R&S®FSH Handheld Spectrum Analyzer

The all-in-one handheld platform



The perfect choice for	
Installation and maintenance of transmitter stations	EMI debugging/ RF design validation
Interference hunting	Electromagnetic fields measurements

Expandable platform that eliminates the need for multiple instruments

Depending on the model and options installed, the R&S°FSH can be a

- Spectrum analyzer
- Interference hunting analyzer
- Cable and antenna analyzer
- Two-port vector network analyzer
- Power meter

Key specifications	
Frequency range	9 kHz to 3.6/8/13.6/20 GHz
Resolution bandwidth	1 Hz to 3 MHz
Demodulation bandwidth	20 MHz
Phase noise	95 dBc/Hz; –105 dBc/Hz (typ.)
Measurement uncertainty	< 1 dB (typ.)
Displayed average noise level (DANL)	R&S®FSH4 & R&S®FSH8 -157 dBm; -161 dBm (typ.) R&S®FSH13 & R&S®FSH20 -155 dBm; -159 dBm (typ.)
Third order intercept (TOI)	R&S®FSH4 only > +10 dBm; +15 dBm (typ.) R&S®FSH8/FSH13/FSH20 > +3 dBm; +10 dBm (typ.)

Your benefit	Features
An expandable platform for every RF handheld measurement application	Expanded modes of operation for field strength measurements, power measurements, network analysis, interference analysis, vector voltmeter, pulse measurements
Extensive support for numerous wireless technologies	Modulation analysis for all current cellular technologies, including over-the-air LTE- Advanced carrier aggregation signal analysis
Most efficient instrument in the field	 Sunlight readable display Wizard streamlines test development Remote control and data export with free R&S°Instrument View software Fast measurement mode switching SD card and USB port for data storage





Support of numerous mobile comm. standards 12/06/15 13:25 = -60.0 dBm Cell [Grp/ID]: 379 [126/1] Ref Offset: 0.0 dB Antenna: M 2x2 / OTA 0.0 dB Cyclic Prefix: Auto Subframes: 10 Cell ID status: PASS Preamp Channel 20 MHz (100 RB) Channel BW 10 MHz (50 RB) Results RF Channel Power -80.47 dBm -72.56 dBm 2.48 kHz Spectrum Overview -104.40 dBm 379 [126/1] Isotropic Antenna -110.11 dBm [126/1] Constellation Diagram Resource Allocations -100.59 dBm BTS Scanner 110 50 % Limits -99.24 dBm 115.12 % -102.18 dBn

Modulation measurements on GSM/GPRS/EDGE, W-CDMA, TD-SCDMA CDMA2000, 1xEV-DO, LTE TDD, LTE FDD

For cable loss and antenna testing and characterization as well as distance to fault measurements.

Two-port capability for transmission measurements.

Wizard support for common measurement functions

Re Att	t: 10 dB				Points: TG Powe		dBm S	uppr: Of	
VI1 VI3	2.64 r 3.72 r		23.55 39.16	dB dB	M2	9.42	m	-26.58	dB
0.0		Mi						S11 (feal) Mag
-10.0		•						M2	ΙΛ
-20.0			MB .						
-30.0		π					7	,	Ш
40.0									1
50.0			\					lηΝ	1 , 4
.60.0	1 A	MAZ		المما	M N	MM	\sim	V V	
-70.0 V	√\	Vγ	W	101 M	٧	Ţ			
-80.0									
	nent Done								
tart: 0 n		p: 12 r		Center:	2.5 GHz		Span	1.2673	1 GHz
Next Meas		Kepeat Meas		terrupt Vizard				_	Cancel

User-definable test sequences that reduce operating errors in the field.

Remote control via LAN or USB



The R&S°FSH can be remotely controlled via the USB or LAN interface and integrated into user-specific programs.

Ordering information

Choose your model					
Spectrum analyzer	Frequency range	Options			
R&S®FSH4.04	9 kHz to 3.6 GHz	Base unit			
R&S®FSH4.14	9 kHz to 3.6 GHz	Tracking generator			
R&S®FSH4.24	100 kHz to 3.6 GHz	VSWR bridge			
R&S®FSH8.08	9 kHz to 8 GHz	Base unit			
R&S®FSH8.18	9 kHz to 8 GHz	Tracking generator			
R&S®FSH8.28	100 kHz to 8 GHz	VSWR bridge			
R&S®FSH13.13	9 kHz to 13.6 GHz	Base unit			
R&S®FSH13.23	9 kHz to 13.6 GHz	Tracking generator and VSWR bridge			
R&S®FSH20.20	9 kHz to 20 GHz	Base unit			
R&S®FSH20.30	9 kHz to 20 GHz	Tracking generator and VSWR bridge			

Included: All models include lithium-ion battery pack, LAN and USB cables, AC power supply, CD-ROM with and documentation, quick start guide and three-year warranty (one year for battery and accessories)

Popular options/accessories					
Description	Туре				
Spectrum analyzer preamplifier	R&S®FPH-B22				
Interference analysis	R&S®FPH-K15				
Lithium-ion battery pack, 6.75 Ah	R&S®HA-Z206				
Soft carrying bag	R&S®HA-Z220				
Hard case	R&S®HA-Z221				
Near-field probe set	R&S®HZ-15				
Yagi antenna, 824 MHz to 960 MHz	R&S®HA-Z900				
Yagi antenna, 1710 MHz to 1990 MHz	R&S®HA-Z1900				

Rohde & Schwarz Representative

Rohde & Schwarz GmbH & Co. KG

Europe, Africa, Middle East | +49 89 4129 12345

North America | 1 888 TEST RSA (1 888 837 87 72)

Latin America | +1 410 910 79 88

Asia Pacific | +65 65 13 04 88

China | +86 800 810 82 28 | +86 400 650 58 96

www.rohde-schwarz.com

customersupport@rohde-schwarz.com

R&S® is a registered trademark of Rohde & Schwarz GmbH & Co. KG PD 5214.9450.32 | Version 01.00 | July 2017 (ad)

Trade names are trademarks of the owners
R&S®FSH Handheld Spectrum Analyzer
Data without tolerance limits is not binding | Subject to change
© 2017 Rohde & Schwarz GmbH & Co. KG | 81671 Munich, Germany