signal generation for I/Q modulator and demodulator testing, multi-carrier simulation, and 3GPP CDMA/WCDMA signal generation. Remote control is provided via GPIB/IEEE and RS-232-C interfaces, with optional differential I/Q outputs and digital I/Q waveform data at 68-pin SCSI connector. Four user-programmable marker outputs synchronize to the sample clock. Internal storage includes hard disk and floppy disk drives for waveform management.

Technical Specifications

- Sample Rate: Up to 100 Msample/s per channel
- Memory Depth: 4,000,000 samples per channel (AMM03)
- Amplitude Resolution: 14-bit standard; up to 16-bit with Option AMIQ-B3
- IF Signal Generation: Up to 25 MHz
- Clock Frequency: Up to 100 MHz
- External Clock Input: 10 Hz to 4 MHz (slow mode); 2 MHz to 100 MHz (fast mode)
- Internal Reference Clock: 10 MHz with aging $<1 \times 10^{-5}$ /year after 30 days; temperature coefficient $<2 \times 10^{-6}$
- Adjacent Channel Power: Typically -78 dBc for WCDMA 3GPP FDD Test Model 1 (64 DPCH channels) at 5 MHz and 10 MHz offset

Key Features

- Dual-channel architecture for simultaneous I/Q signal generation
- Optimized filters for group delay, frequency response, and channel matching
- Automatic amplitude/offset alignment with fine skew adjustment
- Four user-programmable marker outputs with sample clock synchronization
- Optional differential I/Q outputs (Option AMIQ-B2)
- Optional digital I/Q output with selectable 8-bit to 16-bit resolution via 68-pin SCSI connector (Option AMIQ-B3)

Typical Applications

- I/Q modulator and demodulator testing
- Driving I/Q inputs of vector signal generators
- Multi-carrier signal simulation
- CDMA and WCDMA 3GPP signal generation
- TDMA frame configuration testing

Compatibility & Integration

- Remote control via GPIB/IEEE and RS-232-C
- Integration with Rohde & Schwarz WinIQSIM™ software
- Compatible with Rohde & Schwarz SMIQ vector signal generators
- Integrated hard disk and floppy disk storage for waveform data

Features & description

From manufacturer datasheet

Features

- Clock slow mode 10 Hz to 4 MHz; fast mode 2 MHz to 100 MHz
- Auto-alignment of residual DC offset
- Floppy 1.44 MB plus hard disk
- IEC/IEEE remote
- Same analog/clock architecture as AMIQ04 with smaller memory

Applications

- Baseband I/Q drive of SMIQ and other vector generators
- I/Q module and component test
- Impairment injection (offset, delay, imbalance) to stress modulators
- Digital-standard waveforms (IS-95, CDMA2000, W-CDMA options)
- Dual arbitrary analog outputs

AMIQ03 Characteristics / Specifications

PARAMETER	VALUE
Model	AMIQ03
Manufacturer	Rohde & Schwarz
Instrument Type	I/Q modulation generator
Alias	AMIQ 03; R&S AMIQ03; AMIQ model 03
Order Number	1110.2003.03
Memory Depth	4 000 000 I/Q samples
Clock Range Specified	10 Hz to 100 MHz
Clock Setting Range	to 105 MHz (restrictions above 100 MHz)
Amplitude Resolution Analog	8 bit to 14 bit selectable
Amplitude Resolution Digital	up to 16 bit (AMIQ-B3)
Marker Channels	4
Multisegment Waveforms	max 30
Segment Changeover Same Clock	typically 4 ms
Segment Changeover Clock Change	typically 12 ms
IF Generation	up to 25 MHz class
DAC	two-channel
Outputs	analog and Q, matched
Differential I/Q Option	AMIQ-B2 1110.3700.03
Digital I/Q Option	AMIQ-B3 1122.2103.02
Rear I/Q Option	AMIQ-B19 1110.3400.02
BER Option	AMIQ-B1 1110.3500.02
Software	WinIQSIM
Remote	IEC 625 / IEEE 488
Sibling AMIQ04 Memory	16 000 000 samples (1110.2003.04)
Sibling AMIQ	1110.2003.02

PARAMETER	VALUE
Mass Memory	3.5 inch 1.44 MB floppy; HDD
Fine Tuning	delay, level, and offset of I/Q outputs
Form Factor	AMIQ family baseband generator
Waveform Length Class	24 samples minimum class (family)
Clock Slow Mode	10 Hz to 4 MHz
Clock Fast Mode	2 MHz to 100 MHz
Digital I/Q Fit	AMIQ-B3 allowed on 03/04
Firmware Class	4.00 / 4.20 operating manual family Notes Specs from the R&S AMIQ operating manual and data sheet. AMIQ03 is the 4 Msample model. Confirm B1/B2/B3/B19. Do not confuse with AMIQ04 (16 Msamples).

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	AMIQ03
Manufacturer	Rohde & Schwarz
Instrument Type	I/Q modulation generator
Alias	AMIQ 03; R&S AMIQ03; AMIQ model 03
Order Number	1110.2003.03
Memory Depth	4 000 000 I/Q samples
Clock Range Specified	10 Hz to 100 MHz
Clock Setting Range	to 105 MHz (restrictions above 100 MHz)
Amplitude Resolution Analog	8 bit to 14 bit selectable
Amplitude Resolution Digital	up to 16 bit (AMIQ-B3)
Marker Channels	4
Multisegment Waveforms	max 30
Segment Changeover Same Clock	typically 4 ms
Segment Changeover Clock Change	typically 12 ms
IF Generation	up to 25 MHz class
DAC	two-channel
Outputs	analogIand Q, matched
Differential I/Q Option	AMIQ-B2 1110.3700.03
Digital I/Q Option	AMIQ-B3 1122.2103.02
Rear I/Q Option	AMIQ-B19 1110.3400.02
BER Option	AMIQ-B1 1110.3500.02
Software	WinIQSIM
Remote	IEC 625 / IEEE 488
Sibling AMIQ04 Memory	16 000 000 samples (1110.2003.04)
Sibling AMIQ02	1110.2003.02
Mass Memory	3.5 inch 1.44 MB floppy; HDD

PARAMETER	VALUE
Fine Tuning	delay, level, and offset of I/Q outputs
Form Factor	AMIQ family baseband generator
Waveform Length Class	24 samples minimum class (family)
Clock Slow Mode	10 Hz to 4 MHz
Clock Fast Mode	2 MHz to 100 MHz
Digital I/Q Fit	AMIQ-B3 allowed on 03/04
Firmware Class	4.00 / 4.20 operating manual family

Notes

Specs from the R&S AMIQ operating manual and data sheet. AMIQ03 is the 4 Msample model. Confirm B1/B2/B3/B19. Do not confuse with AMIQ04 (16 Msamples).

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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30-day returns
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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.