

# Keysight Technologies FieldFox Handheld Analyzers

## Selection Guide

Choose the FieldFox that meets your needs

### RF and microwave (combination) analyzers

Standard: Cable and antenna tester (CAT) <sup>1</sup>

Key options (prices vary):

- Vector network analyzer
- Spectrum analyzer
- Built-in power meter
- Pulse measurements
- Channel scanner
- Real-time spectrum analyzer

### RF and microwave vector network analyzers (VNAs)

Standard: Transmission/reflection VNA

Key options (prices vary):

- Built-in power meter
- Pulse measurements

### Microwave spectrum analyzers (SAs)

Standard: Spectrum analyzer

Key options (prices vary):

- Built-in power meter
- Pulse measurements
- Channel scanner
- Real-time spectrum analyzer



Select your model and frequency

	Combination models (CAT + VNA + SA)		VNA models		SA models
<b>Maximum frequency</b>					
4 GHz	N9912A-104	N9913A	N9923A-104	-	-
6/6.5 GHz	N9912A-106 <sup>2</sup>	N9914A <sup>3</sup>	N9923A-106 <sup>2</sup>	-	-
9 GHz	-	N9915A	-	N9925A	N9935A
14 GHz	-	N9916A	-	N9926A	N9936A
18 GHz	-	N9917A	-	N9927A	N9937A
26.5 GHz	-	N9918A	-	N9928A	N9938A
32 GHz	-	N9950A	-	-	N9960A
44 GHz	-	N9951A	-	-	N9961A
50 GHz	-	N9952A	-	-	N9962A
<b>Start frequencies</b>					
N991x/2x/3x					
CAT/VNA mode	2 MHz	30 kHz	2 MHz	30 kHz	-
SA mode	100 kHz	100 kHz	-	-	100 kHz
N995x/6x					
CAT/VNA mode	-	300 kHz	-	-	-
SA mode	-	9 kHz	-	-	9 kHz

1. Also referred to as cable and antenna analyzer

2. Maximum frequency is 6 GHz.

3. Maximum frequency is 6.5 GHz



Unlocking Measurement Insights

Customize your FieldFox and choose the options you want

RF combination	Microwave combination	RF VNA	Microwave VNA	Microwave SA
N9912A	N9913A, N9914A N9915A, N9916A N9917A, N9918A  N9950A, N9951A N9952A <sup>1</sup>	N9923A	N9925A, N9926A N9927A, N9928A	N9935A, N9936A N9937A, N9938A  N9960A, N9961A N9962A <sup>1</sup>

Options must be ordered separately. Prices vary based on option and analyzer.

CAT/VNA features					
Cable and antenna tester	√	√	√	√	Subset <sup>2</sup>
TDR cable measurements	-	√	-	√	-
VNA transmission/reflection	Subset <sup>3</sup>	√	√	√	-
VNA full 2-port S-parameters	-	√	√	√	-
QuickCal	√ <sup>4</sup>	√ <sup>5</sup>	√	√	-
1-port mixed-mode S-parameters	-	√	√	√	-
VNA time domain	√	√	√	√	-
Vector voltmeter	Subset <sup>6</sup>	√	√	√	-
SA features					
Spectrum analyzer	√	√	-	-	√
Tracking generator	√	√	-	-	√
Preamplifier	√	√	-	-	√
Interference analyzer <sup>7</sup>	√	√	-	-	√
SA time gating	-	√	-	-	√
Channel scanner	√	√	-	-	√
Analog demodulation	-	√	-	-	√
ERTA <sup>8</sup>	-	√	-	-	√
Real-time spectrum analyzer (RTSA) <sup>9</sup>	-	√	-	-	√
Power measurements					
USB power sensor support	√	√	√	√	√
USB sensor meas. vs. freq.	√	√	√	√	√
Pulse meas. with peak sensor	√	√	√	√	√
Built-in power meter	√	√	-	√	√
System features					
Remote control capability	√	√	√	√	√
GPS receiver	External only <sup>10</sup>	√	External only <sup>10</sup>	√	√
DC bias voltage source	-	√	-	√	√
SCPI over LAN and USB <sup>11</sup>	√	√	√	√	√

- In most frequency ranges, the N995xA/6xA models have the highest dynamic range, most stability and best DANL. Measurement accuracy is comparable between the models. The Data Sheet can be used for a more detailed comparison (5990-9783EN).
- N993xA/6xA (SA only models) offer the ability to measure VSWR/reflection (as an option), but not the full CAT features.
- N9912A offers S11 mag and phase and S21 mag. There is no S21 phase. Calibration choices: OSL, response and QuickCal.
- N9912A's QuickCal is a subset of the QuickCal available on other FieldFox models.
- QuickCal is not available on N995xA models.
- N9912A's VVM includes a subset of the features: 1-port cable trimming mag and phase, and 2-port transmission mag. The full VVM (available on other models) includes 1-port cable trimming mag and phase, 2-port transmission mag and phase, A/B and B/A.
- FieldFox's interference analyzer capability includes spectrogram, waterfall, and trace playback and recording.
- ERTA: Extended range transmission analysis. ERTA enables scalar transmission measurement of long cables using two FieldFoxes.
- RTSA capability for N991xA/3xA is only available for serial number prefix starting with MY5607/SG5607/US5607 or upgraded with Option N9910HU-100/200/300.
- N9912A and N9923A can display GPS information using an external USB GPS receiver which the user needs to purchase separately. All other FieldFox models have a built-in GPS receiver, available as Option 307. The user will need to purchase a GPS antenna N9910X-825
- SCPI over USB is only available for FieldFox with serial number prefix starting with MY5607/SG5607/US5607 or upgraded with Option N9910HU-xxx