



## Agilent FieldFox Handheld Analyzers

4/6/6.5/9/14/18/26.5 GHz

N9912A

N9913A

N9914A

N9915A

N9916A

N9917A

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N9938A



*Carry precision with you.*

Anticipate — Accelerate — Achieve



**Agilent Technologies**

# Carry precision with you.



## RF and microwave combination analyzers

**Base:** Cable and antenna analyzer

**Key options:**

- Spectrum analyzer
- Vector network analyzer
- Vector voltmeter
- Built-in power meter

**All FieldFox options are available and upgradeable.**



## RF and microwave vector network analyzers (VNA)

**Base:** Transmission/reflection VNA

**Key options:**

- Full two-port S-parameters
- Two-port QuickCal
- Time domain
- Cable and antenna analyzer
- Vector voltmeter
- Built-in power meter



## Microwave spectrum analyzers

**Base:** Spectrum analyzer

**Key options:**

- Full-band tracking generator
- Full-band preamplifier
- Interference analyzer and spectrogram
- Reflection measurements
- Built-in power meter

## Achieve more in the field

Every piece of gear in your field kit has to prove its worth. Measuring up and earning a spot is the driving idea behind Agilent's FieldFox analyzers.

Carry the precision of our microwave models: they deliver Agilent-quality measurements wherever you need to go. Boost your readiness with an RF unit: every operating mode is flexible enough to meet the needs of novices and experts alike. Count on the durability of handheld analyzers designed to withstand your toughest working conditions.

## Take cost-effective flexibility into the field

Configure FieldFox with the capabilities you need: cable and antenna analyzer, vector network analyzer, spectrum

analyzer or the all in one combination analyzer. Any and all fit into the ergonomic, MIL - rugged 3.0 kg (6.6 lb) package.

## Make Precise FieldFox measurements on your iOS device

FieldFox's remote control capability option and Remote Viewer iOS application enable you to remotely control and monitor your FieldFox right from your iPhone or iPad.

With a wireless LAN or cellular broadband data connection using your iPhone or iPad, FieldFox can now be placed in areas where you do not wish to stay long due to extremely harsh or unsafe conditions. Additionally, if one technician or engineer has trouble making a measurement or determining the source of a problem, another can step in to remotely troubleshoot and solve the problem.

## Use FieldFox where and when you need it

**Rugged**

- Dust-free design with no fans or vents
- Water-resistant
- 3-year warranty ensures confidence
- Viewable in direct sun/darkness

**MIL-spec durability**

- Meets MIL-PRF-28800F Class 2
- Type tested and meets MIL-STD-810G, Method 511.5, Procedure I requirements for operation in explosive environments
- Meets IEC/EN 60529, for protection from dust and water

**Portable**

- Compact and light weight (3.0 kg or 6.6 lbs.), long battery life (3.5 hrs)
- Wide operating temperature (-10 to +55 °C, 14 to 131 °F)

# Leverage our legacy of measurement leadership

With a FieldFox analyzer, you're carrying the precision of Agilent's industry-standard benchtop analyzers. By providing levels of consistency not available in any other handheld instruments, FieldFox ensures confidence in your results.

To bring consistent and repeatable network analyzer measurements to field work, FieldFox leveraged extremely accurate algorithms from Agilent's high-end VNAs. With an emphasis on portability, we simplified calibration by adding built-in calibration standards, so you can make measurements in the field without carrying cal kits.

To enhance spectrum analysis, we've leveraged the PowerSuite measurements from Agilent spectrum and signal analyzers. This lets you make fast, accurate one-button power measurements of channelized communication systems with ease and confidence. The InstAlign capability allows you to instantly make accurate power measurements in the field, even when temperature fluctuates during a measurement.

