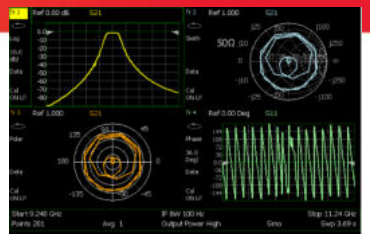
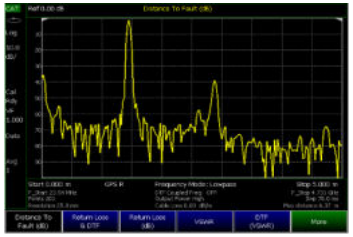
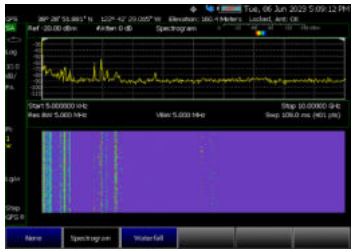
N9912C FieldFox RF Handheld Analyzers
(4/6.5/10 GHz)



Simultaneously measure and view all four S-parameters, with a single connection with VNA



Detect the distance to fault on a cable with CAT



Optional spectrum and spectrogram display with SA

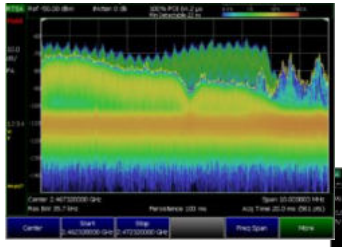
N9912C

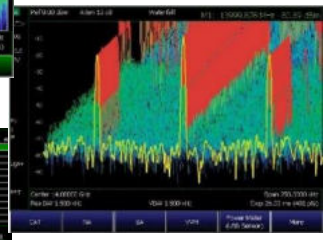
A Truly Software-Defined Analyzer

Your field test application changes when the task changes, the tests may require different frequency range and bandwidth, Keysight's newly introduced FieldFox N9912C is the first software defined handheld instrument in the world. The RF performance, particularly at the lower frequency ranges, is enhanced. The starting frequency with enhanced performance is specified at 3 kHz for the vector network analyzer (VNA) and for signal analyzer (SA). Different maximum frequencies for different combination of analyzer types are allowed in the same analyzer hardware and are all upgradable with merely software licensing keys.

N9912C

RTSA for complex signal environment





Waterfall display for interference detection

5G NR multi-cell measurements

Key features (optional)

- Cable and antenna analyzer (CAT)
- Spectrum analyzer
- Full 2-port vector network analyzer
- Built-in power meter
- Independent signal generator
- Vector voltmeter
- Interference analyzer
- Real-time spectrum analyzer (RTSA)
- Over-the-air (OTA) LTE FDD/TDD
- Over-the-air (OTA) 5G NR
- Phase array antenna support
- Indoor and outdoor mapping
- Pulse measurement
- Analog demodulation
- Built-in variable DC voltage source
- Frequency counter measurements
- Electromagnetic field (EMF) measurements
- Electromagnetic interference (EMI) measurements
- TDR Cable measurements
- Built-in GPS receiver
- ECal support

Product highlights

- **Rugged and weather resistant:**
  - Meets MIL-PRF-28800F Class 2, no vents, wide operating temperature of -10 to +55°C (14 to 131°F)
  - Meets IEC/EN 60529 IP53 requirements.
  - Type tested and meet Procedure 1 requirements for operation in explosive environments. MIL-810G, Method 511.5.
- **Portable: compact, lightweight 3.34 kg/7.35 lb package**
- **Combination analyzers:**
  - Signal analyzer provides best amplitude accuracy of ±0.2 dB, with no warm-up required.
  - Real-time spectrum analyzer (RTSA) with up to 40 MHz bandwidth and 6.13 µs minimum signal duration with 100% POI at full amplitude accuracy.
  - VNA CalReady allows quick and accurate microwave device measurements in the field.
  - Full-band tracking generator up to 10 GHz.
  - Analyzer type, frequency coverage and apps are all customer upgradeable with software license keys.

More Information: www.keysight.com/find/fieldfox

N9912C FieldFox analyzer model/options

Model number	Description
N9912C	FieldFox Handheld RF Analyzer
Option number	**Feature**
Cable antenna tester max frequency option	
CA4, CA6, or CAX	4, 6.5, or 10 GHz cable antenna tester (select one or none)
Vector network analyzer max frequency option	
NA4, NA6, or NAX	4, 6.5, or 10 GHz vector network analyzer (select one or none)
Signal analyzer max frequency option	
SA4, SA6, or SAX	4, 6.5, or 10 GHz signal analyzer (select one or none)
Cable antenna tester	
215	TDR cable measurements
Vector network analysis, full 2-port measurements (Requires NA4, NA6, NAX)	
010	Vector network analyzer time domain
308	Vector voltmeter
Spectrum analysis (Requires SA4, SA6, or SAX)	
220	Tracking generator
235	Preamplifier
236	Interference analyzer and spectrogram
238	Spectrum analyzer time gating
312	Channel scanner
350	Real-time spectrum analyzer (RTSA)
352	Indoor and outdoor mapping
355	Analog demodulation
358	EMF measurements
361	EMI measurements
370/371	Over-the-air (OTA) LTE FDD/TDD
378	Over-the-air (OTA) 5G NR
B04	Analysis bandwidth, 40 MHz
Power measurements	
208	USB power sensor measurements versus frequency
302	USB power sensor support
310	Built-in power meter
330	Pulse measurements with USB peak power sensor
System features	
030	Remote control capability
307	GPS receiver
309	DC bias variable-voltage source
Windows PC software	
89601B	PathWave VSA (89600 VSA) software
S9910A	Keysight spectrum management (KSMS)

Learn more at: www.keysight.com

Key specifications (Preliminary)

The specifications and measurement capabilities listed in this document may require certain options on the FieldFox analyzer. Refer to the FieldFox Configuration Guide (5992-3701EN) to obtain option information. Key specifications list below are targeted preliminary data. The FieldFox for N9912C Data Sheet will be available soon.

Function	Description
Vector network analyzer/Cable antenna tester	
Frequency range	3 kHz to 4 GHz, 6.5 GHz, or 10 GHz
System dynamic range*	Up to 119 dB
Output power*	7 dBm to -50 dBm
Trace noise*	0.0011 dB
Spectrum analyzer	
Frequency range	3 kHz to 4 GHz, 6.5 GHz, or 10 GHz
Display Average Noise Level (DANL)*	-164 dBm
Third-Order Intercept (TOI)*	+10 dBm
Spurious free dynamic range*	>104 dB
Phase noise*	-112 dBc/Hz (@ 10 kHz offset for 1 GHz carrier)
Preamplifier	3 kHz up to 10 GHz
Real-time spectrum analyzer	
Frequency	3 kHz up to 10 GHz
Maximum real-time bandwidth	40 MHz
Minimum signal duration with 100% POT at full amp. accuracy	6.13 µs
Display views	Density, Spectrogram, Spectrum
Independent source	
Frequency	3 kHz up to 10 GHz
General	
Environmental	Meets MIL-PRF-28800F Class 2, type test for IP53
Temperature	Operating: -10 to +55°C (14 to 131°F)
Dimension and weight	11.5" x 7.4" x 3.2" (292 x 188 x 82 mm^3), 3.34 kg/7.35 lb

Accessories

Model number	Description
N9910X	FieldFox accessories: Adapters, antennas, cables, etc.

*: Preliminary values, subject to change

KEYSIGHT TECHNOLOGIES