

ROHDE & SCHWARZ

FSEK20

The Rohde & Schwarz FSEK20 is a high-performance 40 GHz spectrum analyzer belonging to the renowned FSE series. Engineered for advanced signal and spectrum analysis, it delivers an outstanding dynamic range up to 152 dB, exceptional sweep speeds down to 1 us, and highly flexible resolution and video bandwidth options. With built-in features such as RMS detection, AM/FM demodulation, and mobile radio measurement support, the FSEK20 is an industry-standard benchtop solution for microwave, digital, and spread-spectrum wireless technologies.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488.2), RS-232-C, Parallel (LPT), External VGA
Display	Color TFT Display with quasi-analog capability

Physical

Power Supply	100 V to 240 V AC, 50 Hz to 60 Hz / 400 Hz
Operating Temperature	0 °C to +50 °C °C
Dimensions (W×H×D)	435 mm × 236 mm × 570 mm mm
Weight	31 kg kg

Frequency Specifications

Frequency Range	9 kHz to 40 GHz
Minimum Frequency Span	0 Hz (Zero Span)

Amplitude and Dynamic Range Specifications

Input Attenuator Range	0 dB to 70 dB
Input Attenuator Steps	10 dB

Bandwidth (RBW / VBW)

Resolution Bandwidth (RBW) Range	1 Hz to 10 MHz
Resolution Bandwidth (RBW) Steps	1/2/3/5
Minimum Video Bandwidth	1 Hz
Maximum Video Bandwidth	10 MHz
Video Bandwidth (VBW) Steps	1/2/3/5

Sweep and Trigger

Minimum Sweep Time (Zero Span)	1 μs
Pretrigger	Supported

Measurement and Detection Functions

Detection Modes	RMS, Peak, Min Peak, Sample, Quasi-Peak
Demodulation Modes	AM, FM
Mobile Radio Analysis Support	Digital and Analog Mobile Radio, Spread Spectrum Channel

User Interface and Display

Display Type	Color TFT
Quasi-analog Display Mode	Supported

RF Inputs and Outputs

RF Input Connector Type	2.92 mm (K connector) female
RF Input Impedance	50 Ω
External Reference Input	10 MHz

Digital Connectivity and Interfaces

Keyboard Interface Port	5-pin DIN
Printer Interface Port	25-pin Parallel (Centronics)
SCPI Compatibility	Fully SCPI compatible command set

Environmental and Standards Compliance

Storage Temperature Range	-40 °C to +70 °C
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Display

Display Resolution	640 × 480 pixels
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Performance

SSB Phase Noise (10 kHz offset, 1 GHz carrier)	<-113 dBc (1 Hz)
Frequency Counter Resolution	0.1 Hz to 10 kHz (selectable)

Inputs & Outputs

IF Output (21.4 MHz)	BNC female
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Storage

Floppy Disk Drive	3.5" 1.44 MB
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RF Input

Maximum Safe RF Input Power	+30 dBm (1 W)
Maximum DC Input Voltage	0 V

Trigger

Trigger Sources	Free Run, Video, External, Line
External Trigger Input Connector	BNC female

Frequency Reference

Internal Reference Frequency	10 MHz
Reference Frequency Output Connector	BNC female, 10 MHz

TECHNOLOGY

Heterodyne Spectrum Analyzer

APPLICATIONS

RF and Microwave Signal Analysis, Mobile Radio Testing, Spread Spectrum Analysis

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