

OneViewer Post-Analysis Application



OneViewer is a post-analysis application that allows users to view, edit, and analyze test results saved in the OneAdvisor 800 Wireless, CellAdvisor 5G, and CX300 ComXpert Communications Service Monitor

RF Interference Post-Analysis

Interference can be defined simply as the presence of signals that impacts radio communications either in the downlink (DL) or the uplink (UL) path, producing network impairments. The interfering radio activity can have an internal origin when produced by the network itself, or an external origin when produced by other transmission systems nearby. Cell phones are more prone to interference impairments since their transmission power (UL) is much lower than the base station (DL). This means that any interfering signal in the uplink (UL), even if it transmits at a low power level, can cause retransmissions, or loss of capacity and service. This leads to service problems, which lead to dissatisfied customers and a higher customer churn.

There are three main types of UL interference:


- Passive intermodulation (PIM) usually on the feedline, antenna or nearby metal elements
- Interference in time division duplex signals (LTE and 5G) due to radio synchronization and timing issues
- Interference from external sources, which are increasingly appearing in the radio access network

Interference signals can have different characteristics, but in general can be categorized in three main groups:

Interference Profile	Tracking Mode
Narrow-band interference, intermittent or constant, present the same frequency	RSSI
Narrow-band interference, intermittent or constant, shifting frequency	Peak Power
Broad-band interference, intermittent or constant, presented at a given frequency	Channel Power


Key Benefits

- Spectrum re-player
- Spectrum limit mask with auto event generation of limit violations
- Spectrum analysis with multi-marker settings and trace management
- Conversion to spectrogram view
- Conversion to persistent spectrum view
- Conversion to 3D canvas view
- Conversion to RSSI view
- Report generation (PDF)
- Spectrum trace data can be exported (CSV)



Interference Logging

- RFoCPRI Spectrum
- Realtime Persistence Spectrum
- Swept-Tuned Spectrum



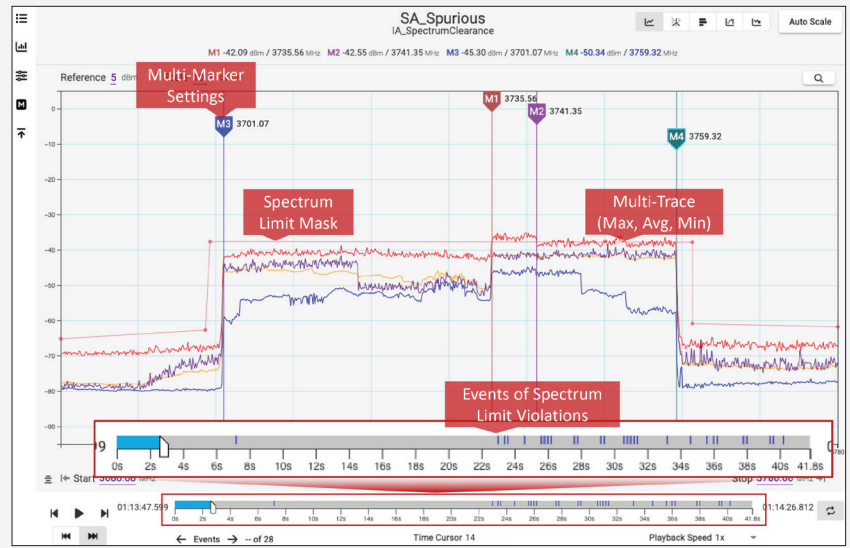
OneViewer Interference Post-Processing

Any of these types of interfering signals require time to analyze to properly assess its profile.

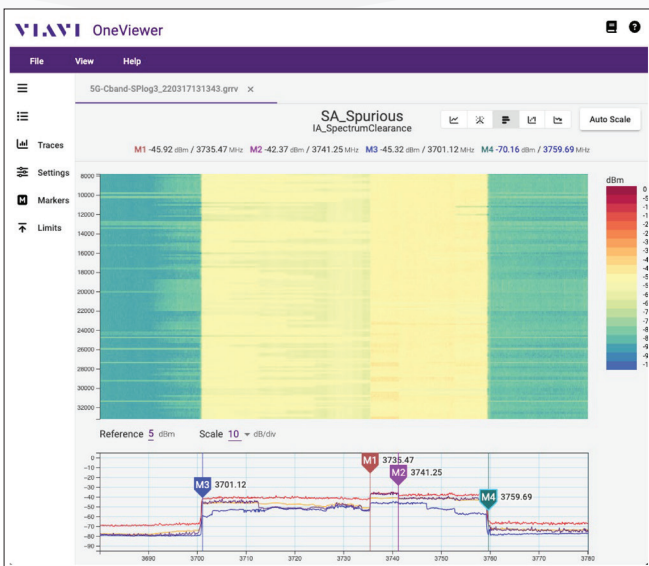
In some cases the interfering signals are intermittent requiring the ability to log the UL interference for some period of time and perform an interference post-analysis.

