

## Spectrum Analysis Channel Power Mapping OneAdvisor 800

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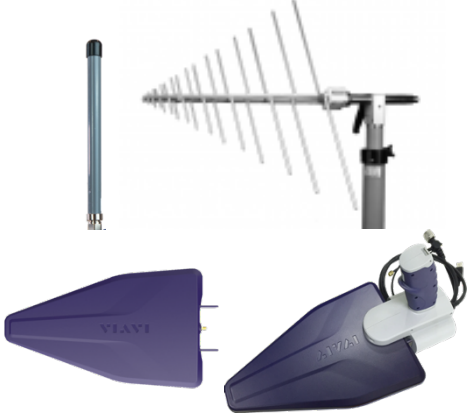
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## 1. Scope

This document describes how to configure the ONA-800A for ACP Analysis, including:

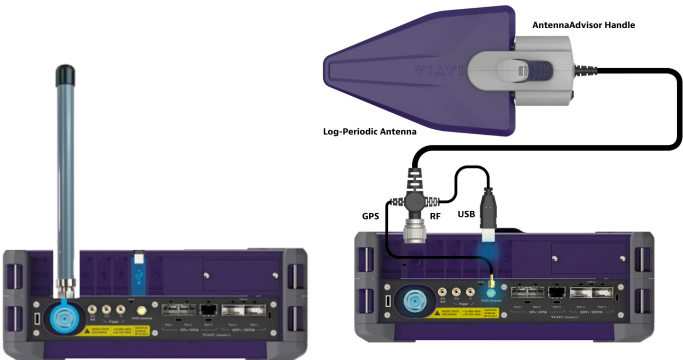
- Spectrum mode
- Route Map mode

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"> <li>• ONA-SP-RM: Route Map</li> </ul>	
<p>Antennas</p> <ul style="list-style-type: none"> <li>• OMNI Antenna               <ul style="list-style-type: none"> <li>○ Various Omni antennas for coverage testing</li> </ul> </li> <li>• Log Periodic Yagi Antenna               <ul style="list-style-type: none"> <li>○ Directional antennas for direction isolation</li> </ul> </li> <li>• Antenna Advisor Handle               <ul style="list-style-type: none"> <li>○ JD70050007 (optional for Viavi Antennas)</li> </ul> </li> </ul>	

## 2. Channel Power (Spectrum mode)

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

Step	Description	Diagram
1	Power ON the instrument	Press and hold the ON/OFF button for 3 seconds
2	Connect the Antenna to the RF N-type port on top of the instrument	

<p>3</p>	<p>Start the Spectrum Analysis. Initial screen does not show spectrum trace until the Measurement is started.</p>	
<p>4</p>	<p>Frequency Setting</p>	<ul style="list-style-type: none"> <li>Set the desire center frequency selecting:  </li> <li>Set the desire frequency span selecting:  </li> </ul>
<p>5</p>	<p>Attenuation Setting</p>	<ul style="list-style-type: none"> <li>Set the power and attenuation selecting:  </li> </ul>
	<p>Integrated Bandwidth</p>	<ul style="list-style-type: none"> <li>Set the integration bandwidth of the channel power selecting:  </li> </ul>
<p>6</p>	<p>Scaling</p>	<ul style="list-style-type: none"> <li>Select Auto Scale to set the vertical scaling.  </li> <li>Optionally use your finger to move the trace up or down</li> </ul>

