



RF Viewer^P Analysis





OneAdvisor-800

Table of Contents

1. Scope	2
2. OneAdvisor 800 Wireless Overview	2
2.1 RF Viewer Analysis.....	3
2.1.1 Initial Setup.....	3
2.1.2 RF Viewer Configuration	4
2.1.3 RF Viewer Measurement	6
3. Annex.....	9
3.1 Save Measurement Results.....	9
4. Technical Support	10

1. Scope

This document provides instructions on how to configure the OneAdvisor-800 RF Viewer^P. The required products and parts to complete this procedure are as follows:

Description	Diagram
<p>OneAdvisor-800 with the following functions:</p> <ul style="list-style-type: none"> - OneAdvisor-800 platform equipped with the following modules and options: <ul style="list-style-type: none"> o SPA06MA or SPA06MA-O: Spectrum Analyzer 9KHz to 6GHz or 9KHz to 6GHz with Optical HW o ONA-SP-GNSS: GPS connectivity with GPS antenna o ONA-SP-INTAN: Interference Analysis o ONA-SP-RFVIEWER: RF Viewer Analysis 	 <p style="text-align: center;">OneAdvisor-800</p>
<p>Antenna System</p> <ul style="list-style-type: none"> - Broadband Directional Antennas: <ul style="list-style-type: none"> o G700050366: RF Log Periodic Antenna SMA-f 650 to 4000 MHz 1.85 dBd. o G700050367: RF Log Periodic Antenna SMA-f 650 to 6000 MHz 2.85 dBd. - Antenna Advisor Handle: <ul style="list-style-type: none"> o JD70050007: Antenna Advisor Handle o G70050003: RF Viewer mounting kit for Antenna Advisor JD70050007 - RF Filters: <ul style="list-style-type: none"> o G7000506xx: RF filters (Refer to RF Filters Product Catalog) 	 <p style="text-align: center;">Directional Antenna</p>  <p style="text-align: center;">Antenna Advisor with Directional Antenna</p>  <p style="text-align: center;">RF Filters</p>

2. OneAdvisor 800 Wireless Overview

The OneAdvisor 800 Wireless is a portable instrument for radio access installation, maintenance, and optimization. Their main test functions include:

- Fiber Test (OTDR Module)

- Cable and Antenna Analysis (CAA Module)
- Realtime Spectrum Analysis
- Interference Analysis / RF Viewer
- LTE-TDD and LTE-FDD Signal Analysis
- 5GNR Signal Analysis
- Multi-RAT Signal Analysis (multi-carrier LTE and 5G)
- Blind Scanner (DSS, LTE and 5G)
- RFoCPRI Interference Analysis
- Ethernet Test (1GE to 100GE)

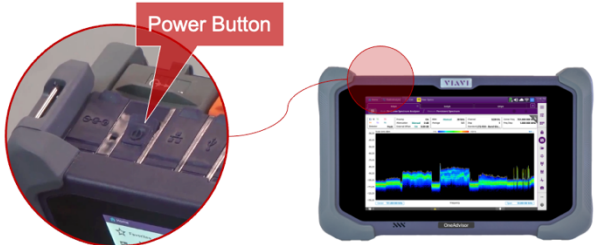
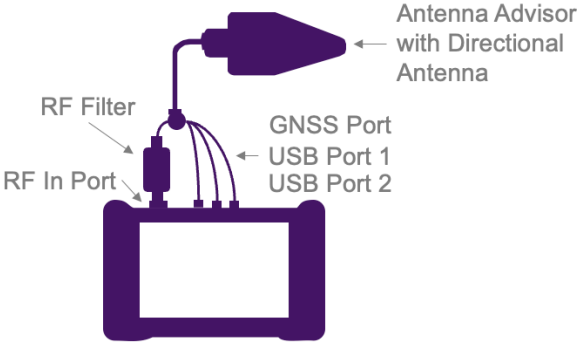
2.1 RF Viewer^P Analysis

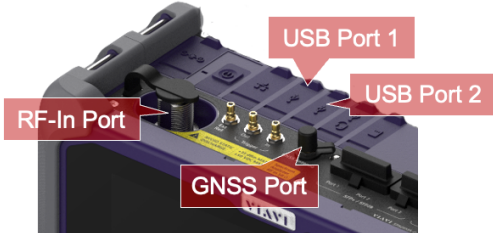
The OneAdvisor 800 RF Viewer^P is an augmented reality (AR) solution designed to provide intuitive, real-time visibility of radio frequency (RF) signals within a physical environment.

