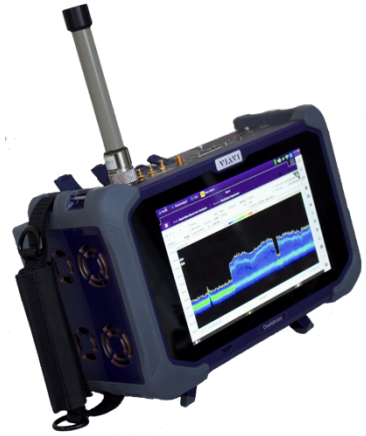
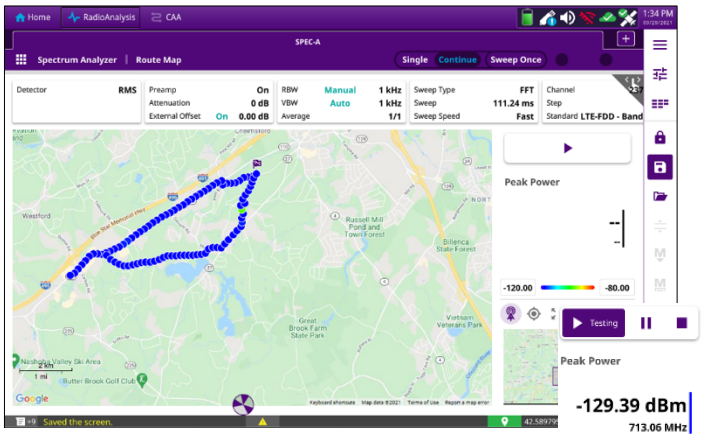




Spectrum Analysis

OneAdvisor 800

Table of Contents

1. Scope

This document describes how to configure the OneAdvisor 800 for Spectrum Clearing. It can be used to assess your uplink band at any time for interference resolution or to ensure that transmitters on previously loaned downlink spectrum have been disabled.

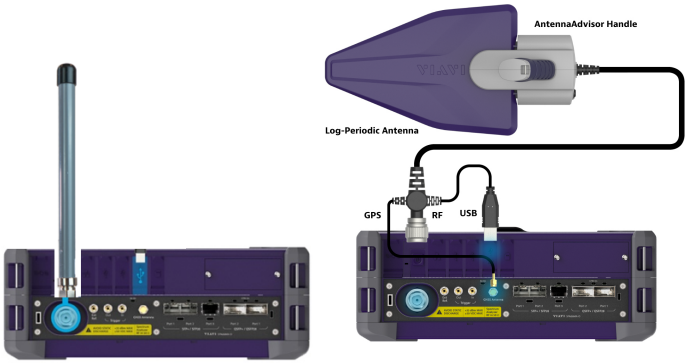
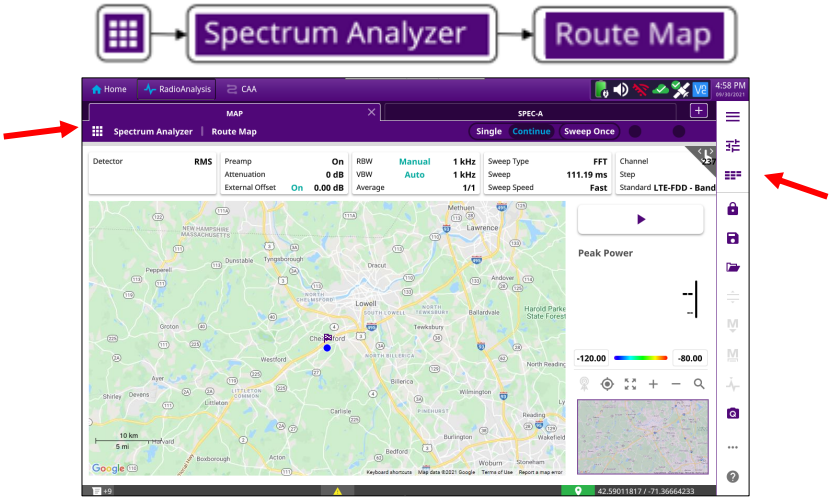
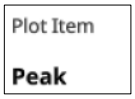
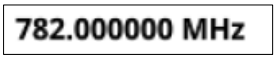
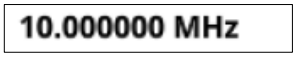
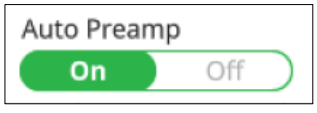
The required products and parts to complete this procedure are as follows:

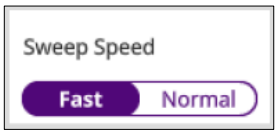
Description	Diagram
OneAdvisor 800 with the following functions: • Spectrum Analyzer Module • ONA-SP-RM: Route Map Option • JD Map Creator Application • JD Viewer Application Obtain these applications from: https://celladvisor.updatemyunit.net/#celladvisor-appsw	 Spectrum Module
Antennas • GPS ○ For recoding location • OMNI Antenna ○ Various Omni antennas for coverage testing • Log Periodic Yagi Antenna ○ Directional antennas for direction isolation • Antenna Advisor Handle ○ JD70050007 (optional for Viavi Log Periodic Antennas)	

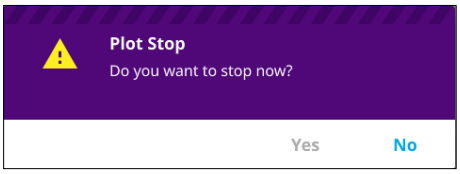
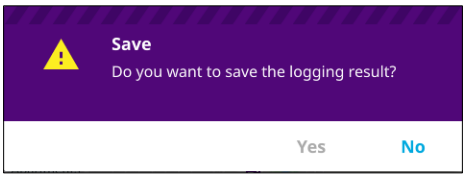
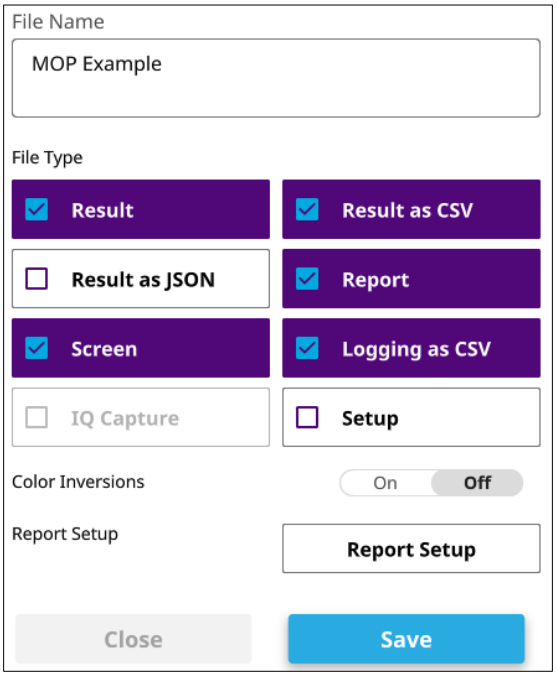
2. Peak Power (Spectrum mode)

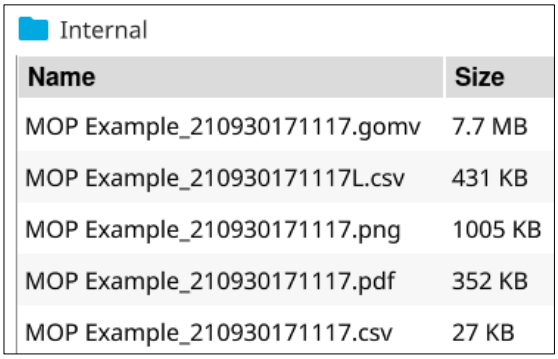
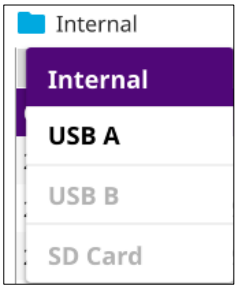
The following procedure describes the steps to perform Peak Power measurements with ONA-800A