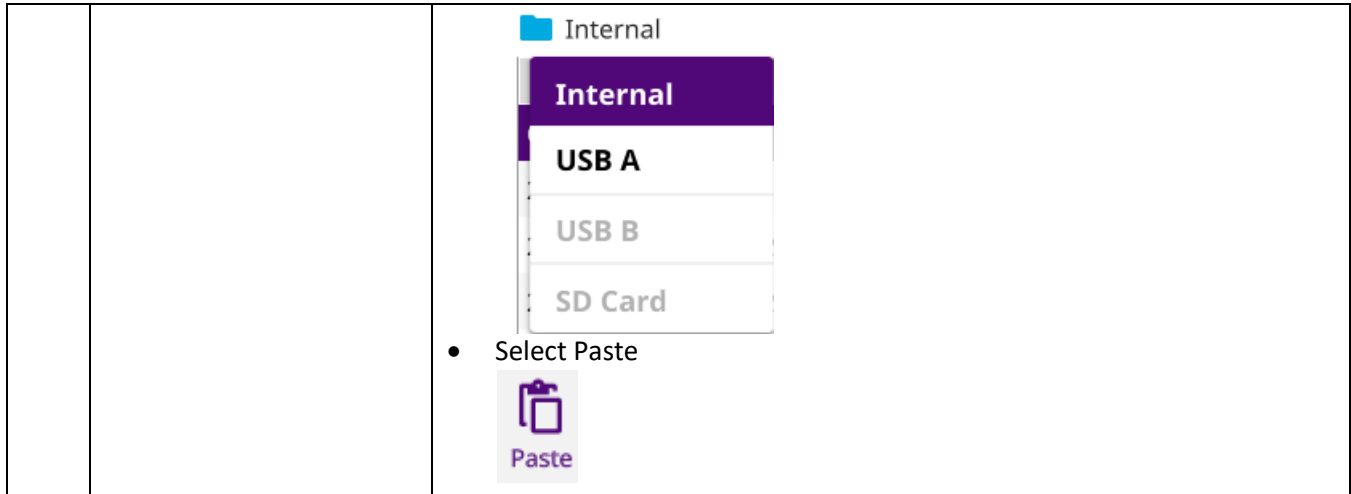
### 3. Coverage Mapping (Route Map) and CSV Logging

The following procedure describes the steps to perform Channel Power measurements with ONA-800A and create a CSV log

Step	Description	Diagram
1	Use section 2 to verify the Channel Power setting are correct	Please refer to section 2
2	Connect the GPS Antenna to SMA-type port on top of the instrument	
3	Start the Route map NOTE – The setting from section 2 to will carry over to the route map	
4	Add a local map	<ul style="list-style-type: none"> <li>Please refer to Section 4 for creating a local map</li> </ul>
5	ACP Setup	<ul style="list-style-type: none"> <li>Select Settings                              </li> <li>Set to <b>ACP OR PEAK</b> </li> <li>Verify the Channel Bandwidth to 30KHz:                              </li> </ul>

		<ul style="list-style-type: none"> <li>• Verify Offset is set to OFF:           <div data-bbox="630 233 899 352" style="border: 1px solid gray; padding: 5px; margin: 5px 0;"> <p>Offset</p> <p style="text-align: center;">On <input type="radio"/> Off <input checked="" type="radio"/></p> </div> </li> <li>• Select Settings to exit           <div data-bbox="643 394 729 464" style="border: 1px solid gray; padding: 5px; margin: 5px 0;"> </div> </li> </ul>
<p>6</p>	<p>Recording</p>	<ul style="list-style-type: none"> <li>• Select Play to start a logging session           <div data-bbox="690 535 727 583" style="text-align: center; margin: 5px 0;"> </div> <div data-bbox="581 604 1425 1136" style="border: 1px solid gray; padding: 5px;"> </div> </li> </ul>
<p>7</p>	<p>Saving the Data</p>	<ul style="list-style-type: none"> <li>• Select Stop to stop logging           <div data-bbox="646 1199 686 1241" style="background-color: #4a4a4a; width: 20px; height: 20px; margin: 5px 0;"></div> </li> <li>• Select YES to stop           <div data-bbox="643 1293 1133 1472" style="border: 1px solid gray; padding: 10px; margin: 5px 0;"> <div style="background-color: #4a4a4a; color: white; padding: 5px;"> <b>Plot Stop</b>              Do you want to stop now?           </div> <div style="text-align: right; margin-top: 10px;"> <span style="color: white;">Yes</span> <span style="color: white;">No</span> </div> </div> </li> <li>• Select YES to save           <div data-bbox="638 1507 1133 1686" style="border: 1px solid gray; padding: 10px; margin: 5px 0;"> <div style="background-color: #4a4a4a; color: white; padding: 5px;"> <b>Save</b>              Do you want to save the logging result?           </div> <div style="text-align: right; margin-top: 10px;"> <span style="color: white;">Yes</span> <span style="color: white;">No</span> </div> </div> </li> <li>• Name the File, verify that logging as CSV is selected:           <div data-bbox="638 1738 987 1818" style="border: 1px solid gray; padding: 5px; margin: 5px 0;"> <div style="background-color: #4a4a4a; color: white; padding: 5px;"> <input checked="" type="checkbox"/> <b>Logging as CSV</b> </div> </div> </li> <li>• Select Save</li> </ul>

