


Aumictech

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

ROHDE & SCHWARZ

Rohde & Schwarz ESVB 20MHz-2GHz Measuring Receiver

Rohde & Schwarz ESVB Measuring Receiver 20 MHz to 2 GHz The R&S ESVB is a triple-conversion measuring / EMI test receiver covering 20 MHz to 2 GHz, aimed at DAB/DVB-T coverage as well as CISPR-class interference. Display range is 60 dB even for quasi-peak and average, and 70 dB for DAB/DVB measurements without changing input attenuation. IF filters are 10 kHz, 120 kHz, and 300 kHz with group-delay optimization, plus 1.5 MHz and 8 MHz SAW channel filters for COFDM. An RMS detector measures the noise-like DAB/DVB-T power quickly for mobile coverage. The R&S ESVB is a triple-conversion measuring / EMI test receiver covering 20 MHz to 2 GHz, aimed at DAB/DVB-T coverage as well as CISPR-class interference. Display range is 60 dB even for quasi-peak and average, and 70 dB for DAB/DVB measurements without changing input attenuation. IF filters are 10 kHz, 120 kHz, and 300 kHz with group-delay optimization, plus 1.5 MHz and 8 MHz SAW channel filters for COFDM. An RMS detector measures the noise-like DAB/DVB-T power quickly for mobile coverage.



MODEL

Rohde & Schwarz ESVB

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

ESVB

LISTING

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

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Rohde & Schwarz ESVB is a measuring receiver spanning 20 MHz to 2 GHz, engineered for signal analysis, monitoring, and interference characterization across telecommunications,

aerospace, and broadcast applications. It functions as a field-strength measurement system for DAB and DVB-T networks, a manual tunable receiver for lab work, and an automated EMI test platform. The instrument combines broadband and narrowband I/Q demodulation with RMS and average detectors, delivering 0.5 dB typical measurement accuracy and 0.01 dB resolution across an 80 dB level display range. Real-time digital signal processing enables coverage assessment, RFI compliance verification to CISPR/EN/ETS/FCC standards, and selective voltage measurements in both broadcast and mobile radio environments.

Technical Specifications

Frequency Coverage
Standard: 20 MHz to 1000 MHz With ESN-B1 UHF frontend: up to 2050 MHz IF Bandwidths
Standard SAW filters: 1.5 MHz (DAB), 8 MHz (DVB-T) ESN-B1 option: 0.75 MHz (DAB), 4 MHz (DVB-T) ESN-B1 narrowband: 10 kHz, 120 kHz, 300 kHz (GSM/PCN)

Demodulation & Detection
Broadband I/Q demodulator: ± 750 kHz, ± 4 MHz bandwidth Narrowband I/Q demodulator (ESN-B1): 10 kHz, 120 kHz, 300 kHz RMS and average detectors for input power measurement

Measurement Performance
Typical accuracy: 0.5 dB Result resolution: 0.01 dB Dynamic range: 80 dB level display

Display & Memory
5-inch CRT display, 1024 $\times$ 1024 pixel resolution with digital memory 8-digit LCD frequency display, pointer meter, analog display option Non-volatile storage: 10 instrument settings, 10,000 frequency entries

Interfaces & Control
IEEE 488 (IEC/IEEE-bus) for external computer/automation Parallel printer interface with HP-GL plotter support Manual tuning knob, internal processor control, built-in loudspeaker MF2 keyboard connector, 5-contact DIN keyboard input

Key Features
DAB/DVB-T field-strength measurements in broadcast networks EMI/RFI compliance testing per CISPR, EN, ETS, FCC, VCCI, VDE standards Two-port measurement capability for advanced circuit characterization GSM/PCN mobile radio network assessment Real-time digital signal processing with selectable IF bandwidths Portable manual operation or rack-integrated automated test configuration

Typical Applications
Broadcast network coverage and field-strength validation Laboratory selective voltage measurement and signal analysis EMI/RFI compliance verification in manufacturing and field environments Digital mobile radio network monitoring and troubleshooting Interference source identification and characterization

Compatibility & Integration
The ESVB operates standalone via front-panel controls or integrates into automated test systems via IEEE 488 bus. The ESN-B1 UHF frontend extends frequency coverage and provides narrowband I/Q demodulation for mobile radio applications.