## FieldFox industry innovations

**Vector network analyzer**  
dynamic range up to 100 dB

**Spectrum analyzer**  
absolute amplitude accuracy  $\pm 0.5$  dB

**Cable and antenna analyzer**  
precise measurements without a cal kit

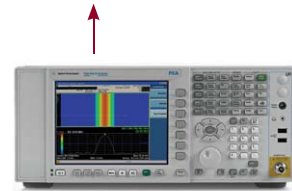


**2012** FieldFox microwave handheld analyzer

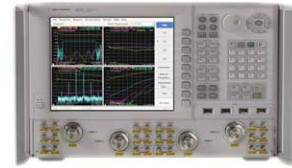
*FieldFox microwave analyzers are the handheld extension of the best network and spectrum analyzers.*

"FieldFox's result is almost identical to my PNA. I want one of these for all of my engineers."

- Senior calibration engineer from spacecraft research and development center.



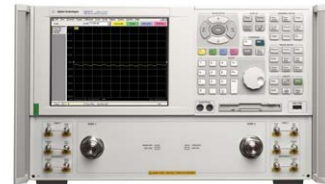
**2009** PXA X-Series signal analyzer



**2007** PNA-X vector network analyzer



**2001** PSA spectrum analyzer



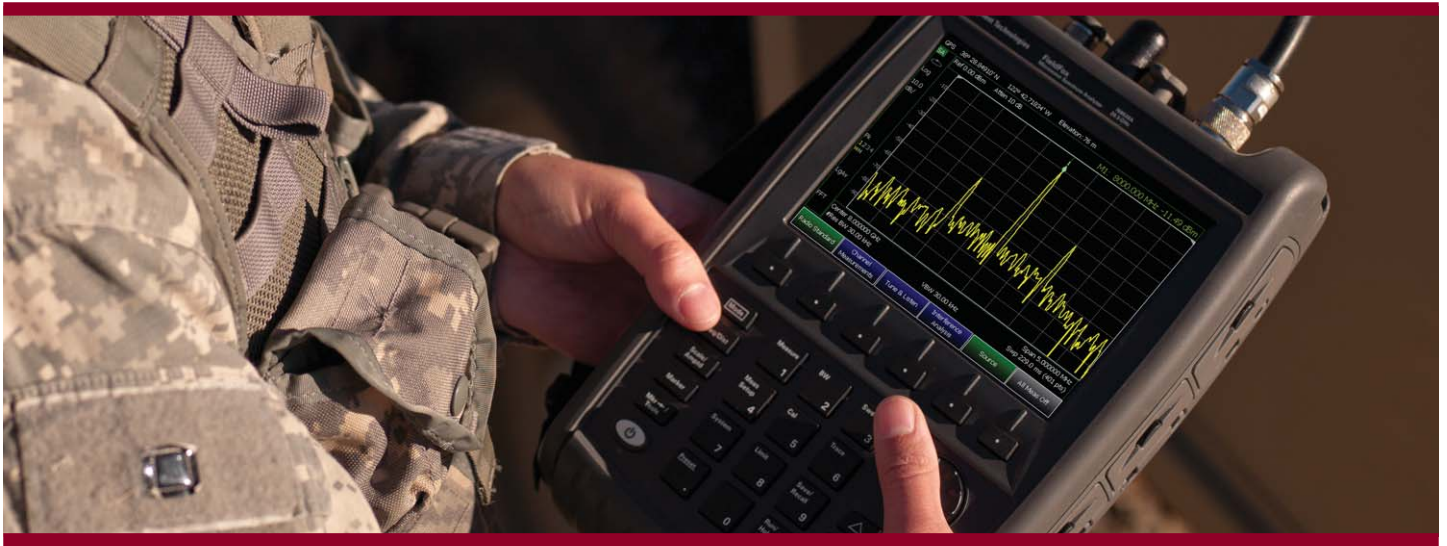
**2000** PNA vector network analyzer



**1984** 8510A vector network analyzer



**1978** HP 8566B spectrum analyzer



# Deploy cost-effective versatility with the user-friendly FieldFox

Reduce your instrumentation costs with a single, multi-function handheld that covers RF and microwave frequencies. From routine maintenance to in-depth troubleshooting, every operating mode is equipped to accelerate your work in the field.