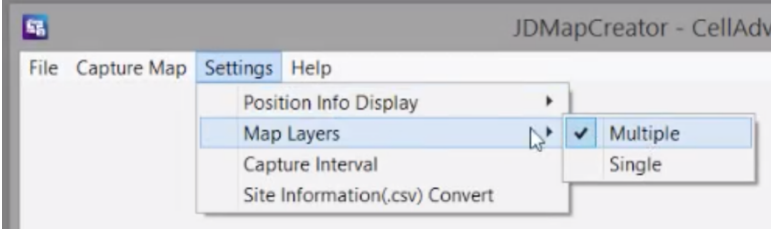
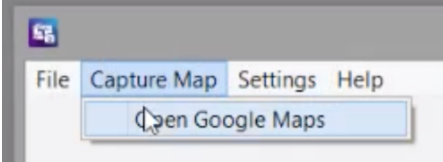
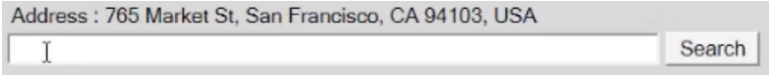
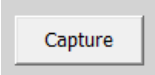
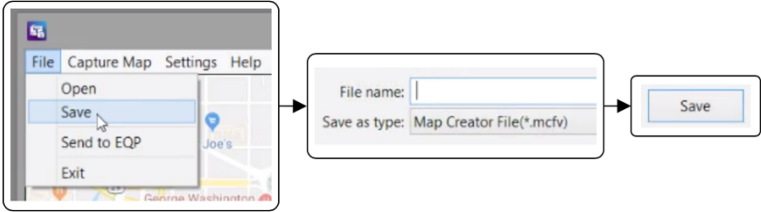
		<div style="text-align: center; margin-bottom: 10px;"> <span style="background-color: #0070C0; color: white; padding: 5px 15px; border-radius: 5px;">Save</span> </div> <ul style="list-style-type: none"> <li>Select the location to be saved:                     <div style="margin-top: 5px;"> <span style="border: 1px solid #0070C0; padding: 2px 10px; font-weight: bold; color: #0070C0;">Save</span> <span style="border: 1px solid #0070C0; padding: 2px 10px; margin-left: 5px; color: #808080;">Save to Event Setup</span> <span style="border: 1px solid #0070C0; padding: 2px 10px; margin-left: 5px; color: #808080;">Quick Save Setup</span> </div> </li> </ul> <p>File Name</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">Channel Power</div> <p>File Type</p> <div style="display: flex; flex-wrap: wrap; gap: 5px;"> <div style="border: 1px solid #ccc; padding: 5px; width: 50%;"><input type="checkbox"/> Result</div> <div style="border: 1px solid #ccc; padding: 5px; width: 50%;"><input type="checkbox"/> Result as CSV</div> <div style="border: 1px solid #ccc; padding: 5px; width: 50%;"><input type="checkbox"/> Result as JSON</div> <div style="border: 1px solid #ccc; padding: 5px; width: 50%;"><input type="checkbox"/> Report</div> <div style="border: 1px solid #ccc; padding: 5px; width: 50%;"><input type="checkbox"/> Screen</div> <div style="border: 1px solid #0070C0; padding: 5px; width: 50%; background-color: #0070C0; color: white;"><input checked="" type="checkbox"/> Logging as CSV</div> <div style="border: 1px solid #ccc; padding: 5px; width: 50%;"><input type="checkbox"/> IQ Capture</div> <div style="border: 1px solid #ccc; padding: 5px; width: 50%;"><input type="checkbox"/> Setup</div> </div> <p>Color Inversions <span style="float: right;">On <input type="checkbox"/> Off <input checked="" type="checkbox"/></span></p> <p>Report Setup <span style="float: right; border: 1px solid #ccc; padding: 5px 15px; font-weight: bold;">Report Setup</span></p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span style="background-color: #ccc; padding: 5px 15px; border-radius: 5px;">Close</span> <span style="background-color: #0070C0; color: white; padding: 5px 15px; border-radius: 5px;">Save</span> </div>		
8	Exporting the CSV	<ul style="list-style-type: none"> <li>Insert a USB memory into the instrument</li> <li>Select the open folder                     <div style="margin-top: 5px; text-align: center;"> </div> </li> <li>Select the saved data                     <div style="margin-top: 5px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #ccc;"> <th style="padding: 5px;">Name</th> </tr> </thead> <tbody> <tr style="background-color: #0070C0; color: white;"> <td style="padding: 5px;">Channel Power.csv</td> </tr> </tbody> </table> </div> </li> <li>Select Copy:                     <div style="margin-top: 5px; text-align: center;"> <p style="margin: 0;">Copy</p> </div> </li> <li>Select the USB drive</li> </ul>	Name	Channel Power.csv
Name				
Channel Power.csv				