Step	Description	Diagram
1	Power ON the instrument	Press and hold the ON/OFF button for 3 seconds

Step	Description	Diagram
2	Connect Antenna to the RF N-type port on top of the instrument	
3	Start the Spectrum Analysis/Route Map application. Initial screen may not show spectrum trace nor a map until the measurements are set.	
4	Setup the Measurement parameters	• Press  to Enter the Global Settings Screen • Set Plot Item to “**PEAK**”  • Set the Center Frequency to your channel of interest (example shown)  • **NOTE – DO NOT USE THE DEFAULT FREQUENCY** • Set the Span to your assigned channel width 
5	Attenuation Setting • ATTN 0dB • Preamp = ON (AUTO)	• Set 

Step	Description	Diagram
6	RWB Setting • RWB = 1kHz	• Set the RBW to 1kHz 
7	FFT Setup • Sweep = FAST	• Set the Sweep Speed to Fast 
8	Return to the Map	• Press settings:  • To return to the Map Screen
9	Open your map and possibly a cell site database See section 3 for creating the map See section 4 for creating a cell site database	• Select  Navigate to the *.mcfv file that you created with JD MapCreator • Select  Optionally open the Cell Site Database that you created.
10	Start the Measurement	Press the start button to start the measurement  becomes 

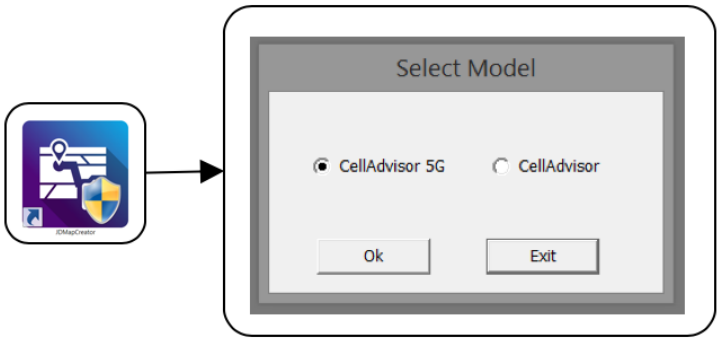
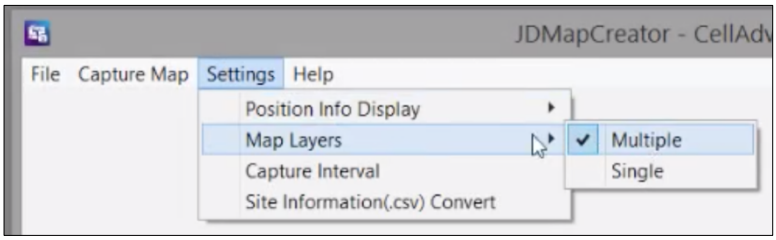
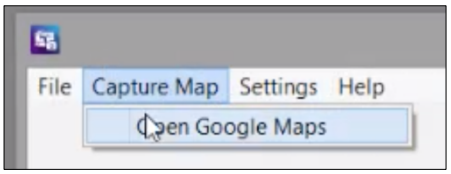
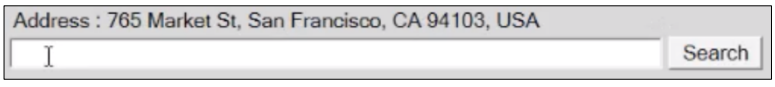
11	Saving the Data There are multiple file types you can save **Result** will provide a *.gomv that can be used to export to Google Maps/Earth **Result as CSV** will capture a *.csv with all the dots plotted on the map **Screen** is a *.png **Report** is *.pdf **Logging as CSV** has the most granular information as *L.csv. The map you see only has a sample of all the recorded values. This file has them all. **Note:** the system appends an L to the file name you type	• Press the Stop button to stop logging:  • Select Yes to Stop  • Select Yes to Save  • Name the File, it is recommended to select Logging as CSV:  • Select Save  

