

ROHDE & SCHWARZ

FSH4

The Rohde & Schwarz FSH4 is a rugged, handheld spectrum analyzer designed for field applications. It features high sensitivity, low measurement uncertainty, and a frequency range up to 3.6 GHz. Depending on the version, it offers advanced measurement capabilities including a built-in tracking generator and a two-port network analyzer, making it an essential tool for the installation and maintenance of transmitter stations.

SPECIFICATIONS

General

Interfaces	LAN, USB, SD card slot
Display	6.5-inch color TFT VGA (640 × 480 pixels)
Two-Port Network Analyzer	Supported (Model .24)
PC Software	R&S FSH4View (for measurement documentation)
Recommended Calibration Interval	1 year

Physical

Power Supply	100-240 V AC adapter or Li-ion battery
Operating Temperature	-10 to +55 °C
Dimensions (W×H×D)	194 × 300 × 69 mm
Weight	3 kg

Frequency

Frequency Range (Models .04 & .14)	9 kHz to 3.6 GHz
Frequency Range (Model .24)	100 kHz to 3.6 GHz
Frequency Resolution	1 Hz
Reference Frequency Aging	< 1 ppm / year
Reference Frequency Initial Accuracy	1 × 10 ⁻⁶

Bandwidths

Resolution Bandwidth (RBW) Range	1 Hz to 3 MHz
Video Bandwidth (VBW) Range	1 Hz to 3 MHz

Amplitude and Level

Displayed Average Noise Level (DANL)	< -141 dBm (1 Hz)
Maximum DC Voltage	50 V

Tracking Generator (Options)

Internal Tracking Generator	Included (Models .14 and .24)
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Inputs and Outputs

Internal VSWR Bridge	Included (Model .24)
RF Input Connector	N female
RF Input Impedance	50 Ω
LAN / Ethernet Interface	10/100Base-T, RJ-45
USB Interface	USB Host and Device
Removable Memory Slot	SD card

Display

Display Size	6.5 inches
Display Resolution	640 × 480 pixels

Power Supply

Battery Type	Li-ion (Field replaceable)
Battery Operating Time	Up to 4.5 h

Physical Specifications

Enclosure Features	Rugged, splash-proof housing
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Amplitude & Inputs

Maximum Safe Continuous Power	+30 dBm (1 W)
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Sweep & Traces

Data Points per Trace	631
Trace Detectors	Max Peak, Min Peak, Auto Peak, Sample, RMS
Trace Functions	Clear/Write, Max Hold, Min Hold, Average, View

Features

Audio Demodulation	AM and FM (via internal loudspeaker or headphone jack)
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Environmental

Storage Temperature Range	-20 °C to +70 °C
Ingress Protection (IP) Rating	IP51
Vibration (Sinusoidal)	5 Hz to 55 Hz (0.15 mm), 55 Hz to 150 Hz (0.5 g) in line with EN 60068-2-6
Vibration (Random)	10 Hz to 300 Hz (1.2 g rms) in line with EN 60068-2-64
Shock Resistance	40 g shock spectrum in line with MIL-STD-810G / EN 60068-2-27

Amplitude & Level

Third-Order Intercept (TOI)	> 10 dBm, typ. +15 dBm (300 MHz to 3.6 GHz)
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Tracking Generator

Tracking Generator Frequency Range	100 kHz to 3.6 GHz (Models .14 and .24)
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Inputs & Outputs

External Trigger Input Connector	BNC female
External Trigger Level	TTL level
External Reference Input / Output	BNC female, 50 Ω
External Reference Frequency	10 MHz

Power

Power Consumption	Typ. 12 W
AC Power Adapter Range	100 V to 240 V AC, 50 Hz to 60 Hz

TECHNOLOGY

Spectrum Analysis

APPLICATIONS

Field Testing, Transmitter Station Maintenance, Network Analysis, Outdoor Work

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.