

# Product Fact Sheet

## Keysight FieldFox Microwave Spectrum Analyzers, 32/44/50 GHz

### Delivers Benchtop Accuracy and MIL-Spec Durability to Field Applications

FieldFox brings bench-level accuracy into the field by delivering precise handheld microwave measurements that agree with benchtop analyzers. FieldFox spectrum analyzers provide unprecedented total amplitude accuracy ( $\pm 0.5$  dB), with no warm up required, and is the only handheld with a full-band tracking generator. Get next level of performance in real-time analysis without the need for a dedicated real time spectrum analyzer.



### Key features

- Full-band tracking generator
- Independent signal source
- Interference analyzer
- Real-time spectrum analyzer (RTSA)
- Built-in power meter
- Built-in GPS receiver
- Built-in variable DC voltage source
- Pulse measurements

### Product highlights

- Rugged:
  - Meets MIL-PRF-28800F Class 2
  - Meets IEC/EN 60529 IP53 requirements
  - Type tested and meets Procedure 1 requirements for operation in explosive environments. MIL-810G, Method 511.5
- Weather-resistant:
  - No vents or fans extends instrument reliability and withstands salty, humid environments with wide operating temp of  $-10$  to  $+55$  °C (14 to 131 °F)
- Portable:
  - Compact, light-weight 3.2 kg/7.1 lb package
- Spectrum analyzers:
  - Spectrum analyzer InstAlign technology provides unprecedented total amplitude accuracy for field tests
  - Built-in microwave independent signal source with flattened power output makes system verification easier in the field
  - Full-band tracking generator
  - Real-time spectrum analyzer (RTSA) with 10 MHz bandwidth and minimum detectable signal as short as 22 ns

| Function   | Description   |
|--|---|
| <b>Spectrum analyzer</b>   |   |
| Frequency  | 9 kHz (usable from 5 kHz) to 32 GHz, 44 GHz, 50 GHz                 |
| Phase noise  | -111 dBc @ 10 kHz   |
| Third-Order Intercept (TOI)                                      | 15 dBm @ 2.4 GHz  |
| Displayed Average Noise Level (DANL)                             | -147 dBm @ 32 GHz; -144 dBm @ 40 GHz; -135 dBm @ 50 GHz             |
| <b>Independent source/tracking generator</b>                     |   |
| Frequency  | 300 kHz to 32 GHz, 44 GHz, 50 GHz                                   |
| <b>Real-time spectrum analyzer (RTSA)</b>                        |   |
| Frequency  | 5 kHz to 32 GHz, 44 GHz, 50 GHz                                     |
| Maximum real-time bandwidth                                      | 10 MHz  |
| Minimum signal duration with 100% POI at full amplitude accuracy | 12.2 µs   |
| <b>General</b>   |   |
| Environmental  | Meets MIL-PRF-28800F Class 2  |
| Temperature  | Operating: -10 to +55 °C (14 to 131 °F)                             |
| Dimensions and weight  | 11.5" x 7.4" x 2.8" (292 x 188 x 72 mm), 3.2 kg/7.1 lb with battery |

## FieldFox Microwave Spectrum Analyzer Options

The FieldFox base unit consists of a spectrum analyzer, the following accessories are included: AC/DC adapter, 1 battery, soft carrying case, LAN cable, quick reference guide and user's guide (optional).

| Model number | Frequency | Description                          |
|--------------|-----------|--------------------------------------|
| N9960A       | 32 GHz    | FieldFox microwave spectrum analyzer |
| N9961A       | 44 GHz    | FieldFox microwave spectrum analyzer |
| N9962A       | 50 GHz    | FieldFox microwave spectrum analyzer |

| Model number | Description  |
|--------------|--|
| Option 030   | Remote control capability  |
| Option 208   | USB power sensor measurements versus frequency                   |
| Option 209   | Extended range transmission analysis (ERTA)                      |
| Option 220   | Full-band tracking generator                                     |
| Option 235   | Preamplifier   |
| Option 236   | Interference analyzer and spectrogram                            |
| Option 238   | Spectrum analyzer time gating                                    |
| Option 302   | External USB power sensor support (U2000 sensor sold separately) |
| Option 307   | Built-in GPS receiver (antenna sold separately)                  |
| Option 309   | DC bias variable-voltage source                                  |
| Option 310   | Built-in power meter   |
| Option 312   | Channel scanner  |
| Option 320   | Reflection measurement (scalar measurement)                      |
| Option 330   | Pulse measurements (with external peak power sensor)             |
| Option 350   | Real-time spectrum analyzer (RTSA)                               |
| Option 355   | Analog demodulation  |
|              |  |
| N9910X       | FieldFox accessories: Adapters, antennas, cables, etc.           |

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