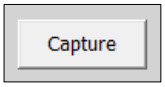
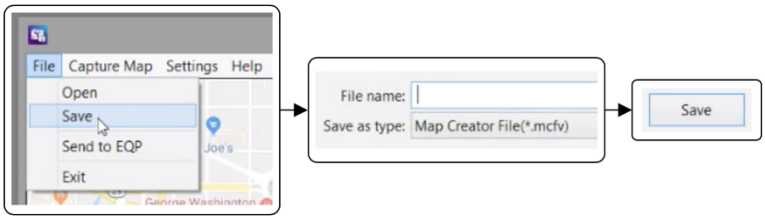
Step	Description	Diagram
		
12	Exporting the files	• Insert a USB memory device • Select Open Folder  • Select the file or files to copy  • Select Copy:  • Select the location (USB drive)  • Select Paste to copy 

3. ONA-800 Maps with JDMapCreator

The following procedure describes the steps to create maps for the ONA-800.

Step	Action	Description
1	Open JDMapCreator Obtain these applications from: https://celladvisor.updat	Run the application software JDMapCreator* and select the CellAdvisor platform type, for example, [CellAdvisor 5G (includes ONA800)]:

Step	Action	Description
	emyunit.net/#celladvisor-appsw	 JDMapCreator > CellAdvisor 5G **Note*: *JDMapCreator is a free application software of Viavi Solutions' CellAdvisor instruments that can be downloaded at http://celladvisor.updatemyunit.net/ on the section CellAdvisor AppSW*
2	Set the number of map layers to be created: - Select Settings - Select Map Layers - Select Single or Multiple	Configure the number of layers to be created on the map: a. Single, creates 1-layer map (no zooming) b. Multiple, creates 3-layer mar (zooming available)  Multiple Map Layers Recommended
3	Create a geo-coordinates map. - Select Capture Map - Select Open Google Maps - Enter the Address of interest - Select Search - Select Capture	To set a map with geo-coordinates select [Capture Map], [Open Google Maps], as follows:  Capture Map > Open Google Maps Search the location of the interest test area by entering the address in the [Address] field, as follows:  Search Address

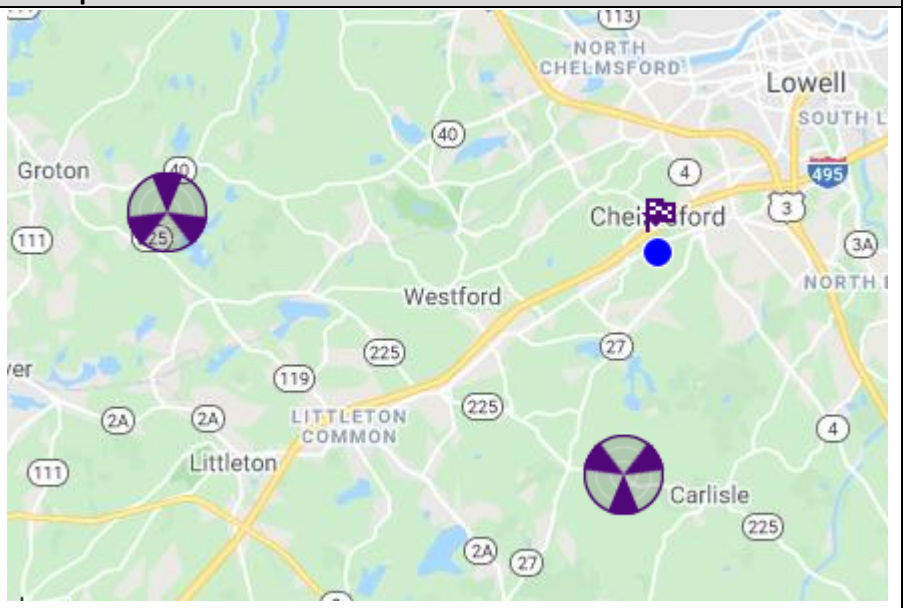
Step	Action	Description
		Once the test area has been located, zoom in and out as desired and select [Capture] to create the single or multi-layer map, as follows:  Map Capture
4	Save the created map into a USB memory: - Select File/Save - Enter the file name - Select Save button ***Note:*** *Make sure the map file (*.mcfv) is saved on a USB memory drive.*	Save the map into a USB memory device:  File > Save > File Name > Save

4. Creating a cell site database to visualize site locations on your map

The following procedure describes the steps to export the collected data to Google Maps/Earth.