## Cable and antenna analyzer

Make measurements quickly with CalReady and QuickCal—without carrying a cal kit.

- Line sweeping
- Distance-to-fault (cables and connectors)
- Return loss

## Vector network analyzer

Get precise S-parameters that agree with results from trusted HP/Agilent benchtop vector network analyzers.

- Full two-port VNA with four receivers
- All four S-parameters, magnitude and phase
- Simultaneous display of all four S-parameters
- Guided Calibration Wizard
- Time domain with gating

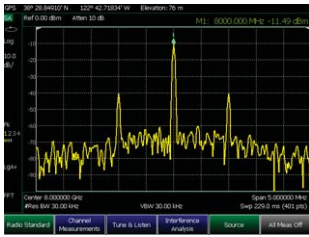
## Spectrum analyzer

Get specified amplitude accuracy instantly with InstAlign automatic amplitude alignment—no warm-up required.

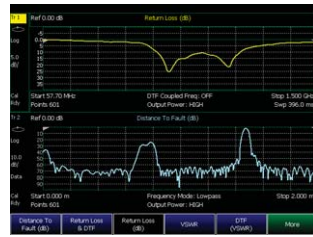
- Full-band preamplifier
- Full accuracy at power-on
- Full-band tracking generator
- Interference analyzer with spectrogram and record/playback
- Channel power measurements
- Pulsed signal analysis with FFT time gating

“The technology Agilent has developed is simply superior.”

- Major aerospace/defense prime contractor



Spectrum analysis



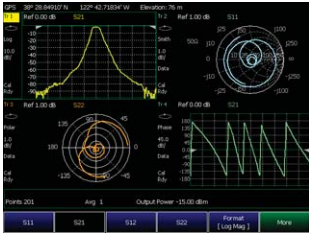
Cable and antenna analysis



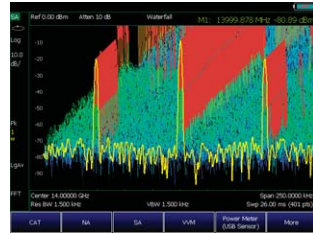
Vector voltmeter measurements



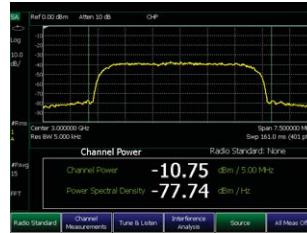
Built-in power meter



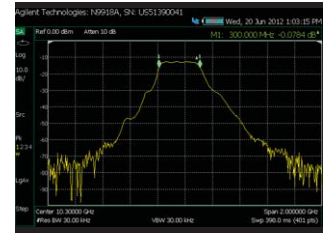
Vector network analysis



Interference analysis



Channel power measurement



Tracking generator

# Get a wide range of precise measurements in the field

Available functions	RF and microwave combination analyzers	RF and microwave vector network analyzers	Microwave spectrum analyzers
Cable and antenna analysis	✓	✓	
Vector network analysis	✓	✓	
Spectrum analysis	✓		✓
Interference analysis	✓		✓
Full-band preamplifier	✓		✓
Full-band source	✓		✓
Full-band tracking generator, independent source	✓		✓
Spectrum analyzer time gating	✓		✓
Built-in power meter	✓	✓	✓
Vector voltmeter	✓	✓	
Built-in GPS	✓	✓	✓
Remote control with iOS device	✓	✓	✓

# Pick up FieldFox for its ergonomics

Vertical "portrait" orientation makes FieldFox comfortable to hold, and the keypad layout lets you easily operate it with your thumbs

Bright, low-reflective display and backlit keys enable easy viewing in darkness or direct sunlight

Large keys are easy to operate, even when wearing gloves

One-button measurements simplify complex setups and ensure quick, accurate results

The intuitive user interface is designed for the work you do every day, enabling measurements in just a few key presses

Weighing just 3.0 kg (6.6 lbs), FieldFox is easier to carry than similar analyzers



11.5"  
(292 mm)

7.4"  
(188 mm)

"I really like the packaging, and you've done a lot to simplify the controls and menus."

