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Data Sheet

August 13, 2026

ROHDE & SCHWARZ

Rohde & Schwarz SFE100 100KHz to 2.5GHz Signal Generator

The R&S SFE100 is a compact single-standard / multistandard broadcast test transmitter with realtime coding. Frequency is 100 kHz to 2.7 GHz at 1 Hz resolution. Level without power amplifier is minus 110 dBm to +15 dBm (0.1 dB). Optional SFE100-B90 power amplifier covers 47 MHz to 862 MHz at up to +27 dBm. MER is typically +43 dB. An integrated transport stream generator, TS player, and 256 Msample ARB cover DVB, ATSC, ISDB, analog TV, and digital audio standards. Form factor is 1 HU, less than 6 kg. Production and Random Digital/Analog TV and radio receivers Rohde & Schwarz SFE100 Broadcast Test Transmitter The R&S SFE100 is a compact single-standard / multistandard broadcast test transmitter with realtime coding. Frequency is 100 kHz to 2.7 GHz at 1 Hz resolution. Level without power amplifier is minus 110 dBm to +15 dBm (0.1 dB). Optional SFE100-B90 power amplifier covers 47 MHz to 862 MHz at up to +27 dBm. MER is typically +43 dB. An integrated transport stream generator, TS player, and 256 Msample ARB cover DVB, ATSC, ISDB, analog TV, and digital audio standards. Form factor is 1 HU, less than 6 kg.



MODEL

Rohde & Schwarz SFE100

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

SFE100

LISTING

<https://aumictechlabs.com/products/sfe100-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Rohde & Schwarz SFE100 is a single-standard test transmitter spanning 100 kHz to 2.5 GHz, engineered for broadcast signal generation with real-time modulation coding. The instrument delivers output power from -100 dBm to +15 dBm in CW mode, with optional integrated power amplifier capability reaching +27 dBm across bands I-V. Frequency resolution of 1 Hz and setting time under 20 ms enable precision frequency agility in development and production test environments. The SFE100 operates as a standalone signal generator or integrates as a secondary RF channel within Rohde & Schwarz systems, consolidating multiple test functions into a single rack unit. Both local control and PC-based remote operation via graphical user interface are supported, with reference frequency input (10 MHz, BNC female) on the rear panel.

Technical Specifications

RF Performance Frequency range: 100 kHz to 2.5 GHz Frequency resolution: 1 Hz Setting time: 40 dB RF monitor output: -50 dB attenuation Signal Generation Modulation types: AM, FM, I/Q, analog, digital Arbitrary waveform generator: 128 Msample memory, up to 100 Msample/s sample rate Supported standards: DVB-T, DTMB, ATSC/8VSB, ISDB-T, DVB-C, DVB-S/S2, DirecTV, DVB-H, T-DMB, analog TV (B/G, D/K, I, M/N, L), DAB, AM/FM/RDS Optional transport stream player/generator and ATV video generator modules Interfaces Reference input: 10 MHz, +6 dBm ± 3 dB, BNC female, $>200\ \Omega$ load impedance Control: Local front-panel and remote PC operation

Key Features 1 Hz frequency resolution enables fine tuning across broadcast bands Phase noise performance supports adjacent-channel rejection testing Dual power modes: baseline 15 dBm or amplified 27 dBm for link budget validation Transport stream and ATV libraries reduce test content development time Compact single-rack form factor integrates into multi-instrument test racks

Typical Applications DVB terrestrial, cable, and satellite broadcast system development ATSC and ISDB compliance testing Mobile TV (DVB-H, MediaFLO, ISDB-1seg) prototype validation Sound broadcasting standard verification (DAB, DRM, FM/RDS) Production acceptance testing of broadcast receivers

Compatibility & Integration The SFE100 shares the control interface with Rohde & Schwarz SFE and SFU instruments, enabling unified multi-channel test setups. External reference synchronization via 10 MHz input locks multiple generators for coherent multi-carrier scenarios.

SFE100 Characteristics / Specifications

PARAMETER	VALUE
Digital realtime	DVB-T/T2, DTMB, ISDB-T/TB, ATSC/8VSB, DVB-C, J.83/B, DVB-S/S2 Analog TV B/G, D/K, I, M/N, L; AM/FM audio with RDS TS generator 100 kbit/s to 214 Mbit/s including null packets ARB memory 256 Msample, sample rate up to 100 Msample/s
Model	SFE100
Manufacturer	Rohde & Schwarz
Instrument Type	Broadcast test transmitter
Alias	SFE 100; R&S SFE100
Frequency Range	100 kHz to 2.7 GHz
Frequency Range with B	47 MHz to 862 MHz
Frequency Resolution	1 Hz
Frequency Setting Time	20 ms to within 1e-7 (GUI update stopped)
Reference Aging	1.0e-9 per day after 10 days uninterrupted
Reference Temperature Effect	less than 5e-8 in operating range
RF Output	N female, 50 ohm
Level Range	minus 110 dBm to +15 dBm (without PA)
Level Setting Range	minus 110 dBm to +20 dBm
Level Resolution	0.1 dB
Attenuator Dynamic Range	110 dB
Max Level at or below 1 GHz	+15 dBm PEP
Max Level 1 to 2 GHz	+12 dBm PEP
Max Level 2 to 2.5 GHz	+10 dBm PEP
Max Level above 2.5 GHz	+7 dBm PEP
Harmonics at or below 12 dBm CW	less than minus 30 dBc
SSB Phase Noise 300 MHz 20 kHz	less than minus 115 dBc (1 Hz)
Broadband Noise offset greater than 10 MHz	less than minus 135 dBc (1 Hz) for greater than 87 MHz

