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Data Sheet

August 13, 2026

ROHDE & SCHWARZ

Rohde and Schwarz SFQ TV Test Transmitter

Rohde & Schwarz SFQ TV Test Transmitter 0.3 MHz to 3.3 GHz The R&S SFQ is a modular TV test transmitter for digital and analog broadcast receiver and link testing. The main-carrier range is 0.3 MHz to 3.3 GHz with 1 Hz resolution. CW level is minus 99.9 dBm to +13 dBm (0.1 dB resolution; total inaccuracy less than plus/minus 1.5 dB). Coders cover DVB-T, DVB-C, DVB-S/DSNG, ATSC/8VSB, ISDB-T, and ITU-T J.83-B, plus optional analog broadband FM (PAL/SECAM/NTSC). Internal noise, fading (6 or 12 paths), and BER measurement are options. The R&S SFQ is a modular TV test transmitter for digital and analog broadcast receiver and link testing. The main-carrier range is 0.3 MHz to 3.3 GHz with 1 Hz resolution. CW level is minus 99.9 dBm to +13 dBm (0.1 dB resolution; total inaccuracy less than plus/minus 1.5 dB). Coders cover DVB-T, DVB-C, DVB-S/DSNG, ATSC/8VSB, ISDB-T, and ITU-T J.83-B, plus optional analog broadband FM (PAL/SECAM/NTSC). Internal noise, fading (6 or 12 paths), and BER measurement are options.



MODEL

Rohde & Schwarz SFQ

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

SFQ

LISTING

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

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Rohde & Schwarz SFQ is a modular TV test transmitter for validating digital and analog television links and receivers across development, manufacturing, and service environments. It generates high-quality signals with excellent spectral purity and amplitude accuracy, supporting multiple international broadcast standards in a single instrument. The SFQ accepts MPEG

transport streams via ASI, SPI, and SMPTE310M interfaces, processing them for terrestrial and satellite transmission with integrated forward error correction, energy dispersal control, and SYNC BYTE management. Technical Specifications Frequency Range: 0.3 MHz to 3300 MHz (3.3 GHz) Output Level: -99.9 dBm to +13 dBm Digital TV Standards: DVB-T (2K/8K COFDM, 6/7/8 MHz bandwidth, hierarchical coding), DVB-S/DSNG (QPSK, 8PSK, 16QAM, turbo coding), DVB-C (16/32/64/128/256 QAM), ITU-T/J.83B, ATSC/8VSB, ISDB-T (ARIB STD-B31, modes 1/2/3, up to 3 layers, 13 OFDM segments) Analog Standards: PAL, SECAM, NTSC (FM satellite) Sound Signals: Analog FM subcarriers, digital ADR sound subcarriers (0.1 MHz to 9 MHz with MUSICAM), dual FM subcarriers (5 MHz to 9 MHz) Transport Streams: 188 or 204 byte MPEG packets; selectable data and symbol rates for DVB-C/S/DSNG Key Features Variable roll-off factor (root cosine) for DVB-S, DVB-DSNG, DVB-C Selective carrier control - disable modulation, individual carriers, or carrier groups for specialized measurements Full-range RF sweep capability Internal noise generator for precise C/N control Fading simulator with 6 or 12 propagation paths; predefined and custom profiles Native BER measurement across all digital modulation modes Reed-Solomon (204,188) FEC coder with switchable energy dispersal External I/Q signal input/output Typical Applications Receiver and module characterization across terrestrial, cable, and satellite platforms Link validation under controlled fading and noise conditions Production testing with multi-standard capability Service and field verification Compatibility & Integration Accepts MPEG transport streams and unpacked data; supports I/Q external signal processing and 8VSB I/Q coding.

Features & description

From manufacturer datasheet

Features

- One chassis, many standards via coder options
- ASI / SPI / SMPTE 310 inputs (SFQ-B6)
- Internal PRBS and BER (SFQ-B17)
- Non-interrupting 15 dB level setting; overvoltage-protected RF output
- External I and Q modulation inputs, 50 ohm, full-scale $(I^2 + Q^2)^{1/2} = 0.5 \text{ V}$

Applications

- Digital TV receiver and tuner production test
- Terrestrial, cable, and satellite broadcast link testing
- Fading and C/N stress of DVB / ATSC / ISDB-T demodulators
- Analog TV FM modulator tests (SFQ-B2)
- I/Q baseband feed of external modulators (SFQ-B14)

