

**Aumictech**

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Data Sheet

August 13, 2026

ROHDE & SCHWARZ

Rohde & Schwarz AMIQ I/Q Modulation Generator

Rohde & Schwarz AMIQ I/Q Modulation Generator Family The R&S AMIQ is a dual channel I/Q modulation generator family (orders 1110.2003.02 / .03 / .04) designed as a baseband source for vector generators and I/Q modules. Clock rates are 10 Hz to 100 MHz (setting to 105 MHz). Analog amplitude resolution is 8 to 14 bit; digital output (AMIQ B3) is up to 16 bit on models 03 and 04. Memory reaches 4 000 000 samples on AMIQ03 and 16 000 000 samples on AMIQ04. Typical ACP is minus 78 dBc for 3GPP FDD test model 1 with 64 channels. WinIQSIM calculates single carrier, multicarrier (up to 512), CDMA, and TDMA frames. Auto alignment of amplitude and offset plus I/Q skew fine adjustment minimize error vector. The R&S AMIQ is a dual channel I/Q modulation generator family (orders 1110.2003.02 / .03 / .04) designed as a baseband source for vector generators and I/Q modules. Clock rates are 10 Hz to 100 MHz (setting to 105 MHz). Analog amplitude resolution is 8 to 14 bit; digital output (AMIQ B3) is up to 16 bit on models 03 and 04. Memory reaches 4 000 000 samples on AMIQ03 and 16 000 000 samples on AMIQ04. Typical ACP is minus 78 dBc for 3GPP FDD test model 1 with 64 channels. WinIQSIM calculates single carrier, multicarrier (up to 512), CDMA, and TDMA frames. Auto alignment of amplitude and offset plus I/Q skew fine adjustment minimize error vector. I/Q drive of SMIQ and other vector signal generators



MODEL

Rohde & Schwarz AMIQ

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

AMIQ

LISTING

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

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Rohde & Schwarz AMIQ is a dual-channel I/Q modulation generator that produces complex, digitally modulated signals with precision control over baseband and IF parameters. It generates baseband I/Q signals or intermediate frequency signals up to 25 MHz, and integrates with vector signal generators like the SMV03 for RF upconversion. The instrument delivers sample rates to 100 MSample/s per channel with 14-bit analog amplitude resolution (16-bit optional via digital output), making it ideal for development and validation of modern communication systems employing wideband digital modulation techniques including WCDMA, HIPERLAN2, and IEEE 802.11a. Its architecture supports direct characterization of I/Q modulators and demodulators at baseband, eliminating the need for RF conversion in early-stage testing.

Technical Specifications

Dual-channel I/Q modulation generator
Output: Baseband I/Q or IF signals up to 25 MHz
Sample rate: Up to 100 MSample/s per channel
Memory depth: 4,000,000 samples (AMIQ 03) or 16,000,000 samples (AMIQ 04) per channel
Amplitude resolution: 14 bits (analog); 16 bits with R&S® AMIQ-B3 digital output option
Clock frequency precision: 10^{-7} (external clock)
Digital output word length: 8–16 bits selectable via 68-pin SCSI connector (Option R&S® AMIQ-B3)
Antialiasing filter options: None, 25 MHz, 2.5 MHz, or external loopback
Baseband ACP dynamic range: -78 dBc typ.
WCDMA 3GPP FDD ACP: -78 dBc typ. (64 channels)

Key Features

- Automatic amplitude and offset alignment for channel symmetry
- I/Q skew adjustment capability
- Wide dynamic range for multicarrier signal generation
- Waveform storage on built-in hard disk with floppy drive loading
- Multi-segment waveform sequencing: up to 30 sequences for fast ATE switchover
- Programmable signal impairments and interfering signals (with R&S® WinIQSIM™)

Typical Applications

- Baseband characterization of I/Q modulators and demodulators
- Development and validation of WCDMA, HIPERLAN2, and IEEE 802.11a systems
- Wideband digital modulation testing
- Signal impairment analysis and simulation

