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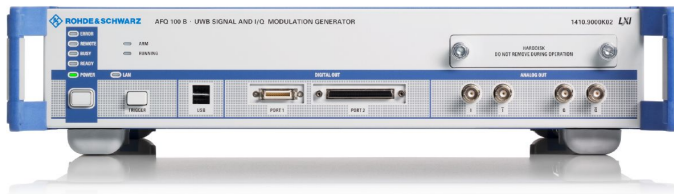
Data Sheet

August 13, 2026

ROHDE & SCHWARZ

Rohde & Schwarz AFQ100B 600MHz Signal Generator

BERT Clock Rate AFQ K80: 1 kHz to 100 MHz Digital Port 2 Interface: 68 pin HD SCSI, 16 bitlandQLVDS Mains: 100 V to 240 V AC, 50 Hz to 60 Hz, 2.0 A to 1.0 A Specs from R&S AFQ100A/B specifications PD 5214.0799.22. AFQ100B requires B11 or B12; B10 is AFQ100A only. Confirm mode 2 UWB clock and installed memory. Digital Port 2 Interface: 68 pin HD SCSI, 16 bitlandQLVDS Mains: 100 V to 240 V AC, 50 Hz to 60 Hz, 2.0 A to 1.0 A Specs from R&S AFQ100A/B specifications PD 5214.0799.22. AFQ100B requires B11 or B12; B10 is AFQ100A only. Confirm mode 2 UWB clock and installed memory.



MODEL

Rohde & Schwarz AFQ100B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

AFQ100B

LISTING

<https://aumictechlabs.com/products/afq100b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Rohde & Schwarz AFQ100B is a 600 MHz I/Q modulation signal generator engineered for broadband digital communications and aerospace & defense applications. It generates complex waveforms with extremely short pulses and rapid rise/fall times, making it ideal for UWB radar systems and modern digital standards testing. The instrument combines arbitrary waveform generation with dual-mode clock architecture, supporting modulation formats from WiMAX and LTE to WiMedia UWB, with optional I/Q impairment simulation and equalization

functionality. Technical Specifications Frequency Range: 1 MHz to 600 MHz RF Bandwidth: 528 MHz (Mode 2) Clock Rate: 1 kHz to 300 MHz (Mode 1); up to 600 MHz (Mode 2) Waveform Memory: Up to 1 Gsample; options for 512 Msample (R&S AFQ-B12) or 1 Gsample (R&S AFQ-B11) Waveform Length: Mode 1 from 3 samples in 1-sample steps; Mode 2 from 6 samples in 2-sample steps Amplitude Resolution: 16 bit (analog and digital with R&S AFQ-B18 option) Marker Channels: 4 bit per sample I/Q Bandwidth: 100 MHz (Mode 1, 200 MHz RF equivalent); 264 MHz (Mode 2, 528 MHz RF equivalent) Spurious-Free Dynamic Range (SFDR): Typically 83 dBc Digital I/Q Outputs: 16 bit maximum resolution per channel in LVDS format Key Features Multiplexed LVDS digital output (Port 1) for clock rates to 100 MHz Optional 68-pin HD-SCSI Port 2 supporting higher data rates Dual-mode operation enabling flexible sample rate and memory configuration Linear frequency response across full bandwidth I/Q impairment simulation and equalization options Typical Applications Ultra-wideband (UWB) pulse and radar signal generation Digital communications standards development: WiMAX, LTE, WLAN 11n, WCDMA, HSPA+, WiMedia UWB (ECMA-368) Aerospace & defense signal testing with pulsed waveform scenarios Arbitrary complex waveform synthesis requiring high temporal resolution Compatibility & Integration Digital outputs support Rohde & Schwarz internal digital interfaces and standard LVDS signaling protocols, enabling direct integration with test systems requiring high-speed I/Q data streams.

AFQ100B Characteristics / Specifications

PARAMETER	VALUE
Model	AFQ100B
Manufacturer	Rohde & Schwarz
Instrument Type	UWB signal and I/Q modulation generator
Alias	R&S AFQ100B; AFQ 100B
Order Number	1410.9000.02
Memory Clock Mode	1 kHz to 300 MHz
RF Bandwidth Mode	200 MHz
I/Q Bandwidth Mode	264 MHz class
Waveform Bandwidth Mode	max 0.33 times memory clock
Waveform Length Mode	from 3 samples in steps of 1
Memory AFQ B	up to 512 Msample
Amplitude Resolution	16 bit analog and digital (AFQ B18)
Marker Channels	4
Marker Offset	0 sample to 2000 sample
Converter Clock	1200 MHz with digital lowpass and clock rate converter
Clock Resolution	1e-7
Clock Output Level	LVTTL, 2 V into 50 ohm
External Clock Input Frequency	1 kHz to 300 MHz
External Clock Impedance	50 ohm or 1 kOhm switchable
Reference Frequency	10 MHz
Reference Aging	1e-6 per year after 30 days
Reference Temperature Effect	1e-6 from +5 C to +45 C
Balanced Level Nominal	1 Vpp betweenland lbar into 100 ohm
Balanced Level Range	0 V to 1.4 Vpp into 100 ohm
Hardware Attenuator	0 dB, 6 dB