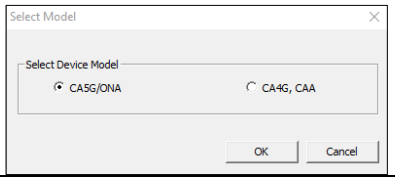
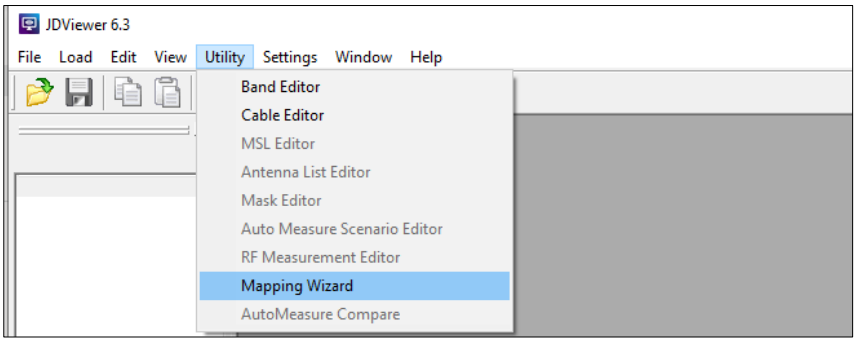
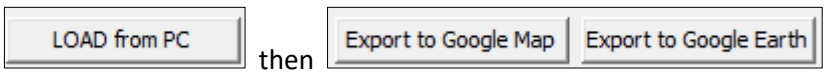
Step	Action	Description
1	Use Excel to create a *.csv file formatted as in this example. All the columns and headers should be as shown. However, in this application, the OneAdvisor will only make use of the Lat/Long & Azimuth information. All else is there for your reference. Note on the map how the azimuth of these 3 sector sites is indicated	Sample of 2 locations with 3 sectors each shown

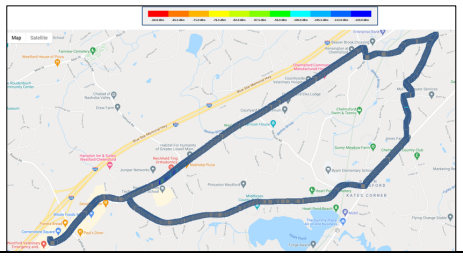
Site Information Form	Version	1			
ID	Lat(DecDeg)	Long(DecDeg)	Height	Azimuth	Cell ID
MA-COLH-087-A	42.599876	-71.52388		0	81
MA-COLH-087-B	42.599876	-71.52388		120	97
MA-COLH-087-G	42.599876	-71.52388		240	113
MA-COLH-089-A	42.533504	-71.367325		60	129
MA-COLH-089-B	42.533504	-71.367325		180	193
MA-COLH-089-G	42.533504	-71.367325		300	209

Step	Action	Description
		

5. Exporting to Google Maps with JD Viewer

The following procedure describes the steps to export the collected data to Google Maps/Earth.

Step	Action	Description
1	Open JD Viewer Application. It can be obtained from https://celladvisor.updatemyunit.net/#celladvisor-appsw	Run the application software JD Viewer* and select the correct platform type, for example, [CA5G/ONA for OneAdvisor800]: 
2	- Select Utility and Mapping Wizard - Select Load from PC - Load the *gomv file that you saved from your data collection - Export to your choice of Google Map o0r Google Earth. Google Earth would need to be installed. - Example shows export to Google Map.	 

Step	Action	Description
	- This creates .html file that may be opened in your browser - Zoom in to see every plotted point from the data collection	 

6. 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 OneAdvisor-800 are released and it is recommended to keep the instrument in the latest firmware to provide all the enhancements and bug fixes.

- For additional information of cell site test go to: http://www.viavisolutions.com/en/products/network-test-and-certification/cell-site-test