

## High-Performance Handheld Microwave Analyzer

New Keysight FieldFox Microwave Analyzer Supports Extended Frequency Range Up to 54 GHz for 5G and Other Applications

## **Contributed by Keysight Technologies**

Keysight Technologies, Inc., a leading technology company that delivers advanced design and validation solutions to help accelerate innovation to connect and secure the world, has introduced a new high-performance handheld microwave analyzer that speeds installation of 5G, radar and satellite communication systems.

The ramp-up of 5G new radio (NR) services in mmWave spectrum around the world, coupled with a significant increase in deployments of satellite-based communications systems, is driving the need for cost-effective, field-based network testing, monitoring and troubleshooting tools. Keysight's new FieldFox microwave analyzer [1] supports an extended frequency range with measurement integrity comparable to lab-based tools (Figure 1). A compact and ruggedized multi-purpose tool, the new wideband analyzer enables users installing an mmWave infrastructure to reliably measure

key performance indicators (KPIs) of the network while in the field (Figure 2).

"The new FieldFox microwave analyzer delivers high radio frequency (RF) performance in the industry's most lightweight formfactor for on-site use," said Dan Dunn, vice president of Keysight's Aerospace and Defense Government Solutions. "Now, 5G mobile operators, installation companies, satellite and ground station service providers, as well as defense organizations, can quickly and efficiently deploy advanced communication systems."

Keysight's FieldFox, an integrated handheld analyzer with a task-driven user interface, incorporates spectrum and signal analysis, as well as signal generation capabilities. This enables FieldFox to accurately measure signal interference, antenna and cable performance, electromagnetic field (EMF) exposure levels, as well as pathloss in communication systems. Keysight's new high-performance installation tool ensures 5G services in frequency range 2 (FR2) can reach full connectivity potential.

Keysight's new FieldFox builds on the company's FieldFox B-series originally introduced in May of 2019, and delivers the following key customer benefits:

- > Simplifies set-up and improves measurement results in any 3GPP-specified band in frequency range 2 (FR2) by extending the frequency range to 54 GHz without the need for external mixers.
- > Supports advanced channel aggregation and complex interference troubleshooting with an increased analysis bandwidth range up to 120 MHz.
- > Enables customers to confidently measure and analyze mmWave signals with complex modulation schemes such as 256 Quadrature Amplitude Modulation (QAM).
- > Delivers reliable analysis of complex signals with industry-leading low phase



Figure 2: FieldFox's waterproof, durable, and task-driven user interface makes field measurements easy, no matter the conditions.

noise, high sensitivity and amplitude accuracy.

> Offers 5G NR beamforming analysis using phased array antenna control, critical in the deployment of multiple input, multiple output (MIMO) technology.

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## WEB LINK

[1] New FieldFox: http://www.keysight.com/us/en/cmp/2021/mmwave-fieldfox.html