Features & description

From manufacturer datasheet

Features

- One fixed-tuned and five tracking preselectors; optional four extra fixed filters
- Crystal-stabilized 1st LO in 100 Hz steps with sweep mode
- Parallel peak, average, quasi-peak, and RMS detectors
- I/Q demodulator 1.5/4 MHz per channel; narrowband I/Q via ESN-B1
- Frequency accuracy complying with GSM recommendations

Applications

- DAB / DVB-T coverage and field-strength surveys
- EMI measurements to CISPR / CENELEC / FCC class
- Mobile radio network coverage (GSM-accuracy synthesizer)
- I/Q demodulation of 1.5 / 4 MHz channels
- Automatic scans via IEC IEEE bus (screenless unit; PC spectral display via 1EE05)

ESVB Characteristics / Specifications

PARAMETER	VALUE
Model	ESVB
Manufacturer	Rohde & Schwarz
Instrument Type	Measuring / EMI test receiver
Alias	ESVB 20 MHz to 2 GHz; R&S ESVB
Frequency Range	20 MHz to 2 GHz
Frequency Resolution	100 Hz
Frequency Accuracy	GSM recommendation class
Conversion Type	triple superhet
Preselectors	1 fixed tuned + 5 tracking (optional +4 fixed)
IF Filters Standard	10 kHz, 120 kHz, 300 kHz
IF Filters DAB DVB	1.5 MHz and 8 MHz SAW
Display Range QP / Average	60 dB without attenuator change
Display Range DAB DVB	70 dB without attenuator change
Detectors	peak, average, quasi peak, RMS
IQ Demodulator Bandwidth	1.5 MHz / 4 MHz per channel
Narrowband IQ Option	ESN-B1, bandwidth = 1/2 IF bandwidth
First LO Step	100 Hz with sweep mode
RF Input Impedance	50 ohm class
RF Attenuator Family	0 to 120 dB in 10 dB steps (ESV family class)
Level Measurement Family	minus 14 dBµV to +137 dBµV class (ESV/ESVD family)
Remote Interface	IEC IEEE bus
Display	screenless front panel (PC monitor via application note 1EE05)
Related ESVD Range	20 MHz to 1000 MHz (2050 MHz optional)
Related ESVS10 Range	20 MHz to 1000 MHz
Standards Class	CISPR, CENELEC, ETSI, FCC, VCCI, VDE

PARAMETER	VALUE
Mobile Use	RMS detector for fast COFDM power
COFDM Behavior	noise-like in-channel; RMS required (thermal meter too slow) Notes Specs from R&S ESVB product descriptions and the ESHS/ESVS/ESVB/ESVD application note 1EE05. Confirm installed SAW filters, ESN-B1, and extra preselector option. This is the 2 GHz ESVB, not ESVS10 (1 GHz) or ESVD.
Bandwidth	1.5 MHz / 4 MHz per channel

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	ESVB
Manufacturer	Rohde & Schwarz
Instrument Type	Measuring / EMI test receiver
Alias	ESVB 20 MHz to 2 GHz; R&S ESVB
Frequency Range	20 MHz to 2 GHz
Frequency Resolution	100 Hz
Frequency Accuracy	GSM recommendation class
Conversion Type	triple superhet
Preselectors	1 fixed tuned + 5 tracking (optional +4 fixed)
IF Filters Standard	10 kHz, 120 kHz, 300 kHz
IF Filters DAB DVB	1.5 MHz and 8 MHz SAW
Display Range QP / Average	60 dB without attenuator change
Display Range DAB DVB	70 dB without attenuator change
Detectors	peak, average, quasi peak, RMS
IQ Demodulator Bandwidth	1.5 MHz / 4 MHz per channel
Narrowband IQ Option	ESN-B1, bandwidth = 1/2 IF bandwidth
First LO Step	100 Hz with sweep mode
RF Input Impedance	50 ohm class
RF Attenuator Family	0 to 120 dB in 10 dB steps (ESV family class)
Level Measurement Family	minus 14 dBµV to +137 dBµV class (ESV/ESVD family)
Remote Interface	IEC IEEE bus
Display	screenless front panel (PC monitor via application note 1EE05)
Related ESVD Range	20 MHz to 1000 MHz (2050 MHz optional)
Related ESVS10 Range	20 MHz to 1000 MHz
Standards Class	CISPR, CENELEC, ETSI, FCC, VCCI, VDE
Mobile Use	RMS detector for fast COFDM power

PARAMETER	VALUE
COFDM Behavior	noise-like in-channel; RMS required (thermal meter too slow)
Notes Specs from R&S ESVB product descriptions and the ESHS/ESVS/ESVB/ESVD application note 1EE05. Confirm installed SAW filters, ESN-B1, and extra preselector option. This is the 2 GHz ESVB, not ESVS10 (1 GHz) or ESVD.	

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
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.