## 4. ONA-800 Maps with JMapCreator

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

Step	Action	Description
1	Open JMapCreator	<p>Run the application software JMapCreator* and select the CellAdvisor platform type, for example, [CellAdvisor 5G]:</p> <p style="text-align: center;">JMapCreator &gt; CellAdvisor 5G</p> <p><i>*Note: JMapCreator is a free application software of Viavi Solutions' CellAdvisor instruments that can be downloaded at <a href="http://celladvisor.updatemyunit.net/">http://celladvisor.updatemyunit.net/</a> on the section CellAdvisor AppSW</i></p>
2	Set the number of map layers to be created: <ul style="list-style-type: none"> <li>- Select Settings</li> <li>- Select Map Layers</li> <li>- Select Single or Multiple</li> </ul>	Configure the number of layers to be created on the map: <ol style="list-style-type: none"> <li>a. Single, creates 1-layer map (no zooming)</li> <li>b. Multiple, creates 3-layer map (zooming available)</li> </ol>

Step	Action	Description
		 <p style="text-align: center;">Multiple Map Layers</p>
3	<p>Create a geo-coordinates map.</p> <ul style="list-style-type: none"> <li>- Select Capture Map</li> <li>- Select Open Google Maps</li> <li>- Enter the Address of interest</li> <li>- Select Search</li> <li>- Select Capture</li> </ul>	<p>To set a map with geo-coordinates select [Capture Map], [Open Google Maps], as follows:</p>  <p style="text-align: center;">Capture Map &gt; Open Google Maps</p> <p>Search the location of the interest test area by entering the address in the [Address] field, as follows:</p>  <p style="text-align: center;">Search Address</p> <p>Once the test area has been located, select [Capture] to create the single or multi-layer map, as follows:</p>  <p style="text-align: center;">Map Capture</p>
4	<p>Save the created map into a USB memory:</p> <ul style="list-style-type: none"> <li>- Select File</li> <li>- Select Save</li> <li>- Enter the file name</li> <li>- Select Save button</li> </ul> <p><b>Note:</b> Make sure the map file (*.mcfv) is saved on a USB memory drive.</p>	<p>Save the map into a USB memory device:</p>  <p style="text-align: center;">File &gt; Save &gt; File Name &gt; Save</p>

## 5. 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](mailto: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>