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Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

ROHDE & SCHWARZ

Rohde & Schwarz ESVP 20MHz-1.3GHz Measuring Receiver

Rohde & Schwarz ESVP Measuring / EMI Test Receiver 20 MHz to 1300 MHz The R&S ESVP (order family BN 354.3000.52, commonly listed as ESVP52) is a double-conversion measuring / EMI test receiver covering 20 MHz to 1300 MHz. A 20 MHz to 1000 MHz sibling exists as BN 354.3000.54. It measures AM DSB, SSB, pulse-modulated, and FM signals plus narrowband and broadband interference. High overload immunity and measurement dynamics support selective voltage and four-terminal measurements in automatic racks as well as radio monitoring and EMC work. The R&S ESVP (order family BN 354.3000.52, commonly listed as ESVP52) is a double-conversion measuring / EMI test receiver covering 20 MHz to 1300 MHz. A 20 MHz to 1000 MHz sibling exists as BN 354.3000.54. It measures AM DSB, SSB, pulse-modulated, and FM signals plus narrowband and broadband interference. High overload immunity and measurement dynamics support selective voltage and four-terminal measurements in automatic racks as well as radio monitoring and EMC work. CISPR-class EMI and disturbance measurements in VHF/UHF



MODEL

Rohde & Schwarz ESVP

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

ESVP

LISTING

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

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Rohde & Schwarz ESVP is a programmable measuring receiver for signal analysis and interference detection across 20 MHz to 1.3 GHz. Built for EMC testing, radiomonitoring, and radio communication analysis, it delivers amplitude measurements from -20 dBm to +137 dBμV with sub-1 dB accuracy and dynamic range exceeding 100 dB. The instrument supports selective voltage and two-port measurements across AM, FM, PM, SSB, ASK, FSK, PSK, and QAM modulations, with demodulation bandwidth spanning 1 Hz to 10 MHz and IF bandwidth options from 10 Hz to 10 MHz. Frequency setting resolution reaches 100 Hz in SSB mode with frequency error below 5×10^{-9} (maximum 5 kHz at 1 GHz), improving to 2×10^{-9} with the optional oven-controlled crystal oscillator.

Technical Specifications

Frequency Range: 20 MHz to 1.3 GHz
Frequency Resolution: 100 Hz (SSB), 1 kHz standard
Frequency Error: $<5 \times 10^{-9}$ typical; $<2 \times 10^{-9}$ with ESVP-B1 option
Amplitude Range: -20 dBm to +137 dBμV
Amplitude Accuracy: 100 dB
Noise Figure: Typically 8 dB (preamplifier on)
IP3: Typically +20 dBm (preamplifier off)
Image Rejection: >70 dB typical (typ. 100 dB for 1020–1300 MHz)
Spurious Response: <-70 dBc
Phase Noise: <-100 dBc/Hz at 10 kHz offset
RF Input VSWR: 1.2 (10 dB attenuation), typically 1.3 (0 dB attenuation)
Preamplifier: 10 dB gain, switchable
Maximum Input: 7 V AC sinewave (0 dB attenuation); ~15 dB lower with preamplifier
Demodulation Bandwidth: 1 Hz to 10 MHz
IF Bandwidth: 10 Hz to 10 MHz

Key Features

- Programmable operation for automated test system integration
- Automatic frequency scanning across five programmable subranges
- 10 tracking input filters
- Excellent selectivity for adjacent-channel power, harmonics, and intermodulation measurements
- Modulation support: AM, FM, PM, SSB, ASK, FSK, PSK, QAM

Typical Applications

- EMC compliance testing and pre-compliance verification
- Radiomonitoring and signal surveillance
- Radio communication system analysis
- Interference detection and characterization
- Research and development in RF communications

Compatibility & Integration

Programmable interface enables integration into automated measurement sequences and test frameworks for laboratory and field deployment.

ESVP Characteristics / Specifications

PARAMETER	VALUE
Model	ESVP
Manufacturer	Rohde & Schwarz
Instrument Type	Measuring / EMI test receiver
Alias	ESVP52; ESVP 52; ESVP 354.3000.52
Order Number 1300 MHz	BN 354.3000.52
Order Number 1000 MHz Sibling	BN 354.3000.54
Frequency Range	20 MHz to 1300 MHz (BN 354.3000.52)
Sibling Frequency Range	20 MHz to 1000 MHz (BN 354.3000.54)
Frequency Resolution	1 kHz; 100 Hz in SSB
Frequency Error	less than 5e-6 (max 5 kHz at 1 GHz)
RF Input Impedance	50 ohm
RF Input Connector	N female
Preamplifier Gain	about +10 dB, switchable
Input Filters	10 tracking filters
IF First Below 520 MHz	810.7 MHz
IF First Above 520 MHz	310.7 MHz
IF Second	10.7 MHz
Conversion Type	double superhet
Demodulation Modes	A0, A1, A3, A3J LSB/USB, F3
Display Type	8 digit LED frequency display
Typical Oscillator Leakage fo	typ. 40 dBuV
Typical Oscillator Leakage 2fo	typ. 50 dBuV for 1.02 to 1.3 GHz
Mains Voltage	100 to 240 V AC
DC Supply	24 V
Dimensions	492 × 205 × 514 mm

PARAMETER	VALUE
Weight	29.0 kg
Form Factor	19 inch rack / bench metal case
Measurement Accuracy Class	less than 1 dB class (OEM measurement accuracy statement)
Remote Interface	IEC IEEE bus
Operating Role	selective voltmeter, EMI receiver, radio monitoring Notes Specs from R&S ESVP 20 to 1300 MHz documentation (BN 354.3000.52). Confirm whether the unit is the 1300 MHz .52 or the 1000 MHz .54 sibling, and inventory installed options and firmware on the faceplate.

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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Model	ESVP
Manufacturer	Rohde & Schwarz
Instrument Type	Measuring / EMI test receiver
Specifications	
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Alias	ESVP52; ESVP 52; ESVP 354.3000.52
Order Number 1300 MHz	BN 354.3000.52
Order Number 1000 MHz Sibling	BN 354.3000.54
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PARAMETER	VALUE
Frequency Range	20 MHz to 1300 MHz (BN 354.3000.52)
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Typical Oscillator Leakage fo1	typ. 40 dBuV

Specifications

PARAMETER	VALUE
Typical Oscillator Leakage 2fo1	typ. 50 dBuV for 1.02 to 1.3 GHz
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DC Supply	24 V

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Notes

Specs from R&S ESVP 20 to 1300 MHz documentation (BN 354.3000.52). Confirm whether the unit is the 1300 MHz .52 or the 1000 MHz .54 sibling, and inventory installed options and firmware on the faceplate.

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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<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
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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.