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Data Sheet
August 13, 2026

ROHDE & SCHWARZ

Rohde & Schwarz ESH3 9KHz-30MHz Measuring Receiver

Rohde & Schwarz ESH3 Automatic Test Receiver 9 kHz to 30 MHz The R&S ESH3 (ESH 3) is an automatic test receiver for EMI and signal analysis from 9 kHz to 30 MHz (order class 335.8017.52). It measures and demodulates AM, DSB, SSB, pulse, and FM as well as interference. Sensitivity range is minus 30 to +137 dBµV. Four IF bandwidths 0.2 / 0.5 / 2.4 / 10 kHz and average, peak, and quasi-peak indication to CISPR 16 and VDE 0876 support conducted EMI. A 75 MHz broadband IF output drives panoramic adapter EZM oraspectrum analyzer. Built-in calibration generator (50 dBµV plus/minus 0.5 dB into 50 ohm) enables attenuation/gain and VSWR-bridge measurements. The R&S ESH3 (ESH 3) is an automatic test receiver for EMI and signal analysis from 9 kHz to 30 MHz (order class 335.8017.52). It measures and demodulates AM, DSB, SSB, pulse, and FM as well as interference. Sensitivity range is minus 30 to +137 dBµV. Four IF bandwidths 0.2 / 0.5 / 2.4 / 10 kHz and average, peak, and quasi-peak indication to CISPR 16 and VDE 0876 support conducted EMI. A 75 MHz broadband IF output drives panoramic adapter EZM oraspectrum analyzer. Built-in calibration generator (50 dBµV plus/minus 0.5 dB into 50 ohm) enables attenuation/gain and VSWR-bridge measurements.

MODEL Rohde & Schwarz ESH3	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU ESH3	LISTING https://aumictechlabs.com/products/esh3-2/

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Rohde & Schwarz ESH3 is a measuring receiver engineered for precision signal analysis and interference characterization across 9 kHz to 30 MHz. This instrument delivers high sensitivity, excellent selectivity, and wide dynamic range - essential for EMC testing, signal monitoring, and radio reconnaissance. The ESH3 demodulates AM double-sideband, single-sideband, pulse modulated, and FM signals while measuring sinusoidal and impulsive interference with measurement range of -30 to +137 dBµV.Operating as a high-precision selective voltmeter, it requires no additional accessories for basic operation.Technical Specifications Frequency coverage spans 9 kHz to 30 MHz with measurement range -30 to +137 dBµV. The instrument offers selectable low-noise or low-distortion measurement modes. Automatic linearity testing distinguishes inherent non-linearity from device-under-test non-linearity. A calibration generator produces 80 dBµV ±0.6 dB into 500 Ω at receiver center frequency, supporting attenuation measurements to 110 dB and gain measurements to 57 dB. With the optional ESH3-Z2 Pulse Limiter installed, the receiver handles 1 W continuous power and 100 mWs pulse power (6 µs duration) at 10 dB insertion loss.Key Features 75 MHz broadband IF output enables integration with panoramic displays and spectrum monitors IEC 625-1 (IEEE 488) GPIB interface for remote control and automated test sequences Talk-Only mode for direct printer output without a controller Device Clear and Device Trigger functions for synchronized measurement automation Local Lockout disables front panel during automatic test runsTypical Applications EMC testing and compliance verification; signal monitoring in complex RF environments; radio reconnaissance and interference analysis; amplifier and filter frequency response characterization; disturbance voltage measurement in low-impedance supply networks (with ESH3-Z6 V-Network accessory).Compatibility & Integration The ESH3 interfaces with IEC/IEEE bus-compatible test systems. Optional V-Network (ESH3-Z6) extends capability to 0.1 MHz–200 MHz for supply network measurements. The ESH3-Z2 Pulse Limiter accessory protects the receiver input during high-power pulse testing.

Features & description

From manufacturer datasheet

Features

• Demodulation A0, A1, A3, A3J (USB/LSB), F3; loudspeaker and phones • Analog bar of level and offset plus digital readout • Overload indication and automatic linearity test • Narrowband 30 kHz IF for oscilloscope; AM/FM demodulator outputs • XY recorder outputs for level and frequency offset

Applications

• Conducted EMI 9 kHz to 30 MHz • Field-strength meter with suitable test antennas • Selective RF voltmeter and RF current (ESH2-Z1 probe) • Automatic test systems (IEEE 488 option) • Modulation depth, frequency offset, and deviation measurements

ESH3 Characteristics / Specifications

PARAMETER	VALUE
Model	ESH3
Manufacturer	Rohde & Schwarz
Instrument Type	Automatic EMI / communications test receiver
Alias	ESH 3; R&S ESH3; 335.8017.52
Frequency Range	9 kHz to 30 MHz
Sensitivity Range	minus 30 to +137 dBµV
IF Bandwidths	0.2 kHz, 0.5 kHz, 2.4 kHz, 10 kHz
Detectors	average, peak, quasi-peak (CISPR 16 / VDE 0876)
Measuring Times	programmable
Broadband IF Output	75 MHz class for EZM or analyzer
Narrowband IF Output	30 kHz for oscilloscope
Calibration Generator	50 dBµV plus/minus 0.5 dB into 50 ohm at receiver center frequency
Attenuation Measurement Range	to 110 dB
Gain Measurement Range	to 57 dB
Remote	IEC 625-1 / IEEE 488 (universal; Talk-Only to printer)
Demodulation	AM, DSB, SSB, pulse, FM
Dimensions	490 mm x 207 mm x 515 mm
Weight	25.5 kg
Current Probe	ESH2-Z1 for cable shielding / RF current
Recorder	XY, linear or log frequency axis
Digital Measurements	modulation depth, frequency offset, deviation
RF Current Probe Use	shielding effectiveness of cables
VSWR Bridge Use	return loss of two- and four-terminal networks with cal generator
Form Factor	19 inch class automatic test receiver
Input Role	50 ohm selective voltmeter / field-strength meter

PARAMETER	VALUE
Overload	RF input and essential stages indicated
Linearity Test	automatic atakeystroke Notes Specs from R&S ESH3 test receiver literature. Confirm IEEE-bus option and ESH2-Z1 probe. This is the 9 kHz to 30 MHz ESH3, not later ESHS/ESPI conducted/radiated receivers.
Attenuation	Measurement Range: to 110 dB
Return loss	of two- and four-terminal networks with cal generator

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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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

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