SFQ Characteristics / Specifications

PARAMETER	VALUE
Model	SFQ
Manufacturer	Rohde & Schwarz
Instrument Type	TV test transmitter
Alias	SFQ02; R&S SFQ
Order Number Base	2072.5501.02
Frequency Range	0.3 MHz to 3.3 GHz
Frequency Resolution	1 Hz
Reference Inaccuracy	less than plus/minus 1e-6
Reference Aging	1e-6 per year
Reference Temperature Effect	2e-6 from 0 C to 55 C
Reference Output	10 MHz, 1 V rms EMF
External Reference	5 MHz or 10 MHz
CW Level Range	minus 99.9 dBm to +13 dBm
DVBTLLevel Range	minus 99.9 dBm to +6 dBm
ATSC 8VSB Level Range	minus 99.9 dBm to +3 dBm
ISDBTLLevel Range	minus 99.9 dBm to +4 dBm
DVB C / DVBSLevel Range	minus 99.9 dBm to +7 dBm
J83 B Level Range	minus 99.9 dBm to +2 dBm
Level Resolution	0.1 dB
Level Inaccuracy	less than plus/minus 1.5 dB
Frequency Response at 0 dBm	less than 1 dB, typ. less than 0.5 dB
Output Impedance	50 ohm
VSWR 13 dBm to 0 dBm	less than 2
VSWR below 0 dBm	less than 1.4
IQ Response DC to 3.5 MHz to 1 GHz	less than plus/minus 0.2 dB

PARAMETER	VALUE
Spurious FM rms at 1 GHz	less than 8 Hz (0.3 to 3 kHz ITU-T)
Harmonics Class	less than minus 30 dBc
RF Output Protection	DC block, max 50 V DC; reverse RF protection
DVBTCoder Option	SFQ-B10, 2K/8K, 6/7/8 MHz
Fading Option	SFQ-B11, 6 or 12 paths
Noise Generator Option	SFQ-B5
BER Option	SFQ-B17
Operating Temperature	0 C to +50 C Notes Specs from the R&S SFQ TV Test Transmitter data sheet. Capability depends entirely on installed coder and B-options (B10 DVB-T, B12 ATSC, B21/B23 DVB-C/S, B26 ISDB-T, B2 analog FM). Inventory the option list on the unit.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to +50 C
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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	SFQ
Manufacturer	Rohde & Schwarz
Instrument Type	TV test transmitter
Alias	SFQ02; R&S SFQ
Order Number Base	2072.5501.02
Frequency Range	0.3 MHz to 3.3 GHz
Frequency Resolution	1 Hz
Reference Inaccuracy	less than plus/minus 1e-6
Reference Aging	1e-6 per year
Reference Temperature Effect	2e-6 from 0 C to 55 C
Reference Output	10 MHz, 1 V rms EMF
External Reference	5 MHz or 10 MHz
CW Level Range	minus 99.9 dBm to +13 dBm
DVBTLLevel Range	minus 99.9 dBm to +6 dBm
ATSC 8VSB Level Range	minus 99.9 dBm to +3 dBm
ISDBTLLevel Range	minus 99.9 dBm to +4 dBm
DVB C / DVBSLevel Range	minus 99.9 dBm to +7 dBm
J83 B Level Range	minus 99.9 dBm to +2 dBm
Level Resolution	0.1 dB
Level Inaccuracy	less than plus/minus 1.5 dB
Frequency Response at 0 dBm	less than 1 dB, typ. less than 0.5 dB
Output Impedance	50 ohm
VSWR 13 dBm to 0 dBm	less than 2
VSWR below 0 dBm	less than 1.4
IQ Response DC to 3.5 MHz to 1 GHz: less than plus/minus 0.2 dB	
Specifications	

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Spurious FM rms at 1 GHz	less than 8 Hz (0.3 to 3 kHz ITU-T)
Harmonics Class	less than minus 30 dBc
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DVBTcoder Option	SFQ-B10, 2K/8K, 6/7/8 MHz
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Noise Generator Option	SFQ-B5
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Operating Temperature	0 C to +50 C

Notes

Specs from the R&S SFQ TV Test Transmitter data sheet. Capability depends entirely on installed coder and B-options (B10 DVB-T, B12 ATSC, B21/B23 DVB-C/S, B26 ISDB-T, B2 analog FM). Inventory the option list on the unit.

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.