

Keysight Technologies

Top 5 Reasons Why FieldFox is the Ideal Radar Installation and Maintenance Tool

Your Challenge

Mission critical radar systems such as civilian air traffic control and military air defense radars must be fully operational at all times or lives are at stake. This requires precise system performance validation during installation, routine maintenance and in-depth troubleshooting.

Until now, the only choice was to use expensive and time consuming lab-grade spectrum analyzers, vector network analyzers (VNAs), average and peak power meters, and vector voltmeters.

Your Solution

Recent technological breakthroughs allow all of the RF Line Replaceable Unit (LRU) tests to be made with one precise, rugged, field-ready handheld analyzer.

FieldFox is the world's most integrated RF and microwave analyzer due to unprecedented levels of integration. FieldFox makes the world's most accurate field measurements due to Keysight Technologies, Inc. calibration and measurement science.

1. Increases your efficiency for maintenance with a single instrument

FieldFox has all of the instrument functionality needed for LRU test. No other handheld offers a full-featured VNA, spectrum analyzer, vector voltmeter, peak power meter, power meter and cable and antenna analyzer in one rugged, 6.6 lb. ergonomic package. That means ease of access, shorter jumper cables (enhanced accuracy), ease of use (one instrument to learn), and enhanced team productivity.



2. FieldFox data correlation increases your confidence and reduces risk

FieldFox achieves S-parameter results that track the world's highest performance VNA within a few hundredths of a dB, and the world's highest performance spectrum analyzer within 10ths of a dB. That means that you can have confidence that measured results will correlate with benchmark data taken in the development lab, and at system installation. All of this reduces the risk of passing bad LRUs or failing good ones; ensuring optimum system performance.

Correlating Microwave Measurements between Handheld and Benchtop Analyzers
Using FieldFox handheld analyzers up to 26.5 GHz

Application Note



For the first time, technology breakthroughs have enabled high-performance measurement capabilities in a handheld analyzer. High-accuracy microwave measurements of network operators, power and frequency can be taken in the field with a handheld analyzer with results that correlate to benchtop instruments to within hundredths of a dB. This application note discusses the powerful capabilities of modern-day handheld analyzers and includes measurement comparisons between FieldFox handheld analyzers and several benchtop instruments including signal analyzers, power meters and vector network analyzers.

KEYSIGHT

Copy protected with you.

Download the app note: *Correlating Microwave Measurements between Handheld and Benchtop Analyzers*, at: www.keysight.com/find/fieldfoxradar.

3. FieldFox is built for rigorous field testing

Most traditional benchtop equipment is specified at room temperature, $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$ with accuracy not assured outside of that narrow range. FieldFox is guaranteed to meet specified performance when operated in a temperature range of -10°C to 55°C , ensuring reliable data. Unlike most benchtops and handhelds, FieldFox is completely sealed -- no fans or vents, providing measurement stability in harsh environments.

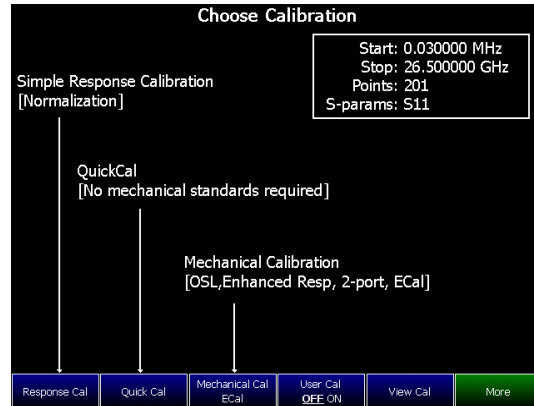
FieldFox meets MIL-PRF-28800F Class 2 requirements, MIL-STD-810G Method 511.5, Procedure 1 requirements for operation in explosive environments, and IEC/EN 60529 IP53 requirements for protection from dust and water.



4. FieldFox increases system uptime

Unlike benchtops or other handhelds, FieldFox spectrum analyzers reach full amplitude accuracy immediately at power on. With FieldFox's CalReady feature, the VNA is already calibrated at the test port without having to use a cal kit in the field. Alternatively, use QuickCal to easily calibrate to the end of the test cable.

FieldFox's QuickCal provides hassle-free calibration in the field.



5. FieldFox reduces your cost of test

Replacing four or five benchtop instruments with one combination handheld analyzer reduces the cost of test in numerous ways:

- The initial instrument cost is typically one third that of comparable benchtops.
- FieldFox comes with a 3-year standard warranty.
- Annual calibration costs are reduced by a factor up to five.

- FieldFox offers the highest reliability of any complex RF & mW instrument; helps reduce overall test costs by at least 50% over benchtops.
- Using only one instrument (versus multiple) is easier to learn, saving training costs.

Download application notes, watch webcasts and videos

Learn more about precise radar system performance validation. www.keysight.com/find/fieldfoxradar