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Data Sheet

August 13, 2026

ROHDE & SCHWARZ

Rohde & Schwarz ESL6 EMI Test Receiver

Rohde & Schwarz ESL6 EMI Test Receiver 9 kHz to 6 GHz The R&S ESL6 is the 6 GHz entry-level EMI test receiver / spectrum analyzer (order 1300.5001.06; tracking-generator variant 1300.5001.16). Frequency range is 9 kHz to 6 GHz covering almost all commercial EMC standards. It is the first combination of an EMI test receiver and a full-featured spectrum analyzer in the entry-level class, with CISPR 16-1-1 weighting detectors including quasi-peak, CISPR-average, and RMS-average. Amplitude accuracy is 0.5 dB below 3 GHz and 0.8 dB to 6 GHz. Optional FSL-B22 preamplifier, FSL-B4 OCXO, and battery pack support lab and mobile precompliance. Sibling ESL3 stops at 3 GHz. The R&S ESL6 is the 6 GHz entry-level EMI test receiver / spectrum analyzer (order 1300.5001.06; tracking-generator variant 1300.5001.16). Frequency range is 9 kHz to 6 GHz covering almost all commercial EMC standards. It is the first combination of an EMI test receiver and a full-featured spectrum analyzer in the entry-level class, with CISPR 16-1-1 weighting detectors including quasi-peak, CISPR-average, and RMS-average. Amplitude accuracy is 0.5 dB below 3 GHz and 0.8 dB to 6 GHz. Optional FSL-B22 preamplifier, FSL-B4 OCXO, and battery pack support lab and mobile precompliance. Sibling ESL3 stops at 3 GHz. Optional tracking-generator scalar measurements (1 MHz to 6 GHz)



MODEL

Rohde & Schwarz ESL6

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

ESL6

LISTING

<https://aumictechlabs.com/products/esl6-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Rohde & Schwarz ESL6 is a dedicated EMI test receiver and spectrum analyzer engineered for electromagnetic compliance testing and field diagnostics across 9 kHz to 6 GHz. It combines precision frequency measurement, CISPR-compliant detection modes, and automated test sequencing to streamline certification workflows in development labs and third-party test facilities.

Technical Specifications

Frequency Range & Resolution Operating range: 9 kHz to 6 GHz
Frequency resolution: 1 Hz
Frequency span: 0 Hz, 10 Hz to 3/6 GHz (span uncertainty: 3%)
Marker resolution and tuning: 1 Hz resolution; default step size = span / 500
Reference Frequency Stability Standard configuration: $\pm 1 \times 10^{-6}$ aging per year; $\pm 1 \times 10^{-6}$ temperature drift (5 °C to 45 °C); $\pm 5 \times 10^{-7}$ max. initial calibration accuracy
With R&S FSL-B4 OCXO option: $\pm 1 \times 10^{-7}$ aging per year; $\pm 1 \times 10^{-7}$ temperature drift; $\pm 5 \times 10^{-8}$ max. initial calibration accuracy
Spectral Purity (at 500 MHz) SSB phase noise: -95 dBc (1 Hz) at 1 kHz offset; $\leftarrow$ 98 dBc typ. -103 dBc (1 Hz) at 10 kHz offset; $\leftarrow$ 98 dBc (1 Hz) at 100 kHz offset
Amplitude Performance Measurement accuracy: 0.5 dB up to 3 GHz
1 dB compression point: +5 dBm
RF input pulse resistance: 10 mWs
Displayed average noise level: typ. -162 dBm; 25 dB
Trace capacity: up to 1 million measurement points per trace; six traces active in parallel
Integrated spectrum analyzer functions: channel power, adjacent channel power, occupied bandwidth, intermodulation, noise figure
Automated test sequences with tabular SCAN configuration
Large bargraph display with MAX HOLD function
Predefined antenna factors and limit lines per commercial standards
TUNE TO MARKER and MARKER TRACK monitoring

Typical Applications EMI/RFI compliance testing and precompliance screening
Radiated and conducted emissions characterization
Spectrum occupancy and interference analysis
Signal identification and disturbance monitoring

Compatibility & Integration All spectrum analyzer functions of the R&S FSL3/R&S FSL6 platform are included.

ESL6 Characteristics / Specifications

PARAMETER	VALUE
Detectors	pos/neg peak, auto peak, quasi-peak, RMS, average, sample, CISPR average, CISPR RMS RBW 10 Hz to 10 MHz (3 dB); CISPR 200 Hz, 9 kHz, 120 kHz, 1 MHz impulse Compact, about 7 kg; LAN and USB; optional GPIB (B10) Optional AM/FM/PM demodulator K7, noise-figure K30, power-sensor K9
Model	ESL6
Manufacturer	Rohde & Schwarz
Instrument Type	EMI test receiver / spectrum analyzer
Alias	ESL 6; R&S ESL6
Order Number	1300.5001.06
Order Number with TG	1300.5001.16
Frequency Range	9 kHz to 6 GHz
Frequency Resolution	1 Hz
Frequency Accuracy Standard	1e-6
OCXO FSL B4 Accuracy	1e-7
Receiver Measurement Time	100 us to 100 s per step
Analyzer Sweep Time	2.5 ms to 16000 s; zero span 1 us to 16000 s
RBW 3 dB	10 Hz to 10 MHz in 1/3 sequence
RBW 6 dB EMI	200 Hz, 9 kHz, 120 kHz, 1 MHz (impulse)
Video Bandwidth	1 Hz to 10 MHz in 1/3 sequence
Max RF Level att 10 dB	+30 dBm (1 W)
Max Pulse Energy	10 mWs
Max Pulse Voltage	150 V
TOI	typically +18 dBm
Compression Point 1 dB	+5 dBm
DANL with FFT 1 Hz and B22 preamp at 500 MHz	typically minus 162 dBm

PARAMETER	VALUE
DANL with FFT 1 Hz and B22 at 3 GHz	typically minus 158 dBm
DANL 9 kHz to 3 MHz with preamp	typically minus 115 dBm
Level Uncertaintyfless than 3 GHz	less than 0.5 dB
Level Uncertaintyfless than 6 GHz	less than 0.8 dB
Tracking Generator Range	1 MHz to 6 GHz (TG model)
Tracking Generator Level	minus 20 dBm to 0 dBm
RF Input	N female, 50 ohm
Display	640 × 480 pixels
Dimensions	408.8 mm x 158.1 mm x 465.3 mm
Weight	7 kg
Interfaces	LAN, USB; optional GPIB B10
Preamplifier Option	FSL-B22
Battery Option	FSL-B31 NiMH
Sibling ESL3 Range	9 kHz to 3 GHz Notes Specs from the R&S ESL EMI Test Receiver brochure and data sheet (ESL_dat-sw_en_5214-0430-22). Confirm tracking-generator SKU (.16), B22 preamp, B4 OCXO, and K-options. This file is the 6 GHz ESL6, not ESL3.
Bandwidth	1 Hz to 10 MHz in 1/3 sequence

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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Compression Point 1 dB: +5 dBm

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DANL with FFT 1 Hz and B22 at 3 GHz: typically minus 158 dBm

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Notes

Specs from the R&S ESL EMI Test Receiver brochure and data sheet (ESL_dat-sw_en_5214-0430-22). Confirm tracking-generator SKU (.16), B22 preamp, B4 OCXO, and K-options. This file is the 6 GHz ESL6, not ESL3.

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.