The following procedure describes the steps to perform RF Viewer Analysis with the OneAdvisor 800.

2.1.1 Initial Setup

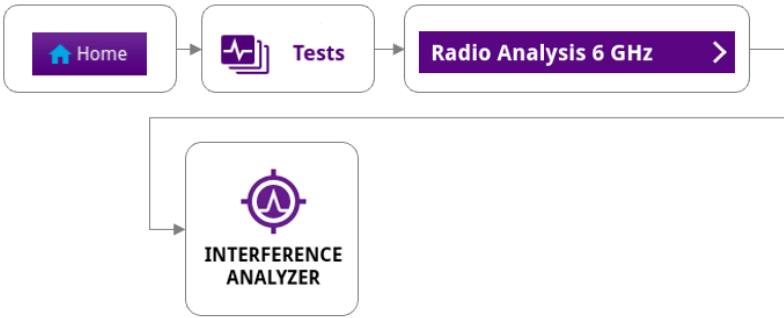

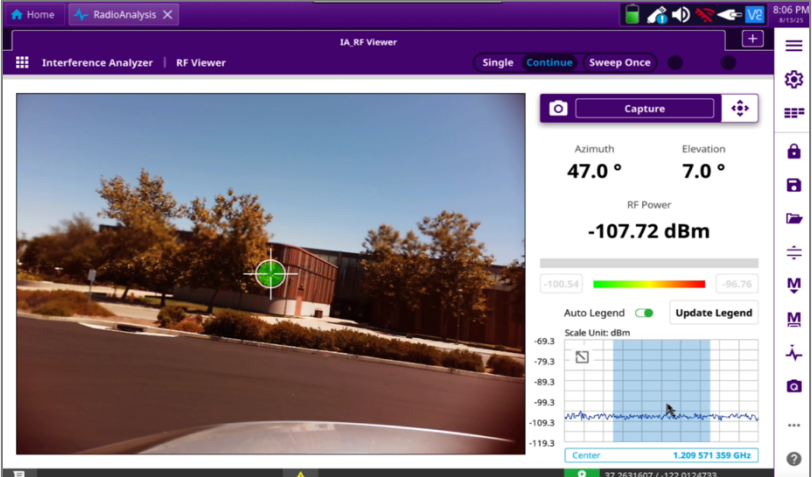
The following procedure describes the initial setup, including turn-up and connectivity.


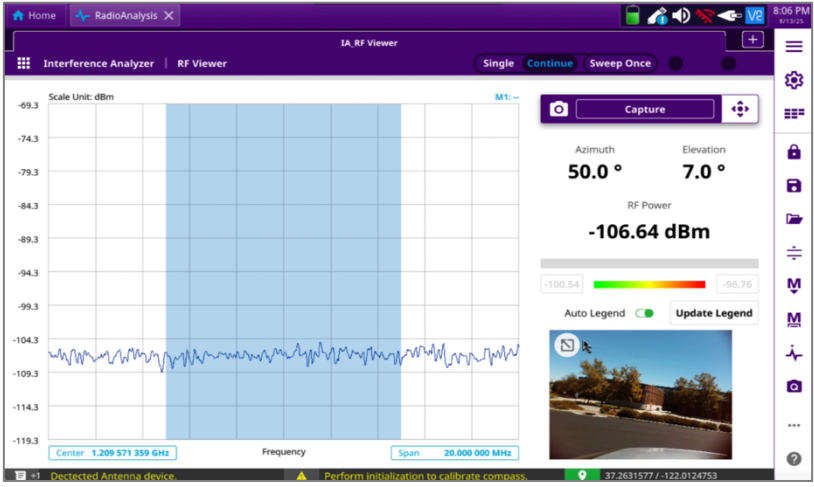
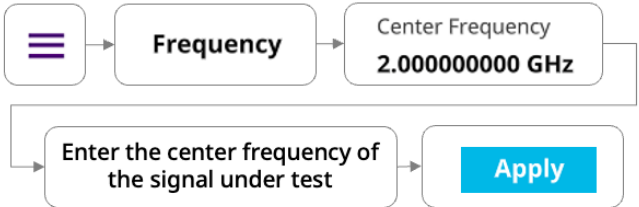
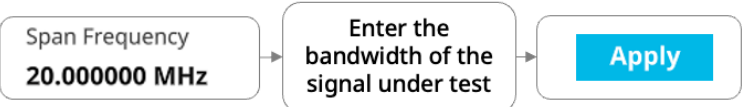
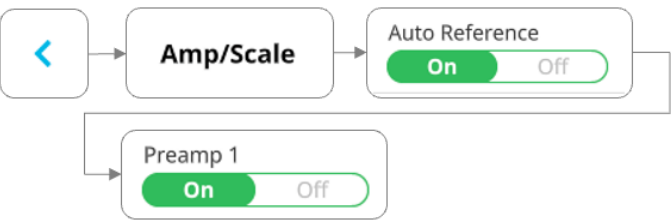
Step	Action	Description
1	Power ON the instrument	Press and hold the ON/OFF button for 3 seconds  OneAdvisor-800
2	OneAdvisor 800 and Antenna Advisor Setup: <ul style="list-style-type: none"> • Connect the RF port of the Antenna Advisor to the RF Filter, which is connected to the ONA800 RF-In port. • Connect the GPS (SMA) cable of the Antenna Advisor to the ONA800 GNSS port • Connect both USB cables of the Antenna Advisor to the ONA800 USB port 1 and USB port 2 	 Antenna Advisor with Directional Antenna