OneViewer is the solution to post-analysis interference logs and perform the following analysis:

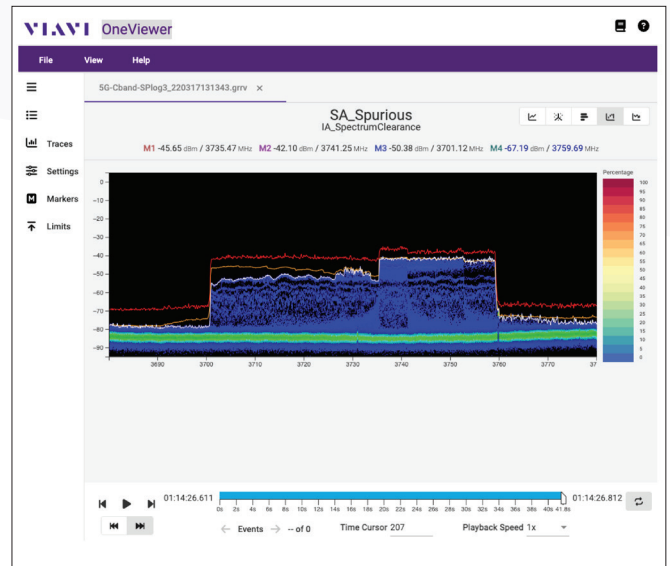
- Playback with loop on/off and variable playback speed up to 8x
- Configurable spectrum limits that automatically create events where the interference signals exceed the spectrum limit
- Multiple configurable markers: up to 10 markers (reference and delta markers) to identify the exact frequency and power level of the interfering signal
- Data can be exported into comma-separated-value (CSV) format



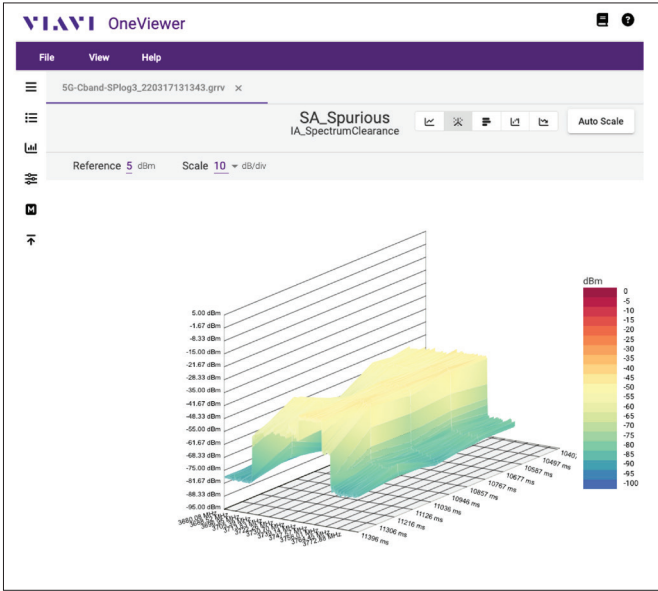
OneViewer – Spectrum Post-Analysis



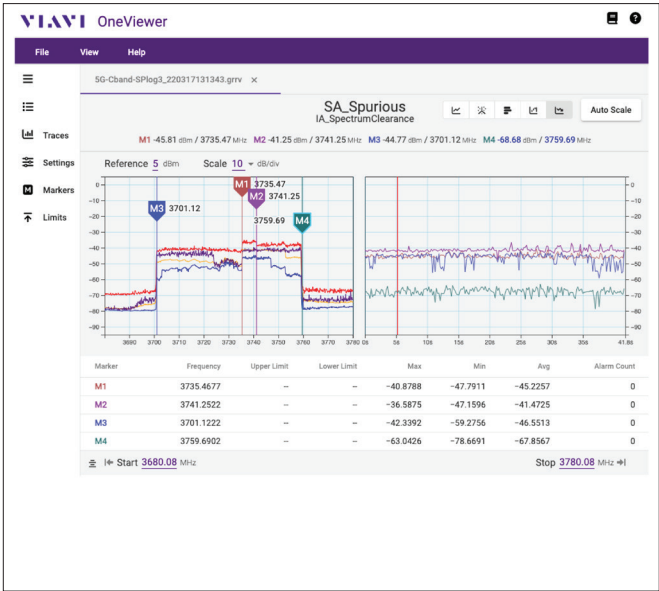
OneViewer Spectrogram View



OneViewer Persistent Spectrum View



OneViewer 3D Canvas View



OneViewer RSSI View

Ordering Information

OneAdvisor 800 Wireless	
ONA-SP-PAA	Post-Analysis Application Option for OneAdvisor 800
CellAdvisor 5G	
CA5000-S007	Post-Analysis Application Option for CellAdvisor 5G
CX300 ComXpert Communications Service Monitor	
CX300-SPAA	Post Analysis Software for CX300



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