

## WLAN 802.11

For measurements on 802.11 signals the R&S FSQ offers:

- ?? Application firmware for 802.11a TX measurements **R&S FSQ-K90**
- ?? Windows-based WLAN test software for 802.11a, 802.11b and 802.11g TX measurements

Both can be used with RF signals, IF signals or baseband signals (requires baseband option R&S FSQB71)

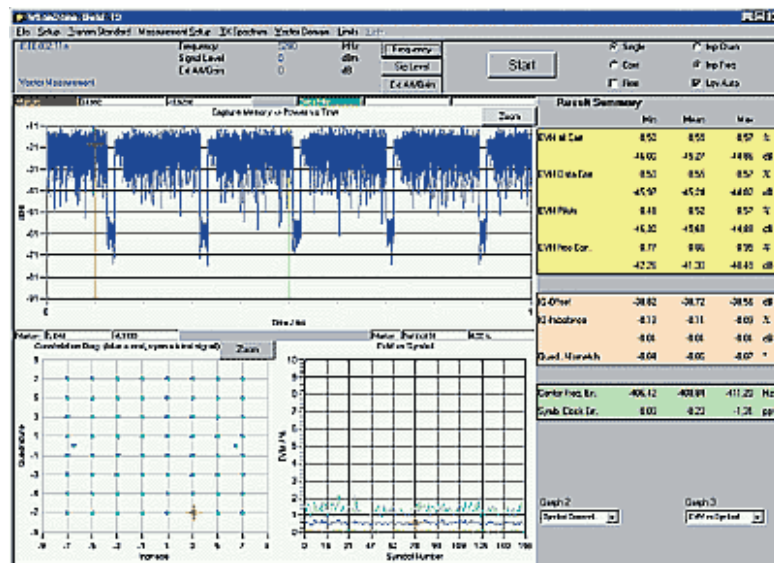
### WLAN test software for 802.11a and 802.11g OFDM

- ?? Modulation formats
  - BPSK
  - QPSK
  - 16QAM
  - 64QAM
- ?? Modulation measurements
  - Constellation diagram
  - Constellation diagram per OFDM carrier
  - I/Q offset and I/Q imbalance Carrier and symbol frequency errors
  - Modulation error (EVM) per OFDM carrier or symbol
  - Amplitude response and group-delay distortion (spectral flatness)
- ?? Amplitude statistics (CCDF) and crest factor
- ?? Transmit spectrum mask
- ?? FFT, also over a selected part of the signal, e.g. preamble
- ?? Payload bit information
- ?? Capture time selectable up to 800 ms

### WLAN test software 802.11b

- ?? Modulation format: BPSK, QPSK
- ?? Data rate: 1Mbps, 2 Mbps, 5.5 Mbps CCK, 11 Mbps CCK
- ?? Modulation measurements
  - Constellation diagram
  - EMV according to IEEE 802.11b
  - IQ offset, gain imbalance, quadrature mismatch
  - Frequency and symbol clock error
  - CCDF
- ?? TX spectrum mask
- ?? Power-on and power-down ramp
- ?? Amplitude statistics (CCDF) and crest factor

Using the WLAN test software, the R&S FSQ is a powerful tool for carrying out measurements in line with the relevant standard and for troubleshooting on 802.11a, 802.11b and 802.11g systems.



Measurement of 802.11a signal; data rate with 64QAM and simultaneous display of time characteristic, constellation diagram, EVM per OFDM symbol, and result summary with display of global error

Click image for 800x600 screenshot (98 kByte).