Step	Action	Description
		 <p>Antenna Advisor with Directional Antenna Setup</p>

2.1.2 RF Viewer^P Configuration

The following procedure describes the steps to configure RF Viewer^P Analysis.

Step	Action	Description
1	Select the following: <ul style="list-style-type: none"> • [Home] • [Tests] • [Radio Analysis 6GHz] • [Interference Analyzer] 	 <p>Interference Analyzer</p>
2	Select the following: <ul style="list-style-type: none"> • [Test Menu] • [Directional Antenna] • [Done] 	 <p>RF Viewer Analysis Directional Antenna</p>  <p>RF Viewer Analysis</p>

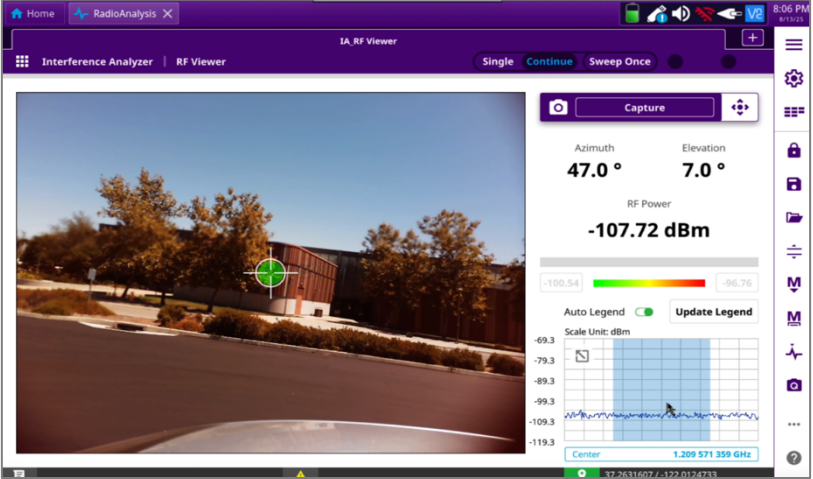



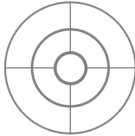
Step	Action	Description
3	Set RF Viewer Spectrum Analysis by selecting: <ul style="list-style-type: none"> • [Window Icon] 	<div style="text-align: center;">  <p>Window Swap Icon</p> </div>  <p style="text-align: center;">RF Viewer Spectrum Analysis</p>
4	Set the frequency of the signal under test by selecting: <ul style="list-style-type: none"> • [Function Menu] • [Frequency] • [Center Frequency] • Enter the center frequency of the signal under test • [Apply] 	 <p style="text-align: center;">Center Frequency</p>
5	Set the bandwidth of the signal under test by selecting: <ul style="list-style-type: none"> • [Span Frequency] • Enter the bandwidth of the signal under test • [Apply] 	 <p style="text-align: center;">Frequency Bandwidth</p>
6	Set the amplitude settings by selecting: <ul style="list-style-type: none"> • [Back] • [Amp/Scale] • [Auto Reference On] • [Preamp 1 On] 	 <p style="text-align: center;">Amplitude Settings</p>


