Brochure

## VIAVI InterferenceAdvisor Solution

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Fully automated spectrum clearing and interference hunting

VIAVI InterferenceAdvisor<sup>™</sup> is a fully-automated spectrum clearing and interference hunting solution that is the most user-friendly solution available today. Simple to set up and completely intuitive, InterferenceAdvisor allows one RF engineer to validate spectrum clearness and to easily identify and locate an interference source in hours with minimal effort.

Radio frequency (RF) interference can be defined as the effect of unwanted energy due to emissions, radiation, conduction or induction (or a combination thereof) on reception in a radio communication system. RF interference results in performance degradation, misinterpretation, or loss of information.

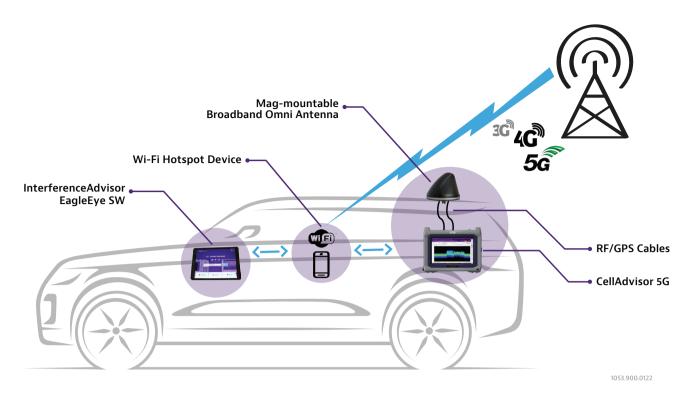
Identifying and rectifying interference issues in a mobile environment is a challenging but crucial task. Mobile users near the interference source will experience degraded call success rates, increased dropped calls, decreased battery life, poor voice quality, and reduced data throughput. Detecting, locating, and finally eliminating the sources of RF interference are critical to maintaining good user experience throughout the network.

Interference hunting requires highly skilled engineers spending days, if not weeks, in the field identifying and resolving interference issues. Available interference hunting solutions are not very user friendly, and require a lot of manual interaction. This increases the time and cost of troubleshooting, negatively affecting network quality and causing user churn.

Service providers need solutions that can help them reduce the time to detect, identify, and eliminate interference problems, with minimal resource investment. With the continued proliferation of RF spectrum, interference issues will continue to grow, and finding the right toolset to manage those issues in a timely manner is the key to successfully reducing OpEx and improving end user QoE.

VIAVI InterferenceAdvisor is a fully-automated spectrum clearing and interference hunting solution that is the most user-friendly solution available today. Simple to set up and completely intuitive, InterferenceAdvisor allows one RF engineer to validate spectrum clearness and to easily identify and locate an interference source in hours with minimal effort: voice prompts simply direct the engineer to the source of interference.

The VIAVI spectrum clearing and interference hunting solution is comprised of the interference analyzer on CellAdvisor, CellAdvisor 5G or OneAdvisor 800, an off-the-shelf omni antenna, an Android tablet, mounting hardware, and the fully automated InterferenceAdvisor EagleEye<sup>™</sup> software.



## **Solution Details**

Traditionally, isolating interference sources is a very resource intensive and costly process. After identifying the presence of interference near a poor performing network area, an experienced engineer will make numerous measurements at several locations with a directional antenna using triangulation techniques, and after carefully eliminating any anomalies in the measurements, a smaller area is identified. Then, after a few iterations, engineers zero in to identify the interferer. This technique requires a lot of patience, time and skills. Unfortunately, while this process is being executed, other users in the network are suffering the effects of interference.

Service providers need a solution that can help them quickly and efficiently locate and eliminate interference issues. VIAVI InterferenceAdvisor offers a comprehensive yet cost effective solution to identify interference sources. An engineer no longer has to drive, stop to check direction, and drive again to find suspected areas of interference. The EagleEye software automates the entire interference hunting process. And what used to take days or months to troubleshoot can now be done in hours by following a few simple steps:

- 1. Analyze network area/cell-site(s) with signature of worse performance.
- 2. Identify site/sectors seeing the most impact.
- 3. After on-site verification of the presence of interference, drive the area with the easy to set up and use InterferenceAdvisor solution.
- 4. Follow the instructions provided by the EagleEye software. A combination of multiple algorithms within EagleEye will identify the possible interference source area with a circle on the drive map.



5. Park the vehicle and pinpoint the interferer.

## **Key Features**

- Automated visualization of unwanted signal presence with pass/fail indication
- Automated interference area indication and navigation guide
- Voice prompt guides the driver to the estimated interference location
- Built-in accessories minimize cabling requirement
- Cable free Android tablet with WiFi connection
- Spectrum control display allows for detailed signal monitoring
- Gated sweep control and display for TDD interference hunting
- Interface with TDD Auto Gated Spectrum (TAGS) for TDD interference hunting
- Online and offline map support
- Auto save of trace data and screen
- Touch screen lock when driving
- Language available in English and Chinese

## **Key Benefits**

- Reduces setup time by providing an integrated antenna solution with a GPS antenna, minimizing cable requirements.
- Supports three tracking modes--RSSI, Channel Power and Peak Power--to track down most of types of interference signals.
- The fully automated EagleEye software, running on an Android device, provides visual and voice prompts to guide engineers to the suspected area of interference, eliminating the need for guesswork.
- Spectrum display quickly allows engineers to validate any change in signal strength of the interfering source and its location.



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