PARAMETER	VALUE
B90 Max Level	+27 dBm rms
B90 Level Setting	minus 10 dBm to +30 dBm rms
TS Generator Data Rate	100 kbit/s to 214 Mbit/s including null packets
TS Player Data Rate	100 kbit/s to 90 Mbit/s
Packet Length	188/204 byte DVB; 188/208 byte ATSC
ARB Memory	256 Msample
ARB Sample Rate	up to 100 Msample/s
AWGN SNR Range	minus 30 dB to +60 dB (option)
MER Class	typically +43 dB
Mains	90 V to 240 V AC, 50 Hz to 60 Hz
Operating Temperature	+5 C to +45 C
Dimensions	427 mm x 44 mm x 450 mm
Weight	less than 6 kg
Display	LCD 200 × 64 with hardkeys Notes Specs from R&S SFE100 brochure and data sheet (SFE100_dat-sw_en_5213-9234-22). Confirm installed realtime coder, B90 PA, and TS/ARB options. Models .02/.03 differ in front-panel/production packaging.
Data Rate	100 kbit/s to 214 Mbit/s including null packets

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	+5 C to +45 C
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Dimensions	427 mm x 44 mm x 450 mm
Weight	less than 6 kg
Display	LCD 200 × 64 with hardkeys Notes Specs from R&S SFE100 brochure and data sheet (SFE100_dat-sw_en_5213-9234-22). Confirm installed realtime coder, B90 PA, and TS/ARB options. Models .02/.03 differ in front-panel/production packaging.

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	
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Model	SFE100
Manufacturer	Rohde & Schwarz
Instrument Type	Broadcast test transmitter
Specifications	
PARAMETER	VALUE
Alias	SFE 100; R&S SFE100
Frequency Range	100 kHz to 2.7 GHz
Frequency Range with B90	47 MHz to 862 MHz
Specifications	
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Frequency Resolution	1 Hz
Frequency Setting Time	20 ms to within 1e-7 (GUI update stopped)
Reference Aging	1.0e-9 per day after 10 days uninterrupted
Specifications	
PARAMETER	VALUE
Reference Temperature Effect	less than 5e-8 in operating range
RF Output	N female, 50 ohm
Level Range	minus 110 dBm to +15 dBm (without PA)
Specifications	
PARAMETER	VALUE
Level Setting Range	minus 110 dBm to +20 dBm
Level Resolution	0.1 dB
Attenuator Dynamic Range	110 dB

Specifications

PARAMETER	VALUE
Max Level at or below 1 GHz	+15 dBm PEP
Max Level 1 to 2 GHz	+12 dBm PEP
Max Level 2 to 2.5 GHz	+10 dBm PEP

Max Level above 2.5 GHz: +7 dBm PEP

Level Uncertainty Auto Att +18 C to +33 C: less than plus/minus 1.0 dB

Specifications

PARAMETER	VALUE
Harmonics at or below 12 dBm CW	less than minus 30 dBc
SSB Phase Noise 300 MHz 20 kHz	less than minus 115 dBc (1 Hz)
Broadband Noise offset greater than 10 MHz	less than minus 135 dBc (1 Hz) for greater than 87 MHz

Specifications

PARAMETER	VALUE
B90 Max Level	+27 dBm rms
B90 Level Setting	minus 10 dBm to +30 dBm rms
TS Generator Data Rate	100 kbit/s to 214 Mbit/s including null packets

Specifications

PARAMETER	VALUE
TS Player Data Rate	100 kbit/s to 90 Mbit/s
Packet Length	188/204 byte DVB; 188/208 byte ATSC
ARB Memory	256 Msample

Specifications

PARAMETER	VALUE
ARB Sample Rate	up to 100 Msample/s
AWGN SNR Range	minus 30 dB to +60 dB (option)
MER Class	typically +43 dB

Specifications

PARAMETER	VALUE
Mains	90 V to 240 V AC, 50 Hz to 60 Hz

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Operating Temperature	+5 C to +45 C
Dimensions	427 mm x 44 mm x 450 mm

Weight: less than 6 kg

Display: LCD 200 x 64 with hardkeys

Notes

Specs from R&S SFE100 brochure and data sheet (SFE100_dat-sw_en_5213-9234-22). Confirm installed realtime coder, B90 PA, and TS/ARB options. Models .02/.03 differ in front-panel/production packaging.

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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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.