

## Specifications

The specifications below are based on the data sheet specifications of the Spectrum Analyzer R&S FSP and have not been checked separately.

Specifications apply under the following conditions:

15 minutes warmup time at ambient temperature, specified environmental conditions met, calibration cycle adhered to and internal calibration performed. Data with tolerances denotes measurement uncertainties with a confidence level of 95%.

Unless otherwise stated, specifications are quoted for an RF input level +30 dBm to -50 dBm within the *Bluetooth* band (ISM) 2400 MHz to 2483.5 MHz and default settings.

Output power	
Measurements	average and peak power to <i>Bluetooth</i> RF Test Specification
Level range	+30 dBm to -50 dBm
Level uncertainty	<0.7 dB (s = 0.25 dB)
Packet type	longest supported (DH1, DH3, DH5)
Payload	PRBS9
Synchronization	RF burst or preamble
Trigger	IF power, external, free run
Modulation characteristics	
Measurements	FM deviation according to <i>Bluetooth</i> RF Test Specification $\Delta f_{1max}$ , $\Delta f_{2max}$ , $\Delta f_{1avg}$ , $\Delta f_{2avg}$ and $\Delta f_{2avg}/\Delta f_{1avg}$
Deviation range	$\pm 250$ kHz
Deviation uncertainty	<3 kHz (signal level >-25 dBm, 10 averages)
Packet type	longest supported (DH1, DH3, DH5)
Payload	10101010 and 11110000, auto detect
Synchronization	preamble
Trigger	IF power, external, free run
Initial carrier frequency tolerance (ICFT)	
Measurements	ICFT to <i>Bluetooth</i> RF Test Specification
Measurement range	$\pm 250$ kHz
Uncertainty	<2 kHz + carrier frequency x reference error (signal level >-30 dBm)
Packet type	DH1
Payload	PRBS9
Synchronization	preamble
Trigger	IF power, external, free run
Carrier frequency drift	
Measurements	carrier frequency drift to <i>Bluetooth</i> RF Test Specification drift / packet and drift / 50 $\mu$ s
Measurement range	$\pm 250$ kHz
Uncertainty	<2 kHz (signal level > -30 dBm)
Packet type	all supported (DH1, DH3, DH5)
Payload	10101010
Synchronization	preamble
Trigger	IF power, external, free run

Adjacent channel power (ACP)	
Measurements	adjacent channel power according to <i>Bluetooth</i> RF Test Specification
Level range	max. +20 dBm
Packet type	DH1
Payload	PRBS9
Synchronization	none
Trigger	external, free run

## Ordering information

Order designation	Type	Order No.
Application Firmware for <i>Bluetooth</i> ™ Measurements with R&S FSP and R&S FSU	R&S FS-K8	1157.2568.02
Spectrum Analyzer 9 kHz to 3 GHz	R&S FSP3	1093.4495.03
Spectrum Analyzer 9 kHz to 7 GHz	R&S FSP7	1093.4495.07
Spectrum Analyzer 9 kHz to 13.6 GHz	R&S FSP13	1093.4495.13
Spectrum Analyzer 9 kHz to 30 GHz	R&S FSP30	1093.4495.30
Spectrum Analyzer 9 kHz to 40 GHz	R&S FSP40	1093.4495.40
Spectrum Analyzer 20 Hz to 3.6 GHz	R&S FSU3	1129.9003.03
Spectrum Analyzer 20 Hz to 8 GHz	R&S FSU8	1129.9003.08
Spectrum Analyzer 20 Hz to 26.5 GHz	R&S FSU26	1129.9003.26



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