## SOLUTION OVERVIEW



# Wireless Power Receiver Tester Portable Test Station for PMA Compliance Testing



For Power Matters Alliance (PMA), Averna has designed and manufactured a costeffective **Wireless Power Receiver Tester** (WPRT) for lab-based compliance-testing of mobile devices and accessories that contain wireless-charging receivers (Rx).

## An Automated, High-Throughput Compliance Solution

With its integrated and automated PMA compliance test routines, the WPRT's key benefits are its simplicity and robustness for accurate, repeatable testing and measurements. Each WPRT is enclosed in a protective, portable case that holds the Transceiver (Tx) instruments. For setup, plug it into an AC outlet and connect a USB cable to the provided laptop with the test software.

To operate the WPRT, simply scan each device under test (DUT)'s barcode, place the DUT at the designated location on the top-plate fixture and initiate the automated test software. The testing is controlled by Averna's Execution Console on the laptop, which accesses the PMA compliance test routines. Testing takes only minutes per DUT and all results are logged by DUT serial number.

Top view showing placement of the DUT in the fixture



### About Averna

From our award-winning Proligent<sup>®</sup> and RF Test instruments to innovative and on-demand test-engineering services, we produce proven test solutions for the entire product lifecycle, getting our customers' electronics and communications products to market faster – and with higher quality – than the competition.

#### **PMA Receiver Compliance Testing & Measurement**

- Detection tests •
- Digital ping tests
- Identification tests
- Overall tests (Regular EOC, Long Cycle, Modulation, Switch Load, Efficiency)
- Safety and protection tests
- Functionality tests
- Final test report for each DUT (if a test fails, detailed results are logged and the sequence ends)

#### WPRT Hardware Components

- Dell Latitude E5430 laptop with 14-inch screen
- 1610 Pelican carrying case (21.7 x 16.7 x 10.6 inches) •
- Top-plate fixture with guiding blocks for DUT alignment
- NI USB 16-bit Analog for data acquisition and device-driving •
- Analog single-channel load module
- Infrared USB contactless temperature sensor •
- Thermal pads on the top-plate surface to heat the DUT circuitry ۲
- Internal fixed power supply, cables and wiring •

### **WPRT Software Components**

- Averna Execution Console
- NI TestStand (test executive)
- LabVIEW VIs (test algorithms/data acquisition)
- Various instrument drivers



Typical Averna Execution Console

#### CANADA = UNITED STATES = MEXICO = JAPAN

Toll-free in North America: +1 877-842-7577 Elsewhere: +1 514-842-7577

â. Averna

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