

Keysight FieldFox RF and Microwave Combination Analyzers, 4/6.5/9/14/18/26.5 GHz

Delivers Benchtop Accuracy and MIL-Spec Durability to Field Applications

FieldFox brings bench-level accuracy into the field by delivering precise handheld RF and microwave measurements that agree with benchtop analyzers. The FieldFox combo analyzer (N9911A) base function is a cable and antenna analyzer and can be configured to include a spectrum analyzer, real-time spectrum analyzer and full 2-port network analyzer. To save space in a field kit, built-in capabilities can be added to provide up to 10 instruments in 1.



Key features

- Cable and antenna analyzer (return loss/distance-to-fault)
- Spectrum analyzer
- Full 2-port vector network analyzer
- Built-in power meter
- Independent signal generator
- Vector voltmeter
- Real-time spectrum analyzer after vector voltmeter
- Interference analyzer
- Built-in variable DC voltage source
- Frequency counter
- Built-in GPS receiver
- ECal support
- Pulse measurements

Key differentiators

- Rugged and weather resistant:
 - Meets MIL-PRF-28800F Class 2, no vents or fans, wide operating temp of -10 to +55 °C (14 to 131 °F)
 - Meets IEC/EN 60529 IP53 requirements
 - Type tested and meets Procedure 1 requirements for operation in explosive environments. MIL-810G, Method 511.5
- Portable:
 - Compact, light-weight 3.0 kg (6.6 lbs) package
- Combination analyzers:
 - Spectrum analyzer provides best amplitude accuracy ± 0.5 dB, no warm up required
 - Real-time spectrum analyzer (RTSA) with 10 MHz bandwidth and minimum detectable signal as short as 22 ns
 - VNAs can test cable and antenna systems without external cal kits (QuickCal and CalReady)
 - Built-in microwave independent signal source with flattened power output makes system verification easier in the field
 - Full-band tracking generator

| Function | Description |
|---|--|
| Cable antenna analyzer and vector network analyzer | |
| Frequency | 30 kHz to 4 GHz, 6.5 GHz, 9 GHz, 14 GHz, 18 GHz, 26.5 GHz |
| Dynamic range | Up to 100 dB |
| Output power | Up to +1 dBm |
| Spectrum analyzer | |
| Frequency | 5 kHz to 4 GHz, 6.5 GHz, 9 GHz, 14 GHz, 18 GHz, 26.5 GHz |
| Spur-free dynamic range | ≥ 105 dB |
| Phase noise | -111 dBc at 10 kHz offset |
| Real-time spectrum analyzer (RTSA) | |
| Frequency | 5 kHz to 4GHz, 6.5 GHz, 9 GHz, 18 GHz, 26.5 GHz |
| Maximum real-time bandwidth | 10 MHz |
| Minimum signal duration with 100% | 12.2 μs |
| POI at full amplitude accuracy | |
| Independent source | |
| Frequency | 30 kHz to 4 GHz, 6.5 GHz, 9 GHz, 14 GHz, 18 GHz, 26.5 GHz |
| General | |
| 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), 3.0 kg (6.6 lbs) with battery |

FieldFox RF and Microwave Combination Analyzer Options

The FieldFox base unit consists of a cable and antenna 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 |
|--------------|-----------|-----------------------------|
| N9913A | 4 GHz | FieldFox RF analyzer |
| N9914A | 6.5 GHz | FieldFox RF analyzer |
| N9915A | 9 GHz | FieldFox microwave analyzer |
| N9916A | 14 GHz | FieldFox microwave analyzer |
| N9917A | 18 GHz | FieldFox microwave analyzer |
| N9918A | 26.5 GHz | FieldFox microwave analyzer |

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| Model number | Description |
|--------------|---|
| Option 010 | Vector network analyzer time domain |
| Option 030 | Remote control capability |
| Option 112 | QuickCal |
| Option 208 | USB power sensor measurements versus frequency |
| Option 209 | Extended range transmission analysis (ERTA) |
| Option 210 | Vector network analyzer: Transmission and reflection |
| Option 211 | Vector network analyzer: Full 2-port S-parameters |
| Option 212 | 1-port mixed mode S-parameters |
| Option 215 | TDR cable measurements |
| Option 233 | Spectrum analyzer |
| 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 (antenna sold separately) |
| Option 308 | Vector voltmeter |
| Option 309 | DC bias variable-voltage source |
| Option 310 | Built-in power meter |
| Option 312 | Channel scanner |
| Option 330 | Pulse measurements (with external peak power sensor) |
| Option 350 | Real-time spectrum analyzer (RTSA) |
| Option 355 | Analog demodulation |
| <hr/> | |
| N9910X | FieldFox accessories: Adapters, antennas, cables, etc. |
| N9911X | Economical waveguide calibration components |

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Unlocking Measurement Insights

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