PARAMETER	VALUE
Pulse Rise Fall	2.5 ns (10 percent / 90 percent)
Frequency Response Mode	plus/minus 0.8 dB to 100 MHz; plus/minus 2.5 dB to 264 MHz
SFDR without Harmonics	greater than 75 dBc, typically 78 dBc
Harmonics 1 MHz 0.5 Vpp	less than minus 70 dBc, typically minus 75 dBc
Noise Floor at 0.7 Vpp	less than minus 154 dBc (1 Hz)
I/Q Skew	minus 2 ns to +2 ns in 10 ps steps (mode 1)
Residual DC Offset	less than plus/minus 1 mV after auto alignment
Bias Voltage	minus 2.5 V to +2.5 V in 10 mV steps
Trigger Inputs	TRIG and NEXT, BNC, min pulse 10 ns
Segment Mode	up to 2048 segments
BERT Clock Rate AFQ K	1 kHz to 100 MHz
Digital Port 2 Interface	68 pin HD SCSI, 16 bitlandQLVDS
Mains	100 V to 240 V AC, 50 Hz to 60 Hz, 2.0 A to 1.0 A
Dimensions	426.7 mm x 87.6 mm x 450 mm
Weight Fully Equipped	7.5 kg
Operating Temperature	+5 C to +45 C
Calibration Interval	3 years
WinIQSIM2 UWB Option	AFQ K264 Notes Specs from R&S AFQ100A/B specifications PD 5214.0799.22. AFQ100B requires B11 or B12; B10 is AFQ100A only. Confirm mode 2 UWB clock and installed memory.
Bandwidth	(I/Q to 264 MHz). Waveform memory is AFQ B11 up to 1 Gsample or AFQ B12 up to 512 Msample (B10 256 Msample is AFQ100A only). Sixteen bit data words, balanced and unbalanced analog I/Q, optional digital I/Q (AFQ B18), WinIQSIM2 including AFQ K264 UWB

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	+5 C to +45 C
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Calibration Interval	3 years
WinIQSIM2 UWB Option	AFQ K264 Notes Specs from R&S AFQ100A/B specifications PD 5214.0799.22. AFQ100B requires B11 or B12; B10 is AFQ100A only. Confirm mode 2 UWB clock and installed memory.

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	AFQ100B
Manufacturer	Rohde & Schwarz
Instrument Type	UWB signal and I/Q modulation generator
Alias	R&S AFQ100B; AFQ 100B
Order Number	1410.9000.02
Memory Clock Mode 1	1 kHz to 300 MHz
Memory Clock Mode 2	600 MHz
RF Bandwidth Mode 1	200 MHz
RF Bandwidth Mode 2	528 MHz
I/Q Bandwidth Mode 2	264 MHz class
Waveform Bandwidth Mode 1	max 0.33 times memory clock
Waveform Bandwidth Mode 2	max 0.44 times memory clock
Waveform Length Mode 1	from 3 samples in steps of 1
Waveform Length Mode 2	from 6 samples in steps of 2
Memory AFQ B11	up to 1 Gsample
Memory AFQ B12	up to 512 Msample
Amplitude Resolution	16 bit analog and digital (AFQ B18)
Marker Channels	4
Marker Offset	0 sample to 2000 sample
Converter Clock	1200 MHz with digital lowpass and clock rate converter
Clock Resolution	1e-7
Clock Output Level	LVTTTL, 2 V into 50 ohm
External Clock Input Frequency	1 kHz to 300 MHz
External Clock Impedance	50 ohm or 1 kOhm switchable
Reference Frequency	10 MHz
Reference Aging	1e-6 per year after 30 days

PARAMETER	VALUE
Reference Temperature Effect	1e-6 from +5 C to +45 C
Balanced Level Nominal	1 Vpp between Iand Ibar into 100 ohm
Balanced Level Range	0 V to 1.4 Vpp into 100 ohm
Hardware Attenuator	0 dB, 6 dB
Pulse Rise Fall	2.5 ns (10 percent / 90 percent)
Frequency Response Mode 1	plus/minus 0.5 dB up to 100 MHz, typically 0.3 dB
Frequency Response Mode 2	plus/minus 0.8 dB to 100 MHz; plus/minus 2.5 dB to 264 MHz
SFDR without Harmonics	greater than 75 dBc, typically 78 dBc
Harmonics 1 MHz 0.5 Vpp	less than minus 70 dBc, typically minus 75 dBc
Noise Floor at 0.7 Vpp	less than minus 154 dBc (1 Hz)
I/Q Skew	minus 2 ns to +2 ns in 10 ps steps (mode 1)
Residual DC Offset	less than plus/minus 1 mV after auto alignment
Bias Voltage	minus 2.5 V to +2.5 V in 10 mV steps
Trigger Inputs	TRIG and NEXT, BNC, min pulse 10 ns
Segment Mode	up to 2048 segments
BERT Clock Rate AFQ K80	1 kHz to 100 MHz
Digital Port 2 Interface	68 pin HD SCSI, 16 bit IandQLVDS
Mains	100 V to 240 V AC, 50 Hz to 60 Hz, 2.0 A to 1.0 A
Dimensions	426.7 mm x 87.6 mm x 450 mm
Weight Fully Equipped	7.5 kg
Operating Temperature	+5 C to +45 C
Calibration Interval	3 years
WinIQSIM2 UWB Option	AFQ K264

Notes

Specs from R&S AFQ100A/B specifications PD 5214.0799.22. AFQ100B requires B11 or B12; B10 is AFQ100A only. Confirm mode 2 UWB clock and installed memory.

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.