

Version  
01.00December  
2003

# WLAN 802.11a Application Firmware R&S<sup>®</sup> FSP-K90

## Specifications

**ROHDE & SCHWARZ**

The specifications of R&S FSP-K90 are based on the specifications of the Spectrum Analyzer R&S FSP 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 FSP3 R&S FSP7 R&S FSP13 R&S FSP30 R&S FSP40	10 MHz to 3 GHz 10 MHz to 7 GHz 10 MHz to 13.6 GHz 10 MHz to 30 GHz 10 MHz to 40 GHz
Frequency setting			frequency channel number

## Level

Level range	RF input	-50 dBm to +30 dBm
Level setting		autorange manual

## Signal acquisition

Supported standards		802.11a, 802.11g (OFDM)
Modulation format		BPSK, QPSK, 16QAM, 64QAM
Demodulator setting		manual
Capture length	continuous	4.06 ms
Number of bursts that can be analyzed	manual	1 to 10922 bursts
Result length	all evaluations vs. carriers -14 to +14  EVM vs. symbol and vs. carrier, constellation vs. symbol and vs. carrier	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	free run, IF power, external

## Adjustable parameters

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	-43 dB -41 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 GHz ≤ f ≤ 7 GHz ACPR (adjacent channel power ratio)	0.2 dB  0.5 dB typ. 1 dB 0.5 dB

## Ordering information

<b>WLAN 802.11a Application Firmware R&amp;S®FSP-K90</b>	<b>R&amp;S FSP-K90</b>	<b>1300.6650.02</b>
Spectrum Analyzer, 9 kHz to 3 GHz	R&S FSP3	1164.4391.03
Spectrum Analyzer, 9 kHz to 7 GHz	R&S FSP7	1164.4391.07
Spectrum Analyzer, 9 kHz to 13.6 GHz	R&S FSP13	1164.4391.13
Spectrum Analyzer, 9 kHz to 30 GHz	R&S FSP30	1164.4391.30
Spectrum Analyzer, 9 kHz to 40 GHz	R&S FSP40	1164.4391.40
<b>Recommended options and extras</b>	<b>see also data sheet Spectrum Analyzer R&amp;S FSP</b>	

Spectrum Analyzers R&S FSP with WindowsNT operating system (1093.4495.xx) must be upgraded to WindowsXP prior to installing R&S FSP-K90.

Product brochure see PD 0757.8607  
and at [www.rohde-schwarz.com](http://www.rohde-schwarz.com)  
(search term: FSP)



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