Step	Action	Description
6	Set the Resolution Bandwidth (RBW) by selecting: <ul style="list-style-type: none"> • [Back] • [RBW] • [10 kHz] 	<p>Resolution Bandwidth</p>
7	Set the bandwidth of the tracking mode by selecting: <ul style="list-style-type: none"> • [Back] • [Setup] • [Bandwidth] • Enter the bandwidth of the signal tracking mode 	<p>Tracking Mode Bandwidth</p>
8	Set the tracking mode type by selecting: <ul style="list-style-type: none"> • [Dot Type] • Based on the profile of the signal under test select the tracking mode as: <ul style="list-style-type: none"> ○ Center Frequency ○ Channel Power ○ Peak Power 	<p>Tracking Mode</p>

2.1.3 RF Viewer^P Measurement

The following procedure describes the steps to configure RF Viewer^P Analysis.

Step	Action	Description
1	Set RF Viewer Spectrum Analysis by selecting: <ul style="list-style-type: none"> • [Window Icon] 	<p>Window Swap Icon</p>


Step	Action	Description
		
2	<p>Initialize the RF Viewer following these steps:</p> <ul style="list-style-type: none"> Place the antenna in a fixed position Select: <ul style="list-style-type: none"> [Function Menu] [Setup] Initialize AntennaAdvisor 	 <p style="text-align: center;">Initialize Antenna Advisor</p>
3	<p>Make measurements with RF Viewer using the Antenna Advisor by selecting:</p> <ul style="list-style-type: none"> Press the Antenna Advisor trigger once to take a picture of the environment. Note: You'll notice the pointer icon on the screen will change from a cross to a target icon. Press and hold the trigger on the Antenna Advisor to make measurements while sweeping the Antenna Advisor in direction and elevation. <p>At the end of the measurement note the following:</p> <ol style="list-style-type: none"> The screen icon shown as a cross will indicate the area 	 <p style="text-align: center;">Antenna Advisor Trigger Button</p>  <p style="text-align: center;">Screen Icon During Image Capture</p>  <p style="text-align: center;">Screen Icon During Measurement Capture</p>

Step	Action	Description
	<p>where the maximum power level was received</p> <p>2. A screenshot of the measurement will be automatically saved in the internal memory of the instrument (RadioAnalysis / Internal)</p>	 <p style="text-align: center;">RF Viewer Measurement</p>

3. Annex

3.1 Save Measurement Results

The following procedure describes the steps to save measurement results with OneAdvisor-800

Step	Action	Description
1	Saving measurements <ul style="list-style-type: none"> - Select the save icon and enter file name - Select the type of file to save: <ul style="list-style-type: none"> o Result (to be replayed or post-processed by the OneAdvisor 800) o Result as CSV, to be post-processed by a PC application o Screen, as a picture - Select the destination to save the file - Select "Save" 	 <p>Save and File Name Sequence</p> <p><input type="checkbox"/> Result</p> <p><input type="checkbox"/> Result as CSV</p> <p><input type="checkbox"/> Screen</p> <p>File Type as Result, Result as CSV or Screen</p> <p><input type="checkbox"/> Internal</p> <p><input type="checkbox"/> USB A</p> <p>Select the destination either Internal or USB</p> <p><input type="button" value="Save"/></p> <p>Select Save</p>



4. Technical Support

Technical support is provided by:

- Phone: 1-844-GO-VIAVI (1-844-468-4284) options 3-2-3
- Email: diagnostics.tac@viavisolutions.com

Regularly new firmware updates for the CellAdvisor 5G are released and it is recommended to keep the instrument in the latest firmware to provide all the enhancements and bug fixes.

- For firmware updates go to: <http://celladvisor.updatemyunit.net/>
- For additional information of cell site test go to: <http://www.viavisolutions.com/en/products/network-test-and-certification/cell-site-test>