



Version
01.00

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WLAN 802.11a Application Firmware R&S® FSQ-K90

Specifications



ROHDE & SCHWARZ

The specifications of R&S FSQ-K90 are based on the data sheet specifications of the Signal Analyzer R&S FSQ and have not been checked separately. They are valid under the following conditions:
 15 minutes warm-up time at ambient temperature, specified environmental conditions met, calibration cycle adhered to and internal calibration performed. Data with tolerance limits: measurement uncertainties with a confidence level of 95%. Data without tolerance limits: typical values. The specified level measurement errors do not take into account systematic errors due to reduced S/N ratio.

Frequency

Frequency range	RF input R&S FSQ3 R&S FSQ8 R&S FSQ26 I/Q baseband input (R&S FSQ-B71)	10 MHz to 3.6 GHz 10 MHz to 8 GHz 10 MHz to 26.5 GHz DC to 36 MHz
Frequency setting		frequency channel number

Level

Level range	RF input I/Q baseband input (R&S FSQ-B71)	-50 dBm to +30 dBm 31.6 mV to 5.62 V
Level setting		autorange manual

Signal acquisition

Supported standards		802.11a, 802.11g (OFDM)
Modulation format		BPSK, QPSK, 16QAM, 64QAM
Demodulator setting		manual with/without test of signal field
Capture length	continuous	24 μ s to 50 ms
Number of bursts that can be analyzed	manual	1 to 10922
Result length	PVT, spectrum FFT, CCDF EVM vs. symbol and vs. carrier, constellation vs. symbol and vs. carrier spectrum flatness, bit stream	capture length, 1 to 10922 bursts or gate length capture length, 1 to 10922 bursts
Sweep time	spectrum mask ACPR	100 ms 300 ms
Burst length	automatic detection of number of data symbols manual	1 to 1366 data symbols
Triggering	RF input I/Q baseband input	free run, IF power, external free run, envelope of I/Q voltage, external

Adjustable parameters

Input	R&S FSQ-B71	RF I and Q baseband, unbalanced, balanced
Pilot tracking		phase on/off timing on/off level on/off
Channel estimation		preamble and data preamble

Measurement uncertainty

Residual EVM	level -23 dBm to +30 dBm average of 20 bursts input = RF (f = 2.4 GHz or 5 GHz) channel estimation = preamble and data channel estimation = preamble input = I and Q baseband channel estimation = preamble and data channel estimation = preamble	-46 dB -44 dB -47 dB -45 dB
Frequency error Lock range Uncertainty		40 ppm 1 Hz + reference frequency uncertainty
Level uncertainty	test of spectrum mask output power f <3.6 GHz 3.6 GHz <=f <=8 GHz ACPR (adjacent channel power ratio)	0.1 dB 0.5 dB 1.5 dB 0.5 dB
Spectrum flatness	f <3.6 GHz f >3.6 GHz	0.3 dB 0.5 dB

Ordering information

Application Firmware for WLAN 802.11a TX Measurements with the R&S FSQ	R&S FSQ-K90	1157.3064.02
Signal Analyzer 20 Hz to 3.6 GHz	R&S FSQ3	1155.5001.03
Signal Analyzer 20 Hz to 8 GHz	R&S FSQ8	1155.5001.08
Signal Analyzer 20 Hz to 26 GHz	R&S FSQ26	1155.5001.26
Recommended options and extras	see also data sheet Signal Analyzer R&S FSQ	
I/Q Baseband Inputs for the Signal Analyzer R&S FSQ	R&S FSQ-B71	1157.0113.02



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