Compatibility & Integration

- Remote control via GPIB/IEEE and RS-232-C
- 10 MHz reference input/output
- Sample clock input, trigger input
- Four user-programmable marker outputs
- External filter loopback
- I/O RF upconversion via integration with R&S® SMV03 or equivalent vector signal generator

AMIQ Characteristics / Specifications

PARAMETER	VALUE
Model	AMIQ
Manufacturer	Rohde & Schwarz
Instrument Type	I/Q modulation generator family
Alias	AMIQ; R&S AMIQ; AMIQ02; AMIQ03; AMIQ04
Order AMIQ	1110.2003.02
Clock Range Specified	10 Hz to 100 MHz
Clock Setting Range	to 105 MHz (restrictions above 100 MHz)
Clock Slow Mode	10 Hz to 4 MHz
Clock Fast Mode	2 MHz to 100 MHz
Memory AMIQ	16 000 000 I/Q samples
Waveform Length Slow Mode	24 to full memory in steps of one (04 class)
Waveform Length Fast Mode	24 to full memory in steps of four (04 class)
Amplitude Resolution Analog	8 bit to 14 bit selectable
Amplitude Resolution Digital	up to 16 bit (AMIQ B3)
ACP 3GPP FDD TM1 64 ch	typically minus 78 dBc
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 analog and Q Differential I/Q Option: AMIQ B2 1110.3700.03
Digital I/Q Option	AMIQ B3 1122.2103.02 (models 03/04)
Rear I/Q Option	AMIQ B19 1110.3400.02
BER Option	AMIQ B1 1110.3500.02
Software	WinIQSIM

PARAMETER	VALUE
WinIQSIM Carriers	up to 512 modulated or unmodulated
WinIQSIM Mixed Carriers	up to 32 differently modulated
Remote	IEC 625 / IEEE 488 and RS 232 C
Mass Memory	3.5 inch 1.44 MB floppy plus HDD
Fine Tuning	delay, level, offset, and I/Q skew
Intended RF Mate	SMIQ vector generators Notes Specs from the R&S AMIQ I/Q Modulation Generator data sheet. Confirm 02 versus 03 versus 04 memory and whether AMIQ B3 is fitted (03/04 only). Do not confuse with AFQ100B.

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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PARAMETER	VALUE
Model	AMIQ
Manufacturer	Rohde & Schwarz
Instrument Type	I/Q modulation generator family
Alias	AMIQ; R&S AMIQ; AMIQ02; AMIQ03; AMIQ04
Order AMIQ02	1110.2003.02
Order AMIQ03	1110.2003.03
Order AMIQ04	1110.2003.04
Clock Range Specified	10 Hz to 100 MHz
Clock Setting Range	to 105 MHz (restrictions above 100 MHz)
Clock Slow Mode	10 Hz to 4 MHz
Clock Fast Mode	2 MHz to 100 MHz
Memory AMIQ03	4 000 000 I/Q samples
Memory AMIQ04	16 000 000 I/Q samples
Waveform Length Slow Mode	24 to full memory in steps of one (04 class)
Waveform Length Fast Mode	24 to full memory in steps of four (04 class)
Amplitude Resolution Analog	8 bit to 14 bit selectable
Amplitude Resolution Digital	up to 16 bit (AMIQ B3)
ACP 3GPP FDD TM1 64 ch	typically minus 78 dBc
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DAC	two channel analog I and Q
Differential I/Q Option	AMIQ B2 1110.3700.03
Digital I/Q Option	AMIQ B3 1122.2103.02 (models 03/04)

PARAMETER	VALUE
Rear I/Q Option	AMIQ B19 1110.3400.02
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Notes

Specs from the R&S AMIQ I/Q Modulation Generator data sheet. Confirm 02 versus 03 versus 04 memory and whether AMIQ B3 is fitted (03/04 only). Do not confuse with AFQ100B.

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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NIST-traceable calibration · SAM registered ·
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.