- DoD technical lead for military contracts

# ...and depend on its durability

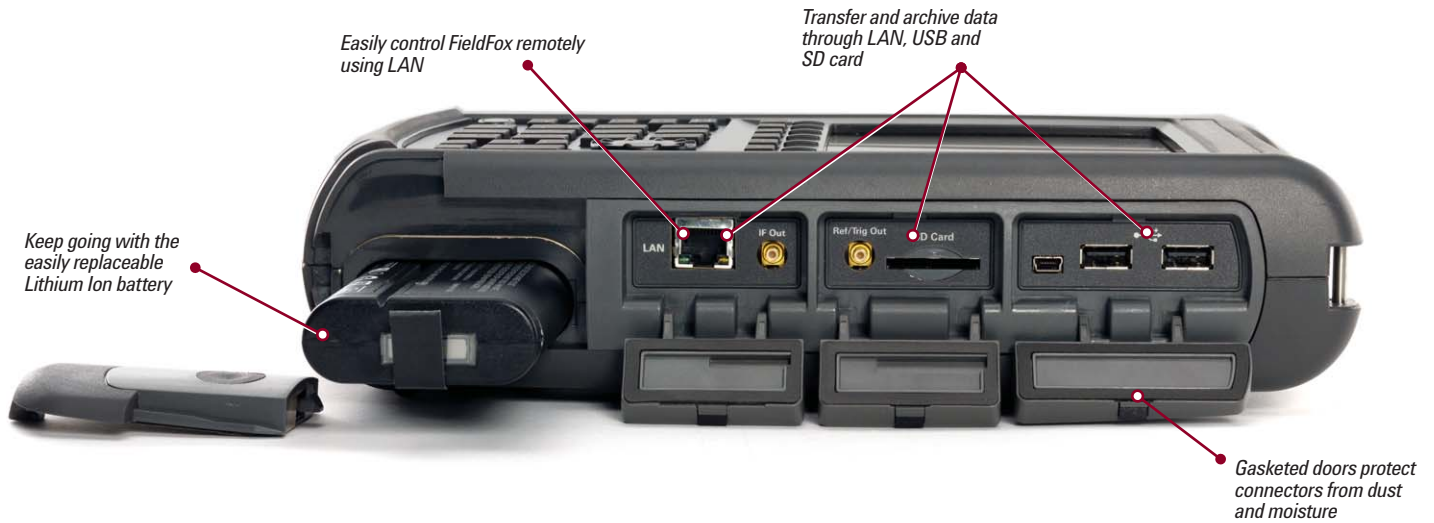
## TOP



Stainless steel strap support

Specially designed connector bay protects connectors from damage due to drops or other external impacts

## RIGHT SIDE



Easily control FieldFox remotely using LAN

Transfer and archive data through LAN, USB and SD card

Keep going with the easily replaceable Lithium Ion battery

Gasketed doors protect connectors from dust and moisture

## LEFT SIDE



Rubber doors protect connectors from dust and moisture

# Carry precision with you.

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Related literature	Number
FieldFox Combination Analyzers, Technical Overview	5990-9780EN
FieldFox Microwave Spectrum Analyzers, Technical Overview	5990-9782EN
FieldFox Microwave Vector Network Analyzers, Technical Overview	5990-9781EN
FieldFox Handheld Analyzers, Data Sheet	5990-9783EN
FieldFox Handheld Analyzer, Configuration Guide	5990-9836EN
FieldFox N9912A RF Analyzer, Technical Overview	5989-8618EN
FieldFox N9912A RF Analyzer, Data Sheet	N9912-90006
FieldFox N9923A RF Vector Network Analyzer, Technical Overview	5990-5087EN
FieldFox N9923A RF Vector Network Analyzer, Data Sheet	5990-5363EN

Download application notes, watch videos, and learn more: [www.agilent.com/find/FieldFox](http://www.agilent.com/find/FieldFox)

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