

Brochure

# VIAVI

## NEON<sup>®</sup> Signal Mapper

3D mapping, tracking, and visualization for indoor test and measurement

VIAVI Solutions and TRX Systems are providing a new joint solution that integrates TRX's Neon Signal Mapper Application with the VIAVI 3550R and the 8800SX Radio Test Sets.

The VIAVI NEON<sup>®</sup> Signal Mapper automates the geo-referencing cloud storage, and 3D visualization of LMR test data for technicians who use VIAVI test equipment to record and analyze two-way radio signals inside buildings and outdoors.

Integrating NEON capability to automatically collect geo-referenced test data with the VIAVI 3550R and 8800SX test sets save valuable time and money.



### Benefits

- Provide continuous logging of data with a high density of data points, including within typically difficult to map stairwells, elevators, and tunnels.
- Supports rapid analysis of signal coverage with 3D visualization and easy export of time-stamped data
- A compare feature enables the current results to be compared with previous results.
- Includes report generation capability that empowers the user to quickly document the results.
- Combination of multiple paths enable the user to create a single 3D view of a mapped building.

### Features

- Automatically calculate indoor location and correlate with radio signal data; eliminating manual check-ins.
- Remove data recording errors caused by incorrect location estimates in complex buildings through automatic indoor path determination.
- Coverage heat maps can be visualized in two and three dimensions.
- Users can easily export all data collected in a iBwave format that can be opened in the iBwave Design Collection Module.
- Replay feature provides a playback of the walk test.

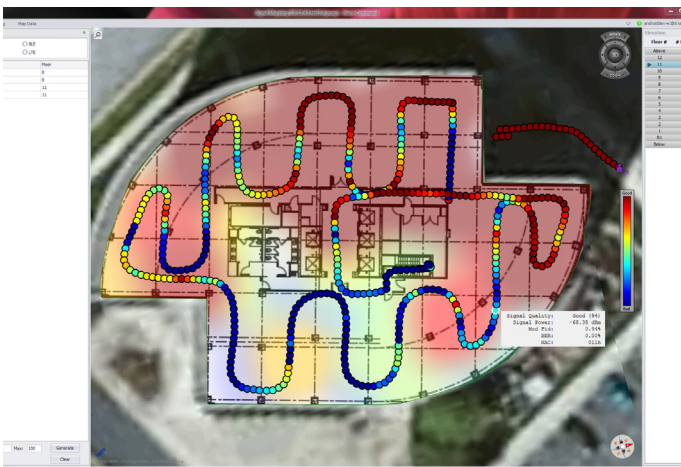
## VIAVI NEON Signal Mapper for the 3550R and the 8800SX Radio Test Set

The NEON Signal Mapper improves the ubiquity of data coverage available to the 3550R and the 8800SX test sets. When using non-integrated solutions, signal and sensor information is collected only in 2D at check-in locations or it is interpolated using the limited number of check-ins that have been performed. As a result, data is often sparse, inaccurate, resource-intensive to maintain.

With NEON Signal Mapper, it is possible to collect accurate, actionable data in every part of a building. This includes elevators and stairwells which 2D manual solutions struggle to address. The application also provides end users with centralized access to all of the location information that has been logged via NEON Cloud Service. Users can access the paths that technicians take initially to obtain ongoing readings of signal strength along that same path. The seamless geo-referencing and 3D visualization of multiple, simultaneous LMR measurements from the 3550R and the 8800SX test sets - both indoors and out - allows the integrated solution to provide a correlated "Signal Quality" rating with every step taken through the building.



The process of taking indoor measurements is intuitive and easy to setup. The NEON Signal Mapper includes the TRX Systems tracking unit, an Android phone or tablet, plus a VIAVI 8800SX or 3550R test set.



Analysis of the results is through the NEON Command Software Application

Communication between the Android device and both the tracking unit and test set is wireless; making the need for physical connections between different components unnecessary. Users can then place the test set in a backpack, making it easy to walk through a building; especially through stairwells.

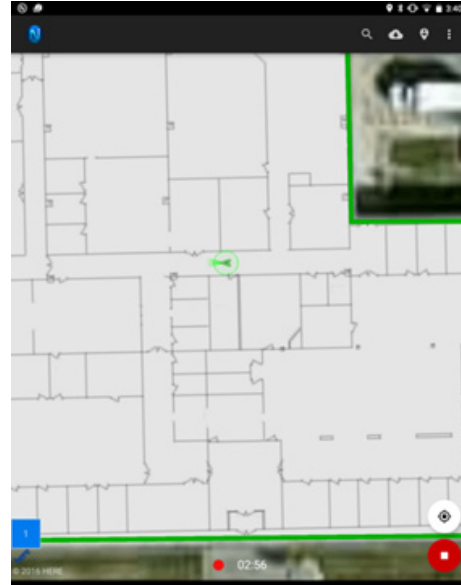


While walking through a building, the NEON Signal Mapper Application tracks the location of the user as it pulls signal measurements from the test set. Additionally, the application provides the ability to include notes and pictures to annotate important features while mapping.

The NEON Signal Mapper Application also works outdoors, with the transition from taking measurements indoors to outdoors seamless. As the user walks from inside the building to outside, the application continues to take measurements correlating them with location information.

## Results

After completing the in-building test, measurement results are stored in the Android device or are uploaded to the NEON cloud. The NEON Command Software Application analyzes the results on a Windows 7/8 computer.



The display on the Android tablet or phone shows the floorplan with the users location

## Coverage Heat Maps

Coverage heat maps are created from the measurement taken. The user can select from several signals and measurement types, based on the technologies supported by the Android phone or tablet and the measurement supported by the VIAVI test set.

### VIAVI Signal Measurements

- Signal Power
- BER
- Modulation Fidelity
- Signal Quality

### VIAVI Signal Types

- P25
- DMR
- NXDN
- dPMR
- FM (Signal Power Only)

### BLE (Bluetooth®) Signal Power

### LTE Signal Power

### Wi-Fi Signal Power

### WCDMA Signal Power

## Ordering Information

Order Number	Description
140747	NEON® Signal Mapper Pkg - 1 Year NEON® Signal Mapper Software Subscription
140748	NEON® Signal Mapper Pkg - 2 Year NEON® Signal Mapper Software Subscription
140749	NEON® Signal Mapper Pkg - 3 Year NEON® Signal Mapper Software Subscription
141586	NEON® Signal Mapper Pkg - 5 Year NEON® Signal Mapper Software Subscription

### Standard Accessories

140742	TRX Systems Tracking Unit with Belt Clip (1 year warranty)
	USB cable and wall adapter for charging
	Portable wireless router/access point



Signal selection menu from the NEON Command Software